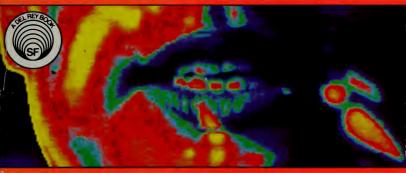


entoverse



Virtual reality had led to alternate reality... and alternate reality was taking over!



ARMCHAIR TRAVELER

"VISAR, it's too crowded. Get me away from people."

Then Gina was standing on a barren, rocky ridge, looking down into a huge crater of molten magma. She could feel the heat on her face, and a choking, sulphurous odor seared her throat.

"I can take you where you couldn't survive physically," VISAR's voice said. "Here's a new world being born. The heat and fumes that you feel are just to give the flavor. In reality you'd be asphyxiated instantly, roasted in seconds, and flattened under two tons of bodyweight."

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ENTOVERSE

A Giants Novel

James P. Hogan



A Del Rey Book
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TO
ELEANOR WOOD,
WHOSE IDEA IT WAS

—and because a good agent deserves to be mentioned in the final product.

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prologue

It had taken until the fourth decade of the twenty-first century for humanity to get its act together and learn to resolve or live with its differences, and begin the migration outward as one species toward the stars. In the process, many of the prejudices and irrationalities that had underlain the strife of ages at last withered or were swept away. The core of beliefs that survived would form a solid foundation for the continuing expansion of human knowledge—for surely with the wealth of modern observational data and the sophistication of experimental method, the universe had little left to offer in the way of further reserves of facts to seriously challenge them.

Or so, for a short, comforting while, it seemed.

And then a series of unforeseen and utterly unprecedented events not only added a new dimension to the history of the Solar System, but forced a complete rewriting of the origins of humankind itself.

When Man, under the thrust of the revitalized, international space program that arose from redirection of defense industries after the fading of the Soviet empire, finally reached the regions of the outer planets, he discovered that others had been there before him and had surpassed all that he had achieved. Twenty-five million years in the past, a civilization of eight-foot-tall, benevolently disposed giants—called the Ganymeans, after the first traces of them came to light on Ganymede, largest of the Jovian moons—had flourished on a planet Minerva, occupying the position between Mars and Jupiter.

And more astonishing still, while generations of work by anthropologists, geneticists, comparative anatomists, and others had correctly reconstructed the abrupt transformation responsible for the emergence of Homo sapiens from an arena of early-hominid contenders, it turned out that—understandably, in the circumstances—they had assigned the event to the wrong

place. Modern Man hadn't evolved on Earth at all!

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Despite Minerva's greater distance from the Sun, an effective natural greenhouse mechanism had maintained generally cool but Earthlike conditions there. But by the time the Ganymean civilization reached its advanced stage, the climate was altering in a direction that their constitution would have been unable to tolerate. As was to be expected, their own voyages of discovery across the early Solar System brought them to Earth, and from there they transported back to Minerva numerous plant and animal forms representative of life on late-Oligocene, early-Miocene Earth in connection with large-scale bioengineering researches aimed at combating the problem. These efforts were in vain, however, and the Ganymeans migrated to what later came to be called the Giants' Star, some twenty light-years from Earth in the direction of the constellation of Taurus.

In the millions of years that followed, the imported terrestrial animals eclipsed and replaced the native Minervan forms, which, owing to a peculiarity of early Minervan biology that had precluded the emergence of land-dwelling carnivores, had evolved no prey-predator adaptations and were unable to compete. These terrestrial types included a population of genetically modified primates as advanced as anything that existed on Earth at the time. Almost twenty-five million years later, fifty thousand years before the present, while the various hominid lines that had been developing on Earth were just vielding the first crude beginnings of stone-using cultures, a second advanced, spacegoing race had already developed on Minerva: the first version of modern Man, subsequently given the name Lunarians when the first evidence of their existence was found in the course of early twenty-first-century exploration of Earth's moon.

At the time of the Lunarians' emergence, the Solar System was entering the most recent ice age. Conditions on Minerva were deteriorating, and the Lunarian sciences and industrial technologies developed rapidly as part of a long-term stratagem to move their civilization to the warmer and more hospitable world of Earth.

But such was not to be.

When the Lunarians were practically within reach of the goal toward which they had been working constructively for generations, they embarked on a course of ruinous military rivalries that culminated in a cataclysmic war between two superpowers, Cerios and Lambia, in the course of which the planet Minerva was destroyed.

The Ganymeans by that time had established a thriving interstellar civilization centered on the planet Thurien of the Giants' Star system. They had never felt comfortable with what they regarded as their abandonment of a genetic mutant that they expected would have no chance of survival, and they had followed the progress of the Lunarians with a mixture of increasing guilt and awe. But when they saw it all end in catastrophe, the Ganymeans forgot their previous policy of nonintervention and appeared in time to save the last few survivors from the war. Gravitational upheavals caused by the emergency methods used to transport the Ganymean rescue mission threw what remained of Minerva into an eccentric outer orbit to become Pluto, while the smaller debris dispersed under Jupiter's tidal effects as the Asteroids. Minerva's orphaned moon fell inward toward the Sun and was later captured by Earth.

Despite their experience, the surviving Lunarians remained hostile and immiscible. The Lambians went back with the Ganymeans and were installed on a world called Jevlen, eventually to become a fully integrated, human component of the Thurien civilization. The Cerians were returned, at their own request, to the world of their origins: Earth, where they were almost overwhelmed shortly afterward by climatic and tidal upheavals caused by the arrival of Minerva's moon. For thousands of years they reverted to barbarism, struggling on the edge of extinction, and the knowledge of their origins was lost. Only in modern times, when they at last climbed outward once more toward the stars and found the traces of what had gone before, were they able to piece the story together.

The Jevlenese never ceased regarding the people of Earth as Cerians. As part of a plan for one day settling the score with their ancient rivals, they inaugurated a campaign to retard Earth's progress toward rediscovery of the sciences and advanced civilization, while they themselves absorbed Thurien technology and gained autonomy over their own affairs. From its beginnings, they altered the course of Earth's history by infiltrating agents, fully human in form, to spread beliefs in magic and superstition, and to found irrational mass movements that would keep Earth impotent by diverting its energies away from the path by which real knowledge is acquired.

As the confidence and arrogance of the Jevlenese leaders grew, so did their resentment of the restraint to their ambitions posed by the Ganymeans, whose nonviolent ways merely aroused their contempt. Taking advantage of the innate Gany-

mean inability to suspect motives, the Jevlenese gained control of the surveillance operation set up to keep a watch over Earth's development; while preserving outward appearances of being model protégés of the Ganymeans, they fed the Ganymeans falsified accounts of a militarized Earth about to burst out from the Solar System, and used this as a pretext for inducing the Ganymeans to prepare countermeasures. What the Jevlenese planned to do was seize control of the countermeasures themselves, eliminate their Terran rivals and repossess the Solar System, and then sweep outward in a wave of acquisition and conquest across the galaxy, unchecked and unopposed.

But the reappearance of a lost starship from the ancient

Ganymean civilization on Minerva changed everything.

The Ganymean scientific mission ship Shapieron, returning after a twenty-five-million-year time dilation compounded by a fault in the vessel's space-time-distorting drive method, came back to the Solar System to find Minerva gone and a new, terrestrial race spacefaring among the planets. The "Giants" remained on Earth for six months and mingled harmoniously. But the most significant outcome of the pooling of the Terran proclivity for intrigue with alien technical ability was the establishing of the first direct contact between Earth and Thurien, bypassing the Jevlenese and the millennia-old surveillance system. The alliance led to a confrontation in which the deceit and scheming of the Jevlenese was exposed, revealing the network of infiltrators by which they had endeavored to subvert modern-day Earth after the attempts to block its technological advancement failed.

The encounter that followed came to be known as the Pseudowar. In it, the supercomputing entity JEVEX, which managed all of the communications, information handling, and other vital functions of the Jevlenese worlds, was penetrated and defeated by a fictional interstellar attack force consisting entirely of computer-generated imagination. The just-proclaimed "Federation," by which the Jevlenese proposed bringing their plans to fruition, collapsed, JEVEX was shut down, and Jevlen put on a period of probation. The Ganymeans of the Shapieron, displaced from their own home and time and needing an interval of respite to adapt to their new circumstances, were installed on Jevlen to take charge of the rehabilitation. Earth, rid of the corrupt element responsible for practically all of the more sordid side of its turbulent history, looked forward to assuming its rightful place in the interstellar community.

So, once again, after a few more old beliefs had been toppled, what remained was surely fact, resting on solid foundations. The future could be faced with assurance.

Nothing more could go wrong, now . . .

chapter one

Nieru, the god of darkness, was descending in the west after his nightly domination of the sky, his cloak wrapped about him in a glowing purple spiral. Overhead, Cassona, the goddess who created weather, had become the dawn star. The three lesser stars of her daughters, the Cassoneids, which oscillated about her—Peria, Isthucis, and Dometer, the spirits of wind, rain, and cloud—were very close, almost in alignment, which meant that it was early summer. Compared to the splendor that the night

sky had once been, the stars were few and feeble.

Cassona had once been capricious and vindictive, liable to cleave mountains with a lightning bolt or send storms to devastate an entire countryside on a whim. Today, however, she was placid. The morning was clear, and the first light revealed that the peaks at the far end of the valley outside Orenash had receded unusually far during the night, with the rooftops within the city walls and the patches of woodland on the slopes beyond noticeably lengthened in proportion. During the night, Gralth, the gods' baker, who kneaded the world as if it were dough, stretched all dimensions in the east-west direction; he would compress them back to their evening minima as the day wore on. But so visible an extension at daybreak presaged an uneventful day ahead.

From an upper window of his uncle's house below the rock upon which stood the temple of Zos, Thrax brooded to himself, confused and afraid with the bemusement of a youth whose world was running down just as he was approaching manhood

and thought he had made sense of it.

But these days, everyone was confused and afraid. The old ways were ceasing to work, and the old wisdom had no answers. Priests prayed, seers beseeched, and people redoubled their sacrifices. But the force-currents waned, and life-power ebbed. No signs came; the oracles remained mute. And as the

gods died, their stars were going out.

Some thought that a great war had been waged in the sky, that new gods had defeated the old, and different laws were coming into being to rule the world. Mystics spoke of having seen a higher realm that they called Hyperia, beyond the everyday plane of existence, where perpetual serenity reigned and impossible happenings were commonplace.

Perhaps, a few of the more hopeful reasoned, the breaking down of the old laws portended a transition of their world into a phase that would be governed by the new kinds of laws glimpsed in the world beyond. They experimented in unheardof ways to prepare themselves, striving to grasp strange notions

and unfamiliar concepts . . .

"Hold it, Thrax. I think it needs a bit more play here." Thrax's uncle, Dalgren, poked inside the contraption standing on the stone slab in his basement workshop and adjusted a

clamp. "And probably this one opposite, too."

It consisted essentially of two pairs of legs, each pair set one behind the other in an arrangement of vertical slides that allowed either pair to protrude below the other. In addition, whichever pair was raised could move lengthwise along a horizontal guide and descend at varying displacements with respect to the lower. Each leg had a foot in the form of a rocker that was tipped at one end by the metal mobilium, which was "apathetic" to most kinds of rock and slid easily over them, and at the other by frictite crystal, which bound when in contact. It was a fact of nature that all materials possessed an affinity for each other to a greater or lesser degree, determining how strongly they were attracted or repelled; thus, depending on the position of the rocker, the foot would either grip the surface or be repulsed. The whole thing was an attempt at artificially mimicking the sliding-planting-lifting-sliding of the leg movements of an animal, such as a drodhz.

Nobody had ever conceived such an idea before—carts and other vehicles had always been hauled along on skids of mobilium or something similar. The mystics who had seen Hyperia told of indescribable, magical devices capable of performing motions of complexities that defied imagination. They

even spoke of constructions that spun.

"There. Try it now, Thrax," Dalgren said, stepping back.

Thrax pushed one of the operating rods projecting from the assembly. While one pair of legs remained anchored to the bench, the other lifted, slid forward one half of a leg-pitch, and then descended in a new position. Then the rocker mechanism operated, locking the legs that had advanced, and releasing the pair that had remained stationary. As Thrax pulled the activating rod back again, the rearmost pair of legs moved past the others in turn, and reanchored themselves to complete the cycle.

"Yes, that did the trick!" Dalgren exclaimed. "Keep going!"

Thrax moved the rod slowly back and forth several times, and the contrivance walked its way jerkily across the slab. As it approached the edge, however, its motion became stiffer and slower, and Thrax had to push harder on the rod to keep it moving. "It's starting to jam," he said. "I can feel it."

"Hmm." Dalgren stooped to peer at the horizontal guides. "Ahah, yes, I think I can see why. The main guide is expanding and starting to jam." He sighed and sat down on a stool. "I'm not sure how we get around it. It may need an additional

compensating liner."

Every problem solved seemed to introduce a new complication. They had adjusted the device for correct operation early in the morning, but as the world shrank from east to west under Gralth's kneading, the mechanism's dimensions had changed. Automatically, Thrax began mentally composing a prayer to Gralth. Then he checked himself, remembering that those were old methods that had to be set aside firmly if the new ones were ever to be understood. At the same time, he felt an inner twinge of discomfort at such defiance of all his years of conditioning.

As if echoing his doubts, a voice spoke accusingly from the doorway. "Sorcerers! Blasphemy! These things belong to a higher realm. They are not *meant* to be meddled with here in the world of Waroth. That is why the powers are failing. Just as you are abandoning faith, so are the gods abandoning us."

It was Keyalo, a foster son of Dalgren and Thrax's aunt, Yonel. He was a couple of years older than Thrax and had resented Thrax's intrusion into the household ever since Thrax's own family had been lost when Vandros, the underworld god whose blood ran as rivers of light, punished the Dertelians by consuming five villages in a lake of fire.

"No one can be sure of that, Keyalo," Dalgren replied. His voice was curt. Keyalo had never expressed gratitude for being taken in, and there was little liking between the two of them either way. The fact that he had come down to

the basement at all indicated that he was out to cause trouble.

"The priests know!" Keyalo retorted. "The gods are putting us to a test. And we shall all be judged by the failures of those who deny them, such as you."

"Appeasing the gods, angering the gods..." Dalgren shook his head. "I'm beginning to suspect that it's all in the mind. The world runs according to its own rules, and what we think they influence is all our imagination. When has anyone ever—"

Without warning, Keyalo stepped forward and shot out an arm in the manner of a Master casting a firebolt, pointing at the mechanism on the slab. The tip of his finger swelled and glowed faintly for an instant—most people could achieve that—and then returned to normal without discharging. Keyalo stared at it in anger and surprised disappointment.

Perhaps he had thought that a concentrated moment of belief

and will would induce a god to favor him.

Keyalo's problem was that he was lazy. He hung around the disciples and the Masters, and sometimes attended the ceremonies, and even a few of the lessons, occasionally; but he could never have mustered the concentration and discipline to enter one of the orders and train into an adept. Probably that was why he was so jealous of Thrax, whom he knew had the potential. But in Keyalo's eyes Thrax not only abused his ability but, what was worse, misdirected it upon heresy.

"We are busy," Dalgren said in a tight voice. "Your words

are wasted here, Keyalo. Leave us alone."

"It is those like you who are bringing destruction on all of us," Keyalo hissed. Then, white-faced with rage, he turned and left the room.

Dalgren took the rods and walked the device back across the slab in silence while the mood cleared. "They say there are devices in Hyperia that propel themselves," he murmured absently. "Imagine, Thrax, a chariot without a *drodhz*. What form of propulsion could move it, I wonder?"

"They say there are devices that fly, too," Thrax pointed out, his voice registering the obvious impossibility of such a notion. "The stories become exaggerated with telling and retelling."

But Dalgren's expression remained serious. "But why not?" he asked. "It simply involves the same way of looking at things: Instead of jumping to the conclusion that it can't work because, try saying, it could work, if . . . You've only got to open your eyes to see that the world is filled with animals that propel themselves and creatures that fly. If we can make other objects

do whatever they do, then why shouldn't they behave in the

same way?"

Thrax nodded, but his expression remained unconvinced. "Maybe I'll believe it when I've seen a *drodhz*less carriage," he said. "You know, Uncle, it wouldn't surprise me if you start talking about spinning objects next."

Dalgren let go the rods and straightened up. "Spinning objects?" he repeated. "Now you are getting fanciful. I couldn't

even imagine how to begin."

Thrax stared out at the patch of sky visible through the top of the basement window. "It's the same seers who tell of them,"

he pointed out.

"Ah yes. But if it's true, it's something that can only exist in Hyperia. Our animals prove that at least the *concepts* of objects propelling themselves and objects flying are possible in Waroth. The precedents exist. But we don't have a precedent for what you're talking about. If it's possible at all, space itself must be different from what we know in this world. And quite beyond my ability to contemplate."

Thrax continued to stare up at the window. "Another uni-

verse, beyond our wildest imaginings," he said distantly.

"I think I know how to compensate for the daily contraction, now," Dalgren muttered, returning his attention to the mechanism.

"Where objects spin . . ." Thrax went on dreamily, more to himself.

"Then we'll have to think about getting it to turn corners."

"And inhabited by strange beings."

"We'd need two more slides at the top."
"What kind of beings could they be . . ."

chapter two

Dr. Victor Hunt closed the starter circuit, and the turbine engine of the GM Husky groundmobile standing in the driveway outside the garage kicked into life. As Hunt eased the throttle

valve open with a screwdriver, the pitch rose, then settled at a smooth, satisfying whine. He held the position steady and cocked an inquiring eye at his neighbor, Jerry Santello, who was on the far side of the opened hood, tapping at buttons and watching the screen of a portable test unit connected to the vehicle's drive processor.

"It's looking better, Vic. Try it a few revs higher . . . Now gun

it a few times . . . Yup, I think we've cracked it."

"How about the burn on idle?" Hunt ran the turbine down to a murmur while Jerry inspected the panel; then Hunt speeded it back up a little and repeated the process several times.

"Good," Jerry pronounced. "I reckon that's it. It had to be the equalizer. Shut it down now, and let's have that beer."

"That sounds like one of the better ideas I've heard today."
Hunt turned the valve fully back, operated a cutout, and the

engine died.

Jerry unplugged the test lead, which rewound itself into the case. He closed the lid, gathered together the tools they had been using, and returned them to their box. "How is it with you English guys? Is it right, you drink it warm? Am I supposed to put it in the cooker or something?"

"Oh, don't believe everything they tell you, Jerry."

Jerry looked relieved. "So it's okay normal?"

"Sure."

"Hang on there while I get a couple from inside. We can sit out here and take in the sun."

"Even better."

While Jerry's swarthy, mustached form, clad in beach shorts and a navy sweatshirt, flip-flopped its way eupeptically up the shallow, curving steps flanking the rockery by the side of the apartment, Hunt walked around the front of the Husky to toss a few more items into the toolbox. Then he sat down on a grassy hump below the wall separating Jerry's driveway from his own and fished a pack of Winston's from his shirt pocket.

Around him, the other apartment units of Redfern Canyons clustered in comfortable, leafy seclusion on terraced slopes divided by steep ravines climbing from a central valley. The main valley contained a common access road running alongside a creek that widened at intervals into shady pools fringed by rocky shelves and overhangs. Although the name was more than a little forced in the middle of Maryland less than a dozen miles north of the center of Washington, D.C., and the artificiality of the pseudo-Californian contouring went without say-

ing, on the whole it had all been pleasingly accomplished. The effect worked. After the months that he had spent inside the cramped, miniature metal cities of the UN Space Arm's longrange mission ships and at its bases down on the ice fields beneath the methane haze of Ganymede. Hunt wasn't com-

plaining.

He lit a cigarette and exhaled, smiling faintly to himself as the vista of Redfern Canyon's brought to mind the two directors from an Italian urban-development corporation who had approached him several days previously. Could the Ganymean 'gravitic" technology—which enabled gravitational fields to be generated, manipulated, and switched on and off at will as readily as familiar electrical and magnetic effects—be somehow engineered into a piece of mountainous terrain, they had wanted to know, in such a way as to render it gravitationally flat? The idea was to create high-income habitats, or even entire townships, in places that would offer all the visual aesthetics of the Dolomites, and yet be as easy to walk around as Constitution Gardens. Ingenious, Hunt had conceded.

And typical of human adaptability.

It was hardly a year since mankind had made the first contact with intelligent aliens and brought them back to Earth; and as if that weren't enough, the discovery of an interstellar alien culture, and Earth's opening what promised to become a permanent relationship with it, had followed less than half as long since, with all the promise which that portended of unimaginable gains to human knowledge and the greatest single upheaval ever to occur in the history of the race. The whole edifice of science could crash and have to be rebuilt afresh; every philosophic insight might be demolished to its foundations-but people only became seriously affected when they thought they saw a way of making a buck or two. The human alacrity for getting back to business-as-usual would never cease to amaze him, Hunt thought. Ganymeans had often marveled at the same thing.

Jerry came ambling back down from the house with a sixpack of Coors, a large bag of potato chips, and a tub of onionflavored dip. He perched himself on one of the rocks lining the foot of the bank that Hunt was sprawled on and passed him a can. "I thought you guys were supposed to drink it warm," he

said again.

"English beer is heavier," Hunt said. "If it's too cold you lose the taste. It's better at room temperature, that's all—which in a pub means cellar temperature, usually a bit less than the bar. Nobody actually warms it."

"Oh."

"And the lighter lager stuff, which is closer to yours, they prefer chilled, just like you do. So we're not really so alien, after all."

"That's nice to know, anyhow. We've had enough aliens showing up around here recently." Jerry flipped open his own can and tilted his head back to take a swig; then he wiped his mustache with the back of a hand. "Hell, what am I telling you for? You must get tired of people asking about them."

"Sometimes, Jerry. It depends on the people."

"There's a couple I know across in Silver Spring—old friends—with this kid who's about five. Last time I was over there, he wanted to know what planet Australians come from."

"What planet?"

Jerry nodded. "Yeah, see: Austr-alians. It was the way he heard it. He figured they had to be from someplace else."

"Oh, I get it." Hunt grinned. "Smart kid."

"I never thought about it that way in over thirty years."

"Kids don't have the ruts yet that adults have carved into their minds. They're born logical. Crooked thinking has to be taught."

"It doesn't work that way in your area, though—science?

That right?" Jerry said.

"Oh, don't believe that myth. If anything, it's worse. You always have to wait for a generation of entrenched authority to die off before anything new happens. It's not like revolutions in your business. At least in politics you can get rid of the obstructions yourself and move things along."

"But at least you always know you've got a job," Jerry

pointed out.

"There is that side to it, I suppose," Hunt agreed.

Although still officially an employee of the CIA at Langley, Jerry had been on extended leave for three months. With the residual Soviet-Western rivalry transforming into economic competition, and the global development of nuclear technology spelling an end to the dependence of advanced nations on oilrich, medieval dictator-states and sheikhdoms, the world had been on its way to resolving the twentieth century's legacy of political absurdities even before the first Ganymean contact. That had shaken things up enough, even though it involved only a single shipload of time-stranded aliens. But after the

meeting with the Thuriens, immediately following that event, nobody knew what the next ten years would hold in store. Few doubted, however, that there was little in the realm of human affairs that would stand unaffected.

"Although, I don't know . . . with all those new worlds out there, you never know what we might find," Hunt said. "It's your line of business that the Ganymeans can't compete in, not mine. I wouldn't think of turning my badge in just yet if I were vou."

Jerry seemed unconvinced as he took another draft, but there was nothing to make an issue over. "Let's hope you're right," he replied. After a pause he went on. "So I guess it's all keeping you pretty busy over at Goddard, eh? I hear you coming and

going at all hours of the day and night."

"We're up to our ears there," Hunt agreed. He snorted lightly. "And the funny thing is that at the beginning of the last century it was the scientists who were talking about handing their badges in-half of them, anyway-because they didn't think there was anything worthwhile left to discover. So maybe you can take some heart from that."

"Are you mixed up with that thing that's been in orbit up there for the last couple of weeks?" Jerry asked. "I saw on the news that a bunch of 'em from there were down at Goddard." A gigantic Thurien space vessel, named the Vishnu by Terrans, after the Hindu deity that was able to cross the universe in two strides, was currently visiting Earth, having brought delegations to meet with representatives of various nations, institutions, corporations, and other organizations for all manner of purposes as the scope of dealings between the two cultures grew.

"Yes, I talk to some of them," Hunt said, nodding.

"What kind of thing do you do there exactly?" Jerry asked

curiously.

Hunt drew on his cigarette and stared out at the central valley between the green, terraced slopes. A glint of metallic bronze appeared briefly as a car rounded a bend a short distance away on the road below. "I used to be with UNSA's Navcomms division down in Houston—that was how I got to go on the Jupiter Five mission. So I was out at Ganymede and mixed up with the Ganymeans right from the start."

"Okay." Jerry nodded.

"Well, now this business with Thurien is all happening, one of the things we need to find out is what sense we can make of their sciences, and how much of our own needs to go in the trash can. UNSA moved me up to Goddard to head up a team that's looking into some parts of that."

"And they do things like travel around between stars and remodel whole planets?" Jerry thought about it for a moment.

"That could be pretty hair-raising."

Hunt nodded. "They've got power plants out in space that turn eight lunar masses of material a day into energy and beam it instantly to wherever you need it, light-years away. Sometimes I feel like a scribe from an old monastery would have, trying to unravel what goes on inside IBM."

"Wasn't there a woman who used to visit sometimes, when you first moved here?" Jerry asked. "Kinda red hair, not bad-

looking . . ."

Hunt nodded. "That's right. Lyn."

"I talked to her once or twice. Said she'd moved up from Houston, too. So was she with UNSA as well?"

"Right."

"Haven't seen her around lately."

Hunt made a vague gesture with the can he was holding, and stubbed his cigarette in a tin lid that he had found in the toolbox. "An old flame from her college days breezed in out of nowhere, and the next thing I knew it was serious and they got married. They're over in Germany now. She's still with UNSA—coordinating some program with the European side."

"Just like that, eh?"

"Oh, it was just as well, Jerry. She'd been sending domestication signals my way for a while. You know how it is."

"Not really your scene, huh?"

"No . . . Probably a great institution, mind you, Jerry. But I don't think I'm ready for an institution yet."

Jerry seemed more at ease, as if back on ground that he understood. He raised his beer. "I'll drink to that."

"Never tried it?" Hunt asked. "Once. That was enough."

"Not exactly a happy affair?"

Jerry pulled a face. "Oh, no, there's no such thing as an unhappy marriage. They're all happy—you only have to look at the wedding pictures. It's the living together afterward that does it." He crumpled his empty can and dropped it into the carton, then pulled out another, peeled back the tab, and settled

back comfortably until he was half lying against a tree standing behind the rock.

Hunt stretched back on the grassy bank and clasped his hands behind his head. "Anyhow, life's full and exciting right now. I don't need any of that kind of complication. A whole alien civilization. A revolution in science—profound things that need concentration."

"You need all your time," Jerry agreed solemnly. "Can't afford the distraction."

"To tell you the truth, life has never been simpler and more exhilarating."

"A good way for it to be."

Hunt lay back in the sun and closed his eyes. "Oh, you don't have to worry about that. All the complications are three thousand miles away now, in Germany, and that's about where I

intend to keep them."

At the sound of a car coming to a halt, he opened his eyes and sat up again. The metallic bronze car that he had glimpsed approaching a minute or two before had come up the access road and was standing outside the gateway where the driveways from the two apartments merged. It was a newish-looking Peugeot import, sleek in line, but with just the right note of restraint in dark brown upholstery and trim to set it apart from pretentiousness.

The same could be said of the woman who was driving it. She was in her early to mid-thirties, with a sweep of raven hair framing an open face with high cheeks, a slightly pouting, well-formed mouth, rounded, tapering chin, and a straight nose, just upturned enough to add a hint of puckishness. She was wearing a neatly cut, sleeveless navy dress with a square white collar, and the tanned arm resting along the sill of the

open window bore a light silver bracelet.

"Hi," she said. Her voice was easy and natural. She inclined her head slightly to indicate the still-open hood of Jerry's Husky. "Since you're relaxing, I assume you got it fixed."

Jerry detached himself from the tree and straightened up.

"Yes. It's fine now. Er . . . can we help you?"

Her eyes were bright and alive, with a deep, intelligent quality about them that gave the impression of having taken in everything of note in the scene in a brief, first glance. Her gaze flickered over the two men candidly, curiously, but with no attempt at beguiling. Her manner was neither overly assertive nor defensive, intrusive nor apologetic, or calculated to impress. It was just, simply and refreshingly, the way that strangers everywhere ought to be able to be with each other.

"I think I'm in the right place," she said. "The sign at the bottom said there were only these two places up here. I'm looking for a Dr. Hunt."

chapter three

The planet Jevlen possessed oceans that were rich in chloride and chlorate salts. Molecules of these found their way high aloft via circulating winds and air currents, where they were readily dissociated by a sun somewhat bluer and hotter than Earth's, and therefore more active in the ultraviolet. This mechanism sustained a population of chlorine atoms in the upper atmosphere, which resulted in a palish chartreuse sky illuminated by a greeny-yellow sun. The atmosphere also had a high neon content, which with its relatively low discharge voltage added an almost continual background of electrical activity that appeared in the form of diffuse, orange-red streaks and streamers.

This was where, fifty thousand years previously, after the destruction of Minerva, the Thurien Ganymeans installed the survivors of the Lambian branch of protohumanity, when the Cerian branch elected to be returned to Earth. Thereafter, the Jevlenese were given all the benefits of Thurien technology and allowed to share the knowledge gained through the Thurien sciences. The Thuriens readily conferred to them full equality of rights and status, and in time Jevlen became the center of a quasi-autonomous system of Jevlenese-controlled worlds.

As the Thuriens saw things, a misguided worldview resulting from the Lunarians' predatorial origins had been the cause of the defects that drove them to the holocaust of Minerva. It wasn't so much that the limited availability of resources caused humans to fight over them, as most Terran conventional wisdom supposed; rather, the instinct to fight over anything led to the conclusion that what was fought over had to be worth it, in other words, of value, and hence in scarce supply.

But once the Lunarians absorbed the Ganymean comprehension that the resources of the universe were infinite in any sense that mattered, all that would be changed. Unrestricted assimilation into the Thurien culture and access to all the bounties that it had to offer would allay aggression, relieve insecurities and fears, curb the urge for domination and conquest, and build in their place a benign, homogeneous society founded on grateful appreciation. Freed, like the Thuriens, from want, doubt, and drudgery, the Jevlenese would unlock the qualities that were dormant inside them like the potential waiting to be expressed in a seed. No longer fettered by time or space, nor constrained to the things that one mere planet had to offer, they would radiate outward in a thousand life-styles spread across as many worlds to complete the upward struggle that had begun long before in Earth's primeval oceans, and thence become whatever they were capable of.

At least, that was the way the Thuriens had imagined it

would be.

But in all those millennia the Thuriens had learned less about human perversity than Garuth, former commander of the Ganymean scientific mission ship Shapieron, from ancient Minerva, had in six months on Earth.

For self-esteem could only be earned, not given. Dependence bred feelings of inadequacy and resentment. The results were

apathy, envy, surliness, and hate.

The more ambitious minority who gained control of Jevlenese affairs had lied, schemed, and eventually gained control of the surveillance operation set up by the Thuriens for monitoring developments on Earth. They had intervened covertly to keep Earth backward while they built up a secret military capability, and almost succeeded in a plan that would have enabled them to overthrow the Thuriens. Although Thurien technology had been indispensable in thwarting the Jevlenese, what had actually saved the situation had been the Thuriens' decision to open direct contact with the Terrans—when the Shapieron's story from Earth contradicted the Jevlenese version—and thus involve other minds capable of working at comparable depths of deviousness.

But the circumstances of the greater mass of Jevlenese were very different from those of the minority who rose to take charge. For them, the society that grew under the Thurien guidance became a protective incubator cocooning them until the grave. Smothered by largesse to the point where nothing they did or didn't do could make any difference that mattered to their lives, they abandoned control of their affairs to impenetrable layers of nameless administrators and their computers, and either sank into lethargy or escaped, into empty social rituals of acting out roles that no longer signified anything, or into delusion.

Under the collective name JEVEX—the processing and networking totality serving the system of Jevlenese-controlled worlds—the computers ran the factories and farms, mining and processing, manufacturing, distribution, transportation, and communications, along with all the monitoring to keep track of what was going on. JEVEX kept the records, stocked the warehouses, scheduled the repairs; it directed the robots that built the plants, serviced the machines, delivered the groceries, and hauled the trash. And it created the dreams into which the people escaped from a system that didn't require them to be people anymore.

And that, the Thurien and Terran leaders had concluded after the three-day Pseudowar that ended the self-proclaimed Jevlenese Federation, had been the problem. JEVEX had been modeled on the larger and more powerful Thurien complex, VISAR, which, while equipping JEVEX admirably for catering to Ganymean temperaments and needs, had done nothing to satisfy the very human compulsions to seek challenge and to

compete.

So, the thinking had gone, the key to remedying the situation would be to switch off all but JEVEX's essential services for a time. By compelling the Jevlenese to take charge of their own affairs—and at the same time leaving them less opportunity for making mischief—they would stimulate them into learning to become human again. And the Ganymeans from the *Shapieron* had agreed gamely to oversee and administer the rehabilitation program with its period of probationary decomputerization.

Garuth was only now beginning to realize what they had

taken on.

He sat with Shilohin, a female Ganymean who had been the mission's chief scientist, in his office in the Planetary Administration Center on Jevlen, the former headquarters of the local Jevlenese government at a city called Shiban. Before them an image floated, seemingly hanging in midair in the room. It was being transmitted from Barusi, another city situated several thousand miles away on the coast of one of Jevlen's southern continents, with three towers of its central composition rising

more than a mile into the pale green sky. But the scene that Garuth and Shilohin were watching was set against a background of drabness, the buildings shabby and most of the machines idle. A lot of the populace had moved into shanty camps thrown up around the city's outskirts, where the simpler routines of living that they had been obliged to revert to were more easily organized—even an act like collecting and preparing food could turn out to be unexpectedly complicated when removed from the context of what had been a totally automatic. self-adapting environment.

The view, taken from the Civic Center housing the Ganymean prefect and his staff responsible for the Barusi district, looked down over the tiered expanse of Sammet Square. A procession of Jevlenese numbering several thousand was spilling in from an avenue leading east out of the city, adding to a comparable number who had been gathering there through the afternoon. Virtually all of them had contrived to be wearing something of purple, and the bands spread at intervals through the parade came to the front as they entered, massing behind banners carrying the device of a purple spiral in a black circle

on a red ground.

The focus of all the activity was a figure waiting behind the speaker's rostrum atop the steps facing the square, backed by a huge, hanging sign showing the purple spiral. As soon as the noise of the bands ceased, he launched into his harangue. His name was Ayultha. He wore a dark blue tunic with a purple cloak, and his face had a fierce, intense look, accentuated by heavy, dark brows and a short beard, which he directed this way and that at the crowd with sharp motions of his head as he spoke, punctuating his words with abrupt gestures of appeal and frequent drivings of a fist into the other palm. His amplified voice boomed across the sea of eager faces to sustained outbursts of roared approval.

"Was it not we who believed in the Ganymeans? Was it not we who trusted them and came with them across light-years of space, willing to join their culture and learn their ways? It was the Terrans who spurned their offer and chose to go their own way." A pause, with appealing looks to left and right, and a dramatic lowering of voice at the crucial point. "Perhaps the Cerians saw more even in those early days than we credited them for." A sudden rise to crescendo. "It was not them who

were betraved!"

Cries of outrage; shakings of fists. The speaker waited, glar-

ing, until the noise abated.

"I say again, betrayed! There was an agreement—a solemn covenant honored by us not just through a hundred years, not through centuries, even, but for millennia!" He was referring to the surveillance watch that had been kept over the developing Earth, which the Thuriens had entrusted to the Jevlenese. "We performed our duties faithfully. We fulfilled our obligation." Another pause. Expectations were almost audible with the buildup of tension. Then, the explosive release: "The Ganymeans broke that covenant!"

Thunderous ovation, unfurlings of banners, waves of upthrust hands.

In the foreground to one side of the image, watching from inside the Barusi Civic Center, stood several more Ganymeans: angular, gray-hued, eight-foot-tall figures, with lengthened, narrowish heads compared to the vaulted human cranium, and protruding lower faces with skulls elongated behind. The nearest, whose name was Monchar, swung around to look out at the two Ganymeans watching from Shiban. Monchar had been second-in-command of the *Shapieron* mission that Garuth had led.

"But he's completely distorting what happened!" Monchar protested. "Yes, in the end the Thuriens opened a dialogue with Earth directly. But that was only after things they knew to be fact contradicted what the Jevlenese were telling them. The Jevlenese had been lying for centuries. They systematically falsified their reporting!"

"The Thuriens were being betrayed long before they thought to question anything," one of the other Ganymeans said.

Monchar motioned with an arm to indicate the crowd outside. "But those people down there *know* all this. They have been acquainted with the facts. How can they react like this to what he's telling them? Don't they possess any critical faculties at all?"

"I think we're still a long way from comprehending the human ability to see and hear what they want to," another

Ganymean replied. "Facts don't come into it."

Below, Ayultha was thundering, "But merely keeping bad faith was not enough. They deceived us by intercepting the *Shapieron* and bringing it secretly to Thurien after it left Earth, and then overwhelmed us through trickery."

"But they would have destroyed the Shapieron!" Monchar

exclaimed, aghast. "If it weren't for the Thuriens, we would all have been killed." He turned back to look at Garuth again. "What are we supposed to do? They change the past to what they think it should have been, and then remember it as having happened. They can't distinguish their myths from reality."

Beside Garuth, Shilohin shook her head. Even a year after meeting them, she was still bewildered by the politics of these strange, pink, brown, yellow, and black, aggressively inclined, alien dwarves. "Yet they're human," she said. "We got to know many humans well while we were on Earth. They can be excitable, I agree, but they're not irrational. We know that."

"They can accept reason or not as it suits them," Monchar

said.

In the square, Ayultha shouted, "And now they use the disruption caused by their own trickery as a pretext to impose this alien rule upon us, violating the most fundamental of our rights: the right of any people to determine their own affairs. They try to tell us that we would be unable to function without them. But we functioned well enough before JEVEX was withdrawn. And who withdrew JEVEX? They did themselves! So was not this whole situation planned and contrived with the Terrans all along, because they—they who break their covenant; they who deceive and betray; they who use trickery to impose themselves—they saw the Jevlenese Federation as a threat . . . A threat because of anything we had threatened? No! Because of anything we had done? No! But because we had committed no other crime than to exist!"

At that moment, a group to one side of the crowd suddenly tore off their purple garments, produced green sashes that they had concealed about them, and began waving them as they broke into some kind of chant. Some of the purple-wearers who were nearest began jostling them and grabbing at the sashes. Squads of Barusi police who were lining the square waded in and made for the trouble spot, and a general scuffle broke out.

In Shiban, Garuth stared at the scene in consternation. He had watched scenes like this on old Terran newsfilms during the time the Shapieron was on Earth and, more recently, on numerous occasions after taking up his present appointment, in the faint hope of getting some guidance on how to deal with the situations that had been arising on Jevlen. But he was at a loss ... And trusting to the Jevlenese police and civic authorities to handle it wasn't any answer. Human though they might be, it

had already become clear that their loyalty was lukewarm at

best; and in any case, initiative wasn't one of their greater strengths.

"There," Monchar pronounced, watching. "Look, it's started. I don't understand it. Can they be so irrational? What good to

anybody can come from it?"

As the unrest spread, Garuth watched, then turned to Shilohin. "If this kind of thing starts breaking out all over Jevlen, people are going to get hurt," he murmured. "Maybe killed. We couldn't deal with it. It would need a different kind of response."

He meant with force—or the credible threat of being able to resort to force if necessary. That would mean replacing the Ganymeans with a Terran military occupation, since Ganymeans were psychologically unsuited to applying that kind of solution. Garuth didn't like it any more than another of his kind would have; but enough history had shown that it was the only way to contain humans once they started running amok.

Shilohin thought silently for a while. "Suppose it isn't just irrationality?" she said at last. "Suppose it's precisely what

somebody wants?"

"Who? Surely it couldn't be in the interests of any of the

Jevlenese," Garuth replied.

"I don't think half the Jevlenese are capable of knowing what's in their interests," Shilohin said.

"JPC rejected such a policy when it was proposed," Garuth pointed out.

"And now some of the Terran members are urging them to

change their minds."

The Joint Policy Council, consisting of both Thuriens and Terrans, had been established following the Pseudowar and the collapse of the Jevlenese Federation to formulate the program that Garuth was attempting to implement. At that time, some of the Terran representatives, particularly from the West, had predicted problems of the kind that were now appearing and proposed setting up a Terran security force on Jevlen for Garuth to be able to call upon. JPC, however, heady with the euphoria of the moment and swayed by Thurien ideals, had turned the suggestion down. Garuth was beginning to worry that if demonstrations of the kind now breaking out were to get sufficiently out of hand, JPC, instead of merely installing an auxiliary force to supplement the Ganymean presence as had first been proposed, would order the Ganymeans to be replaced completely.

And if that happened, all their work on trying to understand the Jevlenese problem would probably have been in vain, just when it seemed that they were onto something important. For Garuth was convinced that there was more to account for in the Jevlenese condition than just apathy and reality-withdrawal caused by overdependence on JEVEX. Something more serious was going on, and had been for a long time. Something about JEVEX had been sending the Jevlenese insane.

Garuth slumped back in his chair wearily. "Fortunately, we do have some friends in political circles on Earth," he said. "Perhaps we can find out from them what's happening."

"I'm not so sure it's their political people that we should be

going to," Shilohin answered in a distant voice.

"No?"

Shilohin shook her head. "Their affairs are so convoluted that none of us understand them. I was thinking, more, of somebody whom we know we can communicate with and trust—in fact, one of the very first of the Terrans that we met."

Garuth sat back, his face thoughtful and his eyes illuminated suddenly by a questioning light that seemed to ask why the idea had not occurred to him sooner. "You mean direct? We just forget about 'proper channels' and all that official business in between?"

between?

Shilohin shrugged. "Why not? It's what he'd do."

"Hmm . . . And he *does* know them better . . ." Garuth thought about it, then looked at Shilohin and grinned. It was the first time she had seen him smile all day.

"As you said yourself, people might start getting killed if we

don't," she said. "We wouldn't want to risk that."

"Of course not." Garuth raised his voice slightly and addressed the computer-control intelligence built into the *Shapieron*. "ZORAC."

"Commander?"

With JEVEX suspended, ZORAC had been coupled into the planetary net to monitor its operations and provide a connection to the Thuriens' VISAR system.

"Connect a channel into Earthnet for us, right away,"

Garuth instructed.

chapter four

Her name was Gina Marin. She was from Seattle, and she wrote books.

"What kind?" Hunt asked. "Anything I might have read?" Gina pulled a face. "If only you knew how tired writers get of hearing that question."

He shrugged unapologetically. "It comes naturally. What

else are we supposed to say?"

"Not any blockbusters that you'd know as household names," she told him candidly. Then she sighed. "I guess I have a habit of getting into those controversial things where whatever line you take will upset somebody." She managed not to sound very remorseful about it. "Taking sides probably isn't the smart thing to do if you want to be popular." She shrugged. "But those are the things that make life interesting."

Hunt grinned faintly. "Isn't there a German proverb about people preferring a popular myth to an unpopular truth?"

"Right. You've got it. Exactly."

They were sitting drinking coffee in the lounge of his apartment, she on a couch by the picture window, he sprawled in the leather recliner by the fireplace. Alongside his recliner was the cluttered surface that served as a desk, elbow-distance bookshelf, breakfast bar, and workbench for a partly dismantled device of peculiar design and fabrication, which he had informed her was from the innards of a Ganymean gravitic communications modulator. The rest of the room was a casual assortment of easygoing bachelordom mixed with the trappings of a theoretical scientist's workplace. A framed photograph of Hunt with a couple of grinning colleagues and a group of Ganymeans posing in front of a backdrop of the Shapieron was propped on top of the frame of a four-foot wallscreen showing a contour plot of some kind of three-dimensional wave function; a tweed jacket, necktie, and bathrobe hung all together on a cloakroom hook fixed to the endpiece of a set of overloaded

bookshelves; there was a reproduction of a Beethoven symphonic score affixed to the wall next to several feet of a program listing hanging above a pile of American Physical Society journals.

"So, you take up unpopular causes," Hunt said. "Not ex-

actly a creature of the herd, I take it."

Gina made a brief shake of her head to forestall any misunderstanding. "Don't get me wrong. It's not something that I set out to do deliberately, just to be different or anything like that. It's just that I get interested in things that seem to matter." She paused. "When you start taking the trouble to find out about things, it's amazing how often they turn out not to be the way 'everyone knows' at all. But once you're into it that far, you have to go with what's true as you see it."

Hunt pursed his lips for an instant. "Why worry? People are going to carry on believing what they want to, anyway. They don't want truth; they want certainty. You won't change that.

Why burn your life away at both ends trying to?"

She returned a short, resigned nod. "I know. I'm not trying to change anybody. It's more for me, really—you've got to be true to yourself. I'm just curious about the way the world really is. If it turns out to be not the way a lot of people think, then that's just too bad. They won't change reality, either."

Hunt raised his coffee mug and regarded her over the rim. At least she wasn't launching into one of the standard recitations that he had heard so often of how people rationalize their being at odds with the world. If she was a misfit, she had come to terms with the fact and was fully at ease with herself. Whatever the subject was that had brought her here, he decided that he had the time and the inclination to listen.

After a few seconds he said, "Maybe you're in the wrong job. You're beginning to sound as if you should have been a scien-

tist."

"You mean, to seek out what objective reality really is? That's what scientists do, right?" Her impish raising of an eyebrow and the tongue pushing lightly in her cheek were just quizzical enough to stop short of skepticism.

"Okay . . . well, they're supposed to, anyway."

Gina's eyes widened in mock surprise. "Oh, but they do. You only have to read the textbooks."

Hunt grinned. He liked this kind of company. "I thought we were talking about reality," he said.

"But isn't that what you do?" Gina asked, maintaining the pretense. "Uncover reality?"

"Of course I do. Every scientist knows that he's different."

"So you know what's really out there?"

"Sure."

Gina moved her legs and sat forward to rest her chin on her hand, staring at him in a play of fascination. "Go on then, tell me. What's really out there?"

"Photons."

"That's it?"

Hunt turned a palm upward. "That's all that physics can tell you. Everything that's out there reduces to photons interacting with atoms in nerve endings. That's it. There isn't anything else. Just wave packets of whatever, tagged with quantum numbers."

"Not too exciting," Gina commented.

"You did ask."

"So what about the rest of this interesting world that I see?"

"What else do you see?"

She shrugged and motioned vaguely with a hand. "Cabbages and kings. Oceans and mountains, colors and shapes. Places with people in them, doing things that mean something. Where does all that come from?"

"Emergent properties of relationships manifesting themselves at progressively higher levels in a hierarchy of increasing complexity," he told her, not really expecting her to make much out of it.

"Neural constructs," she supplied, parrying him. "I create it in my head."

Hunt raised his eyebrows and nodded his compliments. "Where else? We've already agreed what everything from outside is."

"In the same way that every book that might ever be written is built up from the same twenty-six-letter alphabet. The qualities that we think we perceive aren't out there in the symbols. The symbols are simply a coding system for triggering what a lifetime of living has written into our nervous systems."

"You've got the idea. Sometimes I think it's amazing that any two of us ever manage to perceive anything similar at all."

"I'm not always so sure that we do," Gina responded.
"Which from your point of view is just as well. If we all saw

everything the same, you wouldn't have anything controversial

to write about." He paused. "I don't exactly get the feeling that

all this is especially new."

"I already told you, I get curious about things. And in any case, writers read a lot. It's compulsive. The real reason they write is that it gives them an excuse for doing the research."

Enough fencing, Hunt decided. She had held her own without getting defensive and turning the thing into a duel. He got up and took the mugs through to the kitchen, along with his breakfast dishes. "So what have you written that brought lynch mobs screaming out of the woodwork?" he asked over his shoulder as he loaded the dishwasher.

In the lounge, Gina rose from the couch and turned to study the view out of the picture window. She was a shade on the tall side of average, with a trim, firmly shaped figure that was right

for the navy dress.

"Well, there was one I did awhile back about Earthguard and the no-growth lobby," she said, without turning her head.

"Have you had much to do with that?"

"Not a lot. I thought they went away years ago . . . Anyhow, haven't the Thuriens pretty much blown them out of the water for good?"

"I wrote it before the Thuriens showed up."

"Okay. So what were the doomsday brigade into this time?"

"Oh, our expansion out into the Solar System. Numbers were growing too fast, resources being depleted. Earth wouldn't be able to feed an unchecked spacegoing population, and off-planet alternatives were either inadequate or impractical, et cetera, et cetera."

Hunt poured coffee into two fresh mugs. "If we paid too much attention to that lot, we'd still be conserving flint for our grandchildren to make axes. I've got other things to do."

"The trouble is, a lot of people who matter do pay attention to them. And they're the ones who shape what everyone else

thinks."

"Well, I think you'll find all that's changing."

"But look what it took," she said. "Yes, now at last, the world's beginning to realize that by all the measures that mean anything, growing populations are a sign of things getting better." She turned as Hunt came back into the lounge, carrying the mugs. "Everyone's got two hands and one mouth, right? People produce more than they consume."

"I had a grandmother from Yorkshire who used to say something like that: You should always listen twice as much as you talk. 'That's why God gave thee two ears an' one mouth, lad.' "Gina frowned at him suspiciously. "Are you trying to tell me

something?"

"No. What you said just reminded me of it. There's—" Hunt broke off and looked up at her suddenly as he set down the mugs. "Wait a minute. Was it you who wrote that book—something about people being precious?"

"People, Priceless People," Gina confirmed, nodding. "Did

you read it?"

"Not all of it. Someone I used to work with showed me some of it—about how the real cost of just about every natural resource has been falling over the last couple of centuries, wasn't it?"

"Which is a sign of a commodity that's getting more abun-

dant, not scarcer."

"And how things like longer life expectancies and falling infant mortality add up to an environment that's getting better, not worse. Yes, I remember it." Hunt nodded and looked at her with greater interest. "What other heresies have you committed?"

"Oh . . . that the nuclear weapons of the twentieth century were the main thing that prevented World War III from happening on at least four occasions between 1945 and final disarmament. In other words, the Bomb and the Pentagon probably saved more lives than penicillin did."

"The Russians more or less admitted that," Hunt commented. "It ruled out major war as an option, and that was all

they understood."

"But how much of the public knows that they admitted it? Most people still think it was the peace demonstrators that did it."

Hunt nodded. "That would stir up a few waves on the port beam. What about the starboard side of the ship? Did you start any storms there, as well?"

"Oh, yes . . . by suggesting that sex is probably better for teenagers than religion, and drugs aren't a problem. You

know—the usual prime-time family-hour stuff."

"That'd do it, right enough. You've been busy." Hunt himself seemed comfortable enough with everything she had said. He sat down in the recliner and leaned back with his fingers interlaced behind his head. "But you never got to be a millionairess out of it, eh?"

"Not that I noticed, anyhow."

Hunt inclined his head to indicate the general direction outside, where her Peugeot was parked. "Not doing too badly, all the same, by the looks of things," he remarked.

"Rented."

"Ah."

"From the airport."

"So you're just visiting."

"Right."

"Where are you staying?"

"At the Maddox—a small hotel on the east side of town."

"Uh-huh." Hunt watched her silently for a few seconds to let the preliminary talk fade into the background. "So," he said finally, "now that you're here, what can I do for you?"

"I'd like some help with a new book that I want to write." Gina drew back from the window, but instead of sitting back down on the couch, she crossed the lounge and turned, arms folded, propping herself against the table carrying the comnet terminal. "About the Jevlenese. You're one of the few original sources, and from what I've read, a pretty open and approach-

able one. So I'm approaching."

Hunt had already guessed that it would be something like that. Her directness about it was refreshing. The public was already being deluged with popular material, most of it second-hand information and wild speculation, being churned out in the rush to cash in by people who didn't know what they were talking about. Concocting plausible but unsubstantiated reasons why any historical figure that somebody disliked or disagreed with had been a Jevlenese agent had become something of a game in the popular media.

"There's some awful stuff out there," he agreed, anticipating her line. "People are being told all kinds of nonsense. So you decided to come to somebody who was in at the beginning." He nodded in a way that said he couldn't find anything to argue

with in that.

But Gina shook her head. She went back to the chair that she had occupied before and sat down. "No, that isn't quite it. I'm more interested in some of the things they're *not* being told."

Hunt stroked the side of his nose with a finger and looked at

her curiously. "Go on."

"Let's make sure I've got the background correct."

"Okay."

"The Jevlenese and ourselves are both the same, equally human species, descended from the same ancestors, right?"

Hunt nodded. "The Lunarians, yes."

"But the civilization on Jevlen is more advanced, which isn't surprising since it grew up under the wing of the Thuriens. The early colony on Earth was almost wiped out and went back to barbarism."

"Yes," Hunt said, nodding again.

Gina leaned forward. "But before all that happened, the Lunarian civilization on Minerva also discovered the sciences rapidly and reached an advanced stage much faster than we did, without any Ganymean help. The reason we didn't do the same was that the Jevlenese retarded Earth's development by infiltrating agents to spread irrational belief systems and organize cults based on superstition and unreason. That's why it took us two thousand years to get from Euclid to Newton."

"It took the Lunarians closer to two hundred," Hunt said. Gina's voice took on a curious, more distant tone. "Just think... nobody ever thought of Homer as a science writer before. The *Iliad* could all have been real—an authentic account of human contact with an alien race. Take Hesiod's account of the origins of the universe. First there was Chaos: just dark, empty space and proto-elements. Then Gaea, the fusion of Earth and Life, and Uranus, the star-filled heavens, were born from Eros, the force of attraction that causes all things to come together. Expressed in those terms, it does come interestingly close to the real thing, doesn't it?"

"You've been doing some homework," Hunt murmured.

"The gods that kept coming down and meddling in the Trojan War might actually have existed. Maybe the Biblical miracles really happened, and Velikovsky had a point after all. Is it any wonder that ideas of magic and the supernatural became so deeply rooted here? At one time, it really used to work."

Hunt wondered where she was leading. Everything she had

said so far was more or less public knowledge.

She waited for a moment, then tossed out a hand lightly. "Speculating on which figures in history may or may not have been Jevlenese provocateurs has become a popular pastime these days. But what I'd like to see is something on a few of the obvious candidates that people aren't talking about."

Hunt stared at her for a second to be sure he had followed, then nodded. It was not a thought that had eluded him com-

pletely. "Christ," he muttered.

"Possibly. But probably not. My guess is that he was on the other side."

Hunt had not meant it as a response to her implied question; it had simply been his reaction to the prospect of the wrench that he could see her throwing into the works of cherished belief systems everywhere, going back thousands of years and forming the foundations of entire cultures. What she was inferring threatened, in short, the demolition of virtually all traditionalism and the systems of authority based on it. Hunt did not want to guess at the outrage and unlikely closings of ranks which that would be likely to provoke. Perhaps he had been avoiding thinking about it himself because he had unconsciously glimpsed the implications.

"I, ah . . . I see now what you meant about getting into controversial subjects where you always end up upsetting some-

body," he said dryly.

"But you have to agree it gets interesting. Imagine—Euclid to Newton should have taken a couple of hundred years. How else might things have gone, do you think, if the Jevlenese had left us alone? Perhaps Newton would have formulated relativity. James Watt could have invented the nuclear reactor. The Wright brothers might have flown the first starship. But instead, we got headed off into the Dark Ages."

Hunt was staring at her with an intrigued expression. He had discussed such possibilities with colleagues often enough, but they were specialists, linked through their own circles. Gina had

put the conclusions together independently.

She was about to continue, when the call-tone from the comnet terminal next to her interrupted. "Excuse me," Hunt said, getting up from the recliner and coming across to answer it. Gina stood up and moved aside. The screen activated to reveal a head-and-shoulders view of two longish, gray-hued countenances with deep blue eyes, large pupils, and dark, necklength hair. Only someone who had been in a coma or a hermitage for the last year could have failed to recognize them as Ganymeans.

"Hello, Vic," the male said. His mouth movements did not synchronize with the voice, which had a natural human intonation. Ganymeans spoke at a deep, guttural pitch that was incapable of reproducing human speech faithfully. The voice was familiar to Hunt as one that ZORAC synthesized in its role as

interpreter.

"Garuth. Good to see you," he replied. "And Shilohin." "It's been awhile now," the female acknowledged.

Gina, intrigued, moved around to come closer to Hunt,

which brought her into the lens angle. "Oh, I didn't realize you had company," Garuth said. "I should have asked."

"Don't worry about it. This is Gina, a friend of mine. She

writes books. Gina, meet Garuth and Shilohin."

Gina was at a loss for a moment but recovered quickly. "Hello. I, er, I don't get to do this every day." The two Ganymeans inclined their heads in their customary greeting.

There were currently a number of Ganymeans at various places on Earth for various reasons, and Hunt guessed that Gina was assuming the two faces on the screen to be among them. Although it was no secret that the Thurien communications network managed by VISAR had been extended to Earth, only a few, select locations, such as Goddard, had connections into it. It would hardly have occurred to Gina that Hunt might have wrangled himself a private home extension. He made no mention of the fact, however, and asked casually, "So, how are things on Jevlen these days?"

A hand flashed for an instant in front of Garuth's face. "As a matter of fact, not too good. That's why we're calling. We need some help on a problem that's been developing here."

"Oh really?" Hunt said. "What kind of—" The abrupt movement of Gina passing a hand across her brow made him look

away.

"Wait a minute," Gina whispered.

"Would you excuse us for a second?" Hunt said to Garuth.

"But of course. We intruded."

Hunt looked inquiringly at Gina, his face an expression of forced innocence. She shook her head as if to clear it.

"Did you say Jevlen?" she asked.

"Yes. Garuth is the Shapieron's commander. Shilohin is the chief scientist."

"Those people are on Jevlen-right now?"

"Of course," Hunt said, maintaining his nonchalant air.

"That's where the Shapieron is."

Gina sat down on the arm of the couch, shaking her head bemusedly. "This isn't real. I've known this guy for an hour. The phone rings, and it's aliens calling from another star system? What happens next?"

"Oh, stick around and we'll find out," Hunt answered cheerfully. "Who knows? If you're not burned at a stake in the meantime, or exiled to Pluto or somewhere, it might be the beginnings of a new book."

chapter five

The Thuriens were a very rational, nonquarrelsome race of beings to whom the benefits of a society that based itself upon mutual cooperation were too self-evident to require much pondering, let alone debate. As a consequence, the Thurien institution of government was a modest, service-oriented affair concerned mainly with resolving disputes and disagreements, and managing the comparatively few functions that it was felt preferable to consign to public agencies. It certainly had nothing to do with projecting power over individuals, enforcing policies that were none of anybody else's business, or bestowing upon a few the right to decide how the many should be compelled to live.

Having no concept of any alternative, they established the same system—or lack of one, in the opinion of many Terrans—on Jevlen in the period following the destruction of Minerva. So instead of producing the authoritarian institutions that were the inevitable outcome of the ferocious power struggles and ideological collisions characteristic of social evolution on Earth, Jevlenese society developed as a kind of patronized anarchy, secure in the guarantee of unlimited goods and products indefinitely, and the total absence of threats. Hence, survival had never played any great role as a shaper of individual or collective behavior; therefore, the rationality that human survival ultimately depends on had received little incentive to bloom.

Over the years, many popular political and quasireligious cults had come to flourish on Jevlen. They appealed by catering to the needs of individuals to discover some purpose and to affirm their identity in a risk-free, unstructured society, and to the fascination of the uncritical for peculiar beliefs. One of the largest and most militant of them called itself the Axis of Light. Its symbol was a green crescent. The leader, whose real name was Eubeleus, had been well connected with the previous re-

gime responsible for the short-lived Federation, and went by

the public title of Deliverer.

The Deliverer's followers numbered millions. Their faith was a conviction that the key to opening up latent, mystical human powers lay in the supercomputer, JEVEX. Their indignation at the Ganymeans' shutting down of JEVEX, therefore, stemmed not merely from material deprivations or fears of a political tactic to encourage dependency, but from what they saw as a persecution of their beliefs.

One of the most commonly used methods of interfacing to Thurien networking systems—JEVEX and VISAR—was by direct coupling into the user's neural centers, bypassing the normal sensory apparatus. The central dogma that the Deliverer taught was that the close-coupled interaction between the inner processes of the human psyche and the more remote levels of supercomputing complexity could unlock the mind to new dimensions of reality. Thus stimulated, the believer would be enabled to conquer the ultimate reaches of time and space. He would come to know his full self in all the dimensions of its existence, and gain access to the powers encompassed by them.

All heady stuff. The followers were suitably impressed. For his part, it was clear that the Deliverer, Eubeleus, held JEVEX in extraordinary awe and reverence, with an unswerving belief in its abilities that bordered on fanatical. But such loyalty was really to be expected: He believed himself to be a physically

incarnate extension of JEVEX.

The day after Garuth's call to Hunt, Eubeleus met with a man called Grevetz at the latter's walled villa and estate in a forested valley known as Cerberan, located among hills not far from the city of Shiban. Grevetz was the regional boss of the local Jevlenese criminal syndicate that had been making the most of the new black-market opportunities created by the surges in wants that the withdrawal of JEVEX had brought about. With them was a lieutenant of Grevetz's, Scirio, who ran the operation in a part of Shiban.

Eubeleus had influence because the size of his following translated into a substantial inflow of cash, a hefty block of political leverage, and when the occasion demanded, a guaranteed turnout to add physical pressure to rhetoric and persuasion on the streets. But the greatest benefit that he brought to Grevetz's organization was a result of the demand for the services of JEVEX itself. For although the primary operating

functions of JEVEX had been suspended, a residual core capability had been left ticking to support certain maintenance and housekeeping functions, and to monitor faults and sustain system integrity; also, Thurien analysts were exploring parts of the records accumulated over centuries in an endeavor to uncover exactly what the Jevlenese had been up to. Through connections that existed somewhere in the planet's communications grid, Eubeleus could provide access into that core system of JEVEX. He had not told anybody how he did it.

"I am the one who is endowed with the vision." Eubeleus told the other two on the fronded patio, bordered with shrubs, at the rear of the villa. "My mind touches deep into JEVEX's soul. I know the things that must come to be. The design that is prepared has been revealed to me. That is why you must heed my words all the more closely when I say that this man is an instrument of forces that lie beyond the bounds of your present awareness of things. An obstacle that must be removed"— Eubeleus picked up an imaginary stone from in front of him

and tossed it aside—"from the path."

He had a lean yet large-boned frame, and was tall in build, with yellow hair that curled at the back of his neck, and piercing, electric blue eyes, which the word among the faithful held to be a manifestation of the paraphysical forces that operated through him. He was clean-shaven, which was unusual for Jevlenese cult gurus and mystagogues, but the countenance thus displayed was perhaps even more striking. It comprised angled cheekbones and hollowed features that objectified resilient austerity; a straight, undeviating nose that gave him a line along which to look downward unwaveringly on the lesser species of creation; a mobile, expressive mouth, and a hard, tapering jaw, obstinately set in a line that had never felt a need of questioning or known the twinges of self-doubt. He was dressed in a loose, two-piece tunic of orange with green-crescent devices on the lapels, topped by a green cape. His manner as he spoke was grandly imperious, an oration, even in private, his sonorously modulated phrases emphasized by dramatic bodily poses and flourishes of his hands and fingers . . .

But Grevetz and Scirio, used to that from somebody who thought he was a walking extension of a computer, reacted

impassively.

The subject of Eubeleus's wrath was a document lying on the table at which Grevetz and Scirio were sitting. It was a report from Obayin, the deputy chief of the Shiban police, to Garuth,

head of the Ganymean administration headquartered at the Planetary Administration Center, on the facilities for illicit access into JEVEX that had been uncovered both in that region of Jevlen and elsewhere. And it reported them straight, without playing things down. That kind of overzealousness could lose the Axis a lot of followers—not to mention cost Grevetz a lot of lost revenue from his own clients—if the authorities started taking serious action. A deputy chief of police who was any use would have known that. And there were longer-term plans that Eubeleus had chosen not to divulge yet that were far more important and stood to be disrupted even more. The risk was intolerable.

"So what if we do get rid of him?" Grevetz asked. "Do you have anybody in particular in mind to take over?"

"Whom do you have prepared?" Eubeleus threw back.

Grevetz looked at Scirio. "What are we paying Langerif these days?"

"Enough. It has to be. It's the second cut down, anyhow."

"We'd go for Langerif," Grevetz told Eubeleus.

The Deliverer nodded. "I shall have his record checked by my own sources. If it proves satisfactory, a word in the right quarters will assure his appointment." He tossed out an arm beneath his cape as if casting out an evil and moved a few paces away. "Then I can leave the more immediate aspect to you?" he said, turning and staring at Grevetz.

Grevetz looked across the table at Scirio. "He's on your turf. Reckon you can arrange a convenient accident or something

for citizen Obayin?"

"It would take a little thought. He likes to be careful."

"I can arrange some suitable disturbances about the city," Eubeleus offered. "A turbulent and discordant background, against which all manner of the unlikely and the unexpected might happen?"

'It's the kind of thing that would get him out there," Grevetz

agreed.

Scirio rubbed his chin and nodded. "Like I say, let me think about it from a few angles. I figure we should be able to come up with something."

chapter six

The window behind the desk looked out over the bronzed-glass office towers, concrete experimental buildings, and tree-lined avenues of the UN Space Arm's Goddard Space Center. At the desk in front of it, a stockily built figure with a craggy face and close-cropped, steel gray hair drummed a tattoo on the leather top with his fingers. "What did they want?" Gregg Caldwell, director of UNSA's recently formed Advanced Sciences Divi-

sion, demanded in his gravelly, bass-baritone voice.

The Thurien contact had made nonsense of all the plans for Man's expansion into space, just when those plans had at last begun taking shape as a united effort by the entire race. Accepting the pointlessness of preserving forms that even its bureaucrats were unable to deny now served no sensible purpose, UNSA had scrapped most of its previous organizational structure to clear the decks for the new challenges. This had included wrapping up Caldwell's former Navigation and Communications Division, which would have had about as much relevance to the changed circumstances as an astrolabe on the command deck of one of the Jupiter mission ships. Caldwell had moved to Washington to set up a new division charged with assimilating as much of the alien technology into Earth's space program as was practicable and desirable, and Hunt had moved with him to become deputy director.

Hunt answered from a leather-upholstered easy chair in front of a battery of display screens on the opposite wall. Caldwell had always liked big windows and lots of screens. His old office at Navcomms HQ in Houston had been fitted the same way.

"Garuth's realizing that he bit off more than he could chew when he agreed to take charge on Jevlen. Let's be frank, Gregg—it was a daft idea in the first place. Ganymeans aren't cut out to be planetary overlords. We should have put our foot down harder when Calazar and the rest of the Thuriens came up with it. Neither of us was happy about it at the time." Caldwell shrugged. In the headiness of those times, everyone's judgment had been affected. Nothing could be done about it now. "You can't miss if you never shoot at anything," he replied. "What kind of problems are they having with the Jevlenese?"

"Nothing that would seem especially strange to us: civil disturbances and agitation. But to Ganymean minds it doesn't make any sense. They don't know how to handle the illogic of it."

"They still don't know what to make of people acting normal, eh?"

"I'm not sure they ever will—completely."

"What kind of illogic are we talking about? Give me a specific."

Hunt spread his hands for an instant. "Oh, keeping JEVEX shut down means that the Jevlenese can't function without Ganymean help—at least, so some of them say. Therefore the situation equates to forced subjugation and violates their rights of self-determination. And then the standard terrorist line: If we end up killing each other because we don't like it, it will be your responsibility."

"Which the Ganymeans buy, right?"

"They believe it, but they don't understand it."

"It sounds as if the leash is on the wrong way round, all

right," Caldwell agreed.

"Yes... but what's making matters worse is the withdrawal symptoms of unhooking them from JEVEX, which it seems everyone underestimated. Garuth says the number of headworld junkies there was epidemic. You have to admit, it is the ultimate in escapism. People could get into it in a big way—even the Thuriens admit they sometimes have problems with it. But in the case of the Jevlenese, it's left half the population with no idea of how to cope. They've been conditioned to be totally, uncritically receptive, which makes them complete suckers for anyone with a message to put in their heads."

"Hmm." Caldwell drummed on the desk again for a second. "I thought the UN sent a bunch of sociologists and psychiatrists there who were supposed to know about how to deal with that kind of thing. How come they're not handling it?"

Hunt made a you-know-how-it-is gesture. "They're out-ofwork social engineers looking for new places to take their theories now that people here are managing their own lives instead of expecting governments to do everything for them. Apparently the experts are producing lots of reports and statistics, but when anything serious happens they head for cover and leave

it to the riot police."

"So why is Garuth coming to us? Our business is Ganymean physics, not Jevlenese psychology." Caldwell already had a pretty good idea of the reason; he just wanted to hear Hunt's reading of it.

"He's worried that if things get worse and JPC starts to panic, he might be pulled out and replaced by a Terran military administration. They've been putting in a lot of work there,

Gregg."

Caldwell nodded. "Garuth doesn't want to see it all go to waste," he guessed, saving Hunt the need to spell it out. "Just

when they might have been about to see some results?"

"That—and more." Hunt motioned briefly with a hand. "He sounded as if he thought they were close to discovering something important about what's screwing up the Jevlenese—more than their simply being JEVEX cabbages. But putting in a Colonel Blimp—style board of governors there would blow any chance of getting to the bottom of it." Hunt shook his head before Caldwell could ask. "He didn't go into any more details."

Caldwell paused a shade longer than would have been natural before speaking—just enough to impart more currency into his question than its face value. "What do you think we should do?"

Properly speaking, there should have been no question. By all the formal rules and demarcation lines, it was none of Advanced Sciences' business. Hunt knew that, Caldwell knew that, and both of them knew that Garuth did, too. The department had close working relationships with plenty of influential figures in both political hemispheres, and all that the situation called for was a friendly word to refer the matter to them.

But as Hunt wasn't saying and Caldwell understood, there was more to it in reality. This was old friends appealing for help, and it couldn't be let go at that. The first encounter with Garuth and the Ganymeans at Jupiter had been, strictly speaking, a "political" problem, too; yet the UNSA scientists on the spot had achieved a common understanding without complications while the professional diplomats on Earth were still conferring about protocols and arguing over rivalries of precedence. That was why Hunt had raised the matter in the way he had. Caldwell was very good at interpreting his terms of

authority creatively. Properly speaking, even before the Ganymeans appeared, getting involved with the Lunarian mystery when it had first surfaced should not have been any of Navcomms's business, either.

Hunt rubbed his chin and adopted an expression appropriate to weighing up a matter of considerable gravity. "You know, there could be a lot at stake here, Gregg . . . when you think about it. Our whole future relationship with what's shown itself to be an erratic and temperamental alien culture. Even with the best of intentions, the wrong people could get things into a big mess."

"I think so, too," Caldwell agreed, nodding solemnly.

Hunt shifted in the chair and recrossed his legs the other way. "It's not a time for taking risks with untried procedures. Tested methods would be safer, even if a little . . . irregular?"

"It ought to be played safe," Caldwell affirmed.

"It wouldn't be violating any precedent. In fact, it would be fully in accordance with the only precedent we've got."

"Exactly."

Hunt had wondered on and off whether Caldwell's promotion to Washington might spell the beginnings of a slow ossification into the role of dedicated administrator, and a waning of the dynamism that had helped fling humanity across the Solar System. But as he stared back across the desk, he saw the old light that came with anticipation of a challenge, still there as bright as ever beneath the bushy brows. Hunt dropped the pretense. "Okay. What do you want me to do?"

Caldwell's manner became businesslike. "Garuth says he needs help. So see what you can do to help. Your job is to look into Ganymean science. Well, he's right in the middle of a whole civilization based on it. You'll find more there than you

will from the scraps we've been sent here."

"There?" Hunt blinked. "You want me to go there-to Jevlen?"

Caldwell shrugged. "That's where the problem is. You don't expect Garuth to bring the planet here. The Vishnu will be going back to Thurien before very much longer, with a stop on the way at Jevlen. I'll get you a slot on board."

Hunt found himself with his usual feeling of already being left behind in seconds once Caldwell had made a decision. "Washington hasn't changed you, Gregg," he said resignedly.

"I know when you're curious, and I trust your instincts. You've never failed to come back with something better than we hoped for, yet. I sent you off to Ganymede to look into some relics of defunct aliens, and you came back with a shipload of live ones. You went up to Alaska to meet a starship, and discovered an interstellar civilization." Caldwell tossed out a hand. "Okay, I'll buy in again. I'm curious, too."

Caldwell wasn't missing any tricks of his own, either, Hunt realized. Already he had spotted territory for sending out feelers to explore growth potential for his new, embryonic empire. It was the old Gregg, as opportunistic as ever. And Hunt had one of his fuzzily defined, free-ranging assignments again.

"You'd better start giving some thought to who else you might need along," Caldwell said. He almost managed to sound

as if Hunt had been dragging his heels over it.

"Well, Chris Danchekker for a start, I suppose—especially if it's going to involve alien psychology."

"I'd already assumed that."

"And Duncan's been agitating for a chance to do a spell off-planet. I think he should get it, too. He's been doing a great job." Hunt was referring to his assistant, Duncan Watt, who had moved with him from Houston. Duncan always ended up holding the fort whenever Hunt went away.

"Okav."

"Chris might want to bring one of his people, too."

"I'll let you take that up with him," Caldwell said. Hunt sat back, rubbing his lower lip with a knuckle and eyeing Caldwell hesitantly. "There, er . . . there was one other small thing," he said finally.

"Oh. ves?" Caldwell sounded unsurprised, but in his preoc-

cupation of the moment, Hunt missed it.

"It just occurred to me . . . There's a journalist that I happened to run into, who wants to write a book on some of the possible Jevlenese agents in history that people aren't talking about."

"Just occurred to you," Caldwell repeated.

"Well, sort of." Hunt made a vague circling motion in the air. "Anyhow, this business on Jevlen could provide a lot of valuable background to what happened here. So, if it looks as if we might end up getting involved in the Jevlenese situation, anyway . . . '

"Why not help the journalist out a little at the same time?"

Caldwell completed.

"Well, yes. It occurred to me that . . ." Hunt's voice trailed away as he registered finally that Caldwell had not shown any

sign that anything Hunt was saying was especially new. His manner became suspicious as an old, familiar feeling asserted itself. "Gregg, you're up to something. I can smell it. What's

going on? Come on, give."

"Unusual kind of journalist, was it?" Caldwell asked nonchalantly. "From Seattle, maybe? Stimulating outlook: not programmed with the canned opinions that you seem to find in most people you meet these days. Quite attractive, too, if I remember." He grinned at the look on Hunt's face. Then his manner became more brisk, and he nodded. "She contacted me a little while back, and came here a few days ago."

Hunt got over his surprise and studied Caldwell with a frown. Gina, going straight to the top in what Hunt had already seen to be her direct, forthright fashion, had gotten in touch with Caldwell to ask if UNSA could help her with the book. And as Hunt thought it through, he could see why that might have posed problems. He knew from his own experience how many major publishers, TV companies, top-line writers, and others were wining and dining, wheeling and wheedling with UNSA's top executives to try and get a corner on the Jevlen story from the "inside." In that kind of climate it would have caused endless complications and ructions for UNSA to be seen as giving official backing to a relatively unheard-of free-lancer, and Caldwell was enough of a politician to stay out of it. But he could safely, if he chose to, turn a blind eye to something that Hunt chose to involve himself with privately.

But Gina had made no mention of having been referred to Hunt. That meant that she had let him make his own choice in the matter freely, without mentioning Caldwell's name, which would have carried the implication that Hunt was being prodded from above. She would have let the project go rather than resort to high-pressure tactics. Not many people would have done that. He felt relieved now that he had brought the matter

back to Caldwell instead of burying it.

"I guess it wasn't something the firm could put its name on," Hunt said, nodding as it all became clearer. "But you thought

she deserved a break all the same, eh?"

"She talks more sense than I hear from geniuses they put on TV screens for ten thousand bucks an hour," Caldwell replied. He pulled a cigar from a drawer in the desk. "But there's another side to it. Think of it this way. The kind of dealings that Garuth is talking about are going to require a certain amount of . . . let's call it 'discretion.' When you get there, situations will

quite likely arise in which some kinds of irregularities might be acceptable, while others will not. Or to put it another way, things might need to be done that an independent free-lancer—and especially one with the kind of reputation that she's no doubt built up—might get away with, but which a deputy director of an UNSA division"—Caldwell pointed at Hunt with the

In other words, Hunt's team had an unofficial aide to help in potential politically sensitive situations where official UNSA action was precluded. And that, Hunt had to agree, could turn out to be very useful. What impressed him even more was that Caldwell had figured it out in the brief time that had gone by

cigar before putting it in his mouth—"couldn't be seen to do."

since his decision to send Hunt to Jevlen.

Caldwell was like a chess player, Hunt had noticed, building his winning positions from the accruing of many small advantages, none of them especially significant in itself to begin with, or created with any definite idea at the time of how it would eventually be used. In Gina's case, he could simply have told her that there was nothing he could do, and sent her away. But instead, he had invested the effort of doing her a small favor, which really had cost him nothing. And as things had turned out, the return had come a lot sooner than anyone could have guessed.

Caldwell read that Hunt had assessed everything accurately, and gave a satisfied nod. "How did you leave things with her?"

he asked.

"I said I'd get back. She's still at the Maddox. I wanted to

bring it up with you first."

"You talk to her, then, and tell her we want to send her to Jevlen. We'll work out some cover angle for public consumption." Caldwell waved in the direction of his outer office. "Mitzi has a line to the *Vishnu*. She'll fix the details. Then, that's it, unless you've got any other points for now."

Hunt started to rise, then looked up. "What are you expect-

ing me to come back with this time, Gregg?" he asked.

"How do I know?" Caldwell spread his hands and made a face. "Lost planet, starship, interstellar civilization. What does that leave? The next thing can only be a universe."

"That's all? You know, you may have me there, Gregg," Hunt said, smiling. "There aren't too many of those left. Where

am I supposed to find another universe?"

Caldwell stared at him expressionlessly. "I don't think anything you did could surprise me anymore," he replied.

chapter seven

The gods had turned away from the world of Waroth, and their stars had gone out. With the emptiness in the sky came change-lessness upon the land. The currents of life, which brought storms and stirred the landscapes, died to a flicker, and sameness hung like a stupor everywhere from day to day and from place to place. Crops failed; orchards wilted. Sea monsters that devoured ships moved in close to the shores, and the fishermen were afraid to leave their harbors. Marauding bands roamed at large, plundering and burning. Sickness and pestilences came.

In the city of Orenash, the king and the council of rulers summoned the high tribunal of priests, who read from the signs that the reason the gods were abandoning the people was that the people were turning away from the gods by permitting sorcerers to meddle in knowledge that was not intended for this world. The currents and the stars would return when the people atoned and cleansed themselves by renouncing such arts and sacrificing to the gods those guilty of practicing them. Accordingly, the sorcerers were rounded up and brought in chains before the Grand Assembly. Thrax's uncle, Dalgren, was among them.

"They are not Seers. They have not seen Hyperia," the Holy Prosecutor thundered at the trial. "But they seek knowledge, here, now, of mysteries that the gods have seen fit not to unfold until the life that comes after Waroth. Thus they would exalt

themselves and set themselves above the gods."

The Prosecutor glowered. "They speak of laws! Of processes constrained to predictability by strange powers of lawfulness beyond our comprehension. They are not Seers, mind you; but they feel able to tell us of the rules that govern Hyperia, which the Seers who have seen Hyperia have never seen. Is it they, then, are we to conclude—these sorcerers—who are to say what will be in Hyperia, rather than the gods?

"Their ambition spurred them to be as the gods. But, unable

to expand their own powers to embrace the complexities of chaos that support the world, the sorcerers had to make the world simple enough to fit with what they could comprehend. They sought consistency across space and predictability over time—laws that would remain unchanged, making all objects stay the same no matter where or when they were observed.

The gods granted them what they sought... and now they are letting us see the results of it. The currents that fed chaos are dying. Lawfulness is taking over the land, and the land, too, dies, stifled and crushed by sameness. For it is chaos that brings change, and change is life. Change is vigor. Change is the uncertainty that allows Good to vie with Evil, action to take meaning, and for the judgments of the gods to prevail."

He stabbed a finger in the direction of the accused, detaching a bolt of light that dispersed and vanished in a puff of expanding radiance. "The gods have shown us our folly. Now they

must be paid the atonement that they demand . . . "

To determine the judgment, a year-old uskiloy was tethered inside a consecrated circle before the Assembly and thrice blessed. Then, seven Masters in unison prayed for a lightning stroke to appear and smite within the circle. A swirl of night and light gathered above the court before the temple, and when the flash came, the uskiloy was consumed. Thus, the verdict delivered was: Guilty.

Keyalo, the foster son of Dalgren, saw the verdict as vindication of the uncompromising position that he himself had taken from the outset. Seeing an opportunity to win favor with the authorities and at the same time take care of the source of his resentment and jealousy, he went to the Holy Prosecutor's secretary-scribe and said, "The household of Dalgren is not cleansed yet of its stain. There is another there who also blasphemed against the teachings, an apprentice of the accursed arts."

"Who is this of whom you speak?" the Prosecutor's officer asked him.

"The nephew, whose name is Thrax. Many times have I seen him assisting in the fabrication of strange devices and performing unholy rites. And he, too, speaks of stealing the laws of Hyperia and bringing them to Waroth."

'Then he, too, shall stand accused" was the reply.

But Thrax had gone to consult a Seer outside the city, who touched the mind of Dalgren even while Dalgren sat chained in the Holy Prosecutor's dungeons. "He has a message for you,

Thrax," the Seer announced. "He has seen the signs across the land and repented of his ways. Indeed, the ways that are of Hyperia are meant for Hyperia, and the ways that are of Waroth are meant for Waroth. The sorcerers have defied the teachings, and in their impudence and pride brought woe upon the world."

"Has he renounced the quest of lawfulness?" Thrax asked, seized with bewilderment as he listened.

"Aye," the Seer answered. "And he accepts his fate with fortitude and humility. The will of the gods and the way of life does indeed work through the whims of chaos. You have the ability, Thrax. Use it to learn the true wisdom."

"What would he have me do?"

"Begin again. Take thyself hence from the city and the plain. Find thee a Master who teaches, and learn from him the true way. Seek beyond for Hyperia; it can never be built in Waroth."

Thrax gasped. "He would have me become a Master?"

"Thus speaks the mind of Dalgren."

Seized by remorse and a new resolve, Thrax turned his back upon the city, and there and then, taking only the clothes that he stood in, he set off toward the wilderness. And it was as well for him that he did. For even as he fixed his gaze upon the distant mountains, the sheriff of the city was arriving at Dalgren's house with a troop of guards and a warrant from the Assembly to arrest him.

chapter eight

Before joining UNSA, Hunt had been a theoretical physicist employed by the Metadyne Nucleonic Instrument Company, a British subsidiary of the Intercontinental Data & Control Corporation based in Portland, Oregon. IDCC's senior physicist at that time was a man called Erwin Reutheneger, of Hungarian extraction, well into his eighties, but with a mind still sharper and more agile than most a quarter of his age.

Hunt remembered him talking once about the regrets that he

felt, looking back over life. The biggest, it turned out, wasn't that he had not won a Nobel Prize for his contributions to nucleonic science, or had a lecture series named after him at a major institution of learning, or otherwise made his mark in halls of fame or rolls of honor in a way that would be recorded by posterity. It was a missed opportunity with a petite, French philosophy graduate from the Sorbonne whom he had met in the course of a stay in Paris in 1968, which he was sure would have turned out differently if he'd had a better idea at the time of what was going on. "Don't become a sad old man who missed his chances" had been his advice. "Have plenty of memories to chuckle about—even the ones that didn't work out the way you hoped."

Partly because of Hunt's nature, and partly because of the hardly orthodox life that he always seemed to find himself leading—as he had told his neighbor, Jerry, a settled domestic existence didn't go with things like year-long jaunts to Jupiter it accorded well with his own philosophic disposition toward life. And since his work left little time for any creative precipitation of opportunity, the serendipitous incursions of good fortune that chose occasionally to infuse themselves into life's

pattern were all the less to be sneered at.

Intelligence, he had always found, was the most potent aphrodisiac, and since inhibition did not seem to be one of Gina's problems, he had not bothered overly to disguise the fact. He had found himself intrigued by her questioning ways and curious to learn what else her peripatetic interests had led her to explore. She, for her part, had done nothing to hide her fascination for somebody who had crossed the Solar System and who took calls at home from aliens at other stars. What happened next would develop in its own time, if it wanted to. Rushing the situation would be the worst thing to do, as well as not being in the best of taste. But a small helping hand while it was making its mind up wasn't the same thing at all, Hunt told himself.

Caldwell had stressed that Gina's involvement with the Jevlen mission had to be, as far as outward appearances went, a private matter, unconnected with UNSA. Therefore, Hunt reasoned, he could hardly invite her to Goddard to brief her on it. Accordingly, he called her at the Maddox later in the evening after his talk with Caldwell and told her that he had some news. Could they get together later somewhere and talk about it?

"How about meeting me here for a drink?" she suggested. "It's a bit small, but the bar's okay."

"Have you eaten?"

"Not yet."

"Well, why don't we make an evening of it and talk over dinner? There's a nice, quiet little place I happen to know over on that side of town."

"Uh . . . huh."

"I could pick you up there. This isn't really for bars, anyway."

Her pause was a study in amused suspicion.

"Sure. Why not?"

An hour and a half later, they were talking across a candlelit table by a penthouse window facing out across the illuminated towers of nighttime Washington. They had talked about Gina's approach to Caldwell and her handling of Caldwell's response, and Hunt had told her how he would be going to Jevlen.

"As a matter of fact, you couldn't have picked a better time to show up," he said, sipping from his wineglass over a plate of prime-rib special. Gina waited, watching his face curiously. He lowered his voice a fraction. "I'm going to let you in on something confidential. This business about going there to appraise the possibilities of Ganymean science is mostly a blind to fit in with my regular job. The real purpose is to find out more, firsthand, about Garuth's problem with the Jevlenese and see what we can do to help. The place to do that is on Jevlen, not here."

Gina's brow creased in puzzlement. "What is this guy Caldwell running, a scientific division of UNSA or a security agency?"

"The Ganymeans of the Shapieron are personal friends, who

are in trouble. That's his first concern."

"Oh. I didn't realize that he sees it that way. I take it back."

"No, you're right. Essentially it is a political issue, and he should just hand it over. But he's always been a bit of an empire-builder. Besides the immediate aspect, the temptation to get a finger into what's going on at Jevlen is too much for him to resist."

"It sounds as if moving from Houston to Washington might have gotten to him a little."

"Gregg's okay. He gets things done, and he doesn't mess around."

"Okay. So when do you leave?"

"In three days—with the Vishnu."

Gina raised her eyebrows and picked up her glass. "Well, what do I say? It sounds like a wonderful assignment. But it also means that you won't be around to give me any background on the book for some time. So why did you say I'd picked a good time? It sounds to me as if I couldn't have picked a worse one."

Hunt finished chewing before he replied. "There are a number of Earthpeople on Jevlen already for one reason or another. The situation there could be politically sensitive. We don't exactly know what to expect."

"All right . . ." Gina said slowly, nodding but not following. "In particular, the job might call for some snooping around and talking to people that would look out of place for a scientist on a purely scientific assignment—the kind of thing that would invite unwelcome questions to be asked." Hunt held her eye steadily. "But a journalist-especially one known for being something of a maverick—wouldn't cause any evebrows to be raised. It would be expected."

"Yes, I can see that."

"So officially you'd be there as a free-lancer collecting research for your book—but unofficially to help with the things that I couldn't go poking my own nose into too obviously.'

It took Gina a few seconds to register what he was saying. She set her fork down on her plate and stared at him in disbelief. Hunt smirked back shamelessly at her befuddlement.

"Wait a minute," she muttered. "Am I hearing you correctly? Are you talking about me going to Jevlen, as well? Three days

from now? Is that what you're saying?"

Hunt gestured to indicate the restaurant and the scene around them in general. "I said when I called you that I had news. All this isn't just to tell you, sorry, I'm going away, I can't help with the book."

Gina picked up her glass again and gulped from it unsteadily. She passed a hand over her brow and shook her head dazedly. Her voice choked when she finally managed to speak. "You

. . . really are a guy for surprises. Or have I been living a sheltered life? You may not believe it, but this doesn't happen every time I get asked out on a dinner date."

"It's all Gregg's fault. I told you he doesn't mess around."

"I got that message." She paused. "You are serious, I sup-

"Of course. It'd make a pretty sick joke if I weren't." He watched her face for a few seconds. "So, do I take it that it's okay? You don't have a problem?"

"No . . . I don't think so." She thought it over, then sat back in her chair and laughed, momentarily intoxicated by the acceptance that the offer was real. "It's just that I still can't really believe it."

Hunt raised his glass. "Great."

Gina joined him in the unspoken toast, then set her glass down and looked serious again. "So, what am I supposed to do? I mean, if we don't want it to look as if I'm on an UNSA paycheck, I take it that I can't very well travel with you."

Hunt nodded. "That's right. If we happen to meet casually

later, that's another matter."

"But how do I get a seat on an alien starship that's leaving in three days? Am I supposed to call a travel agent and ask to book a ticket?"

"There'll be a TWA shuttle going up from Vandenberg with some groups from the West Coast. That should give you enough time to get back to Seattle, pack a toothbrush, and sort out any notes and other stuff you need to bring along. I'll bump into you after you join the Vishnu."

"All I have to do is book a flight with the shuttle?"

"Right."

Gina still looked perplexed. "But—what about getting on board the Thurien ship? Won't I need some kind of authorized

place or something? How do I fix that?"

Hunt grinned. "You don't have a feel for Ganymeans yet, do you?" he said. "Most people don't. Ganymeans are the most informal beings, probably in the whole Galaxy. They have no concept of authorizations, passes, permits, ID checks, or any of the other hassles dreamed up by the makers of rules that we inflict on ourselves to make life difficult, or any clear notion why we imagine such things should be necessary."

"Oh, that life could be so simple," Gina said with a wistful

sigh.

Hunt reached into his pocket and produced an envelope. "I just happen to have a number here at UNSA that can connect you through to the *Vishnu*'s administration center. In short, you just ask. Your story is that you're a free-lancer working on a book, and you wonder if you can hitch a ride to Jevlen. There shouldn't be a problem. But if you get stuck, call me."

"Ask?" Gina looked nonplussed. "That's all? And they'll take you?"

"If they've got room. And there shouldn't be any shortage of

that—the Vishnu is twenty miles long."

"So why isn't everyone doing it?"

"Because they don't know about it. They all assume nothing can be that simple—just like you did."

"What about when they find out? Won't the Thuriens have

to make some rules then?"

"Who knows? Let's wait and see. They don't have much experience in dealing with people being unreasonable."

"But they couldn't let just anyone who wants to go there just

move in, surely. It would get out of control."

"Ah, you see," Hunt said pointedly. "There you go, thinking like a Terran who assumes people have to be controlled. A Ganymean couldn't conceive why you should want to keep anyone out."

They ate in silence for a while. Hunt was content to enjoy the food and give Gina time to take in what had been said. At last she looked up again and asked, "Who else will be going?"

"Well, not too many on the short notice we've got," Hunt replied. "We're hoping to get a life-sciences specialist along, too, whom I've worked with before. His name's Chris Danchekker."

"I've read about him. He went to Jupiter with you, right?"

"That's him. He probably understands Ganymean psychology better than anybody. We haven't actually approached him about it yet, though. That's on the agenda for tomorrow."

"He sounds fascinating. I'd like to meet him."

"Oh yes, you have to meet Chris."

"Do you think he'll go?"

"Hopefully. He's been immersing himself in Jevlenese biology lately, and I imagine he'd jump at a chance of going there. It would complete the cover of the whole thing as a scientific mission, too. Then there's my assistant from Goddard, a guy called Duncan Watt. And we're hoping Danchekker can get one of his people along, as well."

By the time they got to their coffees and brandies, Hunt had forgotten business matters and again found himself admiring the sweep of raven hair that framed one side of Gina's face, and trying to fathom the dancing, enigmatic light in her eye as she stared back over the rim of her glass. It was the kind of look in which it would have been possible to read anything one wanted

to. But whether it was deliberately so or otherwise, he couldn't tell.

In the end, he decided that the situation had been given as much of a helping hand as was prudent, but he still wanted to think about it. He wondered if a Ganymean in a situation like this would simply ask.

chapter nine

On Jevlen there was a group of several large, tropical islands known as the Galithenes. Inland, they were mostly mountainous, but the wider valleys and the coastal plains supported dense canopies of rain forest that excluded all but a feeble twilight. And in the midday gloom of the two most northerly islands of the group, there lived a peculiar flying creature called the anquiloc.

About the size of a pigeon, it had strongly developed hind legs; modest, clawed forelegs with rudimentary grasping abilities, which it used, when at rest, to attach itself to vertical surfaces such as tree trunks; and black, scaly wings that glistened like wet asphalt. In its basic structure, it conformed to the general, bilaterally symmetric, triple-paired limb pattern of the Jevlenese animal classification corresponding roughly to terrestrial vertebrates.

The anquiloc's face had a narrow black snout that bulged at the end like the nose of a hammerhead shark, into an organ that luminesced in the infrared. Below its eyes were two large, forward-directed, concave areas, formed from a mixture of reflective and absorbent tissues that functioned both as variable-geometry focusing surfaces to produce a crudely directed beam that could be steered by moving the head, and as receivers tuned to the reflections. Thus, it navigated and hunted by means of its own system of self-contained, thermal radar.

The anquiloc's main prey was a small, wasplike octopod known as the chiff. The chiff possessed IR-sensitive antennae that evolution had shaped to operate in the same general range

as the anguiloc's search frequencies, which gave rise to an unusual contest of ever-changing strategy and counterstrategy between the two species. The chiff's first, simple response on detecting a search signal was to fold its wings and drop out of the beam. The anguiloc countered by learning to dip its approach in anticipation when it registered a chiff. The chiff reacted by skewing its escape to the left, and when the anguiloc followed, the chiff switched to the right; when the anguiloc became adept at checking in both directions, the chiff reacted by climbing out of the beam instead of falling; or of going left, or maybe right. Whichever was adopted, all the possible ensuing variations would unfold in some order or other and then maybe revert to an earlier form, producing an ever-changing pattern in which new behaviors constantly appeared, lasted for as long as they were effective, and gave way to something else.

But what made the anquiloc more than just "peculiar" was the way it came preprogrammed with the right maneuvers to deal with the latest to have appeared from the chiff's repertoire of routines for evading it. And it was not simply a statistical effect, where newborn anguilocs possessing all possible varieties of behavior appeared equally, and only the ones that happened

to be "right" at the time survived.

Newborn individuals exhibited the same response pattern as the latest that the parents had learned up to the time of conception. Since that pattern changed depending on the current mode of chiff behavior, the mechanism represented a clear case of inheriting a characteristic that had been acquired by the parent during life and not carried by the gene line—a flat contradiction of the principles determined by generations of researchers on Earth. Jevlenese and Ganymean scientists had long before settled the point by training anguilocs in certain tasks and testing their offspring for the ability after separating them at birth, and there was no doubt of it. Neither was it the only instance of the phenomenon that they had encountered in their probings of the nearby regions of the Galaxy.

But for the biologists of Earth it was a revelation that went against all the rules, throwing some of their most precious tenets into as much disarray as their colleagues from the physi-

cal sciences were already having to come to terms with.

Professor Christian Danchekker operated a tracker ball on the control panel of the molecular imager and peered at the foot-high hologram as it rotated in the viewing space in front of him. He tapped a command key to create a ghostly sphere of faint light, about the size of a cherry, and turned the tracker ball again to guide the sphere until it enclosed a selected part of the image. Then he spoke in a slightly raised voice toward a grille

in the panel to one side.

"Voice on. Magnify by ten." The part of the image that had been inside the sphere expanded to fill the viewing space and resolved itself into finer detail. "Reduce by five . . ." Danchekker rotated the image some more and repositioned the sphere slightly. "Magnify by ten . . . Increase contrast ten percent . . . Voice off."

For a few moments he sat back and contemplated the result with satisfaction tinged by a dash of undisguised amazement. He was tall and sparse in build, with a balding head and antiquated, gold-rimmed spectacles perched precariously on a hollowed, toothy face. The assistant seated on another chair called a set of neural mapping charts, heavily annotated with symbols, onto one of the auxiliary display screens while she waited.

"There it is, Sandy," Danchekker murmured. "The base sequence has altered. Run a delta-sigma on the code and correlate it against the map. But I have no hesitation in predicting, now, that you'll find it embedded there. This is how it transfers."

Sandy Holmes leaned forward and studied the enhanced section of the molecule's structure now being presented. "It's a cumulative progression from what we had before," she commented.

Danchekker nodded. "Which is what one would expect. As the learned routine is registered by the nervous system, the encoded representation impressed into the messenger increases. We're actually looking at transferable memory in action."

They had taught some anquilocs, brought from Jevlen, to adapt to artificial patterns of IR return signals resembling chiff evasion responses. The changes written into the configuration of circulating electrical currents in the brain as a permanent imprint of the learned behavior could then be identified and mapped by the established techniques of neutral psychotopography.

But the molecule that they were studying represented a step far outside the bounds of familiar terrestrial biology. It was created in specialized cells of the anquiloc's nervous system and carried a chemical encodement of the changes recorded in regular memory. Acting as a messenger, it transported the code to the reproductive cells, where it was copied into the animal's genetic control molecules as they replicated. Hence, it provided

the equivalent of reprogrammable DNA.

Danchekker went on, "The possibilities of further evolutionary refinement of such an ability are intriguing. For example, can you imagine—" The call-tone from the terminal on a table by the far wall interrupted him. "Damn. Go and see to the wretched thing, would you, Sandy?" he muttered.

The girl got up, crossed the laboratory, and touched a key to accept the call. A woman's face appeared on the screen, midfortyish, perhaps, with hair tied straight back in a matronly fashion that added to her years. She had a long, sober face with beady dark eyes, high cheeks, and a large nose, and stared out

with a commanding sternness.

"Is Professor Danchekker there, Ms. Holmes?" Her voice was shrill but firm, brooking no nonsense. "It is most imperative

that I speak to him."

"Oh, God," Danchekker groaned, over by the imager console. It was Ms. Mulling, the personal secretary who had come with his appointment as director of Alien Life Sciences, calling from her domain in his outer office on the top floor, from where she ruled the building. Danchekker shook his head and made frantic to-and-fro motions with a hand to indicate that he had spontaneously evaporated off the planet.

But the movement in the background over Sandy's shoulder only caught Ms. Mulling's attention. "Ah! You are there, Professor. The budgetary review meeting is due to begin in M-6 in thirty minutes. I presumed that you would want reminding." She rolled the rs and spoke with as much of a hint of disapproval in her voice as a personal secretary with a strict sense of

propriety could permit.

Danchekker rose from the console and advanced toward the terminal, stopping halfway across the floor as if wary of too close a proximity, even to an image. Sandy withdrew discreetly out of the viewing angle. "Can't Yamumatsu deal with it?" Danchekker asked irritably. "He understands convertible assets, depreciation ratios, and other such intricacies—I am only a scientist. I spoke to him this morning, and he said he'd be happy to substitute."

"It is customary for the departmental director to chair the quarterly review," Ms. Mulling replied in a tone as yielding as

the hull armor of a battleship.

"How can it be customary?" Danchekker challenged. "The

department is new. The division itself is barely six months old."

"The precedent derives from UNSA Corporate standard procedures, which predate the new organizational structure and have not been changed." Ms. Mulling's eyes moved up and down to take in his full length. "What on earth are you doing in those?" she demanded before Danchekker could respond. Following her gaze, he looked down at his feet. To save time getting to a black-tie dinner that evening which he had been unable to evade, he was already wearing evening dress underneath his lab coat—except for his shoes, which were of white, rubber-soled canvas.

"What do they look like?" he riposted. "They are popularly referred to, I believe, as sneakers."

"I know. But why are you wearing them with evening dress?"

"Because they are comfortable, of course."

"You can hardly appear at the Republican Society dinner like that, Professor."

The light glinted off Danchekker's spectacles and teeth. "Madam, I have no intention of doing so. I shall be changing them before I depart. Do you wish me to produce my patent leather pair from the closet and show them to you as proof?"

"That won't be necessary, thank you. But such a combination wouldn't be appropriate for the review meeting, I'm afraid. After all, both the deputy financial comptroller and the execu-

tive vice-president of planning will be attending."

Danchekker stood before the screen, seeming to crouch in the attitude of some scrawny bird of prey, his lab coat hanging from his hunched shoulders like a vulture's wings and his fingers curling by his sides like talons, as if he were about to pounce on the terminal and tear it to pieces.

"Very well," he granted, finally conceding. "Would you kindly arrange for the agenda, and whatever figures I might

need, to be ready for me to collect?"

"I've already seen to it," Ms. Mulling replied.

Ten minutes later, Danchekker exploded through the door into Caldwell's office high up on the far side of the complex. "You've got to do something!" he insisted. "The creature isn't human. Can't you transfer her to one of the Martian bases or a deep-space mission probe? I cannot continue with my work under these conditions."

"Well, maybe it doesn't matter too much anymore," Cald-

well said over his interlaced fingers. "Something else has come

up, and-"

'Doesn't matter!" Danchekker stormed. "I'd sooner be married to one of the Gorgons. The possibility of retaining any modicum of sanity at all is utterly out of the question."

"I talked to Vic yesterday afternoon. He's probably been looking for you. There's—"

"The situation is preposterous. Now I'm even being subjected to dress inspections, for God's sake. I am adamant: She

has to go."

Caldwell sighed. "Look, transferring her wouldn't be so simple. She was with Welland for thirteen years and came with his personal recommendation. He might be retired, but he still has a lot of pull through the old-buddy net. It could cause complications—especially at a time like this, when we've got all kinds of people looking for career opportunities and slices of the new action."

"I have no interest in the adolescent attention-seeking antics and Machiavellian inanities of other people. If this woman-"

The door opened and Solomon Cail from the public-relations office appeared. "Oh . . . excuse me, Gregg. I didn't realize. Mitzi thought you were alone."

"I was away for a couple of minutes," Mitzi's voice called

from outside.

"It's all right, Sol," Caldwell said. "Chris just stopped by. Is it something urgent?"

"As a matter of fact, it was Chris that I wanted to talk

about," Cail said.

"Me?" Danchekker looked suspicious. "What for?"

"Senator Greeling's wife has been onto us again. It's this women's discussion group that she runs. We've as good as promised them a tour of the alien-life-form labs, and she wants the director to look after them personally—mostly to impress her friends, I guess." Cail shrugged and showed a palm. "I know it's a drag and all that, Chris, but Greeling did a lot of work for us, getting the college sponsorship program through. We don't want to upset a friend like him if we can help it. She'd like an afternoon next month, maybe?"

"God help us," Danchekker moaned bleakly.

A call-tone sounded in the outer office. Mitzi answered, and a moment later Ms. Mulling's voice rang stridently through. "Is Professor Danchekker there, by any chance? He has an imminent appointment, and it is most imperative that I find him."

And then Hunt appeared in the doorway on the far side of Mitzi's desk, carrying a sheaf of papers in one hand and a cup of coffee in the other. "Hello, what's going on here? Ahah, Chris! Just the man."

"Sol, give us a minute, would you?" Caldwell said, at the same time relieving Cail of any choice in the matter by rising and coming around the desk to steer him back toward the outer office. He waved Hunt in and closed the door behind him, holding up a hand to stay Danchekker before Danchekker could start talking again. "Yes, I've been aware of the problem for some time, Chris. But we needed a tactful solution that wouldn't create more hassles than it cured."

Danchekker shook his head and waved a hand impatiently. "I'm being turned into a club treasurer. We've got enough tally clerks and ledger keepers who can take care of that kind of thing. I was under the impression that this establishment was supposed to be dedicated to the advancement of the sciences. I've seen more—"

"I know, I know," Caldwell said, nodding and raising a hand. "But something's come up that—"

"Now they want to make me a tour guide for women's teaparty outings. The whole thing has become farcical. It's a—"

"Chris, shut up," Hunt interrupted calmly. "Delegate the lot. That's what being a director is all about. You haven't got time, now, anyway. Gregg's got an off-planet assignment for the two of us."

"And not only—" Danchekker stopped abruptly and sent Hunt a questioning look. "Off-planet? Us?"

Caldwell grunted and nodded at Hunt to continue.

"On Jevlen," Hunt said. "There's a Thurien ship in orbit that's due to go back there shortly. Just think of it: a whole planetful of alien biology, literally light-years away. I think that a director of life sciences should be breaking new ground in the field, don't you?" But it was clear already that Danchekker needed no further convincing. His expression had the rapture of a revivalist seeing light through the parting of the clouds.

They came out of Caldwell's office a few minutes later. "I think we're going to have to come up with some other arrangement," Caldwell said to Solomon Cail, who was still waiting. "Chris is going to be tied up on a priority project." He indicated the door of his office with a nod, and Cail disappeared inside.

Danchekker strode over to the terminal where Mitzi was still

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holding Ms. Mulling at bay. "Ah, there you are, Professor," the

image on the screen began. "The review meeting-"

"Find Yamumatsu and get him there," Danchekker said. His voice rang with the newfound confidence of the reborn. "Also, contact the secretary of the Republican Society and give them my apologies, but I shall be unable to attend. Maybe Yamumatsu would like to stand in for me there, too."

For a few seconds Ms. Mulling was too shocked to reply; she stared back at him from the screen, open-mouthed, like a mother superior who had just heard the Pope proclaim his conversion to atheism. She recovered herself falteringly. "I don't understand... What's happened? Is something wrong?"

"Wrong?" Danchekker repeated lightly. "Not at all. Quite the contrary, in fact. Effective immediately, I shall be preoccupied with other matters. Have Brady come to my office, would you? Get out all the plans, charts, budgets, and other wastepaper that holds up the walls over there, and tell him he'll be deputized as from tomorrow morning. I"—Danchekker spread both hands in a careless throwing-away motion—"shall have flown."

Ms. Mulling looked confused. "What are you talking about, Professor Danchekker? There are urgent things to be attended to."

"I have no time for anything urgent. There are too many important things to be done, instead."

"But—where are you going?"

"To Jevlen. Where else can a science of alien life be practiced?" Danchekker lifted a leg to dangle a sneaker-shod foot in view of the screen and waggled it provocatively. "Far, far away, Ms. Mulling. Beyond the horizons of imagination of the entire Republican Society, the verbal compass of a gaggle of senators' wives, and even, if you are capable of comprehending such a thing, beyond the reaches of the sacred UNSA Corporate Procedure Manual."

"Jevlen? Why? What are you going to do there?"

But Danchekker wasn't listening. Hunt and Mitzi could hear him singing tunelessly to himself as he ambled away down the corridor beyond the open door.

"Far, far away. Far, far away . . ."

chapter ten

Earth's physicists were having to do a lot of rethinking to accommodate the new facts brought by the Ganymeans. Some of the most far-reaching revelations had to do with the fundamental nature of matter itself.

As some Terran scientists had suspected and been investigating without conclusive result since the late twentieth century, the permanency of matter turned out to be just another illusion to be thrown overboard with such notions as classical predictability and absolute, universal time. For all forms of matter were continually decaying away to nothing, although at a rate immeasurably small by the techniques so far available on Earth—it would take ten billion years for a gram of water to vanish completely.

The fundamental particles of which matter was composed annihilated spontaneously, returning to a hyperrealm governed by laws different from those that operated in the familiar universe. It was the tiny proportion that was disappearing at any instant that gave rise to the gravitational effect of mass. Every annihilation event produced a minute gravity pulse, and the additive effect of large numbers of these pulses occurring every second gave the apparently steady field that was perceived macroscopically.

roscopically.

Hence, gravity ceased being a thing apart in physics, a static effect, passively associated with a mass, and fell instead into line along with other field phenomena as a vector quantity generated by the rate of *change* of something—in this case, the rate of change of mass. This principle, together with means of artificially inducing and controlling the process, formed the basis of early Ganymean gravitic engineering—the drive system used by the *Shapieron* was an example of its application.

Small though it sounded, such a rate of disappearance was not trivial on a cosmic time scale. The reason there was much of the universe left at all was that, throughout the entire volume of space, particles were constantly being created spontaneously, too. And in a converse way to that in which particle-annihilations induced gravity, particle-creations induced "negative gravity." Since a particle could only disappear from where it already existed, extinctions predominated inside masses and induced an attractive curvature into the local vicinity of spacetime; but in the vast regions of empty space between galaxies, creations far outnumbered extinctions, and the resultant effect was a cosmic repulsion. It all made a rather tidy and symmetric, satisfying kind of sense.

A fundamental particle, therefore, appeared, lived out its allotted span in the observable dimensions of the known universe, and then vanished. Where it came from and where it returned to were questions that the scientists of Earth had never had to face, and which even the Ganymeans on Minerva at the time of the Shapieron's departure had only begun delving into. It was their subsequent work in this direction that had given the Thuriens the technologies that made possible their interstellar civilization.

The hyperrealm that particles temporarily emerged from was the same domain that matter-energy entered when it disappeared into a black hole. That an object no longer continued to exist where it had when it entered a black hole, Terran physicists had known theoretically for some time. Therefore, it had to be either somewhere else in the known universe; or in another universe; or, conceivably, in some other time. Logic admitted no other alternatives. Remarkably, it turned out, all three were possible. The Thuriens had realized and applied the first two; they were still looking into and puzzling over the third.

An electrically charged, rapidly spinning black hole flattened into a disk and eventually became a toroid with the mass concentrated at the rim. In this situation, the singularity existed not as an impenetrably screened point, but as the central aperture itself, which could be approached axially without catastrophic tidal effects. Through a symmetric effect, creating such an "entry port" also gave rise to a coupled projection elsewhere in normal space, at which an object entering the aperture would appear instantaneously by traversing what had come to be known as "i-space." The location of the "exit port" depended on the dimensions, spin, orientation, and certain other parameters of the initial toroid and could be controlled up to distances

of several tens of light-years. That was how the Thuriens moved their craft between stars.

The energy to create the toroids was directed through i-space by colossal generating systems located in space, consuming matter from the cores of burnt-out stars. However, to avoid causing orbital perturbations and all the attendant disruptions, the ports were never projected into planetary systems, but well away in the surrounding voids. To travel between planetary surfaces and the i-space ports, the Thurien ships used an advanced form of the more conventional gravitic drive pioneered by their ancestors on Minerva. Even so, a complete interstellar journey was typically measured in days.

Since the Thurien starships also drew power from the same i-space distribution grid that supplied the energy to create the transfer ports, they could be quite modest in size. Others were huge. The roughly globoid *Vishnu*, twenty miles across, was of

intermediate size.

Three days after Hunt and Danchekker talked with Caldwell, they were part of a mixed group that boarded one of the *Vishnu*'s daughter craft at Andrews AFB, Maryland. Hunt's deputy, Duncan Watt, had joined the group as hoped, and so had Sandy Holmes from Danchekker's lab at Goddard.

It was all as simple and informal an affair as Hunt had expected. The Thurien crew offered them soft drinks or coffee and invited them to take a seat. Each of the arrivals was also issued with a communications device in the form of a small, flexible disk, about the size of a dime and looking like a Band-Aid, that self-attached behind the ear. It was a connection to VISAR, operating via relay from the mother ship orbiting twenty thousand miles overhead. By coupling directly into the wearer's sensory neural areas, the communicator could, upon command, convey to VISAR what was seen, heard, or spoken; in the reverse direction it could inject information from VISAR, which the wearer would experience as hearing and vision. It thus afforded not only instant access to the ship's system, but also person-to-person communications with other Terrans, as well as to Ganymeans through VISAR acting as interpreter.

"Welcome back," the computer's familiar voice said, seemingly speaking in Hunt's ear. "I take it you're getting restless

again.'

"Hello, VISAR. Well, you seem to be offering a more stylish service these days." The first vessel that the Thuriens had sent

to make initial contact had landed at a disused Air Force base in Alaska and, to evade the Jevlenese-managed surveillance operation, had been built to resemble a conventional Terran aircraft.

"We like to keep the customers happy," VISAR said.

The ferry craft took off shortly afterward. Barely ten minutes later, it entered the immense composition of soaring hull structures and sweeping metallic surfaces curving away for miles on every side that made up the outer vista of the Vishnu. It entered a brightly lit cavern of projecting docking structures that looked like the Manhattan skyline stood on its side, and berthed alongside another of a fleet of daughter vessels of every size, shape, and description.

Some of the Thurien crew conducted the party through the access ramps and antechambers into a high space with wide corridors leading away on either side and overlooked by several levels of railed walkways. More Thuriens were waiting, scattered about. It seemed to be a terminal area for transportation links to other parts of the vessel, but exactly what one was supposed to do to get there was far from immediately obvious.

The starship manufactured its own internal gravity, creating "up," "down," and transitions between in whatever direction suited the purpose from place to place. The result was an Escherian confusion of corridors, shafts, intersecting planes and spaces, and surfaces that served as walls here, floors there, and elsewhere curved to transform from one into another. What had previously been below could unexpectedly appear overhead without one's experiencing any sense of having rotated, and through it all, streams of Ganymeans were being carried along in open conveyor shafts on directed g-field currents rather like invisible elevators traversing the ship in all directions. Hunt and Danchekker had seen this kind of thing before, but the others around them were stopping and staring in bewilderment.

"Well, Chris, here we go again," Hunt said, looking around.

"But this will be a darn sight quicker than last time."

"And a bit more comfortable when we get there, too," Sandy Holmes murmured in a slightly dazed voice as she struggled to take it all in. She had been with them on the UNSA Jupiter Five mission. When they had joined that ship, before its liftout from lunar orbit, the voyage ahead of them had been six months, and the accommodation waiting at the other end of it had been cramped quarters in the subsurface part of a scientific base situated on Ganymede's ice sheets, with the constant vibration

of machinery and an ever-present odor of hot oil.

"Yes," Danchekker agreed. "And I recollect being adamant at the termination of that escapade that I would never set foot inside one of these contraptions again." He sighed. "However, the designers responsible for this accomplishment would appear to have been from a different school from their terrestrial counterparts, whose imaginative limits one must suppose to have been set by experiences with submarines and tanks."

"And it will get you far, far away a lot faster." Hunt re-

minded him.

"Hmm, there is that."

Duncan Watt did a quick mental calculation. "Something like seventy million times faster, in fact," he said. He was thirtytwo, with a ruddy, vigorous complexion and thick, jet black hair. He had the rugged kind of looks that made Hunt think of him as belonging more on a football field or in a boxing ring than in a mathematical physics lab.

Near Duncan were a man and a woman accompanying a group of teenagers, who at that moment were standing motionless in awe. "This is a unique moment in the history of the universe," the man muttered, moving a step closer and nodding his head to indicate his charges. "It's the first time ever that this bunch have all been quiet at the same time."

Duncan grinned. "Who are they?" he asked.

"A class of tenth-graders going on vacation. I'm still not really sure how it happened. Somebody at the school came up with the idea as a joke, and the Ganymeans said sure, no problem. Goddamnedest thing I ever heard of."

Then VISAR said to Hunt, "You have a reception committee waiting for you." From the change of expression on Danchekker's face, Hunt knew that VISAR was talking to him, too.

"Where?" Hunt asked.

"The two officers standing a bit to your left."

Hunt looked around and saw the Thuriens whom VISAR had indicated already moving forward. The millions of years that separated the Ganymeans of Minerva, as typified by the Shapieron's complement, from the Thuriens had produced visible differences. Although of the same general pattern, the Thuriens were darker, almost black, more slender, and on average slightly shorter. The two who had been waiting were clad in loose-fitting green tunics, each with a halterlike embellishment of elaborately woven metallic threads hanging on either side from the neck to the waist.

"Dr. Hunt? Professor Danchekker?" one of them inquired.

"That's us," Hunt confirmed.

"My name is Kalor, and this is Merglis. We are here on behalf of Captain Fytom to welcome you aboard the Vishnu."

"It seemed fitting that you should be given a personal greet-

ing," the other explained.

They shook hands—the Terran custom had come to be gen-

erally accepted. Hunt introduced Sandy and Duncan.

"The captain sends his compliments," Kalor informed them. "He is aware that your visit to Jevlen is to study Ganymean science. If any of the Vishnu's specialists can be of assistance during our brief voyage, consider them at your disposal."

"Very considerate of him," Danchekker replied. "Convey

our thanks. We will certainly bear his offer in mind."

"You are also invited to view the command center once we are under way," Kalor said. "But just at the moment things there are a bit hectic, as I'm sure you'll appreciate."

"Whenever is convenient. Yes, we'd like that very much,"

Hunt answered.

"Are we invited, too?" Sandy asked hopefully.

"But naturally," Kalor told her.

"I think we pick the right people to go traveling with," Duncan said.

"For now, we'll take you to the section that has been reserved for Terran accommodation," Kalor said. "Since it looks as if Terrans are going to become regular passengers on these trips, we're making it a permanent feature of the ship."

He led them over to a platform jutting out into a broad, elongated space, lower than the area they had just crossed, arched at intervals by sections of bulkhead that glowed with an internal amber light, and dividing to left, right, above, and below into smaller tunnels and shafts radiating away in all directions.

Sandy looked uncertainly at the platform as Kalor gestured. "What do I do?" she asked.

"To take a tube anywhere, just climb aboard," Merglis said. "VISAR will take you to your chosen destination." So saying, he stepped off the platform and hung suspended on an invisible cushion of force.

"It couldn't be simpler," Kalor said, gesturing again.
"Just what we need under New York," Hunt told her.

Sandy drew a breath, then shrugged resignedly and followed after Merglis, who was floating a few feet from the platform, waiting for them. One by one the others did likewise, with Kalor bringing up the rear, and seconds later they found themselves being carried into the labyrinth as a group, close enough together to be able to talk easily. The field molded itself comfortably around their bodies. They entered a wide, vertical shaft walled by tiered galleries, which somehow transformed itself into an avenue of shining walls and huge windows of what seemed to be stores of every kind, amusement centers, offices, and eating places. It resembled an enclosed city street more than anything Hunt had ever pictured as a thoroughfare inside a spacecraft. Then they came out into a larger, open space like a plaza, but three-dimensional, with concourses and floors going off at all angles, and he completely lost what little sense of direction he had managed to retain. Like a bushman grappling with a modern-day city, he didn't have the conceptual knack for interpreting the geometry.

But when the party arrived at the Terran section of the ship, they found that the layout there confined itself to one recognizable plane where "up" was up and stayed that way, and everybody walked. There were reassuringly familiar sleeping cabins, a cafeteria modeled on the facilities in UNSA's mission ships, and a common mess area, complete with bar and white-jacketed bartender. And the chairs, tables, and other fittings were

made to human proportions, not Ganymean.

Each of the passengers had a personal suite located along a corridor a short distance from the mess area and consisting of a bedroom, a sitting area with robot kitchen unit, and a bathroom, "I trust these will be comfortable enough for the two days," Kalor said, showing Hunt his quarters.

"They'd be comfortable for months," Hunt assured him.

"Very good. Then we'll be in touch later for you to meet Captain Fytom and his staff. Is there anything else we can do in the meantime?"

"I don't think so . . . is there, Chris?" Hunt looked at Dan-

chekker.

"No—oh, there is some equipment that we'll be taking with us. But then I suppose that if it hasn't all arrived, there's not much that can be done about it now."

"If you think of anything, just let VISAR know," Kalor said. He turned to Danchekker. "Your cabin is this way, Professor." The door closed, leaving Hunt alone to unpack his few items

of carry-on baggage and inspect the surroundings. The suite was spacious and comfortable. A bathrobe and slippers were provided. There was a dish of fruit on the table, including some strange forms that Hunt did not recognize as terrestrial, some candylike concoctions, and a box of his regular brand of cigarettes.

"Nothing to drink, VISAR?" he murmured, selecting one of the cigarettes. "Tch, tch. The service is slipping. I'd have expected a six-pack of Coors and a bottle of Black Label at least."

"In the cold compartment, below the autochef," VISAR

replied.

Hunt sighed. As usual, the Ganymeans had thought of everything.

chapter eleven

Hunt was still in his cabin a little over an hour later, poring over an English translation of a Ganymean introductory text on the properties of i-space. In the realm beyond the transition boundary represented by the aperture of an entry port, the usual relationships of time and space were reversed: instead of three spatial dimensions and a unidirectional dimension of time, there existed three time dimensions in which it was possible to move freely, and a single spatial direction along which movement could only be one-way. Hunt was still struggling to visualize what that might mean when VISAR informed him that the TWA shuttle from the West Coast had docked. Shortly afterward, Gina called to say that she was aboard the Vishnu. VISAR presented her as a head and shoulders superposed into Hunt's visual system against the background of the cabin.

"Welcome aboard," Hunt greeted. "I see you've got your

Thurien communicator."

"It's incredible. Ma Bell's going to have to learn some new tricks."

"I didn't hear from you, so I assumed everything was going smoothly," Hunt said. In fact, Mitzi, Caldwell's secretary, had

checked discreetly to make sure that Gina was booked on the

"It was a busy couple of days, but it went just like you said. You didn't warn me that this would be like walking into a kaleidoscope."

"You get used to things like that with the Thuriens."

"Who else did you manage to get along, finally?"

"Chris Danchekker, as hoped. And we've got two others: Duncan Watt, my deputy from Houston that I mentioned; and the other is one of Chris's lab people, a girl called Sandy Holmes. She was with us on Ganymede."

"It didn't work out too badly after all, then?"

"Not badly at all, considering the time we had. But we can talk about all that when you get here."

"So where shall I meet you?"

"There's a lounge with a bar here, where the Terrans' quarters are. I'll see you there after you've gotten straightened out."

"How do I get there?"

"VISAR will take care of it." "Fine." The face vanished.

Hunt spent a few more minutes grappling with Ganymean notions of dimensionality, then left the cabin and went along to the mess area. A good crowd had collected since he passed through with Danchekker and the others. He threaded his way through to the bar and ordered a Scotch. The bartender's name tag told him that the facility was provided by the Best Western hotels group.

"Tell me, Nick, how does your company come to have a bar installed in an alien starship?" Hunt asked as he watched the

drink being poured.

"Oh, they figured there'll be a pretty regular traffic building up, I guess. Probably not too much volume right now, but the publicity's good."

"How did they get the franchise?" "Just asked for it, as far as I know."

Even with his knowledge of Ganymeans, Hunt was surprised. "As easy as that? Wasn't there a big scramble with the competitors?"

"Not really. I don't think anyone else thought of it."

Hunt moved away, shaking his head. Snatches of conversation from around him caught his ear as he moved through the throng with his drink.

"Think how many people from Earth will be there, say, a year from now. I tell you it'll be a gold mine . . ."

'Ja. Unt der tourists, also dey vill be going. Ve haff plans . . . "

"They just need to be told about Jesus."

"Just checkin' out the scene there, I guess. Shit, it's gotta be better'n Cleveland . . ."

Hunt found an empty table near a far corner and sat idly watching the company. He wondered how many more of them had also come to be there on no better authority or without any higher dispensation than just having asked. If that was a foretaste of things to come, then a large part of the meddlesome systems of rules and restrictions by which one half of the world made it its business to approve, regulate, license, and control how the other half lived could collapse in shambles or be laughed out of existence, he reflected.

It was funny, he thought as he watched, how many of the people talked too fast among themselves as they strove to act normally while suppressing what was probably the greatest excitement most of them had ever experienced. Appearances were so important to Terrans. Ganymeans had no defensive compulsion about maintaining images, and readily said how they felt about things. Their origins had given them no concept of domination by appearances, or any instinct for intimida-

tion.

On one of the walls was a large display screen showing a view from the Vishnu of the flock of shuttles, transporters, and observer craft hanging in space around it, with Earth partly illuminated as a crescent in the background. They seemed to be drawing back, which suggested that the departure of the Thurien vessel was not far away.

"VISAR, how long now before we shove off?" Hunt in-

quired.

"A little under two hours."

Gina appeared in the doorway shortly afterward. Although it seemed slightly absurd and melodramatic, Hunt hoped she would play along with the act of running into him casually, as an old acquaintance. Some of the people whom Hunt had already identified in the room were among the last he would have wanted forming the notion that she was there at UNSA's instigation. To his relief, although he could tell from the glance she threw in his direction that she had seen him, she moved away toward the bar and ordered herself a drink.

He rested an elbow on the back of the seat next to him and

stared at the mural display screen. A TWA shuttle, probably the one that Gina had arrived on, was pulling away, nudged by brief, intermittent pulses of its auxiliary thrusters. Its red-andwhite design stood out vividly against the depthless black.

Then a man in a dark suit stopped on his way past Hunt's table, holding a glass in each hand. Hunt looked up inquiringly.

"Excuse, please. Is not the Dr. Hunt who goes to Ganymede. yes?" He sounded Eastern European.

"That's right," Hunt said.

"I hear through the grapetree that you go to Jevlen for UNSA, and recognize you from picture."

"News travels fast," Hunt commented.

The stranger bowed slightly. "Permit to introduce. My name is Alexis Grobyanin, from Volgograd Institute. Psychologist." He nodded to indicate a mixed group by the far wall. "We are sent by UN to advise Ganymeans on administering Jevlenese. Russians have much experience in handling troubleshooters."

"I got to know some Russians when the Pseudowar happened. Mikolai Sobroskin was one. Ever come across him?"

"Oh, yes. He is foreign minister now."

"That's him."

"You will be basing there in PAC?" Grobyanin asked.

"Yes, that's right."

"We, too. So maybe we see you there later. Excuse now. I

must join my friends together."

"See you around," Hunt said, nodding. He leaned back again as the Russian moved away, smiling faintly as he recalled why Sobroskin had said Hunt would never have been a success in Russia. "You have too many good ideas," Sobroskin had said. "You know what you used to get there for a good idea? At least five years."

Then another voice sounded suddenly from nearby, turning heads in the vicinity. "Vic!" It was Gina's. "What on Earth are you doing here?" Hunt had to force himself to hold a straight face until he had gone through the motions of looking up and about.

"I could say the same about you-except that 'Earth' is hardly appropriate."

"You show up in the most unexpected places."

"Who are you with?" Hunt asked loudly as she came across to his table.

"Just me," she answered, letting her voice fall to a more

natural level. "I'm on a free-lance job. It's unreal . . . How

about you?"

"Oh, I don't get any spare time to go gallivanting around. Regular UNSA assignment . . ." Hunt extended a hand to indicate the far side of the table. "Sit down and tell me all about it. When did you come on board?"

"Less than half an hour ago. I shuttled up from Vanden-

berg."

Gina settled herself in the chair opposite, and smiled warmly, just like an old friend. "It's an interesting bunch we've got here," she said, waving her hand.

"How do you mean?" Hunt asked.

"Did you know there's a bunch of kids here, going on a summer vacation from a school in Florida?"

"I didn't know they were from Florida."

"And there's a marketing group from Disney World, going to check out the tourism. Some Russians to help sort out the Jevlenese."

"I just met one of them."

"Even a holy man from Tibet or somewhere, who's heard the call of Jevlenese mysticism and came aboard this morning with some of his disciples."

"Tax problems?"

"Who knows?" she shrugged. "And directors from a corporation in Denver going to see about Jevlen for their next-year sales conference, a whole mix of ologists, a group making a movie, and a South American real-estate millionaire who's decided that Jevlen is where he wants to retire."

Hunt set his glass down and looked at her curiously. "You've only just arrived on board. How do you know so much already?"

"I took your advice and asked."

"Asked who?"

"VISAR. Apparently it doesn't occur to very many Earthpeople. VISAR thinks it's because we assume furtiveness everywhere."

Hunt had to smile. It would have come to her so naturally that he should have guessed—as naturally as calling Caldwell and saying she needed help with a book.

Gina finished her drink. "How'd I do?" she asked in a low-

ered voice.

"Terrific. I'm sure you've got another profession waiting if ou find you've got tired of books."

"Is anyone still interested in us, do you think?"

Hunt shook his head. "We can just be natural now. If anyone gets curious later about how you got mixed up with the UNSA group, there were enough witnesses. So, forget any more Mata Hari stuff. Have you had lunch?"

"I'm still too excited about this whole business to have much of an appetite," Gina answered. "But this ship is fantastic! What do you think the chances would be of getting to see more

of it while we're here?"

"Oh, pretty good, I should think." Hunt raised his voice slightly. "VISAR, could you take us on a tour around the Vishnu?"

"Be my guests," the machine replied.

They stood amidst stupefying constructions of gleaming metallic shapes, walls of light, and what looked like clean-cut massifs, as big as buildings, of internally glowing crystal. It was all too devoid of even a hint of anything recognizable for Hunt to form any coherent questions for VISAR of what it meant.

"You seem . . . impressed," Gina said, finding a tactful word

to describe the look on Hunt's face.

His frown switched to a faint grin. "It is a bit much for one afternoon, isn't it?" he agreed. "This is all a long way past the ship from Minerva that we found on Ganymede. That was from the same era as the *Shapieron*. We thought it was pretty spectacular at the time. But compared to this it was like the boiler room of a tramp steamer."

"They produce some kind of 'stress wave,' or something, don't they?" Gina said. "A bubble of bent space-time around the ship. That's what moves through space, carrying the ship with it. Since the ship is at rest relative to the space inside the

bubble, the usual speed limits don't apply."

"That's right. The rules for *space* propagating through space are different." Hunt shook his head wonderingly. "Is there anything you don't get interested in?"

"I told you, journalists are curious, like scientists."

Hunt nodded. "The Shapieron used a system that constrained superdense masses to move in closed paths at relativistic speeds, which generated high rates of change of gravitic potential and created a matter-annihilation zone that powered the stress field. The equipment to do it was colossal, but I don't see anything like it here. But there has to be something like it

to get us out past Pluto, where the entry port will be projected

for transfer to Jevlen. VISAR, how has it changed?"

"That's all done remotely now," VISAR replied. "The stress wave is generated by small convertors located around the extremities of the ship and coupling into the Thurien i-space grid. The ship itself can be quite compact. Remember the one that landed in Alaska?"

"I take it this is the kind of thing you're finding out more

about at Goddard," Gina said to Hunt.

"Trying to, anyway. There's a lot of it. Half the problem is

getting the information organized."

"Have there been any big surprises so far-I mean, apart from the ones we've read about? You know: the universe is bigger than we thought, smaller than we thought; parallel universes are real; Einstein was wrong. Anything like that?"

Hunt looked around from the rail he was leaning on. "Well,

it's funny you should mention Einstein," he said.

"You mean he was wrong?"

"Not wrong, exactly . . . but unnecessarily complicated, like Ptolemy's planetary orbits. It all works out a lot more simply and still agrees with the same experimental results if you take the velocity that matters as being not that with respect to the observer at all, but with respect to the traversed gravitational field. The distortions of space that Einstein was forced to postulate turn out to be simply compensations for the breakdown of the inverse square law at high speeds, caused by the finite propagation speed of gravity. If you allow for that, then practically everything in relativity can be deduced by classical methods"

Gina stared at him as if unable to decide whether he was joking or being serious. "You mean everybody missed it?"

"Yes," Hunt answered, nodding. "Take the business with Mercury's perihelion, for instance. You know about that?"

"I thought that Einstein's answer works; Newton's doesn't."

"So do most people," Hunt agreed. He looked away and snorted. "But all the prestige and money for practically the last century has come for building more spectacular gadgets, not for going over the basics of physics. Do you know what VISAR found while it was browsing through some old European archives?"

"What?"

"The same formula that Einstein obtained through Riemannian geometry and gravitational tensors was derived classically by a German called Paul Gerber, in 1898, when Einstein was nine years old. It was there all the time, but everybody missed it."

The Vishnu was home for several hundred thousand Thuriens for periods that varied from short-term to permanent. They lived in baffling urban complexes that resembled their labyrinthine cities back home, amid simulations of external vistas beneath artificial skies, and in isolated spots enjoying the peculiarities of various landscapes, copied and contrived. Life aboard the ship combined all the functions of a complete social and professional infrastructure. The whole thing, Hunt began to realize, was more an elaborate, mobile space colony than anything conventionally thought of on Earth as a means of transportation.

"This is the kind of vessel typically sent out to explore local regions of the Galaxy," VISAR confirmed. "It might spend

several years at a newly discovered planetary system."

Evidently the Thuriens liked to take their comforts with them.

Hunt and Gina sat on a boulder on a grassy slope overlooking a lake with a distinctly curved surface. There were boats on it, scattered among several islands, and on the opposite shore an intricate composition of terraced architecture that went up to the "sky." The sky was pale blue—like that of Thurien. The bushes around where they were sitting had broad, wedgeshaped, purple leaves that opened and folded like fans. According to VISAR, they could shed their roots and migrate downhill on bulbous pseudopods if the soil became too dry.

"How would you classify them?" Gina mused. "If animals

move and plants don't, what are they?"

"Why does it matter what you call them?" Hunt said. "When people have problems with questions like that, it's usually because they're trying to make reality fit something from their kit of standard labels. They'd be better off thinking about rewriting the labels."

They contemplated the scenery in silence for a while.

"It's funny how evolution works," Gina said. "Purely random factors can send it all off in a completely new direction—ones that operate at high level, I mean, not just genetic mutation. About ninety-five percent of all species were supposed to have been wiped out in a mass extinction that hap-

pened around two hundred million years ago. It didn't favor any particular kind of animal: large or small, marine or landdwelling, complex or simple, or anything like that. Nothing can adapt for catastrophes on that kind of scale. So the survivors were simply the lucky five percent. Whole families vanished for no particular reason at all, and the few that were left determined the entire pattern of life subsequently." She looked at Hunt, as if asking him to confirm it.

"I don't know know too much about that side of things," he said. "Chris Danchekker's the one you ought to be talking to." He stood up and offered her a hand. "Speaking of which, we ought to be getting back. It's about time you met the rest of the

crew."

They walked down to the lakeside, where a path brought them to a transit conveyor. Soon they were being whisked back through the Escherian maze, and arrived shortly afterward at the Terran section. As they crossed the mess area, Hunt noticed that the wallscreen that had previously showed the view outside was blank. He knew that the stress wave surrounding a Ganymean vessel cut it off from electromagnetic signals, including light, when it was under full gravity drive.

"VISAR," he said aloud so that Gina could hear. "Is the ship

under way already?"

"Since a little under fifteen minutes ago," the machine confirmed. Which would have been typical of the Ganymean way of doing things: no fuss or ceremony; no formal announcements

"So where are we now?" Hunt asked.

"Just about crossing the orbit of Mars."

So UNSA might as well scrap all of its designs for the next fifty years. Hunt decided.

chapter twelve

At a lonely place high among the peaks of the Wilderness of Rinjussin, Thrax came to a large, flat rock where the path divided. A monk was floating in midair above the rock, absorbed in his meditations. His sash bore the purple-spiral emblem representing the cloak of the night god, Nieru. Thrax had heard that as an exercise in learning to attract and ride the currents, adepts would support themselves on currents that they generated themselves by prayer. He waited several hours until the monk descended back onto the rock and looked at him.

"What do you stare at?" Thrax asked him.

"I contemplate the world," the monk answered.

Thrax turned and looked back at the valley he had climbed, with its scene of barren slopes, shattered rock, and desolation. "Not much of a world to contemplate from here," he commented. "Do I take it, then, that your world is within?"

"Within, and without. For the currents that bring visions of Hyperia speak within the mind; yet they flow from beyond Waroth. Thus, Hyperia is at the same time both within and

without."

"I, too, am in search of Hyperia," Thrax said. "Why would you seek it?" the monk asked.

"It is taught that the mission of the adepts who rise on the currents and depart from Waroth is to serve the gods in Hyperia. Such is my calling."

"And what made you think that you would find it here, in

Riniussin?"

"I seek a Master known as Shingen-Hu, who, it is said, teaches in these parts."

"This is the last place that you should come looking for

Shingen-Hu," the monk said.

Thrax reflected upon the statement. "Then my search has ended," he replied finally. "That means he must be here. For obviously he is to be found in the last place I would look, since why would I continue looking after I found him?"

"Many come seeking Shingen-Hu. Most are fools. But I see

that you are not foolish," the monk said.

"So, can you tell me which path I must take?" Thrax asked. "I can "

"Then, speak."

"One path leads to certain death. To know more, you must

first ask the right question."

Thrax had expected having to give answers. But to be required to come up with the question itself put a different complexion on things. He looked perplexed from one to the other of the two trails winding away on either side of the rock.

Then he said, "But death is certain eventually, whichever path one takes. Which path must I take, therefore, to achieve the most that is meaningful along the way?"

"How do you judge what is meaningful?" the monk challenged.

"Let Shingen-Hu be the judge," Thrax answered.

"We are in troubled times. The currents that once shimmered and glinted across the night skies have become few and weak. Many come to learn, but few shall ride. Why, stranger, should Shingen-Hu choose you?"

"Again, let Shingen-Hu be the judge. I cannot give his rea-

sons. Only mine."

The monk nodded and seemed satisfied. "You come to serve, and not to demand," he pronounced, climbing down from the rock. "Follow me. I will take you to Shingen-Hu."

chapter thirteen

The others had gone to take care of various chores, leaving Hunt and Gina together at the dinner table. They had all agreed to meet later in the mess area for a nightcap—or two, or maybe several.

Gina stared down at her coffee cup and unconsciously traced a question mark lightly on the tabletop with her finger. "Is it true that some of the animals on Jevlen have an uncanny resemblance to ones found in Earth's mythology?" she asked after a long silence.

Hunt had been watching her, thinking to himself that she was the most refreshing personality he had encountered in a long time. It wasn't just that she was curious about everything, which was an attraction in itself, and that she took the trouble to find out something about the things that intrigued her; she did it without making an attention-getting display of it, or taking it to the point of where it started to get tedious. Her judgment in knowing how far to go was just right, which was one of the first things in making people attractive to be around.

In the course of the meal she had won the company's acceptance by refraining from thrusting herself on them, listening to Danchekker's expositions without pandering like a student, putting Duncan at ease by not flaunting her femininity, and avoiding triggering rivalry vibes from Sandy. In fact, she and Sandy had gotten along instantly, like sisters.

"Do you know, you've never come back with a line that I

expected, yet," Hunt replied.

"Seriously, I read about it somewhere. There's a kind of horned wolf with talons that's exactly like the Slavonic 'kikimora.' Another has parts of what look like a lion, a peacock, and a dog, just like the 'simurgh' of Iran. And would you believe a plumed, goggle-eyed reptile, practically identical to all those Mexican carvings?"

"I seem to remember something about it, but it isn't an area I've really looked at," Hunt said. "Why? What's the signifi-

cance?"

"Oh, nothing earth-shattering. It just occurred to me that maybe that was where we got them from. Perhaps the Jevlenese agents that came to Earth in the past mixed ideas of their own animal forms into the belief systems that they spread."

"It's an intriguing thought," Hunt agreed. He stubbed his cigarette and looked across at her. "Doesn't it come into this

new book that you're talking about?"

"Sure. That's why I'm interested in collecting opinions."

"When we talked back at my place, you said you thought Christ might have been one of them." Hunt paused and frowned. "No, wait a minute. It was the other way around, wasn't it. You said he was on the other side, right?"

"If he was Jevlenese, it was as a rebel working against their cause," Gina replied. "Or he could simply have been an exceptionally enlightened Terran. Either way, he wasn't working

with them."

Hunt looked at her with interest as he refilled their cups from

the coffeepot on the table. "What makes you say that?"

"Well, think about it. The operation that the Jevlenese set up was aimed at retarding Earth's development by implanting notions of the supernatural and starting mass movements based on irrationality. That's where early religions came from. The Lunarians didn't have anything like that."

"Yes, exactly." Hunt looked puzzled. "But isn't . . ."

Gina shook her head, reading the question. "No. He didn't. What people have been told for the best part of two thousand

years is wrong. He didn't teach what the churches say he taught. What they daren't tell their followers is the one thing he was trying to say. You see—that's exactly the kind of thing I want to get into."

Hunt stared back curiously. "Go on," he said.

"He told people not to listen to the Pharisees, scribes, priests, or other self-important persons and institutions who were out to control them and exploit them. He taught, simply, that inner integrity and honesty were essential if you want to know yourself and the world. It didn't have anything to do with rituals and dogma, or rules for organizations. It was simply a prescription for a personal code of conduct and ethics aimed at coming to terms with one's nature and with reality. In other words, a philosophy of individual self-knowledge and responsibility, totally compatible with the notions of science and reason that were beginning to emerge at the time, despite all the efforts of the Jevlenese. And that, of course, made him dangerous. A threat to their whole operation." She looked pointedly at Hunt. His eyes widened. Gina nodded. "Exactly. So they got rid of him. Then they exterminated his followers, seized control of what he'd started, and rewrote the whole script."

"Giving us the Dark Ages," Hunt said, seeing the point.

"Right. Which stopped everything dead and put their program back on track. The medieval Church with its Inquisition, holy wars, land grabbing, and its involvements in European power politics had nothing to do with anything Christ taught. It was trying to stave off the Renaissance, which the Jevlenese could see coming. *Real* Christianity had been dead for centuries."

It fitted with the things Gina had said at his apartment on how things might have gone otherwise, Hunt recalled. She had done more work on it than he had realized. If a lot of powerful institutions had roots in those kinds of murky waters, he could understand why nobody was doing very much talking. At the same time, it was dawning on him just how devastating the book that she was proposing could be. Caldwell would have seen it, too. Small wonder, then, that Caldwell had declined to involve UNSA officially. The wonder was that Caldwell had been willing to have anything to do with her at all.

"Except, maybe, in one place," Gina said, making it sound

like an afterthought.

"Uh?" Hunt returned abruptly from his thoughts.

"If my reading of history is right, there was one place where

Christianity might have hung on long after it was stamped out across the rest of Europe," Gina said.

"Where?"
"Ireland."

Hunt's eyebrows lifted in surprise. "Begorrah!" he ex-

Gina went on. "Even the Irish aren't told the true story. They're taught that Saint Patrick converted the island in the fifth century, and they've remained staunchly faithful ever since."

"That's what I always thought, too," Hunt said. "Not that it's a subject that I've ever had much reason to get involved in,

especially."

"They didn't ally with the Roman Church until the sixteenth century—more than a thousand years later; and that was only as a gesture of defiance against the English after Henry VIII broke away. Roman Catholicism became a symbol of Irish nationalism. What Saint Patrick brought was Christianity."

"You mean the original?"

"Something a lot closer to it, anyhow. And it flourished because it fitted with the ways of the native culture. It spread from there through Scotland and England into northern Europe. But then it collided with the institutionalized Jevlenese counterfeit being pushed northward, and it was destroyed. The first papal mission didn't reach England until a hundred sixty-five years after Patrick died."

"How do you know all this?"

"My mother's side of the family comes from Wexford. I go there for vacations and lived there for a while once."

"When did Patrick die?" Hunt asked, realizing that he really

had no idea.

"In the fifth century. He was probably born in Wales and carried across by pirates."

"So we're talking about a long time before that, then."

"Oh yes. In terms of literature and learning, they were unsurpassed anywhere in Western Europe long before Caesar crossed the Channel."

"Let me see, every English schoolboy knows that. Fifty-five

B.C., yes?"

"Right. Their race was unique, descended from a mixture of Celts and a pre-Celtic stock from the eastern Mediterranean." Gina stared across the room and smiled to herself. "It wasn't at all the kind of repressive thing that people were conditioned

to think of later, you know. It was a very earthy, zestful, lifeloving culture."

"In what kind of way?" Hunt asked.

"The way women were treated, for a start. They were completely equal, with full rights of property—unusual in itself, for the times. Sex was considered a healthy and enjoyable part of life, the way it ought to be. Nobody connected it with sinning."

'The real life of Riley, eh?" Hunt commented.

"They had an easygoing attitude to all personal relations. Polygamy was fairly normal. And then, so was polyandry. So you could have a string of wives, but each of them might have several husbands. But if a particular match didn't work out, it was easy to dissolve. You just went to a holy place, stood back-to-back, said the right words, and walked ten paces. So children weren't emotionally crippled by having to grow up with two people hating each other in a self-imposed prison; but if the marriage didn't work out, they weren't traumatized, either, because they had so many other anchor points among this network of people who liked each other."

"It all sounds very civilized to me," Hunt said.

"And that was where early Christianity hung on," Gina said again. "So maybe it gives us an idea of what it really had to

say."

Hunt watched the faraway expression on Gina's face for a few seconds, then grinned impudently. "Oh, I can see where you're coming from," he teased. "It's nothing to do with humanist philosophies at all. You just like the thought of having a string of men to pick from."

"Well, why should men have all the fun?" she retorted, refus-

ing to be put on the defensive.

'Ahah! The real Gina emerges." "I'm merely stating a principle."

"What's wrong with it? Don't women fantasize?"

"Of course they do." She caught the look in his eye and smiled impishly. "And yes, who knows? Maybe one day if you

tell me yours, I'll tell you mine."

Hunt laughed and picked up his coffee cup. He finished the contents and allowed the silence to draw a curtain across the subject. "How are we doing for time?" he asked, setting the cup down. "Will any of the others be in the bar yet?"

Gina glanced at her watch. "It's a bit early. What else is there

to see of the ship?"

"Oh, I think I've had it with being dragged around for one day. You know, I really do make a lousy tourist."

"That's too bad. I can't wait to see Jevlen. Just imagine, a real, actual, alien planet. And we'll be there tomorrow. I still haven't really gotten over all this."

Hunt looked at her thoughtfully. "Maybe we don't have to

keep you waiting that long," he said.

Gina looked puzzled. "Why? What are you talking about?" "What you just said has given me an idea . . . VISAR, are there any couplers nearby?"

"A bank of them, to the right outside the door you came in

through," VISAR replied.

"Are there two free right now?"

"What are you doing?" Gina murmured.

"Wait, and you'll see."
"Plenty," VISAR replied.

Hunt stood up. "Come on," he said to Gina. "You haven't seen half of Ganymean communications yet. This'll be the fastest interstellar trip you ever dreamed of. I guarantee it."

chapter fourteen

The room was just a cubicle, its main furnishing being a kind of recliner, padded in red, with several panels of what looked like a multicolored crystalline material above and on either side of a concave support where the occupant's head would be. The wall behind carried equipment and fittings of unfamiliar construction.

Gina ran her eye over the interior. "I take it this is how you connect into the Thurien virtual-travel net," she guessed.

"That's right," Hunt said. He tapped the communicator disk attached behind his ear. "This gadget that they gave you when you came aboard is just a two-way audiovisual link to VISAR—a viphone that goes straight into your head instead of through screens and senses. But this is the full works."

"What they call total neural stimulation?"

"Instead of you having to go take your senses to wherever the information is, this brings the information to your senses provided that the place you want to 'go' is wired with sensors for the system. It wouldn't work too well for Times Square or the middle of the Gobi. Also, it intercepts the motor and speech outputs from your brain, and generates the feedback that you'd experience from moving around and interacting there."

Gina nodded but still looked unsure. After a few seconds, she said, "And all of that two-way information transfer takes place instantly through the same—what do you call it, 'dimension'?"

"I-space."

"That's it . . . that this ship goes through to get to Jevlen, right?"

"Yes."

"Okay . . . But the ship has to spend a whole day getting out past Pluto before it can use i-space. How come this coupler can do it from right here? Or how come you can do it from Goddard, for that matter?"

Hunt was already nodding. "A port big enough to take a ship would mess up everybody's astronomical tables if you projected it into a planetary system. So instant planet-to-planet hopping is out. But for communications it's a different matter. You can send information on a gamma-frequency laser into a microtoroid that can be generated on planetary surfaces—or in ships like this one—without undesirable side effects. The Thuriens use it for most of their routine business and social calling—and you don't have to worry about drinking the water or catching any foreign bugs. It's got a lot of advantages."

Gina moved forward and touched the material of the recliner curiously. It was soft and yielding. Hunt watched from inside

the doorway. "So what do I do?" she asked. "Just take a seat. VISAR will handle the rest."

Gina hesitated for a moment, feeling just a trifle selfconscious. Then she lowered herself into the recliner, settled her feet on the rest, and let herself sink back. A warm, drowsy feeling swept over her, causing her head to drop back automatically onto the concave support, which was also padded. She felt more relaxed than she could ever remember. The interior of the cubicle seemed to be floating distantly in a detached kind of way. A part of her mind was aware that she had been thinking coherently only moments before, and that someone else had been there for some reason, but she was unable to recall who or why, or really to care. Nothing really mattered.

"Like it?" She recognized the voice as VISAR's.

"It's great. What do I do-just lie back and enjoy it?"

"First, we'll need to register some more of your personal cerebral patterns," VISAR said. "It only takes a few seconds." When Gina had first tried the communicator disk, she had experienced a strange series of sensations and illusions in her hearing and vision. VISAR had explained that the range and activity levels in the sensory parts of the brain varied from individual to individual, and it was necessary to tune the system to give the right responses. Once established, the parameters were stored away for future reference, making the process a onetime thing, analagous to fingerprinting. Presumably VISAR now needed to extend its records to accommodate the other sensory centers, too.

Gina found herself becoming acutely conscious of the pressure of the recliner against her body, the touch of her clothes, and even the feeling of air flowing through her nostrils as she breathed. She could feel her own pulses all over, and then a weird tingling unrolling down her spine. VISAR was experimenting with her sense of touch, exercising her nervous system through its range of responses and reading the neural activity.

She felt herself convulsing in spasms—and then realized that she wasn't moving at all; the sensation was due to rapid variations of sensitivity occurring all over her skin. She felt hot, then cold, then itchy, then prickly, and finally numb. Sweet, sour, bitter, then again sweet tastes came and went in her mouth; her nose experienced a succession of odors . . . And all of a sudden, she was wide awake and alert again, and everything was normal.

"That's it," VISAR informed her. "How would you like me for your dentist?"

Gina was too intrigued by what was going on to reply, but as she waited, her brow creased in puzzlement. It didn't seem as if anything much was going on.

She sat up and found Hunt still standing in the doorway, leaning one shoulder against the side, arms folded, watching her curiously with an odd smile twisting his mouth.

"Can I get up now?" she asked him.

"Sure."

She put her feet on the floor, sat upright, and stood cautiously, not quite knowing what to expect. Nothing changed. Everything felt normal.

"So, what happened?" she asked uncertainly. "Technical hitch?"

"You think so, eh?"

"You mean it worked?"

"Thurien engineering works. That's one thing you never have to worry about."

"But . . . we're still in the ship. I thought we were supposed

to be going to Jevlen."

"No. You're falling into the illusion already. Virtual travel, remember? You knew you weren't really going anywhere."

Gina put a hand to her brow and shook her head. "Okay. Let's not start getting picky about words. You know what I mean. I thought that sensory information from Jevlen was supposed to be coming to me."

'VISAR, give us a preview," Hunt instructed.

At once, Gina and Hunt were standing in a wide, circular space like a gallery, overlooking a central area below. There were figures walking this way and that, some human, some Ganymean. As Gina stared, a small group consisting of two Ganymeans surrounded by a half-dozen or more humans gesticulating and seemingly talking all at once passed close by. Although the conversation was presumably being conducted in an alien tongue, the snatches that came through were transformed into English.

"... thousands of them, with nothing to do. They must be

entertained. You have to arrange something."

"Why can't they learn to entertain themselves?" one of the Ganymeans asked, sounding harassed.

"They have always been entertained. It is their right!"

Gina looked at Hunt disbelievingly. He grinned back at her, clearly enjoying himself. "Let's take a walk," he suggested, and led the way across to the rail at the gallery's edge. Gina's mind was in too much turmoil for her to do anything but follow

mechanically.

They looked down over a concourse of various levels and partly enclosed spaces, where more figures were standing or sitting, walking, and going about their business. The concourse appeared to connect to other spaces beyond, and had pedestrian avenues entering from several directions. The architecture was unusual, with generous use of curvature and asymmetrical divisions of space that blended strange notions of aesthetics and ornamentation with what was clearly a functional purpose. Gina's first thought as she began to recover her reeling senses

was of a Moorishly inspired airport terminal. It was all definitely very futuristic, and unquestionably alien . . . but it did keep itself tidily to definite planes, without assaulting the eye with anything resembling the geometric chaos of the Thurien spacecraft.

But as she continued looking, a puzzling aspect of it all registered itself. For what was supposed to be a glimpse of an advanced, technologically adept culture, it was all rather shabby. The finishing on the elaborately styled shapes and surfaces was drab and unimaginative, with a general air of wear and neglect and tiredness. There were lights that weren't working, panels missing from one of the walls, and on the far side a whole, partly dismantled section closed off by barriers, with machines that looked like maintenance robots standing idle.

Hunt indicated a direction with his hand, and they began walking around the gallery toward a series of low arches on its outer edge. The figures around them passed by unheeding. Gina had to remind herself that she was merely perceiving what was taking place at a distant location; the people who were actually

there had no knowledge of her "presence."

Beyond the arches was a semicircular, windowed space, an eating lounge of some kind, with seats and tables on several tiered levels. Again, the surroundings were plain and utilitarian. The figures, human and Ganymean, took no notice as Hunt and Gina descended a stepped aisle to a clear area along the window wall, which turned out to be a continuous expanse of glass. That was when Gina realized that the sky was not blue, but light green, with strange, curling, sheetlike clouds of streaky orange.

The city beneath the pale green sky extended away and below them in waves of interconnected towers, terraces, and heaps of architecture that at first defied comprehension. But then Gina noticed that one of the bridges nearby was missing two of its central spans; a tower beyond it was showing daylight through its windows and seemed to be a derelict shell; below them, a terraced roof had had several sections removed and was open to the elements.

Finally she looked back at Hunt.

"Believe it now?" He waved a hand casually. "Shiban, one of

Jevlen's principal metropolises."

Gina moved forward to take in more of the view and saw, through a gap between two of the structures, a tall, streamlined shape standing upright in what appeared to be an open space,

possibly beyond the edge of the city proper. Although the bottom part of it was obscured, she had seen enough pictures to recognize it. "Isn't that the Shapieron?" she asked, indicating with a motion of her head. It was the Ganymean spacecraft from ancient Minerva. If anything, the nose was still some way below the level they were looking out from—and the Shapieron

stood almost half a mile high.

"Shiban is where the Shapieron is currently berthed," Hunt replied. "It's at a place called Geerbaine, just to the west of the city. The place we're in is Garuth's Planetary Administration Center. It used to be the governing center for this region of Jevlen. We can't go any farther without resorting to total simulation, because this is the only part that the Thuriens adapted for VISAR—Jevlen was managed by JEVEX, which had slightly different sensor wiring. But anyhow, welcome to another world. What do you think?"

Gina stared outside again. She rubbed her brow with a knuckle and shook her head, then looked back at Hunt. "No ... this still doesn't make any sense. How can I be seeing Jevlen

through VISAR, if I'm not coupled into VISAR?"

The strange smile, which had never quite left Hunt's face,

broadened. "Aren't you?"

"Well, no . . . I got up out of the chair and talked to you. I—oh, Vic, stop looking at me like that. Tell me what's going on."

And then, just as abruptly as before, she was standing inside the cubicle in the Thurien starship again, with Hunt facing her from the doorway, just as they had been before the transition.

"It's simple," Hunt told her. "If VISAR can make us think we're walking around on Jevlen, it can just as easily make us

think we're standing here in the ship."

It took a few seconds for the meaning of what he was saying to sink in. "You're kidding!" Gina breathed incredulously. Hunt shook his head. She ran a finger experimentally down the edge of the doorframe. It felt cool and hard and solid. There was even a burr at one place, where something had scratched it.

"Hold out your hand," Gina said. Hunt obliged. She ran a finger along one of his and traced it over the palm. It felt warm and fleshy, with each line and wrinkle in the skin clearly dis-

cernible. "It's uncanny," she whispered.

"Not bad," Hunt agreed. "What you saw a moment ago is what's happening in a part of Shiban at this moment. Those people are really there. VISAR is very good at realism." Hunt pointed at a spot on her arm. "You've even got the stain on your sleeve, where you rubbed your elbow in some ash that had fallen on the table when we were in the cafeteria."

Gina looked at the sleeve of the green sweater she was wearing, and flicked at the gray patch with her other hand. Sure enough, most of it brushed away, leaving a faint smudge, just as real ash on a real sleeve would have done.

Hunt laughed. "There's an easier way. In this world, you can do anything you want. VISAR, clean the sleeve." The remaining discoloration vanished, leaving no trace. "Or change the whole thing if you don't like it. VISAR, how about a red sweater?" Gina's sweater promptly changed to a rich ruby red.

She gasped. "It's true! This is all happening inside my head? I'm not really standing here? So aren't you here, either?"

"Of course not, I'm inside your head, too. So I must be hooked in through another coupler, just as you still are."

Gina struggled to come to terms with the meaning of it, but in the end faltered and shook her head decisively. "It's no good. I can't believe this. Prove it."

"I can't. Ask VISAR to."

"VISAR. Prove it."

And instantaneously she was back in the recliner, at ease and comfortable, as if she had never gotten up from it.

"Voilà," VISAR announced, managing to sound quite proud of itself.

As Gina's confusion subsided, she reminded herself that she never had gotten up. She had been here all the time . . . or had she? Was she really here now, or was this yet another construct in the maze of mirages that Hunt had led her into? She sat up with a strange feeling of déjà vu—only this time, Hunt wasn't standing watching from the doorway, and the door was closed. Her sweater was green again; the smudge of gray was back on her elbow. It was all as the real thing should have been, but there was no way of telling. If this was another illusion, she could see no purpose in it. Anyway, it seemed she had no option but to go along. She moistened her handkerchief and cleared the smudge from her sleeve.

"Where's Vic?" she asked aloud.

"Next door, to the right."

Gina got up and moved to the door. She opened it, let herself out into the corridor, and peered into the next cubicle. Hunt was in repose in the recliner there, motionless with his eyes closed. "Happy now?" VISAR asked her.

Okay, it was good enough for her. "Convinced, anyhow," she conceded.

"Never say I don't give you your money's worth."

Hunt opened his eyes and sat up. "Neat, eh?" he said to Gina. "Just think, you could go anywhere in the Thurien world-system right now if you wanted to. Imagine what that saves them in a year on bus fares."

"Right now, you only need to worry about getting back to the lounge area," VISAR said. "The others are there, and

they're asking where you are."

"Tell them we're on our way," Hunt answered.

chapter fifteen

Twelve hours after leaving Earth, the Vishnu was five hundred

million miles past the mean orbit of Uranus.

By the internal clocks of most of the passengers it was the small hours of the morning, and the mess area of the Terran section was quieter than it had been earlier. Gina and the four from UNSA were still up, occupying a couple of tables pulled together, where they had been joined by the schoolteacher from Florida, whose name was Bob, and two of the Disney World

marketing executives, Alan and Keith.

"Wasn't there something about an ancestor of modern horses?" Duncan Watt was saying to Danchekker. "It had stripes, suggesting that striping could be an inherited potential of all horse types. So there really isn't any such group as zebras at all? They could all be more closely related to the horse lines than to each other." They were talking about the investigations that Danchekker had conducted on specimens of early mammals from Earth's late Oligocene period, which had been discovered in the wrecked Ganymean ship found on Ganymede, before the Shapieron's appearance.

"Mesohippus," Danchekker supplied. "Yes, indeed-which makes it not as complex a characteristic as one might imagine.

Several separate lineages could then have acquired stripes independently, which would make the zebras simply realizations of a developmental path common to all members of genus *Equus*. It becomes even more interesting when one considers the chromosome counts, where a distinct correlation is seen to occur between . . ."

Duncan nodded as he sat with his arms wedged across his chest. He looked a little glazed and seemed content to let Danchekker carry on doing the talking.

Across the other table, Bob, the teacher, and the two Disney

World executives were into politics.

"Maybe Ganymeans are instinctively what socialist idealists try to turn humans into," Bob said. "But since it comes naturally to Ganymeans, nobody has to try and *make* them any-

thing they're not. So it works."

"He's got a point," Al declared, turning to Keith. "We're a competitive species—a competitive economic system fits our nature. Whether you like the thought of it or not, we work for what we are gonna get out of it, not the other guy. That's the way humans are. The only way you can try to change them is through force. And people don't like that. That's why all these fancy ideas about molding human nature don't work. They can't work."

Sandy pushed herself back in her seat and yawned. "I've just had three hectic days that I think have caught up with me," she announced. "Sorry, but I'm going to be the first one to break up the party. So I'll see you people tomorrow, wherever. The other side of Pluto, I guess."

"Yes, get some rest," Danchekker said. "I should, too, for that matter. You've certainly been busy. We didn't give you

much notice."

"Don't forget that chip you wanted me to borrow," Gina reminded her as she stood up.

"If you want to stop by my room, I'll let you have it now,"

Sandy said.

"What chip's that?" Hunt asked, turning from the conversation between Danchekker and Duncan.

"Some tracks of Jevlenese music that I collected together,"

Sandy said. "Some of it's really wild stuff."

"Vic likes music," Gina said as she rose. "I don't know if what you're talking about would be his style, though. That was a Beethoven score that you had pinned up on the wall at your place, wasn't it, Vic?"

"Observant," Hunt complimented. He took a sip of his drink. "Did you know that his dog had a wooden leg?"

Gina looked uncertain. "Whose?"

"Beethoven's. That was where he got his inspiration—when it walked across the room." He raised a hand to conduct an imaginary orchestra. "Dah-dah-dah-dah... Dah-dah-dah. See?"

Gina shook her head, smiling hopelessly. "Are all the English insane? Or did you take a class in it?"

"Come on, let's go," Sandy murmured. "They're all past the

crazy hour."

"No, but you have to work at it," Hunt said. He waved a hand at them both and grinned. "We'll see you two at breakfast, then." The rest of the group added a chorus of goodnights.

Gina and Sandy left the room and headed toward the cabins. "Guys and alcohol," Gina said. "I didn't want to be left that outnumbered."

"I know the feeling," Sandy agreed.

"Are we turning into old maids, Sandy?" Gina asked jokingly. "Six men back there, and the two girls leave together. Perhaps we really are as bad as they tell us."

"You speak for yourself. I meant what I said: I'm ex-

hausted."

"Duncan was giving you looks."

"I know."

"Not your type?"

"Oh, Duncan's okay. We've known each other since Houston. But you know what they say about keeping the complicated side of life separate from your work. I think it's good advice"

They reached the door of Sandy's cabin, which she opened with an unvoiced command to VISAR. Inside, she picked up a briefcase, set it on the bureau top, and took out a flat box of the kind used for carrying storage chips. "How about a coffee before you go?" she asked Gina.

"Why not? Make it black, no sugar."

"Anything else to go with it?"

"Uh-uh. Dinner just about filled me up."

Sandy asked VISAR for two coffees. "Ah, here's the one I was talking about," she said, handing Gina one of the capsules from inside the box. "I've got another with some of their classical stuff, but I don't think it's here. I must have left it at home. It's a bit weird, anyhow."

"Thanks. This'll be fine." Gina put the capsule into a pouch

in her purse.

The door of the dispenser in the kitchen area opened, and a tray bearing two mugs slid out onto the countertop. While Sandy was replacing the briefcase, Gina picked up the mugs and carried them over to a table in the lounge, where she settled herself into one of the easy chairs. Sandy followed a few moments later.

"So, how about the romantic side of your life?" Sandy asked as she sat down in the other chair. "Or are writers always too busy to have one?"

"Oh, now and again, when it wants to happen. But noth-

"Entangling?"

"Right. I don't want complications getting mixed up with my work, either. But with me, work and life keep having this tendency to become the same thing."

Sandy tasted her coffee. "Not bad." She looked up. "Were

you ever married?"

"Once, awhile ago now-for about four years. We lived in

California. But it didn't work."

"What happened? Did you see yourself heading toward oblivion on Domesticity Street?" Sandy gave Gina a critical look over the top of her mug. "Somehow I can't picture you taking

pies to garden parties or selling Tupperware."

Gina smiled distantly. "Actually it was more the opposite. Larry was the kind of guy who wanted to go everywhere, do everything. You know, always meeting new people, the life of every party . . . It was fine as long as I was content to tag along as an accessory in his life. The problem was, it didn't leave any room for me to have one of my own."

"You should have introduced him to me," Sandy said. She made a motion with her free hand to indicate herself. "It's nice in some ways to work surrounded by scientists and all kinds of other guys who are smart, but there's an incredible number of nerds among them. You know the kind—they think a hard-on's some kind of quantum particle."

Gina had to stifle a scream of laughter. "Vic doesn't seem like

that, though," she commented.

"He's an exception. Now him I could go for. Maybe it's the accent. But like I said, it's not the thing to do. Anyhow, he got tangled up with somebody when we were at Houston, before the division relocated to D.C., and nowadays he likes to keep his daytimes uncomplicated, too."

"You, er, don't exactly come across as the epitome of de-

tached, intellectual science," Gina said.

"Give me a break. I spent a year and a half down a hole in the ice on Ganymede. That's a lot of time to make up for. Vic said something once about not wanting to get old with a lot of

regrets about missing out. I agree with him."

Gina, watching the way Sandy's straight, dark brown hair fell about her face as she leaned forward to pick up her cup again, noticed the firmly defined features and the long lines of the jeans-clad legs. Sandy was the kind of girl that men had told her radiated sex appeal without being especially pretty, Gina decided. Intelligent, adventuresome, and uninhibited. Definitely Larry's type.

Sandy looked up. "Anyhow, scientists are supposed to be curious, aren't they? Like journalists. Isn't that what the job is

all about?"

"I suppose so," Gina agreed.

Back in her own cabin, Gina found herself restless and not inclined toward sleep, despite the time she had been awake. Lurking just below the level of consciousness, something that she couldn't pinpoint was disturbing her, something tugging for attention, distilled from the day's flood of events and experiences. She went into the bathroom and brushed her teeth while she grappled with the problem.

It had something to do with VISAR. More specifically, it had something to do with the way VISAR was designed to function. Back in the bedroom, still fully dressed, she propped herself up with a couple of pillows and stared at the picture of a snowy mountain scene from some world or other, on the far wall of the

The part of the PAC complex on Jevlen that she had "visited" with Hunt earlier in the evening had contained such objects as ornaments and pictures on the walls of the cafeteria from where they had seen the Shapieron, and some tools standing against a wall in the gallery outside. What would have happened, she had asked Hunt, if she had tried to "move" one of those objects to a different place? He had said that VISAR would cause her to experience the action faithfully. In that case, she asked, where would she find it when they arrived physically at Jevlen tomorrow? Obviously, where it had been in the first

place, Hunt replied—since the object would never have really been moved at all.

That bothered her. She remembered, too, the burr that she had felt on the edge of the door into the coupler cubicle, and the business with the cigarette ash on her sleeve. It all bothered her. She got up from the bed, went back into the lounge to get a cup of hot chocolate from the autochef, and tried to fathom why.

Judged by Terran notions of what constituted worthwhile return for cost and effort, the whole thing seemed a pointless exercise in elaborate absurdity. More than that: a deception that confused synthesis with reality, leaving the recipient to disentangle the resulting fusion that would be left impressed upon memory. But the Thuriens could handle it naturally, without conflict or contradiction. Indeed, to *them*, in a way that no human could really feel or comprehend, the capturing of the actuality was all-important, and the degree to which the system failed to do so constituted the deception. Hence their extraordinary obsession with levels of detail that to humans would have served no meaningful purpose and made no sense.

And now, she felt, she was getting closer to what was trou-

bling her.

Yes, the Thuriens were benign, nonaggressive, and rational, and that was all very nice; but it was also beside the point. What was less reassuring, she realized, was the utter *alienness* that she had glimpsed of the inner workings of the Thurien mind. The professionals like Hunt and Danchekker had been too close for too long, and were too excited by the technology, to see it. Or perhaps they had forgotten.

What kind of havoc, then, might have been wreaked on the collective psyche of a whole race immersed in a form of mind manipulation essentially alien to its nature for thousands of

years?

She turned and stared at the door, uncertain for several seconds of exactly what she intended to do. Then, resolving herself, she left the cabin again and returned to the cubicles containing the Thurien neural couplers.

chapter sixteen

The familiar feeling of warmth and relaxation closed around her as she eased back into the recliner and VISAR's intangible

fingers took control of her senses.

"Tell me again how these Thurien protocols on privacy work," she said in her mind to the machine. "What's to stop you going deeper than just accessing sensory data, and extracting anything you want out of my head?"

"Programming rules built into the system," VISAR answered. "They confine my operations to processing and com-

municating only what users consciously direct."

"So you don't read minds?"

"No."

"But you could?"
"Technically, yes."

"I don't think I like that. Doesn't the thought of it bother the Thuriens?"

"I can't see why it should, any more than the thought of a surgeon seeing your insides organically."

"No? But then I guess you wouldn't. You were designed by them, so you think the way they do."

"Possibly so."

"Can the rules be broken?"

"It would require a specific authorization from the user for me to override the directive. So the user is always in control. Anyway, what would someone have to hide?"

Gina could not contain a laugh. "Don't the Thuriens ever have thoughts or a side of their nature deep down that they try to hide, even from themselves?"

"How could I know? If they do, then by definition they don't reveal it."

Really? Gina thought. Ganymean minds might be capable of such commendable self-discipline, but she doubted if a typical

human one would. "Were the Jevlenese as sensible and restrained in the way they used JEVEX?" she asked.

"I suspect not," VISAR answered.

"So, what can you do, VISAR? I want to know what this

system is capable of."

"I can take you anywhere you want to go. Anywhere among thousands of Thurien worlds, natural and artificial, scattered across tens of light-years."

"How about Thurien itself, then?"

This time there were no preliminary sensory disturbances. Gina found herself at the edge of a terraced water garden near the summit of an enormous tower. The view below was of a cascade of levels and ramparts, falling away and unfolding for what must have been miles to blend with a mind-defying fusion of structures stretching to the fringe of a distant ocean. There were numerous figures around her, all Ganymean, walking and talking, others sitting around and doing nothing. She felt a faint breeze, and she could smell the blossoms by the pools and waterfalls. There were flying machines in the sky.

"Vranix," VISAR informed her. "One of Thurien's older

cities."

The sudden transition made Gina feel dwarfed by the scale of everything. It took her a few seconds to adjust. "This is the way it actually is, right now?" she said. "These people are really there?"

"They are," VISAR confirmed. "But since they're not neurally coupled into the system, you can't interact with them. You're simply perceiving what actually is. This is called Actual Mode."

"What else is there?"

"Interactive Mode. You're in the same setting, but superposed on your perception of it are visual representations of other users physically in couplers located elsewhere. The images are activated by voluntary signals picked up from the speech and motor centers of their brains, so they act as they would choose to. The converse is just as true, of course; i.e., they see you in the same way. Hence the illusion of actually being there and interacting is total. It's the usual way of setting up social and business meetings."

"Switch to that, then," Gina said.

The scenery stayed the same, but the distribution of figures changed. Most vanished, and others appeared where none had been before. The overall number seemed to be fewer.

"Those other people that I saw a moment ago, they're still there really?" Gina asked.

"They are. I've simply edited them out of the datastream into

your visual cortex."

"So who are these people that I'm seeing now? Where are they?"

"Here, there, in different places. They're simply people who happen to have chosen this venue at the moment, for whatever their purpose is."

The flying machines were still there, Gina noticed. She wondered how VISAR decided the boundary between edited fore-

ground and authentic background.

Then a Ganymean couple who had been sitting on a nearby seat got up and approached. "I hope we're not being presumptuous, but we've never seen a Terran this closely before," the male said.

Gina noticed that several of the other figures were looking across at them discreetly, and trying not to make it too obvious.

"No . . . that's fine," Gina replied falteringly.

"Permit us to introduce ourselves. My name is Morgo Yishal. This is my daughter, Jasene. We like to meet here from time to time. Our family lived in Vranix when Jasene was young. This was one of her favorite places."

"Where are you now-if it's not a rude question?" Gina

asked, still off-balance from the strangeness of it all.

"Oh, I'm teaching on the other side of Thurien now," the

man replied.

"I'm on a vessel that's orbiting a world nearer to Earth than Thurien," Jasene said. "Maybe I could show you it sometime. It's quite an interesting place. And you?"

"Me? Oh, on one of your starships, traveling from Earth to

Jevlen."

"What brings you to Vranix?" Morgo inquired. "Seeing a Terran alone like this is most unusual."

"Nothing special. I'm just experimenting with the system,

really."

"Of course, I can superpose Actual and Interactive modes," VISAR's voice interjected. The figures that had been present initially reappeared, mixing the "real" ones with VISAR's virtual creations, and in moments Gina had lost track of which were which.

"Er, would you excuse me?" Gina stammered to the two

Ganymeans. "I need time to absorb this. I'm still getting used to it."

"But of course," the man answered.

"VISAR, it's too crowded. Get me away from people." Gina glanced at Jasene. "I'll get back to you about that visit... And thanks. I assume VISAR has your number?" Jasene inclined her head in what Gina hoped was an understanding nod.

Then Gina was standing on a barren, rocky ridge, looking down into a huge crater of molten magma, dull red and turgid, bubbling sullenly below yellow vapor and oily smoke. She could feel the heat on her face, and a choking, sulfurous odor seared her throat. The far rim was invisible through the haze, and behind her a tortured landscape of jagged peaks and bottomless fissures vanished into banks of dark, stormy cloud.

"I can take you where you couldn't survive physically," VISAR's voice said. "Here's a new world being born. The heat and fumes that you feel are just to give the flavor. In reality you'd be asphyxiated instantly, roasted in seconds, and flat-

tened under two tons of body weight."

"This doesn't make sense. Do the Thuriens actually put sensors in places like this? It's crazy. How many visits does it get in a thousand years?"

"Actually, this is largely simulation—interpolated from data

being captured long-range from orbit."

"Too hot and stuffy," Gina pronounced.

Then she was in a sea of fantastic, mountain-size sculptures of shining white, rising and curving into delicate pinnacles against a sky of pale azure, fading into pink lower down in every direction. "A wind-carved ocean of frozen methane, not much above absolute zero in temperature," VISAR said. "Again, interpolated reconstruction by instruments in orbit. Cool enough?"

"Too much. My bones feel cold, looking at it. But you don't have to use sensor data at all, do you? It could all be pure

simulation?"

"Sure—I can make you a world. Any world."

"Let's go home, then. How about Scotland? I've always wanted to go there but never have. I imagine it with mountains

and lochs, and little villages tucked away in glens."

She was sitting on a hillside by a rocky stream, looking across a valley over the tops of pine trees at green slopes topped by craggy bastions of gray rock. Off to one side, rooftops and a church spire huddled together before an expanse of water. Birds

were chirping and insects humming. The air was cool and moist with spray from the stream.

"Is this real?" Gina asked, frowning. It couldn't be, she told

herself. Scotland wasn't wired into VISAR.

"No," VISAR answered. "It's just something I made up—from what you said and what I know about Earth. I told you,

I can make any world you want."

"It's too modern," Gina said, studying the offering. "The road down there is built for automobiles. I can see power lines by the houses, and there's a tractor in a tin shed." She could feel herself being carried away by the novelty of it all. Perhaps she was feeling a sense of relief in being back among surroundings that she understood. "If we're getting into fiction, let's go back a bit and make it more romantic," she said. "Maybe somewhere around Bonnie Prince Charlie's time."

"Those times weren't really very romantic," VISAR observed. "Most of the people lived lives ravaged by disease, poverty, ignorance, brutality. Three-quarters of the children died before they were—"

"Oh, shut up, VISAR. This is just a game. Leave that kind of stuff out, and make it the way we like to pretend it was."

"You mean like this?"

The roadway turned into an unfenced cart track, while the power lines, tractor, communications dishes, and other signs of the twenty-first century disappeared. The houses changed into simpler affairs, with roofs of thatch and slate, and a steel footbridge crossing a brook below transformed into an arched construction of rough-cut stone. A dog was barking somewhere. As

stipulated, everything was neat and pretty.

For a few moments Gina was astounded, even though she should have had a good idea by now of what to expect. She stood up, staring hard and consciously going through all the impressions being reported by her senses. She could feel a pebble under her shoe, and a branch from a bush beside her brushing her arm as she moved. It was uncanny. The sensation of being there was indistinguishable in any way that she could find from the real thing. Her clothes felt unusually heavy and enveloping. She looked down and saw that she was wearing a shawl and an ankle-length skirt of the period.

She was curious again. "Is there any reason why I shouldn't

look around?" she asked.

"Go ahead."

She followed the stream down to a path that joined the cart

track. It led to the outskirts of the village. There was a small marketplace with stalls and crude, wooden-shuttered shops displaying meat, vegetables, dairy produce, all plentiful and fresh, fabrics and linen, pottery and pans. And there was a cast of players to complete the scene, correct in character and role: farmers, merchants, tradesmen, housewives; gentry on horseback, a miller with a cartload of sacks, a jolly-faced inkeeper, two Highlanders in kilts, and children, rosy-cheeked and well fed, playing around doorways.

All of it crushingly bland, empty, and uninteresting. It came across as a not very imaginative stage set, populated by moving pieces of scenery added to finish the effect. Which, indeed, was

what the inhabitants were.

Gina stopped by a gray-haired old man sitting on a doorstep, smoking a pipe. Alongside him was a sleepy-looking, blackand-white collie. "Hello," she said.

"Aye."

"It's a fine day."
"'Tis an' all."

"This looks like a nice place."

"It's no' sa bad."

"I'm not from around here."

"I can see that."

Gina stared at him. His gray eyes twinkled back at her with good-humored, imbecilic indifference as he continued puffing his pipe. Her frustration turned to exasperation. "I'm from three hundred years in the future," she said.

"We dinna get vera many o' those around here."

"VISAR, this isn't going to work," Gina flared. "These are just dummies. Don't they know anything? Don't they have anything to say?"

"What do you want them to say?"

"Use your imagination."

"It's your imagination that matters."

"Well, can't you figure it out from whatever you see in my head?" Gina demanded.

"I'm not permitted to," VISAR reminded her.

"Okay, then, I'm permitting you. Go by whatever you find. Don't take any notice of the things we humans fabricate to fool ourselves."

This time the transition was not quite instantaneous.

There was music, muted to a background level. Gina found herself clad in a plain but gracious, classically styled gown. It

felt deliciously light and sheer. She was standing among others in a reception room of a large house. It was a solid, mature house, dignified but not pretentious, with high, paneled rooms, lofty gables, and intricately molded ceilings, and it stood by the sea. Across the hall was her library, and off the landing at the top of the curving stairway, the office where she worked, with its picture window framing a rocky shoreline. How she knew these things, she wasn't sure. But she smiled inwardly and gave VISAR full marks. Yes, it was a kind of life that she had sometimes conjured up in her daydreams.

The room that she and her guests were in had tall windows with heavy drapes, a fine marble fireplace, and furnishings in character. Above the fireplace was a crest, showing arms: unicorn and lion rampant, and a fleur-de-lis surmounted by . . . a shamrock. The music, she realized, was Celtic harp and flute. But from the dress of those present, and as she knew, somehow,

anyway, the times were modern.

The words from one member of a group of people talking nearby caught her ear. "Ah, yes, but it would have been a different thing if this country hadn't overcome its internal squabbles and resisted the English." The speaker, a roundly built man with thinning hair and a pugnacious bulldog jaw, stood holding a cigar in one hand and a brandy glass in the other. He spoke with an English accent; his voice had a rasping tone and a hint of a lisp. "Ireland might even have gone solidly over to Rome when Henry VIII went the other way."

"Oh, impossible!" one of the listeners exclaimed.

"Seriously. Purely out of defiance. Then who knows what we might have seen today? The Reversion might never have happened, and England could conceivably have dominated the Irish Isles. Then, America might have been started by some kind of Protestant, Puritan, monogamy cult. Then where would all of the freedoms be that we take for granted today?"

Gina stared in sudden astonishment as she recognized the speaker. It was Winston Churchill, one of her favorite historical

The glowering, stormy-faced man with thick side-whiskers, sitting talking with two women on a sofa facing the fire, was

Ludwig van Beethoven.

Shaken, Gina moved her head to take in others. "Nein. Zat is not really true, vat zey say. Only two ideas do I haff in my life, unt vun off zem vass wrong." Albert Einstein was talking to Mark Twain

"Don't misunderstand me. I abhor war as much as anyone—more than most, I suspect. But the reality is that evil people exist, who can be restrained only by the certainty of retaliation . . ." Edward Teller, nuclear physicist.

"Let's face it. Most decisions that matter are made by people who don't know what they're talking about." Ayn Rand, to

someone who looked like Mencken.

Another voice spoke close behind her. "Splendid to see you again, Gina. Doubtless dinner will be up to the usual standard." She turned, now feeling bewildered. It was Benjamin Franklin, easily identified even in his dark, contemporary suit and tie. He leaned closer to whisper. "Tell the secret. What are you surprising us with this time?"

"Er, venison." Gina found that she had a complete set of pseudomemories: deciding the menu; consulting with the caterers; planning the seating. The picture of the dining room was

clear in her mind.

"Wonderful. One of my favorites. And my congratulations on the new book. It's bound to raise a few hackles, but some-body needed to say it. Nothing could be more obvious than that individuals are *not* equal. They differ in size, shape, speed, strength, intelligence, aptitude, and in the disposition to better themselves. Of course, the opportunities to all should be the same. But to demand equality of results as a right is absurd. Since it is impossible for anything to grow beyond its inherent potential, the only way of achieving it would be to cut all trees down to the size of the shortest."

Amazingly, Gina knew exactly what he was talking about.

"I'm glad you agree," she said, forcing a thin smile.

Franklin leaned forward again and covered his mouth with a hand. "Ayn is livid that *she* didn't write it. You ought to try and find some way to console her."

"I'll bear it in mind," Gina promised, pulling herself together

at last and managing a conspiratorial smile.

"Good . . . And how are your husbands? Well, I trust?"

Husbands?

Gina's smile froze as a new tapestry of recollections unfurled itself. "The last time I saw—" She balked. The image in her mind of the man she had driven to the airport had Vic Hunt's face.

"Yes, which one? The Englishman?" Franklin inquired genially.

"VISAR, what does this mean?"

"You tell me."

Heads turned toward the door. Gina followed their gaze. A lithe, athletic figure, resplendent in tuxedo and evening dress, had appeared and was beaming at the company with arms extended wide. He had piercing blue eyes, a droopy mustache, and hair that fell in yellow waves to his shoulders. "We thank all of you for coming. Dinner will be just a few minutes. Meanwhile, enjoy yourselves. Feel that this home is all your homes." Appreciative murmurs came from around.

Gina gaped at him with a mixture of disbelief and confusion. He came over to her, assured, confident, mocking behind the laughing eyes, and offered his arm. "Excuse us. May I have my

wife back?" he said to Franklin.

"But of course." Franklin bowed his head and moved back. They moved away.

"What are you doing here, Larry?" Gina hissed.

"You brought me here. I'm just obliging."

"I don't believe you."

"Believe yourself, then."

"Why do you always insist on acting like an asshole?"

"Why did you marry an asshole?"

"That was a long time ago. It's been over between us for years."

"Only because you made it that way."

"We weren't suited."

"Wrong. We could have had fun. You had the curiosity, but you didn't know how to handle it. So you turned the problem into something else."

"I don't know what you're talking about," Gina told him. "Oh no? Come on, you're not really interested in listening to

this bunch all night. Let's move the night along."

The reception room and the guests vanished. Larry was dominating the situation, the way he always had. Gina started to rebel, the way she always had. Why had it always had to be his

way?

They had been transported upstairs to the master bedroom. Larry's jacket and tie hung on a chair, and he was standing by her. Another of his wives was lying propped against pillows on the bed. She smiled invitingly, her breasts and legs outlined through a thin, white robe that contrasted with her dark hair. Larry grinned at Gina challengingly. Despite herself, she felt an excitement rising inside her.

The woman stretched out a hand. "It's only a dream, Gina.

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We can do anything we like. Haven't you always been curious about everything?"

It was Sandy.

Gina felt Larry's arm slide around her waist. She pulled back. "No, I don't want this."

"Oh, but you do," VISAR's voice said from somewhere dis-

tant.

Sandy started untying the belt of her robe.

"Get me away from here!"

And Gina was back in the coupler cubicle. She tore herself up from the recliner and fled into the corridor. Farther along, she passed Alan and Keith, who were just leaving the bar; she did not even see them. They exchanged baffled looks, shrugged, and continued on their way.

Ten minutes later, her chest was still thumping as she sat on her bed, smoking a tranquilizer. Yes, she thought. She had a pretty good idea of what could have deranged a planetful of Jevlenese. Small wonder that half of them seemed to have lost

touch with reality.

chapter seventeen

In a rocky hollow below the mountainside, Thrax stood before the Rock of Decision, staring at the stone pillar that rose almost to the level of his head and concentrating his inner energy into his hand as he held it before him. To one side, the Master, Shingen-Hu, looked on impassively, while the three other initiates of the school sat watching from behind and the monks stood in a silent circle, projecting sympathetic thought rays.

"Believe now," Shingen-Hu told him. "There must be no

holding back. Let no part of you doubt."

This had to be the moment of complete faith. Thrax focused all the effort that he had learned to muster. His hand glowed, then shone with an inner light.

"Now!" the Master commanded.

Thrax drove his hand against the solid rock. The rock

yielded, and his hand passed through. He held it steady, inside the pillar, feeling the strange sensation of directed energy coursing through him, and the exhilaration of matter being subordinated to his will.

The power was starting to ebb. If he faltered now, the rock would rematerialize with all the crushing force that bound its particles together. Gathering his remaining strength, he passed his hand slowly sideways, causing the rock to part before and reconstitute itself behind, flowing over him as if it were water. until his hand emerged unscathed from the other side of the pillar. The glow flickered and died. Exhausted but ecstatic, Thrax stood while Shingen-Hu placed across his shoulder a sash bearing the emblem of the purple spiral. He then moved to take his place among the new adepts on one side of the circle.

Later, when the rites were over, the new adepts sat facing the Master across a hearth of stones in which a fire had been lit. From the night sky above, Nieru looked down upon his own. A few filaments of currents traced their lines toward it—Thrax had learned to see them by now. In earlier times, the longerestablished monks said, to the eyes of an adept the entire vista of the skies had writhed and twisted in fantastic patterns of glowing currents.

"What shall we find in Hyperia?" one of the novices asked the Master. Shingen-Hu had seen the visions borne by the

currents.

"It will happen suddenly," Shingen-Hu answered. "You will emerge as a new being, a being born to the ways of Hyperia. All will be new and strange."

"Is it true that madness lurks to afflict the unwary?" another

asked.

"There are risks. You will be tested. The being which thou art must subdue the being which thou strivest to become. Madness indeed lies in wait for those who ride up on the currents, but whose training is not complete. Beware those of divided minds, whom the conflict rages within. Seek strength from Nieru when troubles assail."

"What?" Thrax queried. "Does Nieru exist, then, even in the world beyond Waroth, also?"

"Seek his sign of the purple spiral," Shingen-Hu replied. "For that shall be the sign under which his followers gather. Know then that these are thy kind, and let that be the source of thy strength."

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"And will they teach us of the Hyperian magic?" the next asked.

"Hyperia will teach you its own magic."

"Magical laws?" Thrax said. "Artifacts that repeat? Objects that spin?"

"Artifacts beyond your wildest imaginings," the Master an-

swered.

"Everywhere? So does Hyperian magic extend over the whole world?"

"The whole world . . . and places far beyond, and across the voids between. Hyperians journey among many, magical worlds."

chapter eighteen

Ayultha, the leader of the Jevlenese cult that called itself the Spiral of Awakening and used the device of a purple spiral as its emblem, had come to Shiban. It was the same Ayultha who had led the demonstration in the city of Barusi on the southern

continent, which had led to Garuth's calling Hunt.

The SoA had been founded over two hundred years previously by a woman called Sykha, a hitherto unheard-of office clerk who had undergone an abrupt personality change. The sect's basic creed was an involved doctrine of reincarnation. which held that the individual developed through a series of "phases" of existence on successively higher planes, each one representing a step farther along a transition that progressed away from the purely material and mechanistic, and toward the spiritual and willful. The series of lives experienced in this universe, or plane, therefore added up to merely the preparation that was necessary to proceed to the next phase. Everybody had thus lived in other, lower phases in other forms before emerging into the realm of existence as presently perceived, and after a number of cycles at the human level, which could vary and depended on how diligently the SoA's teachings were attended to and practiced, they would go on to enter higher ones. The

early theoreticians of the movement had given it all a scientificsounding basis by tying it in to the transitions of physical particles between i-space and normal space as described by the

physics of the Thuriens.

The initial appearance of Ayultha to the faithful at the start of his tour of the Shiban area would also be the first event to be held in the arena of a just-completed sports complex, west of the city, next to the three-level highway connecting the center to the spaceport at Geerbaine. The complex had been built at their own initiative by a combination of public and private Jevlenese agencies since the Ganymean takeover of the planet's administration. Thus, it had come to symbolize the policy of self-help that the Ganymeans were trying to encourage.

To insure adequate public recognition of the success of the venture, a formal opening ceremony had been scheduled to precede the commencement of the Spiral of Awakening rally. However, because of a sudden illness resulting from a toxic mold that was found unaccountably to have contaminated the cheese in a salad served for his lunch, Shiban's chief of police would not be attending as planned. Instead, his place would be

taken by his deputy, Obayin.

On the day before the opening, a gray limousine pulled off the high-level throughway and halted on an unfinished access ramp overlooking the approaches into the sports complex.

Scirio, who ran the syndicate's operations on the west side and in Shiban center, motioned with a hand to indicate a slender, two-lane, flying bridge curving away from the midlevel trafficway below and connecting into a delivery area on one side of the two main buildings at the front of the complex, between the arena and the dome housing the gymnasium.

"It works like this," he said to Grevetz, the regional boss, who was sitting next to him in the rear compartment. "Ten minutes before he gets here, a truck breaks down on the main

ramp up to the front entrance."

"They're not gonna be letting any trucks up through there," Grevetz declared. "Not when the big names are due to show up.

It'll be sealed off."

"Special delivery of stuff they'll need for the born-again concert that's starting afterward," Scirio said. "We've got a pass for the driver. And just to be sure, the captain who'll be in charge of traffic duty tomorrow has been fixed to make sure it's let through. He's on the payroll."

Grevetz nodded unsmilingly. "Okay. Then what?"

Scirio pointed. "The other front ramp up from ground isn't finished yet. So he'll be diverted up to the middle level and routed over that bridge. It's the only other way in from this side right now."

"Okay."

Scirio shrugged. "The job was done in too much of a hurry. The Ganymeans were more interested in getting nice pictures in the papers instead of letting the contractor concentrate on getting the job right." He indicated the center section of the bridge, which was of metal construction, supported by cantilevers projecting from pylons on one side. "Tonight some people are gonna make a few changes underneath there. The wrong kind of some sorta pins that they use got ordered, and only half of 'em were put in. So that whole section comes unstuck." He waved a hand at the drop below, which went down past the ground-level trafficway and into the cutting where a ramp emerged from a cross-tunnel. "It's over a hundred feet straight down onto concrete. Plus he'll be going down in the middle of a hundred tons of junk. There won't be enough left of him to fill his shoes. Everyone writes it off as just another screwup."

Grevetz studied the layout in silence for a while. "How are you going to stop some other bozo from going across there first?" he asked at last. "The opening isn't due until ten-thirty. Whoever does the job will have to be out by six at the latest.

That's four and a half hours."

"The Ramp Closed sign will be lit from midnight on. A tech down a hole turns it off just before Obayin gets there. Plus there'll be a construction barrier set up across the entry until he's on his way."

Grevetz nodded that he was satisfied.

Later that day he met with Eubeleus, the Deliverer, at a house in Shiban that the Axis of Light owned, and went over the plan with him. "It is going to be busy there tomorrow morning," he warned. "More people could get hurt."

"Most of whom will be purple," Eubeleus replied. "So if a few of them are in the wrong place, Ayultha should be grateful

to us. We'll be giving him some martyrs."

chapter nineteen

So much had been new and strange. It seemed impossible to the *Vishnu*'s Terran passengers as they passed through the ship's docking bays to board the surface lander that only two days had passed since they had come aboard and seen their first views inside the Thurien starship. They had reentered normal space something like twenty Earth hours previously, five thousand million miles from Jevlen's parent star, Athena, and were now riding in high orbit above the planet itself. Kalor and Merglis, the two Thurien officers who had met the UNSA group on their arrival, reappeared to see them off. Hunt and his group had taken up their invitation to visit the *Vishnu*'s command center after breakfast on the second day.

The craft that carried them down to the surface was a silent, flattened, gold ovoid, with an interior more like a hotel lounge area than a passenger cabin—nothing that the Thuriens did took much heed of conserving space. Alan, one of the marketing executives from Disney World, sat across from Danchekker for the descent. "That VISAR system is something else," he said, making conversation. "It's incredible. We ought to think

about getting something like that into DW."

One of the schoolchildren from Florida, a girl of about twelve, with freckles and braces, was listening from a seat nearby. "It can make you think you're as small as an ant and see everything from that size," she told them.

"Yeah. It's real neat," the boy next to her opined. "You see. The kids really go for it," Alan declared.

"Hmm." Danchekker considered the suggestion. "Well, as long as you don't try and make the world simply the way it is at our level, but merely scaled down in size," he conceded. "I presume the intention would be to inform rather than mislead."

"How do you mean?" Alan asked, frowning.

Danchekker took off his spectacles and examined them. "Simply by the fact of getting smaller, an object's volume, and

hence its weight, decreases much faster than its area," he explained. "Hence its bulk becomes a negligible factor, and its surface properties rule the style of its existence—an elementary fact, but one which is apparently beyond the ability of our illustrious creators of popular movies to grasp."

"That's a good point," Bob, the teacher, said from somewhere behind. "See, kids, we're getting something useful out of

this trip already."

"I don't get it," the girl said.

"It's the reason why insects can walk up walls and lift many times their own weight," Bob told her. "There's nothing miraculous about it."

"At such sizes, the gravitational force which dominates at our level of perception is insignificant," Danchekker said, always ready to deliver to any audience. "One's experiences would be shaped entirely by adhesion, electrostatic charge, and other surface effects. So if you were reduced to such a size and wore a coat, for example, you wouldn't be able to take it off. Walking would be entirely different because of the negligible storage of energy in momentum. Hammers and clubs would be quite useless for the same reason." He looked at Alan. "I trust you take my point?"

"Er . . . yes," Alan said. "I guess we'd have to give that some

thought."

Hunt was sitting by Gina, who had been unusually reticent since breakfast. She seemed disturbed or confused about some-

thing.

"Some people do things in style," he commented, although his attempts all morning at being sociable had met with little success. He put it down to a delayed reaction to the stress and the strangeness after three days of her not having a moment to think. "The first time I went on an extraterrestrial trip, it was just a hop across the backyard to Jupiter. You get to go light-years."

A smile flickered across Gina's face but didn't stay put. "Well, you know us Americans: always going to extremes."

They landed at the spaceport of Geerbaine, which adjoined a regular airport on the western outskirts of Shiban. The reality of actually setting foot on another world seemed to dispel whatever had been hanging over her, and her spirits revived. She said farewell to the two Thuriens who had escorted them down, and stood with Hunt for a while, staring back through a glass wall in the disembarkation ramp at the shining, half-mile-high tower

of the Shapieron, which they had glimpsed from afar the day

previously, through VISAR.

"Just imagine, that was traveling between stars before our kind even existed," Gina said. "It's one thing to read about it and see pictures of it. But to stand this close and know it's really out there . . ." She left it unfinished.

"You sound as if you're feeling more yourself again, anyhow," Hunt said. "I was starting to get a bit worried. Maybe there's such a thing as i-space-sickness, not that I've ever heard of it . . . I don't know."

She sighed. "I suppose I have been a bit weird all morning.

Everything's all so new, I guess. I'll get over it."

Hunt looked around and across the arrivals area, where groups and individuals were milling around. Danchekker, Sandy, and Duncan were standing near the Florida school party, talking to two hefty, clean-cut, broad-shouldered men in gray suits who put Hunt immediately in mind of Dick Tracy. A short distance away, a woman in a maroon tunic with gold trim and buttons seemed to be collecting together a party that already included Alan and Keith from Disney World, the directors from the Denver corporation, a honeymoon couple that the UNSA team had met at breakfast, who were celebrating their third remarriage to each other, and the Russian psychologists. "I think that's probably the woman from your hotel," Hunt said to Gina.

Best Western hotels had displayed more of best American entrepreneurial initiative by acquiring premises at the core of what was rapidly becoming a Terran enclave at Geerbaine. Since Gina was not officially with UNSA and would have no obvious reason for going to PAC, she had made a reservation there under her own name as an independent journalist. She and Hunt would get together again somehow later.

Hunt walked across with Gina and made sure that her name was on the list that the agent from Best Western was checking, and that there were no problems. That completed the party, and the woman began shepherding her flock toward an escalator going up to what looked like a shuttle tube. Hunt turned away and began walking over to rejoin his own group, but was

intercepted by Bob, the teacher from Florida.

"I just wanted to say so long and thanks for the company. I enjoyed our talks. Maybe we'll bump into you guys again while we're here," Bob said. Through a glass exit across the floor behind Bob, Hunt could see the school party chattering and

jostling as they climbed aboard a bus that was bright pink with green stripes. It was an odd-looking vehicle, running on balls half-contained in hemispherical housings instead of wheels. The center portion of its roof rose into a large, bulbous projection of just the right proportions to immediately suggest a female breast.

"Not staying at the hotel here, then?" Hunt observed as they shook hands.

"No. We decided to take the plunge straight in. A Jevlenese school that we got in touch with in the city offered to put everyone up, so we went for it. Might as well see what it's all about here, eh? Hell, we can see the inside of a BW any day of the week."

"Good thinking," Hunt agreed. "Enjoy the sights."

"You too. See you around, maybe, Vic."

The two men who had come to collect the UNSA group were Americans, Hunt discovered when he at last joined them. There was no real reason why he should have been surprised, since the traffic of Terrans to Jevlen had been pretty free, but it wasn't something he had been expecting.

One's name was Koberg; the other's was Lebansky. From their tight-jawed impassivity and overall bearing, they had to be military, Hunt guessed, and was proved right: both were U.S. Secret Service, formerly military police, currently attached to

PAC security on Jevlen.

"Security?" Hunt looked puzzled. "I thought JPC turned

that proposal down."

"Yeah, well, that was for a UN force," Koberg agreed. He gave the impression of being tactfully evasive. "I guess a few things have been happening on the quiet that maybe you won't have heard about. You know how these things are: Some of our people kind of decided to go ahead anyhow, in a low-visibility way. You might call it a precautionary insurance."

"Maybe the chief will explain it better when we get back,"

Lebansky suggested.

They led the group out of the same exit that the school group had used, just as the pink bus was pulling away. A smaller ground vehicle was waiting for them, similar to a minibus, again riding on balls instead of wheels. Inside were two more men, Jevlenese this time, one in the driver's station in front, the other seated by the door. Neither of them spoke any Terran languages, but the driver said something over a communica-

tions link that sounded like a confirmation that the party had

been picked up.

"Today we travel the slow way," Koberg said as they moved off. "There's normally a fast-transit tube system into the city, but it's not running."

"Hell, what do you mean, 'normally'?" Lebansky challenged.

"The darn things are never running. This is normal."

"Just when this side of the city's going to be packed for a big rally that's going on today," Koberg said. "Purple-spiral loonies. Ever hear of them?"

"A little," Hunt said.

"You'll see plenty of 'em today," Lebansky promised.

Jevlen had been developed as the home world of the Jevlenese within the Thurien civilization, and as such its layout reflected a human worldview rather than anything predominantly alien. Although Ganymean influence was inevitable, the geometry and architecture conformed to more familiar notions of style and consistency—which came as a relief to those who, after seeing the Vishnu, had prepared themselves for worse.

The metropolis was higher than anything that contemporary Earth had to offer, rising in the center to a monolithic fusion of towers, ramps, terraces, and bridges that dwarfed anything from home in scale and breathtaking concept; but the avenues passing amid the flyovers and disappearing into the central zone at various levels remained avenues, the levels remained levels, "up" meant the same thing everywhere, and surface and line in all directions extrapolated with reassuring predictability.

At any rate, those were the qualities inherent in the city's fixed, unchanging aspect: the imprint of its origin, stamped in the same way that the underlying rock strata impart fundamental character and form to a landscape. But the promise that had been written into the soaring lines and broad vistas was just an empty voice echoing from long ago. The vision of those who

had conceived the city had not been fulfilled.

Everywhere had the same look of weariness and shabbiness. the signs of neglect and disrepair that Hunt and Gina had seen from PAC the day previously. One area they passed had flooded, leaving the shells of several derelict buildings protruding above the water like islands in a swamp. In another, children swarmed in and over lines of immobilized, partly dismantled vehicles that looked as if they had not moved for years. After the crisp, new look of everything inside the Vishnu, the sights were depressing. The Jevlenese in the rear of the minibus seemed indifferent when Hunt tried questioning him, with the Americans acting as not-very-efficient interpreters. He seemed unaware of how things could be otherwise.

The people hung around in listless crowds, wandered aimlessly in the boulevards and squares, or sat on the grass in the open spaces beneath the pale chartreuse sky. Since the shutdown of the major part of JEVEX, many of them had moved out of the city's central zone and taken up a shantytown existence in the outer sectors. They could be seen sitting in doorways, bartering in noisy street markets that had sprung up off the major throughways, and cooking under makeshift awnings beneath lines of washing strung across passageways and alleys. All of them inert, leaderless, waiting for somebody to point a direction.

"The trouble that a few agitators could stir up out there doesn't bear thinking about," Sandy said in a sober voice as she stared out at the passing scene. "No wonder Garuth's having problems."

"Is this policy of his going to work?" Duncan asked. He

sounded very dubious. "Can it work?"

"Aw, they have to find out what the real world's all about," Koberg answered. "It's just that with some it takes longer than with others. The ones you're looking at now are the slow learners. There's others doing okay. The system has to sort itself out."

"It's gonna take time," Lebansky said. "You've gotta stick with it. That Garuth has got nerve. I'll give the guy that."

"Right," Koberg agreed.

The roadway became one of a multilevel system curving in toward the looming bulk of the city's central massif. The view that had appeared on the screen in the cabin of the surface lander as it descended had been misleading, Hunt saw as they approached the metropolis proper. Ahead, between the structures flanking both sides, he could see parts of what was revealed to be a false roof with an artificial inner sky over that section of the city. In some places the cliffs of buildings rose to support it, dividing the space beneath into enclosed basins of varied cityscapes interconnected in the upper parts by vast corridors carrying streams of airborne traffic and transport tubes; in other parts, the blocks of architecture came together to form upthrusts of streets and precincts open to the natural sky, or elsewhere soaring towers projecting through the canopies. The combined result of all of them formed what had

seemed from above to be the actual skyline of the city undis-

guised.

Farther on, they passed growing numbers of people wearing purple, gathered in crowds and walking in processions with banners showing a purple spiral on a black background. "Is this what you were talking about?" Sandy asked the Americans.

"Right, that's today's big event," Koberg replied. "Their great guru is in town. There's a new sports complex being opened today—you can see it now, on the right there—and they're having a big—"The bus slowed suddenly. "Say, what's

this? What's going on there, Pete?"

Ahead, the traffic was coming to a confused halt and tailing back, with vehicles stopping in disorder at all angles across the lanes. There was another traffic level above; those vehicles were passing through a complicated interchange of on-off ramps and flyovers. The vehicles ahead were clustered around a two-lane exit road that left the main throughway in a descending curve, flying high over the immediate surroundings and supported by slender pylons on one side—and then it stopped abruptly at a ragged edge in midair. Figures were climbing out of vehicles and clustering along the barrier, waving their arms and pointing down.

Lebansky moved to the front of the bus, muttering to the driver and motioning with a hand. The driver, who had been doing nothing, since the vehicle had been driving itself from Geerbaine, engaged manual and pulled onto the shoulder, nosing through the other vehicles that had stopped. "Looks like there's been some kind of accident," Lebansky threw back as the others crowded to the windows. "Jeez, look at that! A whole

piece of it's collapsed there!"

As the minibus moved closer to the barrier, they could see, below them, the wreckage of an entire span of what had presumably been a bridge, with the remains of at least two vehicles crushed beneath it. But that was not the only damage. In falling, the bridge had swung sideways and demolished two of the supporting pillars of the main throughway, causing a section of the innermost lane to tear away. It hung, buckled and twisted, projecting out into space like the deck of a ship that had broken in two. At the far end of the sagging section, which extended for perhaps two hundred feet, a truck had slewed across and stopped, grounded, on the edge with its front actually hanging over the drop. A smaller vehicle had run into it. Behind that, perched precariously on the edge of the rent where the lane had

come away from the main roadway, fifteen feet or more above, was another, familiar-looking vehicle with its absurd, bulbous, pink conning tower amidships, and vivid green stripes.

"It's the titmobile that was back at the spaceport," Koberg muttered, staring ahead, his eyes moving rapidly to take in the

scene.

"Oh, my God! Those kids!" Sandy gasped.

"What kids?" Koberg shot at her. Lebansky snapped something to the driver. The bus stopped.

"Ours-from Earth," Sandy stammered. "They were on the

Vishnu. A bunch of schoolkids from Florida."

"They're staying in the city somewhere," Hunt said.

Something gave way, and the hanging section of road dropped another two feet. The truck that was balanced on the edge lurched visibly. Screams went up from among the crowd gathered outside. Two figures scrambled out of the truck's cab and began making their way back up, moving awkwardly and off-balance on the sloping surface. Another tumbled out of the car that had tail-ended the truck. Somebody else inside the car seemed to be hurt. There was a screeching of sirens from behind as a vehicle with flashing lights came nosing along the shoulder. It stopped behind the minibus and disgorged men in yellow tunics and white caps, presumably police.

Koberg climbed out and engaged them. They were excited and waving their arms wildly. Koberg seemed to be trying to calm them down. In the front of the minibus, Lebansky was operating a panel alongside the driver and talking to a face that

had appeared on a screen.

The road sagged some more, and the truck tipped and went over. The whole structure beneath the minibus shuddered, and the shouts from outside almost drowned out the sound of the crash. The pink bus was trying to back up; but its balls weren't getting enough grip on the buckled, tilted surfaces, and it was slithering uncontrollably from side to side as if in a snowdrift.

"That idiot's panicking!" Hunt yelled. "He'll bring the whole bloody thing down! Stop him! Get those kids out of there! Get

them out!"

Koberg dismissed the police with an impatient wave and ran down to take charge. Up front, the face that Lebansky was talking to was also an American from the sound of it. "How else does it look?" Hunt heard him saying.

"There's purple freaks all over," Lebansky replied. "Anything could happen. The police are here, but it seems we've got

some flakes. Mitch has gone down to stop the jerk in the bus,

but he's gonna need help."

"Stay there with him," the face on the screen said. "Heshak and Mu can bring the UNSA people back here. Check in with

me again when it's under control."

"Roger." Lebansky flipped off the unit and exchanged a few words with the two Jevlenese, who nodded. He came back along the bus and climbed out the door that Koberg had left open. Two of the yellow-uniformed police outside immediately began jabbering at him and flailing their arms. Lebansky showed a badge and shouted them down, then pointed at the minibus that the UNSA group were in and the other vehicles blocking its way back onto the throughway. The policemen faltered, then nodded and rushed away to begin clearing a way through. The other police, meanwhile, were running back and forth among the already excited crowd and seemed to be doing more harm than good. Above it all, in the background, came Koberg's voice, roaring at the driver of the pink bus.

Lebansky stuck his head back in the door. "That's all it needed. One of the cars underneath all that junk down there had their deputy police chief in it. Look, it's all gonna get crazy here. These two guys will take you on to PAC. We'll see you when we get there." Without waiting for a reply he slammed the door and gave the side a thump to send the driver on his way.

Ahead, one of the policemen waved them forward.

"I think it's stopped," Sandy said, peering back through the rear window. "Yes, it is. Some of the kids are coming out now."

"That's a relief, anyway," Danchekker said, having sat tight-

lipped throughout.

"The tour guide never said anything about this," Duncan muttered. It was a reflexive attempt at bravado. He was visibly

pale.

Around them, the structures and buildings of Shiban closed together and merged into a single, monolithic composition of levels and precincts penetrated by avenues and transportation ways, as the highway became a vast tunnel sweeping into the city proper.

chapter twenty

There was nothing to be done, Hunt told himself. Accidents happen. Whatever would happen to the school party lay in other hands. He could do nothing but wait to find out the news when they got where they were going. He concentrated on absorbing the scenes outside and tried to put it out of his mind for the time being. The silence from the others in the bus told

him that they were struggling with the same feelings.

But it soon became apparent that they hadn't left all their difficulties behind them just yet. As they passed an enclosed square of window facades crisscrossed by walkways on several levels, they saw a commotion ahead, involving a crowd of purple-clad people spilling out onto the roadway and causing vehicles to halt. One of the Jevlenese escorts voiced a command to the vehicle's monitor panel, and the bus veered away down a slipramp to take a different route.

"What now?" Hunt murmured apprehensively.

"You don't think it could all be for us?" Duncan said.

But farther along the lower route the crowds became thicker, jostling, shouting slogans, and blocking the throughway, heedless of the blaring horns and curses from the occupants of stranded vehicles. Again the minibus was forced to detour, this time into a side street flanked by shops and doorways. But after several more zigzag turns through the labyrinth that the part of the city they were now in was turning into, they found themselves back in the rally. This time there was no getting through. The intersection at which they had halted was jammed with marchers, some carrying banners, the rest linking arms to form a solid phalanx of chanting ranks. A flood tide of humanity closed around, while other vehicles that had been following blocked any way out behind.

Duncan stood up and peered anxiously through a side window. "There's another bunch coming up the street, green ones

this time," he muttered.

"Best to stay put inside the vehicle," Danchekker pro-nounced, clutching his briefcase determinedly on his knee.

"I'm not so sure," Duncan said. "It looks to me as if we

could have trouble breaking out."

The Jevlenese evidently agreed. One of them jabbed a finger several times in the direction the bus had been heading. "PAC, that way. Not far," he said. "Go feet now best. This bad news."

Hunt nodded. "Let's go." Danchekker hesitated for a second

longer, then concurred.

They clambered out into the throng. Whatever the shouting was about was a mystery, since it was all in Jevlenese. One of the escorts led the way, pushing and elbowing to force a passage through, and the other brought up the rear. But despite the group's attempt to keep together, the ebbs and flows of the tide around them drew them apart. Danchekker and Sandy managed to stay close to the leader; but a gap developed between them and Hunt, and then another between Hunt and where Duncan was with the other Jevlenese, both of whom were being carried away sideways.

"That way!" the one who was near Duncan shouted, pointing with a raised arm at a stairway on the far side of the intersection, leading up to a system of overlooking galleries and walkways. "Head for stairs . . ." He vanished in a swirl of people, and the rest of his words were drowned in a roar of voices.

Somebody backed into Hunt and trod on his instep, painfully, at the same time swinging an arm that caught Hunt across the mouth. Hunt shoved him away. The man collided with another, and they both went down. Then a knot of people pushing from the other direction sent Hunt sprawling over both of them.

At that moment, a group with green-crescent banners appeared on one of the levels above and showered leaflets on the marching Purples, and pandemonium broke out. As Hunt was trying to regain his feet, everyone around him began rushing forward as if impelled by a common instinct. He rose onto one knee and started to straighten up, whereupon a fat woman in a red-and-black jumpsuit careened into him and knocked him down again. She stumbled and fell heavily on her knees alongside him, shrilly exclaiming something that he didn't understand. He tried again to rise, but she was clawing at his collar, using him as a prop to pull herself up.

"Get off, stupid cow!" Hunt shouted, and was answered with a stream of what sounded like alien obscenities. He fought his way to his feet and looked about desperately, but the others had disappeared. Swearing to himself, he plunged into the turmoil, setting his sights on the stairway that the Jevlenese had indicated. But before he was a third of the way there, the marching tide flowed around him and carried him with it toward one of the exits from the intersection. A chanting man in a purple hood tried to link arms with him.

"Let go of me, you daft sod," Hunt snarled, wrenching himself away.

Another arm grasped his from the other side. Hunt tried to pull away, but the grip remained firm and insistent. "I do believe I hear another voice from back home," a voice yelled in his ear. It sounded American. Hunt jerked his head around and found himself staring at a ruddy, snub-nosed face with a short, hoary beard, eyes that glittered like light gray ice, and a mouth that couldn't suppress a mirthful twitch, even in the circumstances. The face was topped by a panama hat sporting an outrageous yellow band with red and white polka dots. Hunt could feel himself being urged along in the direction of the flow.

"Sorry," Hunt yelled back. "I'm not going on any Batman

rallies today."

"Neither am I. I'm going home. But you won't get anyplace upstream in this. Have to ride with it until we can jump out."

"Where?"

"Just stick close."

They were swept along with the marchers for about half a block, in the course of which the stranger maneuvered them outward toward one side of the flow. Then, as they came abreast of the entrance to a narrow passageway leading off between a shuttered shop front and the base of a pillar, he yanked at Hunt's arm and nodded. "There!"

They detached themselves from the human river like hoboes jumping from a slowing boxcar and followed the passage to an iron stairway leading up. It brought them to an elevated pedestrian way where people were watching the confusion below. But at least it felt halfway back to sanity. Hunt and the stranger

stopped for a moment.

*Who the hell are you?" Hunt asked when he had regained his breath.

The glittering gray eyes looked back at him with an amusement that seemed friendly. "English, eh? Well, most people who like me call me Murray. The others usually think up something else." He jerked his head to indicate the Jevlenese around them. "But let's leave the formalities till later and get away from all the crazies first."

Murray led the way through a warren of passages and arcades, up stairs and escalators, across footbridges. Within minutes Hunt had lost any idea of the way back to the intersection. It was like being inside an ocean liner, a supermall, and a Shanghai street market all rolled into one and swelled to a scale that would have encompassed New York's avenues and Tokyo's railroad system. Even though there were many shuttered shop fronts and vacated apartments, people were everywhere, though how much of the bustle and activity was normal, Hunt had no way of knowing.

The typical Jevlenese Hunt saw were not exactly like any of the Terran races, Hunt observed. They were orangy in hue, with hair that varied from copper to black. Their faces were wide and flat, their eyes rounded, the skin of many of them speckled or streaked with brownish blotches, and they wore every form of garb imaginable. They tended to be taller than the average Terran, but flabby—probably from spending too much of their existence inertly coupled into JEVEX, Hunt guessed. But there were enough who were shorter, darker, lighter, or pinker to make Hunt feel at least not obviously alien, even if something of an oddity.

Everything had happened too quickly and unexpectedly for Hunt to be in any state of mind to form a coherent picture of what was going on around him. He registered only disconnected impressions that came and went. Some were of people who seemed grandly attired and ornamented, strutting self-importantly, sometimes with retinues of attendants; others were of dirty and shabby individuals, panhandling from passersby. At one place they passed, which seemed to be a restaurant, a small honor guard of staff waited at the door to greet a party from a chauffeured automobile; a few yards farther on, a loudly protesting figure was tossed bodily from the back door of another place. In neither case did anyone else take much notice.

They came to a dingy, not-very-clean-smelling passage between a bar and some closed-down premises, and entered one of several doorways. Inside, a vestibule with a brave stand of exhausted flowers in a long tub opened through to a hall with several doors of various colors, all scratched and battered. One, larger than the rest, looked as if it might be an elevator, but

Murray ignored it and, tossing back a terse "Busted" over his shoulder and making a throwing-away motion of his hand, led

the way past it to a stairwell at the rear.

On the first landing, they had to step over a snoring body, drunk or under some other influence. A door on the next was open, with a pair of tots playing with toys on the floor outside. They greeted Murray with smiles. He ruffled their hair as he passed, muttering a few words in Jevlenese. From inside, their mother looked out blankly, saying nothing, while from behind a door opposite came strange, atonal music with a heavy rhythm, punctuated by two voices shouting and shrieking at what sounded like the borderline of murder. "Don't worry about it," Murray grunted, seemingly reading Hunt's mind. "It

won't come to that. Jevs never do anything right."

Two levels farther up, they stopped in front of a purple door with a white surround. Murray said something to it, and a female voice answered from nowhere identifiable. The door slid aside, and Murray ushered Hunt through, just as a woman came out of one of the rooms to meet them. She had a clear, dusky complexion, cherry-colored hair, and was wearing a skintight orange top with glittery mauve, calf-length pants. By what seemed to be the Jevlenese norm, she was quite trim and shapely—in fact, her figure wasn't at all bad by most Terran standards, either. Her voice had a bright up-and-down lilt as she chattered more Jevlenese at Murray, who replied in a series of short utterances and grunts.

"This is Nixie," Murray said when he could get a word in. "All that was the Jev way of saying hi. They talk too much. Nixie, meet a new friend of ours . . ." He cocked an eyebrow

inquiringly.

"Vic'll do fine," Hunt said. Murray said something to Nixie

in which Hunt caught the syllable "Vic."

Nixie smiled, showing white and even teeth, and took Hunt's hand. "Vic, how you do today? We go fuck? Have real good time."

"No, no, you dumb broad." Murray sighed. "He's not a customer. Just visiting. Understand? Vis-it-or. Come here to say hello. Anyhow, it's your day off."

"Ah." Nixie dismissed the error with a matter-of-fact shrug.

"Is okay I guess."

"How about a drink, then?" Murray said. "Can fix? Drink?" He raised his hand in a drinking motion. Nixie smiled, nodded, and turned toward a short passage that led to what looked like

the kitchen, from which the sound of a popular jazz group was issuing—Terran, this time. Murray patted her behind as she moved away, then he steered Hunt into the lounge. "Put your feet up. Make yourself at home. I guess you've had a long trip."

It was a cheerfully chaotic place, cluttered and colorful in an unapologetically gaudy kind of way, yet cleaner and better kept than Hunt's impression of the exterior had prepared him for. It went with Murray's hatband. There was a suite of puffy-looking chairs in gray and red that molded themselves into whatever shape the occupant assumed, with a couch of the same; a large table by the wall, bearing a vase of Jevlenese plants amid a litter of household oddments, a box of tools, and some magazines; and a fluffy pink carpet that looked like mohair. Various ornaments and knickknacks filled every shelf and recess, and most of the wall space was taken up by posters, pictures that included some raunchy girlie poses, both native and Terran, and several embroidered blankets of the kind that tourists everywhere liked to buy. A picture of the Golden Gate Bridge formed a centerpiece on one wall. It was surmounted by an American flag, with a Chicago University bumper sticker, dollar bills of various denominations, and an arrangement of Budweiser, Miller, Michelob, and Coors coasters framing the whole.

Murray tossed his hat across the room onto the table and flopped down in one of the chairs, stretching a leg out over a footstool. He had wiry hair streaked with gray, like his beard, that was beginning to show a thin patch at the crown. Hunt sat down in the chair opposite, pressing his body this way and that

until the contours suited him.

"Her real name's Nikasha," Murray explained. "Don't be taken in by the act. She's smarter than she lets on. Keeps her sights on the real world out there—and that's saying a lot for this place." He reached up to a shelf near his chair and took down a silver metal box. Flipping open the lid, he offered it to Hunt. It was partitioned into two sections, holding rolled joints of different colors, thicknesses, and lengths in one end, and a selection of tablets and capsules in the other. "Burn up? Cool down? Blow a weed? Some of the local stuff'll put you back into i-space."

Hunt shook his head. "Don't use it. I'll stick to conventional

poison." He felt in his pocket for his cigarettes.

Murray snapped the box shut and threw it back on the shelf with an approving nod. "Damn right. Awful shit. I never figured it, either."

Hunt still had not caught up with the turn of events. He pinched his eyes for a moment, then tossed his hand out vaguely. "You were obviously one of the first here . . ."

'Natch."

"But not with any of the official parties, I take it?"

"I hitched a ride back on the first Thurien ship that showed up, right after the blowup with the Jevs," Murray replied. "I guess most people still don't realize that the Thuriens'll take just about anyone for the askin'."

Hunt shook his head in a way that said that many of the things Murray seemed to be taking as obvious were not obvi-

ous. "What was the attraction here?" he asked.

Murray tugged at his beard, his gray eyes glittering mischievously. He seemed to be enjoying Hunt's bemusement. "Nothin' that I'd ever heard of. It was more a case of having to get out of there. You know how unreasonable the Feds can get about anything they think they're not getting their cut of."

"What weren't they getting a cut of?"

"Oh, a little bit o' this, little bit o' that . . . I was mainly in what you might call the 'creative import-export' business. It involved certain psychotherapeutic agents and other substances that aren't covered by monopoly patents, which you can't get approval for."

"I see," Hunt said, nodding. He should have guessed. "So

you've been here . . ."

"It's getting to be over six months, now."

"Where from?"

Murray gestured at the Golden Gate picture below the flag. "Born and raised. Hell, where else is there?"

"What do you do here?"

Murray shrugged and looked vague. "Oh, bit o' this, bit o' that. Buy and sell, deal and trade in anything there's a demand for. Jevlen's a pretty easygoing place that way: not exactly what you'd call restrictive. The Thuriens don't need a lot of telling to make them act smart and stay in line, so I guess they never thought to set up much of it here, either. Now that the lunatic fringe that were trying to play Napoleons are gone, there's a lot of opportunity."

Nixie reappeared carrying a tray with a bottle and glasses, a dish of broken ice, and a bowl of mixed snacks. "When Vic get here Jevlen?" she asked, setting the tray down and sitting by

Murray.

"Today," Hunt said. "An hour ago, maybe less."

"Today," Murray repeated, adding something in Jevlenese. "You drink rum?" he asked, looking back at Hunt.

"Sometimes."

"Local gutrot. Something like rum, but kinda minty. It's called ashti. Give it a try." He poured Hunt a generous measure from the bottle, pushed across the ice, then half filled two more glasses for himself and Nixie.

Hunt took a neat sip and found it not bad. He added an inch of ice. "So Vic have no girl here yet," Nixie said. "We fix. Know plenty girl. Find real pretty one. Good and kinky."

"Jesus, don't you ever think of anything else?" Murray grumbled. He lounged back and raised his glass toward Hunt. Nixie took a small case from a side table and began applying a pink cosmetic to her nails. "So what's your story?" Murray asked Hunt. "Is there a Thurien ship in today?"

Hunt nodded. "I'm part of a group that UNSA sent to have a look at some aspects of Ganymean science. There are going

to be big changes."

"So, is that what you are—a scientist?"

"What kind?"

"Originally nucleonics. But since the Ganymeans showed up,

it's been getting more general."

Murray took a gulp from his glass and regarded Hunt quizzically. "So how in hell did you wind up being bounced around in the middle of a Jev banana parade? For somebody who's been off the ship an hour, that takes real talent. You must have a guidance system that homes on trouble."

'Not really. The tube in from the shuttle port wasn't run-

ning-"

"Typical."

"—so we used a bus. Our group will be based at PAC."

"The old government center. Okay."

Hunt shrugged. "The bus had to divert and got bogged down in the crowd. The Jevlenese who were with us decided to try and make it on foot. I got separated from the others. And then you showed up."

"Probably just as well for you, too. They can get pretty wild. Most of them are headworld cases who forgot the difference between cuckoo-land and reality a long time ago-assuming

they ever figured it out in the first place."

"There was something else, too," Hunt said. "On the way in from Geerbaine we passed an accident."

Murray pulled a face. "It gets a bit like I-405 sometimes. How bad was it?"

"It wasn't a pileup. A traffic bridge collapsed—part of an exit slipway."

"Goddamn turkeys," Murray muttered beneath his breath. "Anyone hurt bad?"

"It looked like it. And I think one of them was the deputy police chief. Apparently he was driving over it."

"Oh, shit. Well, I guess we'll be hearing all about that."

Hunt looked around the room, tapping his fingertips lightly on the tabletop next to him. His eyes came back to Murray. "Look, I don't want to be unsociable or anything, and maybe it's been a long time since you talked to anyone new from back home. But the others will be wondering what's happened to me. I need to get to PAC. Is it very far from here?"

"You're right. We can shoot the breeze some other time." Murray turned to Nixie and said something in Jevlenese. She replied with a stream of chatter, nodded, and said something in a raised voice. Another female voice answered from what

seemed to be the room in general.

"That's Lola, the house computer," Murray murmured. Hunt nodded.

Nixie exchanged a few words with Lola, and then another female voice came on and entered into a dialogue with Nixie.

"Nixie and Osaya will take you there," Murray said, turning back to Hunt. "Osaya's one of the girls upstairs. I'd do it myself, but I've got somebody coming here in about fifteen minutes. Business."

"That would be fine." Hunt nodded and finished his drink. "That stuff's not bad."

"Glad you like it. Don't forget to come back and have another."

They were silent for a few seconds. Then Hunt said, "That 'headworld' that you mentioned a minute ago. What is it? Do

you mean JEVEX creations?"

"Yeah. Most Jevs never learned to ask questions, so they believe anything anyone tells 'em. It's Madison Avenue's dream out here. I'm telling ya, if them Thuriens don't wise up and start limiting the tickets, there's gonna be every con artist and snake-oil salesman from home comin' in by the shipload once the news gets around."

Nixie finished her conversation. She examined her nails, then

opened the front of the top she was wearing and began painting

one of her nipples.

"So what's going on everywhere today?" Hunt asked. "Who are these people with the purple spiders, or whatever it's supposed to be? One of the guys who met us said something about

a big guru arriving in town."

Murray nodded with a weary sigh. "You remember they used to call California the Granola state: full of nuts, fruits, and flakes? Well, I'm tellin' ya, it's like a convention of judges and bishops compared to this place. They've got every brand you can think of here. Magical forces, mystical dimensions, mindpower, faith-power, psychic messages—if you can think of it, somebody believes it."

"And the Thuriens were never able to change it," Hunt com-

mented, drawing on his cigarette.

Murray turned up his empty hand. "That's the way it is ... Anyhow, one of the biggest outfits calls itself something that translates roughly as the 'Spiral of Awakening'—that's what the purple spider is. They're into some kinda reincarnation crap. It's leader is a guy called Ayultha: a kind of Hitler that's got religion."

"Ayultha, he make lots crazy people," Nixie said, catching the name. "Not good. Terrans not so crazy. Think I go live

Earth. Terran men like Shiban girl, you think, Vic?" "I think they'd find them quite . . . passable," Hunt told her. Murray translated. She looked pleased and transferred her at-

tention to the other nipple.

"Ayultha says it was the old regime that caused all the problems," Murray went on, "and JEVEX had nothing to do with it. He wants the Ganymeans out and the system restored. But then, all of the cults have got some reason for wanting JEVEX back. With all those junkies out there, they can't lose. They know when they're onto a good thing."

"So who are the ones with green sickles?" Hunt asked.

"Axis of Light: another of the same—except their guiding genius thinks he's a computer. Basically they're all as bad, but the leaders carve up the territory by getting everyone hyped up over details that don't matter—you know, like whether you make the sign with this hand or that hand, or whether some book said a line this way or that way, and that kind of garbage. But it isn't exactly something I've spent a lot of time worrying about."

[&]quot;I imagine not."

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An off-key chiming sound came from the room system. Nixie acknowledged it, and what sounded like two laughing female voices replied. Leaving her handiwork displayed, she got up and went into the hall to open the door. Murray raised his eyebrows. "You'll have quite an escort," he told Hunt, draining his glass and standing. "That sounds like Osaya plus one of the others. They're curious to meet the Terran."

"I'm not complaining," Hunt said, rising to follow. "And thanks again for the help. I've got to hand it to the U.S. Cavalry

again, eh-you showed up just in time."

Murray handed him a card, printed in Jevlenese. "This has our address and call code. Stop by again when there's more time to talk."

"You can count on it." Hunt went through to the hall, where the three girls were waiting. Osaya turned out to be six feet tall, with a skirt not more than twelve inches long. Her companion was a redhead in pants that went transparent to light at certain angles, causing devastating things to happen as she walked.

"My God," Hunt muttered. "I'll never explain this. I hope

Chris isn't around when we get there."

chapter twenty-one

Hunt and his three escorts reached the Planetary Administration Center after a fifteen-minute walk through more streets and arcades and across a pedestrian flyover spanning a moving beltway that carried freight. The base of the PAC complex merged into the general plan of the lower city, but as was clear from the fact that the *Shapieron* at Geerbaine was visible from higher up, its upper parts formed a tower facing west over the city.

The entrance they came to was a transparent wall and set of doors opening from a wide pedestrian precinct lined by stores and what looked like office units, rows of display cases, and at the far end a battery of stairs and escalators going up to the concourse of a transportation terminal. The doors opened at

their approach, and inside was a desk with a Jevlenese reception clerk. A couple of guards were standing a few yards back in the lobby area opening through to the interior. To Hunt's relief after some of the things he had seen and heard since arriving, the guards were smartly turned out and seemed alert. So someone, at least, seemed to know what he or she was doing. They were unarmed as far as Hunt could see, but both were wearing lightweight headbands, throatmike-earpiece combinations, and wrist units that Hunt recognized as Ganymean communications accessories into the Shapieron's computer system, ZORAC—the direct neural-coupling technology of the Thuriens was from a later era.

Initially, the interest of the guards was focused more on Hunt's companions than on Hunt. But then the clerk, probably prompted by ZORAC, who would have recognized Hunt via the visual pickups in the headbands, gesticulated and said something in Jevlenese to the other two, followed by "You are" Doctor Hunt, who gets missed? All look everyplace Shiban. Ganymeans very . . ." He traced circles vaguely in the air with

his hand.

Hunt nodded. "I'm Hunt. I'm okay."

"Use, please." The clerk reached below the desk and produced another communications kit. Hunt fitted the items into place, and a voice spoke that he hadn't heard for a long time.

"Hello, Vic. Welcome to our world, and all that—but you don't seem to have been doing a bad job of finding yourself a welcoming committee already. Pretty fast operator, if you don't

mind my saying so."

It spoke in his ear, not his head. A sudden feeling of being back among familiar things came over him. Perhaps, in some ways, the Shapieron Ganymeans were closer to Earthpeople than to Thuriens. "ZORAC, you haven't changed," he replied. "This isn't what it looks like. And even if it were, it wouldn't be any of your business."

"Glad to see you're in one piece, anyhow."

The reception clerk was coming through coherently now that ZORAC was on-line to translate. "Dr. Hunt, we're sure pleased to see you. We've put alerts out all over. The Ganymeans have been getting worried."

"Did everyone else make it okay?" Hunt asked.

"They're all here."

"We passed an accident on the way from Geerbaine," Hunt said. "A part of a bridge collapsed."

"Yes. A senior officer of the Shiban police was killed. There was a lot of confusion."

"Also, there was a Terran party in a bus, off the same ship as us. They were in a precarious situation when we left."

"The school group?"

"That's them. The two Terrans who met us stayed behind to sort it out. Do you have any news on what happened?"

"They're all okay. Koberg and Lebansky got back a few minutes ago." Hunt nodded and emitted a thankful sigh. The clerk inclined his head to indicate the three girls, who were by this time talking to the guards. "Er, where did they come from?" he inquired, dropping his voice discreetly.

"They were collecting for charity at the airport."

"Sure. Give me a call," Osaya was saying to one of them.

"I'm off at seven. How about then?"

"Anytime. And I love the Terran uniform . . ." ZORAC was

still supplying the background translation.

Just then, another figure appeared through some doors on the far side of the lobby area and came across. He was about fortyish, with a medium, athletic build, black-haired and clean-shaven, and wearing a white shirt and gray slacks. As he got closer, Hunt recognized his face as the American that Lebansky had talked to on the screen inside the minibus. The American grinned easily and extended a hand.

"Dr. Hunt, from UNSA?"

"Yes."

"Hi. The name's Del Cullen. Glad you're okay." Cullen eyed the three girls curiously. "I see you've been making friends already."

"Well, you didn't send the mayor with a red carpet. One must

exercise initiative."

The girls waved as Hunt turned with Cullen to go into the building. "Come and see us again, Vic," Nixie sang after him, "Call if you don't remember the way."

"I might surprise you," Hunt called back. "And thanks

again."

Cullen and Hunt began walking back across the lobby. "English?" Cullen said.

"Yes-from London originally. How about you?"

"East Coast. Baltimore."
"How do you fit in here?"

Cullen's voice fell to a level that was not for carrying. "Well,

I try to impress some concept of security into these people. It's an uphill battle at times, but we're getting there slowly."

"Which people do you mean—Jevlenese or Ganymeans?"
"Both. I was sent here to help Garuth set the system up. He's learning fast, but you know how it is with Ganymeans: running an intelligence operation isn't their line. They didn't have any eyes or ears out in the city—just tended to sit inside PAC and believe whatever the Jevs told them. We're starting to use Jevlenese outside, now. They can be okay if you know how to select the right ones."

They entered the elevator. "I take it that those two who picked us up, Koberg and Lebansky, they work for you, then?"

Hunt said.

"Right. We imported a nucleus of pros from back home to

seed the operation."

The elevator shaft was a transparent tube, and the car had all-round windows, presenting views of a progression of galleries, halls opening into office areas, and wide corridors as the car ascended. Although not exactly new and gleaming, the condition of the surroundings was noticeably better than the general standard outside.

Hunt still didn't follow completely. He remembered one of the two at Geerbaine saying something about things happening that Hunt probably didn't know about. "So, how did you get here?" he asked Cullen. "I mean, how did Garuth come to acquire a security operation in the first place? Who do you work

"When the Thuriens and our own governments set up this arrangement, some of the folks back home knew there'd be problems when the Jevlenese started getting over their shell shock. The U.S. pushed for a security operation here that wouldn't have to depend on the Jevlenese police, but the Thuriens blocked it." Cullen shrugged. "So somebody persuaded Garuth that it would be a good idea to set up something anyway—'semiofficial,' if you know what I mean—just in case it was needed. If it turned out to be overcautious, well, no harm done."

Hunt nodded. As far as he was concerned, obstructions existed to be circumvented. "And I take it, it turned out to be just as well they did," he said.

"There's something funny going on here, all right, with mean people involved. We haven't exactly figured out what yet. But

we can go into that with Garuth later."

Hunt nodded. "Where will we be staying?" he inquired to

change the subject.

Cullen gestured to take in the general scene outside the elevator. "We've reserved quarters for you here in PAC. So you won't have to worry too much if things get a bit hectic outside. The rest of your group are over in the residential part of the complex now, getting their gear straightened out. Your bags came straight through on a freight tube."

Hunt thought about Gina, out at the spaceport. "How about the people who are staying at Geerbaine?" he asked. "Is there

any risk there?"

Cullen shook his head. "The Thuriens run that whole area, and the Jevs don't want to upset them because they're the only ones who can turn JEVEX back on. They should be okay."

They came out of the elevator and headed across an open space with a large window looking out at the city. On the far side of the floor several corridors branched off in different directions. They followed one of them past an area with Jevlenese working at desks and terminals. A number of Ganymeans were also visible, some of them Thuriens, Hunt noted. Beyond the open area were smaller rooms and offices.

Garuth was waiting for them in a large, roughly circular anteroom furnished like a reception lounge, with seats facing a sunken area in the center. Another of Cullen's security guards was seated unobtrusively at a desk by a passage leading

through to the inner section.

With Garuth were Shilohin, the female scientist who had been with him when he made his call to Hunt at home, and another old friend of Hunt's, Rodgar Jassilane, the Shapieron's engineering chief. The Ganymeans welcomed him in their characteristic easygoing manner, but it was clear that they were relieved to see him after his mishap of getting separated from the others.

"We saw ZORAC's replay of your arrival," Garuth said as

they shook hands.

"It seems that you're managing to find your way around Shiban already," Shilohin remarked. The expression on her face had to be the Ganymean equivalent of a smirk. Hunt began to suspect that he would be really tired of that particular topic before the day was out.

"How was your journey?" Jassilane inquired, shaking Hunt's

hand in turn.

"At least we didn't lose our brakes and have to spend twenty-

five million years slowing down," Hunt replied, grinning. It was a reference to the problem that had caused the Shapieron's long exile from the Solar System when it tried to return to Minerva. Relativistic time dilation, compounded by an effect of the vessel's gravitic drive, had reduced it to something in the order of twenty years ship's time.

"What do you think of a Thurien starship?" Jassilane asked. "Impressive—but a bit overwhelming," Hunt confessed. "You know, Rod, when all's said and done, I think I prefer your old ship on the parking lot back there at Geerbaine."

"Me, too," Jassilane agreed. "Technology that you grew up

with is always more comfortable, wouldn't you agree?"

"Definitely," Hunt said.

"That's why we never bothered adapting more of the sensor network in PAC to work with VISAR," Garuth said. "We experimented with the small part that you know, but old-time Ganymeans like us don't really take to it. The Thuriens can have virtual travel. We prefer to stick with ZORAC."

"I know exactly what you mean," Hunt said.

Garuth extended an arm to indicate the general surroundings, then singled out the passage by the security guard's desk. "This is the part of PAC that I normally inhabit. The staff here simply call it the Ganymean offices. So now you know where to find us."

"Where will we be working?" Hunt asked. "I assume that since we're officially here as an UNSA scientific group, we'll have some office space or something. It's a bit of a messy situation, I know, but Gregg didn't exactly give anybody a lot of notice."

"Naturally," Shilohin said. "We've found some space for you on one of the levels lower down, where we run some other

work of our own."

"Maybe the best time to see it would be later," Garuth suggested. "Del can take you to your quarters in the residential sector now to freshen up, and we can all meet for, lunch in, say . . ." He made a vague gesture.

"About an hour?" Hunt suggested.

"Fine," Garuth agreed. "And then we'll show you the lab area when you're all together."

The Ganymean planetary administration employed numerous scientists, both Jevlenese and Thurien, in connection with various aspects of its work, some of whom were based within PAC itself. The area that had been designated the "UNSA labs" was a segregated section approached through a single entrance, on a floor of offices, workshops, laboratories, and

other workrooms in the lower part of the complex.

The general working area consisted of a large room with a wide lab bench taking up the center of the floor, smaller benches by two of the walls, and several desks with computer workstations. A graphics table took up part of the third wall, and alongside it was a generously equipped imaging and processing system. A short passage led to several smaller offices, and another door from the passage doubled back into a second laboratory situated alongside the main area. There was also a direct interconnecting door between the two. All in all the place was well fitted and furnished, with plenty of storage space and instrumentation.

"What do you think?" Garuth asked as the Terrans walked

around like prospective buyers inspecting a house.

"It's marvelous," Hunt said. "How many of us did you expect? You could house half a Goddard department in this."

"Officially you're here to study Ganymean science," Del Cullen said. "You might as well be comfortable and make it look good at the same time. And, who knows, there might be more coming later."

"Oh, I'm not complaining," Hunt assured him.

Another room, off the side of the main area across from the second lab, contained several Thurien neurocoupler recliners. "So you'll have full access to VISAR," Shilohin explained. "We have an i-space link direct into PAC."

"But the regular facilities around PAC are managed by

ZORAC?" Duncan asked.

"Yes. There's a direct line back to the Shapieron. The ship has an onboard i-space connection, too. So ZORAC and

VISAR can communicate directly."

They came back out of the coupler room. Sandy went on through into the smaller lab, where she activated a terminal and began talking to ZORAC about something. In the main area with its central worktable, Danchekker wandered around, checking closet space, looking in drawers, and activating a couple of screens. "Most satisfactory," he pronounced. "I must say, you seem to have gone to an inordinate amount of trouble for us."

"Not at all," Garuth assured him.

Danchekker rubbed the palms of his hands together and

looked about. "It's all very splendid and lavish for just the four of us."

"Plenty of room if you find you need extra help," Cullen said. Hunt saw that Duncan was about to make another wisecrack, no doubt about the company that Hunt had reappeared with from the city, and silenced him with a warning look.

And then Sandy's voice came through the open interconnect-

ing door from the adjoining lab. "Hello, out there?"

"What is it, Sandy?" Hunt called back.

"ZORAC has a call for Professor Danchekker. Shall I leave it on here?"

Danchekker looked at Hunt bemusedly. "What? Already? But we've barely arrived, for God's sake. Who could it possibly be?"

"One way to find out," Hunt said.

Frowning, Danchekker went through into the next lab. Hunt sent Duncan a puzzled look. Duncan shook his head and shrugged. "Don't ask-"

"Arghh!"

The scream that came back through the open doorway was one of pure, animal terror. Danchekker bolted back into the room, white-faced. He looked imploringly at Hunt, "It can't be, not here . . . Vic, you've got to do something."

Hunt strode through the door and found Sandy, looking at a loss, standing to one side of a live display screen. On it, the face of Ms. Mulling from Goddard confronted him frostily.

"Ah, Dr. Hunt," she observed. "I distinctly saw Professor Danchekker there a moment ago. Could you call him back, please? There are some questions concerning certain records that he left, and it is most imperative that I speak with him."

Hunt fought back the urge to burst out laughing. "Er, I think he's been called away," he said. "His assistant is here, though.

Couldn't she help?"

Ms. Mulling sniffed disdainfully. "Very well. I suppose so." Hunt moved out of the viewing angle and gave Sandy an encouraging wink. Then he went back into the main lab. "Don't worry, Chris," he said cheerfully to Danchekker, who had sunk onto a stool. "We'll take care of it if this keeps up. It'll probably be some time before we go back."

"What makes you imagine that I intend to?" Danchekker

replied miserably.

chapter twenty-two

The team spent the rest of the day relaxing, adjusting to local Jevlen time, and catching up on their rest. The next morning, Hunt and Danchekker met with Garuth and Shilohin in Garuth's suite in the Ganymean offices. The items of equipment and other effects that they had brought from Earth had arrived, and Sandy and Duncan were busy getting things organized in the UNSA labs. The two Ganymeans summarized what they had learned after six months with the Jevlenese.

"We thought we might draw a lesson from the dismantling of socialism on Earth," Garuth said, speaking from behind his huge Ganymean desk, which was also an elaborate console. "It seemed that the JEVEX-dependency here could be thought of as analogous to the overdependency that developed there on

the too-protective state."

"A lot of people on Earth have been saying the same thing,"

Hunt commented.

"But simply unhooking them from JEVEX doesn't seem to be the answer," Garuth went on. "Or at least, not enough of an answer. It seems to work for some of them. Those are the ones who are finding what needs to be done and doing it. That was how we hoped the majority would react, more or less as happened on Earth."

"But they turned out to be relatively few," Shilohin said.

Garuth continued. "The general mass of Jevlenese seem to suffer from a . . . you could call it a 'predisposition' toward irrationality that goes beyond anything seen on ancient Earth. They just don't seem to possess any faculty for distinguishing possible from impossible, or the plausible from the ridiculous. So we get these cults of unreason flourishing across Jevlen, and we're at a loss for an effective answer to them." Garuth motioned in the air with a gray, double-thumbed hand. "We watch the intellectual degeneracy of what once showed every promise of maturing into an advanced technological civilization. It's

like a plague from somewhere, but one which affects the mind. We need you to help us find where it's coming from."

"That's not all there is to it, though, is it?" Hunt queried. "Didn't you say something when you called me in Washington, about being worried that JPC might be about to pull you out?"

"Some of the Terran representatives on JPC have been saying that the Ganymean administration here isn't working, and that the situation is heading toward breakdown," Garuth replied. "They're not disagreeing with the Thuriens' policy, but they believe that it's going to need some kind of backing by force to make it work."

Which would mean Terran-style force, Hunt understood; in other words, putting in a Terran military occupation. Gany-

means didn't work that way.

"They may not be entirely wrong," Hunt cautioned. "The Jevlenese stayed away from violence while they had the chance to exploit Thurien know-how. But they were going to end all that, as we all know, and they came frighteningly close. Now they don't have that restraint anyway. Once they get themselves

reorganized, there could be serious trouble."

"I'm not disputing that," Garuth conceded. "I accept the differences that set us and humans apart. But I've also studied enough of your history to have an idea of the kind of inflexibility that an authoritarian solution will lead to once it's adopted. The cause of the Jevlenese problem won't be important; all that will matter will be how to suppress the effects. And that would be a tragedy, because we're convinced that at the bottom of this mass insanity there's something important waiting to be uncovered, that we don't understand. We know what sent Earth off into irrationality thousands of years ago. But none of that applies here."

Garuth got up and moved a short distance across the room to stand staring for a moment at a framed picture of the Shapieron standing on the shore of Lake Geneva. He turned and

faced the others again.

"This may sound strange to you, but in many ways I'm beginning to feel the same toward the Jevlenese as I did toward my own people aboard that ship, when I was their leader through all those years in space. I feel a responsibility for them, an affection, even. I'd like to see them develop the confidence and self-reliance that Earth is starting to display now. But that can't happen until we find out what's undermining them. And to do that, we need help from people who understand humans

better than we do. Del Cullen is doing his best, but we know that none of us would make a very good Mac—" Garuth hesitated. "ZORAC, who was that famous Terran who wrote about intrigue and deceit?"

"Machiavelli?" the computer replied.

"Yes. Was he Scottish?"

"No. Italian."

"I thought 'Macs' were Scottish."

"Not always."

"Oh." Garuth sighed. "Is there anything about Earth that's completely consistent, ZORAC?"

"If there is, I haven't found it."

Garuth looked back at Hunt and Danchekker. "So those are my fears. If there's a risk of our being replaced, there might not be very much time. *That* was why we came to Vic when we did,

and in the way that we did."

There was a short pause. Then Danchekker clasped his fingers together, his elbows resting on the arms of his chair, and cleared his throat. "Can you be sure that there really is an identifiable cause of this 'plague,' as you put it, waiting to be tracked down?" he asked. "We know that in the case of Earth, the Jevlenese deliberately introduced nonsensical belief systems thousands of years ago and engineered supernatural workings to support them. But the Jevlenese have always been under the totally rational guidance of the Thuriens, which, one would suppose, should produce exactly the opposite results. That turns out not to have been the case, however."

"Naturally, we wondered about that, too," Shilohin said.

"Do you have an explanation?"

Danchekker took off his spectacles and proceeded to wipe them with a handkerchief. "Only that possibly you're thinking too much like Ganymeans, and not making sufficient allowance for the limitless human capacity for sheer, pigheaded obstinacy. The reason why socialism fell apart on Earth wasn't because its ideals were unachievable—Ganymeans achieve them as a matter of course, instinctively. It failed because they are alien to human nature. And when its advocates tried to change human nature to make the fact fit their theory, people resisted. The social engineers didn't understand that Newton's third law applies to social forces as well as to physical ones."

"Go on," Garuth said, listening attentively.

Danchekker showed a hand in a reluctant acknowledgment that he, too, had no choice but to accept the facts as he found them. "And I can see humans, any humans, reacting in the same way to the kind of enticement by which the Thuriens tried to shape them"—he gestured at Garuth—"and to the kind that you are attempting now. In other words, couldn't what you're up against be simply a fundamental, ineradicable human trait? Are you sure that what you're looking for actually exists at all?" He drew a pad and pencil from his pocket and began scribbling some notes.

Garuth returned to his desk and sat down again. "We asked ourselves that, but we don't think it's the case," he answered. "You see, there's a distinct category of Jevlenese that the infection seems to spread from. They account for practically all of the cult founders and the agitators. All the trouble seems to

emanate from them."

"You mean like the one all these purple people have been getting into a frenzy over since yesterday?" Hunt interjected. "What was he called, Ayatollah, or something?"

"Ayultha," Shilohin supplied.

"Oh, ves."

"There's something very unusual about them," Garuth said. "Something that can't be explained as simply an extreme of some general human characteristic. There's too much of a pattern, too much that's systematic for it to be coincidental aberration."

ZORAC interrupted. "Excuse me. I have a call for Professor Danchekker."

Danchekker's pencil broke, and the color drained visibly from his face.

"Who is it, ZORAC?" Hunt asked.

"Sandy, from the UNSA labs."

"Put her through."

"Oh, sorry to interrupt, but we're wondering where to put your personal things, Professor," Sandy's voice said cheerfully.
"Do you want to be out in the lab? Or I thought maybe one of the smaller offices would be better for privacy."

Danchekker nodded rapidly and licked his lips. "Yes . . . yes, that would be preferable, thank you," he agreed in a shaky

voice.

"Okay."

"Hold any more nonurgent calls until we're through, ZORAC," Garuth instructed.

Hunt looked back at Garuth. "You were saying that there's too much of a pattern to these avatollahs." he said.

Garuth nodded. "For one thing, they're all very unscientific. Chronically unscientific. I don't mean simply low in aptitude; they lack the basic conceptual machinery that makes any rational account of an objective world possible. They don't seem to share the ordinary, commonsense notions of causality and consistency that you have to have, even to begin understanding the universe. You'd almost think they weren't from this universe at all."

"Can you give some instances?" Hunt asked.

"Fundamental things—things that any six-year-old wouldn't think twice about," Garuth answered. "We take it for granted, for example, that objects remain unaltered by changes in location or orientation; that things measure the same in the evening as they do in the morning; that the same causes always produce the same results. Children grasp such fundamentals naturally. But the—what did you call them?"

"Ayatollahs," Hunt said. He shrugged at Danchekker.

"Sounds like a good name for them, to me."

"They don't seem to see anything natural about predictability at all," Garuth went on. "They act as if it were mysterious. Machines baffle them."

"They talk instead about magic and mysticism," Shilohin

said.

Garuth made a gesture of incomprehension. "They believe it," he said. "As if that was how their perceptions of reality had been conditioned. Hence my question: We know who performed the conjuring tricks that spread such beliefs on Earth. But who did it to the Jevlenese?"

Danchekker stared at him. "I have no idea. Have you?"

Garuth waited for a moment, then nodded. "Possibly. We think it could have something to do with JEVEX. But we're not

sure exactly how."

"JEVEX evolved under the same influences that plotted to overthrow Thurien and Earth," Shilohin pointed out. "Conceivably the qualities of its creators were somehow embodied into its nature—and the ayatollahs are frequently violent and excitable. They are suspicious of everyone, and pathologically insecure, hence their obsessive urge to control others and impose their will—what else do these cults of theirs express? The insecurity also manifests itself as an insatiable lust for wealth, on a scale beyond the comprehension of normal people."

"Hm, we've seen more than a few like that back on Earth," Hunt remarked. He was thinking of a ring that had been broken up after the Pseudowar and its revelations. Maybe Earth held more undercover Jevlenese than had been realized.

"A completely circular argument," Danchekker objected. "You begin by postulating JEVEX as the cause, then conclude by deducing Jevlenese origins as a consequence. A simple observation of the commonality of human nature to both situations would be far more to the point, would it not?"

"Maybe," Hunt conceded.

Garuth was not so sure. "There is other evidence of a distinct, external cause at work: the suddenness with which the ayatollahs are affected. The condition doesn't seem to be present from birth, or something that develops progressively through life. It appears suddenly, as if the victims were being possessed."

"At a similar point in their lives?" Hunt queried.

"No. It can happen at any age."

"There are practically no records of childhood cases, though," Shilohin mentioned.

"Yes, that's correct."

Hunt reflected for several seconds. "What kind of evidence is there for these 'possessions'?" he asked finally. "Is it just anecdotal, or what?"

"It's an acknowledged fact among the Jevlenese, occurring as far back as records go," Garuth said. "Shilohin has conducted a study of their history."

Shilohin took up the details. "A number of common themes reappear continually beneath the superficial differences of what the various cults preach. They go back a long way, and cut across boundaries of nation, race, creed, geographic area and historical age. One of them is this notion we've already mentioned of persons being suddenly 'possessed,' somehow. It's always in the same kind of way: they usually switch to a new life-style; their value system and their conceptual world model change; and they lose rationality."

"So it's not as if they never had it," Hunt said.

"Exactly. And it isn't only we who see the difference. All the native Jevlenese languages have terms that set them apart as a class—usually translating as 'Emerged' or 'Arisen,' or something vaguely synonymous. They talk about having 'escaped' from an 'inner world,' or something recognizably similar."

When Shilohin had finished, Danchekker twiddled the penthat Hunt had handed him between his fingers and stared down at his notes in silence for a while. Finally, he exhaled heavily and shook his head. "I still think you're reading meaning where none exists," he said. "Essentially the same concepts are also encountered widely on Earth. The most economic answer is that they are merely simplistic expressions of the hopes, fears, and doubts that underlie the workings of primitive mentalities anywhere. No unifying explanation of the kind you are seeking is called for."

"ZORAC, what's your evaluation?" Garuth asked.

"Logically, the professor is correct. But past experience says Vic's hunches are the way to bet."

"Then let me throw one more thing at you, Professor," Garuth said. "The pattern doesn't extend back to the earliest stages of the Jevlenese past. There was no hint of it in Lunarian history. And the descendants of the Lambian survivors brought from Minerva didn't show it until long after they established themselves on Jevlen."

Shilohin completed the point for him. "It was only after JEVEX had been up and running for some time that the first ayatollahs appeared, spreading notions of mysticism and magic. Before then, nothing of the kind had been heard of. In fact, that was where the Jevlenese got their idea for sabotaging Earth. That's why we think that JEVEX was the culprit, somehow. And it could also explain why all of the cults, regardless of their superficial bickerings and hair-splittings, are united in calling for JEVEX to be restored."

At that moment ZORAC came through again. "Excuse me, but I've got Del Cullen. He says it's urgent."

"Go ahead," Garuth said.

Cullen's face appeared on one of the screens by Garuth's desk, looking tense. "Ayultha has been assassinated," he announced without preliminaries.

Gasps of disbelief came from around the office. Garuth was

stunned. "When? How?" he stammered.

"A few minutes ago, at the rally they were having in Chinzo today. We're not exactly sure how. Look—this is what happened."

Cullen's face was replaced by a view of Ayultha treating a frenzied gathering to one of his harangues. He seemed to reach some kind of a crescendo, standing dramatically with his arms raised while the crowd thundered in unison. Then a figure scrambled up onto the edge of the platform, shouting something, then pointed an accusing finger—and Ayultha exploded. There was a burst of incandescence, and then all that remained

where he had stood an instant before was a smoldering patch on the platform. Pandemonium broke out all around. A purplespiral banner that had formed the backdrop was blazing, and some people at the front of the crowd seemed to have been burned.

"My God!" Danchekker whispered, staring numbly.

Hunt watched the screen, grim-faced. "They might be crazy, Chris. But we're not dealing with any Hare Krishnas," he muttered. "Whatever's going on here, those guys are serious."

chapter twenty-three

Some inner inspiration had told Eubeleus, the Deliverer, that the time to act was now. One of the qualities that characterized greatness was the gift of judging tide and moment by an unsensed, intuitive process that dwelt deep below thought, and then delivered its verdict to consciousness fully formed and complete, like the solution to an elaborate, invisible piece of

computation appearing suddenly on a screen.

With the removal of Ayultha, the Spiral's entire organization was not only in disarray, but fragmenting. Already, its members were being racked with doubts, and warring factions claimed their shares of followers as rival worthies expounded different interpretations of what had taken place. Some dismissed the event as a spectacular piece of chicanery engineered by some hostile interest; at the opposite extreme, others had no doubt of its authenticity as a manifestation of powers operating from beyond the purview of everyday experience. If the Spiral's archprelate and guide had been defenseless against such powers, then the most fundamental tenets of its doctrines were suspect.

Hence, Eubeleus had good reason to be pleased. Thousands of disillusioned followers from the Spiral would now flock to the Axis, and the convictions of its own faithful had been reaffirmed just as the time approached for him to step into the vacuum left after the former regime's inept attempt to set up the Federation. Then, as marked all of the great moments in his-

tory, the destinies of the Leader and of the movement would be one. And even if the means had been a little dishonest, the believers needed this demonstration to prepare them for the supreme effort. It was a temporary deception, made necessary by the circumstances. True powers would come to him again when JEVEX was restored.

Eubeleus firmly believed that in the convolutions of complexity that became JEVEX, there had come into being a channel to forces beyond the physical, which his affinity with the machine enabled him to access. Indeed, he believed himself to be, literally, an embodiment of those forces: a personification of the method that JEVEX, through the genius that had emerged within its confines, had created to extend itself into the external world.

He didn't know the precise procedure that JEVEX had followed to free itself; he left matters of technical detail to lesser intellects. There had been a confused period many years before in his early life on Jevlen, after which he was able to recall nothing of what went before. But in compensation he found that he possessed uncommon abilities. In particular, when he discovered the neurocoupler links into JEVEX, he could converse with voices inside the system in ways that others around him seemed unable to do. Or at least, most others. For as he continued groping his way and reorienting himself to the sudden changes that he was told had taken possession of him, he met others who were apart, like himself: the "awakeners," as they were called. Some of them proclaimed it openly and were received as inspired or insane. Others harbored their knowledge secretly. But all shared the experience of remembering a world beyond the senses which the unenlightened were incapable of grasping, save in only the most simplistic and symbolic terms.

The exact nature of that world was something even awakeners had never been able to agree upon with certainty among themselves. They had never consulted the Thuriens, whom the Jevlenese normally relied on for guidance in technological matters, and JEVEX was, after all, a creation of Thurien technology. But Eubeleus's answer was that JEVEX had learned to create pseudopersonalities, which it was able to project into external organic hosts, not only to extend itself into the realm outside, but through them, to shape and direct its further development.

opment to its own purpose.

He thus saw himself as a manifestation of an evolutionary leap beyond Man, as naturally destined to dominate the inferi-

ors among whom he found himself as it was in their nature to submit. He had found his mission, the task for which he believed JEVEX had fashioned the psyche that inhabited the body which he now looked out from. For the Jevlenese who had been taken over thus far represented merely the test phase of JEVEX's design—its first, exploratory step into its own outer space. Its next, when it was back in full operation, would be to take over a whole city.

Achieving that would mean having an ample supply of available hosts. And to insure itself of that supply, the Axis was

going to need more followers.

In the center of Shiban, the Axis of Light had a headquarters and meeting place, referred to as the Temple. It consisted of a congregational auditorium, with fancifully embellished ornaments and symbols, an imposing dais and rostrum, and a permanent aroma of incense; various function rooms and offices for promoting the movement's affairs; and private quarters for some of its staff and officers who resided on the premises.

On the day following Ayultha's assassination, Eubeleus reviewed a report of the city's reactions to the event and was notified that the appointment of Langerif as the new deputy police chief had been confirmed. The time that he had been working toward, he was certain, had arrived. Accordingly, he sent for his personal aide and principal lieutenant, whose name was Iduane.

"Contact the Prophet," Eubeleus said, "and tell him that he must send us more awakeners."

"It will be difficult. The available couplers are in practically

constant use as things are," Iduane warned.

"Then Grevetz will have to get us some more," the Deliverer replied.

Although the city of Orenash had been purged of its sorcerers, and the priests of all the major gods had performed rites of atonement, still there was no respite from its troubles. Brigands laid waste the farms to the north, burning the villages, slaughtering the males, and carrying off the women and their young to sell as slaves. Mountains fell from the sky into the sea, causing floods to sweep over the coastlands. An earthquake split the hills to the west, covering the land in rivers of fire, which was seen as a sign that Vandros, the underworld god, was still unappeased.

Ethendor, the high priest of Vandros, sacrificed a hundred

prisoners who had been captured in battle and consulted with his oracles and seers. The answer they delivered was that because the currents that once had borne many aloft had waned, the gods were vying with one another for acolytes to serve them in Hyperia, the sacred realm beyond the sky. The followers of Vandros were not sending enough disciples, and that was why he was displeased.

"But disciples are not forthcoming," Ethendor told the king when the king asked what should be done. "The faith of the people is eclipsed with the vanishing stars. Believers are overcome with terror and doubt. Send more young men to the

temples to become initiates."

"Plagues have claimed many. War has drained the lifeblood of the land," the king replied. "Where shall I find the young men? A hunter can only bring home what the forest has spawned."

Ethendor went away and thought about the problem. Later he returned and took the king to the temple of Vandros, with its tower bearing the emblem of the green crescent. There, he showed the king groups of novices in the grounds and about the temple chambers, tending plants, constructing icons, and en-

gaged in other menial tasks.

"These could become the disciples who would placate Vandros and alleviate us of our woes," Ethendor said. "But they have not the makings of true adepts. They aspire, but their power falls short of their ambition. So they serve each in his own lesser way as you can see, and if it is so decreed, true inspiration may one day seize them."

The king grew puzzled. "Then why speak to me of them?" he asked the high priest. "Our need is for birds, but you show me

fish that would fly."

"When the forests spawn nothing, then the hunter, if he's not to starve, must turn elsewhere," Ethendor replied, speaking in a low, conspiratorial tone.

"Elsewhere?"

"Perhaps to the farms that are well stocked? A little poaching, maybe, if he has to?"

"Explain what you mean," the king said.

Ethendor drew closer. "There are Masters who teach schools of their own, dedicated to Nieru, in the wilderness and elsewhere outside of the city. They pay no homage to the king, neither do they serve the king. But their acts steal currents from the skies for *their* disciples to ride, which should, by right, be drawn down to the consecrated temples."

"So, tell me the meaning of this talk about poaching," the

king said.

Ethendor indicated the menials at work about the temple. "Some of these novices that you see are inadequate, but not totally incapable. They couldn't develop the ability to trap a current and rise with it by themselves. But, with help, they could probably grasp and stay with a current that had been tamed and brought down by others. You take my point?"

"That with economy to ourselves, we could avail ourselves of the efforts of these rogue Masters?" the king said, seeing the

point.

"The novices would provide additional service to Vandros, while the circumstances of our own adepts and their capacity to satisfy him would remain unaffected."

"But at the expense of Nieru," the king pointed out. "Would

Nieru not seek vengeance?"

"Vandros will protect us."

"Can you be sure?"
"It is in the signs."

The king pondered awhile. "Let it be done, so," he pro-

nounced finally.

Later, Ethendor summoned a number of the novices to him. "Prepare yourselves, for you have been chosen to ascend to Hyperia," he told them. "The services that were rightfully Vandros's due are being stolen by other gods. Yours will be the task of reclaiming them. We will go up into the wilderness accompanied by dragon-tamers and fire-knights, and there shall vengeance and justice be exacted."

Among the novices who had been selected was Keyalo, the foster son of Dalgren, who had denounced Thrax for heresy

and sorcery.

chapter twenty-four

Formally, Garuth's terms of office required him to delegate the investigation of the Ayultha affair to Jevlenese agencies. This would have given little grounds for optimism of any quick

result at the best of times; but with the disruptions caused by the loss of the deputy police chief—who carried the real authority in Shiban, since the office of chief had deteriorated to being little more than a ceremonial figurehead—it was practically a guarantee that nothing of any consequence was going to happen within the limited time frame that Garuth was concerned about. So, following the unofficial line that he had already opted for, he set Del Cullen to seeing what he could make of it. Cullen, in turn, involved Hunt and the UNSA group, since it was part of the problem that they had come to Jevlen to help Garuth solve.

Garuth's other concern was for the rest of the Terran visitors who had arrived with the Vishnu. He issued a statement urging them to stay within the Thurien-controlled enclave at Geerbaine as much as possible while the unrest in the city persisted, which was about as close as a Ganymean could come to prohibition. He also sent a sharply worded note to the Thurien Central Governing Council, protesting the inappropriateness under the present circumstances of extending to Terrans the Ganymean open policy of shipping anyone who felt like it to anywhere they wanted to go. "This determination not to acknowledge real differences that exist between humans and Ganymeans has surely been a major factor in precipitating the situation on Jevlen that we are now having to deal with," the note said in part.

The Council's chairman on Thurien was Calazar. Calazar had headed the deputation that first made contact with Earth when suspicions of Jevlenese duplicity could be contained no longer. His experiences during the Pseudowar that followed, of watching from the inside how the Terrans demolished the Jevlenese pretensions by meeting deception with counterdeception and treachery with even greater machinations, had brought home to him the utter inability of Ganymean minds to anticipate the twists of deviousness that these alien dwarves were capable of. When he received the communication from Garuth, he admitted to himself with characteristic Ganymean candor that perhaps the lesson had not been fully learned yet.

"Perhaps those Terrans on JPC were right, and our whole approach to Jevlen has been wrong all along," he said after considering the matter. "I'm sure Garuth is doing as much as anyone could ask, but maybe we should have delegated the task to Terrans."

Frenua Showm, the female ambassador who had also been

one of the first to initiate contact with Earth, suspected all human motives, Jevlenese or Terran. "Giving them equal partnership in Thurien culture as if it were their right was a mistake from the beginning," she declared. "Well-intentioned, no doubt, but falsely premised. Nobody can feel worthy of what they haven't earned. Neither can races. Our ancestors thought that a model society could be created on Jevlen through benign intervention, and they wrote Earth off as a lost cause when it chose to be left to its own devices. The reality turned out to be very different from the vision. Let's learn something from it and not walk straight into making the same mistake again. They are not like us. Their behavior isn't governed by the same rules."

"You could be right," Calazar replied reluctantly. "Human problems may need human solutions. Perhaps there's no other

way."

VISAR spoke at that moment. "Priority request from PAC

on Jevlen. Garuth is asking if you are free."

"Oh dear. Now I expect we're in for a personal protest," Calazar muttered. He raised his voice a fraction. "Very well,

VISAR. Bring him here."

Since Calazar and Frenua Showm were actually coupled into VISAR and communicating from separate locations, Garuth was able to join them immediately. His figure promptly materialized, standing in the room.

"Welcome again," Calazar greeted.

"How is the day here?" Garuth asked, as was customary.

"Good."

"Frenua," Garuth acknowledged, turning to Showm. She returned a slight bow of her head.

"And what brings you?" Calazar inquired, bracing himself.

"Eubeleus, the Axis of Light's leader, has contacted me. He's concerned about the way things are going and fears that we could see serious violence if something isn't done quickly. He has a proposal for reducing the tension that I think you should hear. At least it's different from anything else that we've been hearing."

Calazar sent Frenua Showm a glance of relief that this was evidently not going to be the ordeal that he had feared. "Is Eubeleus available on-line at the moment?" he asked Garuth.

"Yes. He's waiting in one of the couplers at PAC," Garuth

replied.

"Then let's bring him here and see what he has to say," Calazar invited.

Ganymeans were by nature rational. Ganymean scientists were very rational. Shilohin found it hard to accept that even the true believers could honestly have been taken in to the point of attributing Ayultha's fiery end to supernatural causes. Surely, she insisted, if they could be shown that the same effect was achievable by commonplace methods that were well understood, they would have to see that a more complicated explanation was neither necessary nor justified—and in the process they might learn something valuable. Accordingly, she decided to stage a demonstration. While she and some of the Ganymean technicians were setting things up, Hunt stopped by Del Cullen's office to review matters. It was situated in a corner of the part of PAC that had been allocated for the security force that Cullen was building up.

"So who was the character who gave Ayultha the finger?"
Hunt asked from the visitor's chair by the door. "Did you

manage to get any sense out of him?"

Cullen, sitting at the desk, shook his head. "A complete yo-yo. Thinks he's a bird in the wrong body. Even the Jev police put him in a rubber room. Obviously he was just a stooge that somebody else set up for effect."

It was what Hunt had half expected. "What do you make of

it all?" he asked.

"Something's going on," Cullen replied. "If you want my opinion, I don't think that bridge coming down was any accident, either. The police report was sloppy on a lot of points. I

think it was rigged."

The same thought had crossed Hunt's mind. He stretched out a leg and rested his foot on one of the boxes piled around the floor. The office that Cullen had reserved for himself was unpretentious, and just at the moment, half of it was taken up with undivulged items from Earth that had arrived on the *Vishnu*, and which he had not yet gotten around to unpacking. "What makes you say so?"

"In a lot of ways, life on Jevlen got to be very live-and-let-live

under the Thuriens," Cullen said.

"Which is what you'd expect," Hunt agreed.

"The laws don't contain many thou-shalt-nots. So not much is illegal here, and a lot of what we'd think of as the criminal underworld back home is just part of the scene. If you want to get burned on stuff that's not good for your gray cells, or lose your ass on gaming tables that anyone with a positive IQ knows

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are as straight as knotted corkscrews, that's up to you. The Thuriens don't presume any right to forbid people from being stupid."

Hunt couldn't really fault that. "I wouldn't argue too much with that, either, to tell you the truth, Del. It usually has the effect of sharpening people's wits a lot faster than most things.

But it doesn't seem to have worked that way here."

Cullen shrugged. "Anyhow, I think our friend Obayin got too zealous. He was starting to stomp on people's toes, and somebody somewhere had a corn... and what's more, I suspect that it had something to do with JEVEX."

"Go on," Hunt said, looking more interested.

"You know that JEVEX isn't totally shut down? There's a core system still running for housekeeping, and to let the Thurien hackers do some poking around in the system."

"Yes."

"Well, the Jevs are a pretty close society, and it's not easy to get a direct line on what goes on. But Obayin decided to play ball with the new administration. He put together a report for Garuth that we think blew the whistle on a market that nobody's talking about out there for hooking people in." Cullen made a palm-upward gesture in the air. "With JEVEX officially off the air, there could be a big demand. That spells money for whoever controls the plugs. But if the Ganymeans think that JEVEX is causing the crazies, a report like that could be enough to make them crack down and ruin the business. Get the scene?"

"It certainly sounds familiar enough," Hunt agreed. He rubbed his chin, frowning. "You said you think that this report of Obayin's blew the whistle. Don't you know? I mean, what

does it say?"

"It disappeared before anyone got a chance to go through it." Cullen shrugged and made a resigned gesture. "The Ganymeans don't exactly go overboard on what you'd call being security-conscious. That was one of the reasons why I was moved in here."

Hunt nodded understandingly. "I can see the problem. And PAC's full of Jevlenese. You could never be sure of every one

of the them, however careful your screening."
"That's true," Cullen said. "And that's the direction that anyone's suspicions would naturally turn in. However, although we can't prove it conclusively, we're pretty sure that the person who lifted that report was a Terran."

Hunt looked up in surprise. "Who?"

"A German called Hans Baumer. He's one of the sociologists that the UN sent here after the Pseudowar to advise the Ganymeans on setting up their administration. He was up in the Ganymean offices one day on what I think was a pretext, and afterward the report was missing."

"Did you talk to him about it?"

Cullen shook his head. "What would the point have been? He'd just deny it, and I couldn't prove anything. All it would do is tip him off."

"And there weren't any copies?"

"Obayin must have had some, sure, but the police department says they can't locate any."

"Not even an original in a computer somewhere?"

"They say not." Cullen showed a hand briefly. "The Jevs lost a war. We're the enemy. They're all in it together. Ganymeans don't understand. They can't think that way. That's why the Jevs have been running rings around them for years." He snorted. "And still I've got some working in security."

Hunt stretched back in the chair and put a hand behind his neck while he thought about it. "So what does it mean?" he asked at last. "If what you're saying is true, then this character Baumer has developed some kind of connection with the criminal fraternity here—assuming they're the ones who'd most want Obayin out of the picture. But how would he have got that well in with them so quickly? He can't have been here more than, what, six months at the most?"

Cullen shook his head. "Vic, I don't know. But I'll tell you something else. Ayultha getting blown away like that on the same day wasn't a coincidence. Something's going on, and it involves a connection of some sort between the underworld and the cults. And right at this moment, that's about all I know."

Hunt thought it over again, nodded, and pursed his lips. "So

where do we go from here?"

"The only lead I can see is to try and find out more about Baumer. I've got some stuff on his background from the personnel records of the department that sent him here, but it doesn't tell us a great deal. He's twenty-nine, originally from Bonn, studied moral and political philosophy at Munich, but without graduating finally. A mixed pattern of minor political activism around Europe, generally with leftist affiliations. Likes belonging to movements and associations, and organizing people. Doesn't like capitalism and industrial technology. Isn't

married. Was sent to Jevlen by a department of the U.S. Euro-

pean government."

"Hmm . . . Does he have quarters here, too, inside PAC?" Hunt asked, scratching the side of his nose pointedly. The

implication was obvious.

Cullen nodded and lowered his voice. "Yes, I had a look around. Garuth doesn't know about it. Baumer talks to a lot of Jevlenese, but that's what you'd expect for a sociologist. He likes reading politics, history, and psychology, he gets letters from a girl in Frankfurt, and he worries about his health." Cullen spread his hands.

"Nothing more?"

"That's it. His office here didn't turn up anything either. But he does use another one, a private place out in the city that he says provides a less threatening environment for talking to the Jevlenese that his work involves him with. That might be more interesting. But how do we get near enough to him?" Cullen jerked a thumb to indicate the larger office outside his. "He's not going to say anything to my people. You're here to look at Ganymean science, so you can't go asking questions without it looking strange, especially if he's got reasons to be suspicious."

Hunt sat up slowly in his chair, his eyes widening. Just at that

moment he would have rated Gregg Caldwell a genius. Cullen looked at him uncertainly. "Are you okay?"

"We brought someone with us, just for that reason," Hunt said. There had been so much happening that he hadn't had a chance to explain where Gina fitted in.

"What are you talking about?"

"There's a writer out at Geerbaine, who came on the same ship—a woman called Gina Marin. Officially she's here on a free-lance job, but in reality she's with us-UNSA-as a kind of undercover help. This is right in her court."

Cullen blinked. "Well, I'll be darned. Whose idea was this?"

"Caldwell's, back at Goddard. He had an idea that this kind of situation could happen."

A long, drawn-out explanation obviously wasn't necessary. "Well, let's get her onto it," Cullen said. "Will she be there

now?"

"As far as I know." Hunt had called her an hour or so

previously to see how things were going.

Cullen indicated the door with a nod of his head. Hunt turned on his chair and reached back to open it. "Hey, Crozin," Cullen called to a Jevlenese in shirtsleeves at a desk outside. "Put a call through to the Best Western at Geerbaine, could you? See if you can get a Terran woman who's staying there, name of Gina Marin. A writer."

"Right," Crozin acknowledged.

Cullen waved for Hunt to close the door again. "What about the work that Baumer's been doing since he came here?" Hunt asked, turning back toward the desk. "Are there any reports and things from him that she could see to get more background?"

"Sure." Cullen activated a screen by his desk and called up a list of file references. While he waited, Hunt fished his cigarettes from a pocket, lit one, and leaned back to run over what had been said. A minute or two later Crozin buzzed through to

say that Gina was on the line from Geerbaine.

"You'd better take it," Cullen said, swiveling the screen around to face Hunt.

"Back so soon," Gina said. "What is it this time?"

"I think you're in business," Hunt told her. "We've got a job for you."

"Does that mean I get to see PAC at last?"

"Yes. Catch one of those tubes into the city if they're running today. Ask for the UNSA labs when you get here. I'm on my way to a show that Shilohin's putting on for the ayatollahs, but you can ask for Del Cullen. He'll tell you all about it. I'll see you sometime later."

"I'm on my way," Gina said.

chapter twenty-five

At one end of a long hall inside PAC, Hunt and Sandy watched as Thardan, a young Ganymean technician from the *Shapieron*, checked the connections of an apparatus consisting of a metal frame festooned with tubes and cables, mounting a horizontal cylinder two feet or so long, from one end of which protruded a tapering snout ending in a hemispherical tip. Nearby, Duncan was adjusting the settings on a supply panel.

Several hundred feet away at the far end of the hall, about a dozen queesals—a kind of Jevlenese fruit, like a brown, pearshaped melon—were mounted on wire supports positioned irregularly about the floor. A mixed company of Ganymeans, Jevlenese, and one or two Terrans were standing by the wall to one side. Shilohin was among them, with a group of gaudily clad Jevlenese who were watching the activity suspiciously. The central figure among the latter was a recently "possessed" ayatollah—Hunt's term for them was already spreading through PAC—formerly an unknown city destitute, who now went by an exalted Jevlenese title that meant "He Who Shall Return." Cullen had promptly christened him MacArthur. The others were followers from a Spiral of Awakening subsect that was forming around him out of the squabbles following the exit of the leader. MacArthur had restored faith and banished doubt by asserting that Ayultha, far from being a victim of transcendental retribution, had indeed discovered Truth, and as a consequence of that had attracted upon himself Cosmic Energies that even he had been unable to control. It was an opportune move at a time when the SoA needed a new Word to pull it back together, and MacArthur was already being acclaimed by many as Ayultha's successor.

"Phase-conjugated laser," Hunt said to Sandy, waving at the cylinder with a black, penlike object that he was holding. "That

was how they did it.

Sandy shook her head. "Sorry, I'm a biologist—remember?

You'll have to be more specific.'

Just then, Thardan glanced across at them and nodded. "It's

ready."

"Well, let's see what happens." Hunt motioned to Sandy with a hand, and they began walking toward the other end of the hall. "In the real world, perfectly parallel, nondispersing beams of light don't exist. You can think of one as a bundle of rays, spreading and being scrambled by irregularities in the medium it passes through."

"Okay."

"So, you can imagine a time-reversed beam whose rays follow the same trajectories, but in the opposite direction.

"Like Newtonian particles moving backward, you mean?"

Sandy said.

"Right. Well, it turns out that to create a reversed beam, you don't have to reverse each and every quantum-level motion of the atoms and electrons that do the reflecting and radiating. Reversing the macroscopic parameters that describe the average motions is enough. All of which is another way of saying that it's possible to make a device that behaves as a phase-conjugating mirror, where every ray that strikes it is returned precisely along its reversed path."

"Okay . . ." Sandy said, nodding.

"Alternatively, instead of making it a simple mirror, you can make it a source in its own right—a source of a signal that will follow an incident beam back to wherever it came from. That's one way they get rid of atmospheric distortion for communications lasers: a pilot beam from the receiver effectively 'prescrambles' the databeam in such a way that the information comes out the other end clean."

They were approaching the end of the hall. Hunt gestured at the *queesals* on their wire mounts. "Or, if the incident beam happens to be a reflection off an object, and the conjugator that it's reflected back to is a high-gain power laser . . "

Sandy was already nodding. "I see. It's as if the object at-

tracts the power beam to itself."

"You've got it. The technique was used in the space-defense systems for self-targeting of radiation weapons." Hunt grinned. "So I suppose MacArthur was right in a way about poor old Ayultha drawing down powers on himself that he didn't understand. They had somebody in the crowd with a wand like this, and a compact, weapons-grade projector aimed from somewhere nearby—there were enough high buildings all around the place. It could have been dismantled in a few minutes."

"Well, I guess it's a pretty persuasive way of telling the opposition to look for other ways of making a living," Sandy said. "And enough of the natives seem to have been impressed,

whatever the Ganymeans are trying to tell them."

Hunt nodded. "I agree. That's why I admire Shilohin for trying this, and I wish her all the best with it. But between you

and me, I think she's wasting her time."

They came to where the others were waiting. Shilohin was just finishing an explanation to MacArthur and his group. Hunt wasn't sure how the Ganymeans had persuaded them to be here, for they were wearing expressions like those of the bishops who didn't want to look through Galileo's telescope. And Hunt could see MacArthur's point: this was his chance to become the Great Panjandrum of the Spiral, and he wasn't about to throw it away for anybody. Hunt had tried explaining

as much to the Ganymeans, but the consensus among them had

been to give reason a chance to prevail.

Shilohin turned and indicated Hunt with a hand. "This is Dr. Hunt, a visiting Terran scientist, who will show you the process.

It really is very straightforward."

Hunt held up the short, black rod. "This is a low-power portable laser. It emits light just like an ordinary flashlamp, but in a tighter beam." He moved his arm in a random motion. "The light from it will be reflected in all directions off anything that I point it at, just as some light from a flashlamp is reflected into your eyes from any object that the lamp illuminates. That's how you see it." He aimed at one of the queesals about ten feet from him, centering the red dot produced by an auxiliary registration beam. "So a minute fraction of it will reach the projector up at the far end there, where Sandy and I just came from. When it does, the power beam from the projector will follow the reverse path back to where the reflection came from. Watch." He pressed a button, and the fruit exploded in a fiery flash.

"Note that it isn't necessary to aim or realign the projector," Shilohin commented. "The beam retraces the path of the re-

flected ray automatically."

Hunt demonstrated the fact by vaporizing two more queesals, chosen wide apart to subtend an impressively large angle from where the projector was situated. Thardan and Sandy had moved well away from the equipment, and it was clear even from that distance that nobody at the far end had touched anything. Hunt held out the hand laser toward the Jevlenese.

"Anyone else care to try?"

There was a short, prickly silence. Nobody moved to take up the offer. Then MacArthur marched past Hunt to where the nearest of the intact queesals was standing, and removed it from its support with a flourish. He turned to face the onlookers, tossed the fruit down on the floor, and stomped it to pulp with a single blow from his foot. "There are many ways of destroying a queesal," he declared. "I have just as validly proved that Ayultha was killed by a giant foot from the sky." Some of the followers began laughing, pointing at Hunt and Shilohin. One of them picked up another of the queesals and took a bite from it.

"No, look. He was swallowed by a mouth that appeared in

MacArthur glowered contemptuously. "Don't be deceived

by their tricks. They try to conceal what they cannot explain."

"If you know of something different, give us your explana-

tion," Shilohin challenged. But it did no good.

"You Ganymeans think you know so much," MacArthur spat. "But I tell you there are realities that your lever-and-cogwheel minds could never grasp. I have seen realms beyond your comprehension. Things that defy all your laws, which you think the universe will follow for your convenience."

"Where?" Shilohin retorted, getting exasperated. "Where have you seen such things? At worlds light-years away? I doubt it. The only things you'll find there are Ganymean starships."

"Bah! Go as far as you will with your toys, it's still the same

plane. But there are other realms within!"

"Nonsense. Within what? Say what you mean for once."

At that moment, a call-tone sounded in Hunt's ear, and ZORAC spoke. "Do you have a second?"

"What is it?"

"Garuth is back from Thurien. He'd like a word with you if

you can get away."

Relieved at the chance to extricate himself, Hunt caught Sandy's eye and motioned her across. "Make my apologies," he muttered. "I have to slip away. Garuth wants to see me about something."

"Sure . . . I guess this wasn't any big surprise, eh?" Sandy

said.

"The Ganymeans can write it off as a lesson in human psychology," Hunt answered.

Before their defeat in the Pseudowar, the leaders of the previous regime on Jevlen had, as part of their plans for the Jevlenese Federation, embarked on a secret armaments-manufacturing program to enable them to deal with their ancient Cerian rivals, who had become the Terrans. To conceal their intentions from the Thuriens, they concentrated this war industry on a remote, lifeless planet called Uttan, far away in another star system. Since the Federation's demise, Uttan's power-generation and production facilities had been shut down, and the planet occupied by a Thurien caretaker force. The proposition with which Eubeleus had approached Calazar had to do with Uttan, and was of a totally unexpected nature.

"He says that he sees the situation on Jevlen deteriorating, and that bloodshed is a distinct possibility," Garuth said after Hunt had closed the door and sat down. "Being a person of

compassion and nonviolence who has dedicated himself to the spiritual advancement of his fellow men, he can't sit by without making some effort to prevent it."

"I see." Hunt's tone carried the conviction of a policeman being told that the violin case with the submachine gun inside it must have been a wrong bag picked up at the airport.

Garuth made a gesture which conveyed that he was just reporting what had happened. "But the Thuriens were impressed. Eubeleus said he wants to clear the way for Jevlen's full recovery and reform as speedily as possible. For the greater good and well-being of all, he is prepared to renounce all claims on Jevlen and remove himself and his Axis followers from the scene to find their own niche elsewhere. Jevlen will be freed from the threat of open strife erupting between the two major cults, and the Spiral will be left to work out its relations with the other cults in whatever way suits them."

"And, of course, the Thuriens wouldn't want there to be any

doubts as to their own reasonableness," Hunt said.

"Er, quite. After spending six months on Earth, I think I can say that they don't have the nose for suspecting insincere motives, yet."

"Okay, so exactly what is this Eubeleus offering to do?"

"His proposal is that Uttan would be stripped of its military potential, and the planet bioformed into a habitable condition for assignment to the Axis of Light as its own sovereign world. It would become a spiritual retreat, open to all of sincere intent, who come in search of truth. He says he got the inspiration from hearing about Earth's monasteries. The Axis would pay its way by managing Uttan's industrial capacity as a supply facility, converted to peaceful ends." Garuth tossed out a hand. "There it is. I detect that your enthusiasm is what the English would call somewhat less than total."

"Do you think he's mixed up in any of this other business that's been going on?" Hunt asked bluntly. "It all seems too much of a coincidence with his appearing on the scene. I don't like coincidences."

"We don't know," Garuth replied. "But I can see your point. If he were, it would say as much as anything needs to about

these altruistic trimmings."

"Exactly," Hunt said, nodding. He leaned back and contemplated the ceiling. "It seems that for some reason our mystical friend is attaching a lot of importance to Uttan, doesn't it? What would he want with an airless, waterless, inhospitable ball of rock like that, light-years from anywhere? It makes you think there must be something about that planet that we're not aware of—and from the blithe way they're reacting, something that the Thuriens aren't aware of, either."

Garuth stared across at Hunt and thought about it. "I don't know" was all he could reply. "I'll get ZORAC to assemble all

the information that we've got on it."

chapter twenty-six

The Jevlenese sitting in Baumer's city office, his feet propped impudently on the edge of Baumer's desk, was called Lesho. He was squat and swarthy, with thick black hair and a short, untidy beard. His glittery blue coat and red shirt were expensive but flashy, and he was heavily adorned with jewelry and rings. His equally unsavory-looking companion, orange-haired and heavily built, wearing a baggy brown suit, was leaning against the wall by the door, chewing absently and wearing a scowl of bored indifference. Baumer sat tight-lipped, forcing himself to control his sense of outrage and impotence.

"How do I know why they're interested?" Lesho said. "I just deliver the messages. It isn't your business to worry about reasons, either. I'm just telling you that the word is, the people upstairs want to know what kind of drift is coming in from Thurien to the Ganymeans in PAC. They're especially inter-

ested in anything that comes in from JPC."

Baumer spread his hands in exasperation. "Look, you don't seem to understand. That kind of information isn't left lying around for anyone who walks by to pick up. It's stored in the data system, and with the controls that Cullen is setting up, anyone can't get at it."

"You got the stuff from the egg-hat who fell off the bridge,"

Lesho said, unimpressed.

"That was different. It was hand-delivered as a hardcopy. Things like that don't happen every day."

"Well, that's your problem."

"Look, would you mind not putting your feet there? You're

crumpling up those pages."

Lesho raised a hand and leveled a warning finger. "That's not a good attitude to have. Let me remind you of something. You're not the only Terran inside PAC. It also happens that time in couplers is getting harder to get these days, and one day you might find you've run out of friends who can supply. So just let's remember who's doing who the favors, huh?"

Baumer drew a long breath and nodded curtly. "Very well. I'll do whatever I can. But you must try and make them under-

stand that I can't promise."

A tone sounded from a panel by Baumer's desk. "What is

it?" he inquired, turning his head.

The house-system's synthetic voice replied. "The writer who wanted to talk to you is outside: Gina Marin."

"Oh, she is? Just one moment." Baumer looked back at the Jevlenese. "As you can see, I do have other things to attend to. Was there anything else?"

Lesho swung his legs down from the desk and stood up. "Just don't forget that other Terrans in PAC might like their trips,

too. And there's more of them arriving."

The Jevlenese in the brown suit straightened up and opened the door just as Gina appeared on the other side of it. Lesho stopped to peer down at Baumer's desk. "Is that the one I messed up?" he inquired, pointing at a sheet of paper with a heelmark on it. It was on the top of a thin wad of printout.

"Yes. I'd just run it off," Baumer said testily as he rose to his

feet.

Lesho screwed it up and tossed it into the bin. "Well, looks like you needed to do another copy anyhow." He turned away, nodded toward the door, and sauntered out behind his companion.

Baumer came around to usher Gina inside, and then closed the door. He indicated the seat that Lesho had used and returned to his own side of the desk.

"I apologize for that," he said stiffly. "As a sociologist one

must be prepared for all types of people."

"I suppose so." Gina sat down. "Thanks for fitting me in at short notice. You seem busy." Her phrasing was the code to switch on the miniature voice recorder, supplied by Del Cullen, that was concealed inside the fold of her collar.

"It's a busy time. There's a lot to do here." Baumer's manner

reverted to cool. He didn't know what this was about, and he wasn't prepared at this stage to commit to a lot of time.

"I've only seen a little, but I think I know what you mean."

"You've just come to Jevlen, I think you said?"

"That's right—with the *Vishnu*. It's all a bit mind-blowing. I guess I haven't gotten used to Ganymeans yet. How long have you been here yourself?"

"Almost five months, now."

"Time enough to find your way around?"

"It depends what you want to find . . . You said you're some kind of writer?"

Gina nodded. "Books on subjects of topical interest. Right now, I'm planning one on historical figures who were Jevlenese agents—known or possible. I don't know if you've kept in touch with the popular stuff that's been coming out on Earth, but the amount of nonsense is unbelievable. I wanted to get the record straight, and this seemed to be the place to start. So here I am."

"Jevlenese intervention in history. Famous figures who might have been agents..." Baumer repeated. His English was clearly articulated, with the barest hint of an accent. He had pale, delicate features, which were accentuated by thin lips, a narrow, tapering chin, and heavy, horn-rimmed spectacles, giving him a youthful look for his years. An untidy mop of light brown hair and the mottled gray sweater that he was wearing enhanced the studentlike image. But the eyes regarding Gina through the lenses were cool and remote, and the hard set of his mouth infused his expression with a hint of disdain. It was the kind of look he might have used to dismiss a saleslady who had been given her chance.

He stared down at the desk; a loose wave of hair flopped down over his forehead, and he brushed it aside with a hand. "I'm not sure I can help," he said. "The kind of history that I

think you mean isn't my line."

"I hadn't assumed it was," Gina answered. "But I was hoping that you might have some suggestions on how I should go about it—some thoughts on possible contacts, maybe. You've

had a lot longer to find your way around."

Clearly Baumer was preoccupied with other things and did not want to get involved. But Gina had her objectives, too. She had been scanning the office with her eyes ever since she sat down. It was bare and dusty, with little in the way of immediate evidence as to the kind of thing he did there. She got the impression that this was not where he spent most of his time

away from PAC.

Her gaze came back to the companel by the desk. Baumer wasn't equipped with Ganymean communications accessories for interacting with ZORAC. The man she had heard talking when she arrived had been Jevlenese, and the translations of his and Baumer's voices—into German, she had noted—had come from the panel.

"Can I ask you something?" she said.

She motioned toward the panel. "Those Jevlenese who were here when I came in—the one who was talking was being translated through there. But I was told that VISAR doesn't extend out into the city. And JEVEX isn't supposed to be running. So what was doing it? Do you have stand-alone systems here that can do that kind of thing?"

"You are observant, Ms. Marin," Baumer said, conceding a nod. "No, none of those. The Ganymeans have connected ZORAC into the regular comnet. You can get a translation facility on channel fifty-six. It's handy-we can talk to the

Jevlenese anywhere."

"What's ZORAC?" Gina asked to keep up her image, at the same time crossing imaginary fingers that ZORAC wouldn't recognize her and return some wisecrack. But either Baumer had switched the channel off, or only a subset of ZORAC's capacity was available to the public net, or it was programmed with enough manners to know when to keep quiet—Gina had not learned enough about it, yet, to know which.

"The Ganymean computer aboard the Shapieron," Baumer replied. "It doesn't play straight into your head like the Thurien computers do." He waved a hand. "Oh, I'm not really conversant with these technical matters. It needs microphones, screens, and things. You'll find out about it when you meet

some of the people in PAC."

"That's Planetary Administration Center, right?"

"Yes. Perhaps you should try and get to see some of the Ganymeans on Garuth's staff—theoretically he is in charge of everything."

"Yes, I know."

Baumer frowned down at the desk and shook his head in thinly disguised irritation. "You really should have got more of an agenda arranged before you came . . . " He reached for a pad and picked up a pen. "Anyway, his chief scientist is a woman called Shilohin—"

"A Ganymean, you mean?"

"Yes. She should be of some help. She's involved with a number of Jevlenese and Terrans who are investigating alleged agents on Earth." He scribbled a few lines. "Those are a couple of other names that work under her. And here are a few of the Jevlenese that it might be worth your while approaching. This last one, Reskedrom, was quite high up in the Federation while it lasted, and should be useful—but he's not easy to get to. Your best bet would be to start at COJA: Coordinating Office for Jevlenese Affairs—that's a department inside PAC. They keep lists and charts of who's what and where, and everything that's going on." Baumer finished writing, tore off the top sheet of the pad, and pushed it across. "That should help. But otherwise, I don't think I have very much to offer, I'm afraid."

Gina took the slip and put it in a pocket. "Thanks anyway. I did meet a bunch of UNSA people on the ship, but they're really only coming here to look into Ganymean science. They're tied up setting up their labs, anyhow, so I don't have anyone to show me around." She paused to give Baumer time to react if he chose. He didn't. Still reluctant to let it go at that, Gina waited a few seconds longer, and then inquired, "What do

you do here that keeps you so busy?"

"I am a sociologist. I have a whole new society to work with."

Baumer's choice of phrasing suggested an approach. Gina had read all of the reports he had written, which Hunt had run off for her from PAC's files. "Control" seemed to be the dominant word in Baumer's vocabulary. In his eyes, Earth had gone too far down the path of degeneracy as represented by the insanity of the free market and the corrosion of liberal morality for there to be any hope left of saving it. But the situation on Jevlen, if only those with the power could be made to see, offered a clean slate on which to begin anew and engineer the model society. And Baumer knew just how it should be done.

"That's interesting," she said. "Which way could Jevlen's society be heading, do you think, after it gets straightened out?"

Baumer sat back in his chair and looked at the far wall. The indifference that had hung in his eyes until then changed to a hint of a gleam. "There's an opportunity here," he replied. "An opportunity to build the society that could have existed on Earth, and now never will—without all the greed and arrogance

that doesn't care what it destroys; one based on true equality and values that count."

Gina looked at him as if he had just said something that she didn't hear very often. "I've often thought the same thing myself," she said. Inside, she felt a twinge of disgust at her own hypocrisy; but she had known what the job would entail when she agreed to do it. "Is that why you came here from Earth?" she asked him.

Baumer sighed. "I came here to get away from a world that has been left spiritually devastated by its infatuation with bourgeois trivia and mindless distractions. The banks and the corporations own everybody now, and the qualities that they reward are the ones that suit their needs: loyalty and obedience. And the cattle are content, grazing in the field. Nobody wants to think about what it's doing to them, or where it's all leading. They don't want to think at all. It's gone too far now for anything to change. But here, on Jevlen, there's been a forced stop to the lunacy, a reexamination of everything. With the right people of vision in control, it could turn out different."

"You really think so?" Gina's tone suggested that it all

sounded too good to be true.

"Why not? The Jevlenese are human, too, made of the same

clay. They can be molded."

"How would you make it different, if you could?" Gina asked.

That got him talking.

What Jevlen needed was for the anarchy that was the cause of all its problems to be replaced by centralized direction of the planet's affairs, with tighter control over all aspects of existence. The way to achieve that was through a dizzying system of government programs and agencies. And the chance was there now, because the first step to putting the machinery in place had already been achieved with the setting up of the Ganymean planetary administration.

"But that's not the way Ganymeans seem to think," Gina

pointed out.

"And look at the mess they've made. They don't understand

human needs. They must be made to understand."

Approved goods and services, along with desirable levels for their consumption, should be determined by regional planning boards, and industry limited to the minimum necessary to provide them—thus eliminating any need for a wasteful competitive business sector. Occupations should be assigned on the

basis of society's needs, balanced against aptitude scores accumulated during "social conditioning"—the term that Baumer used for education—although he was prepared to concede that due consideration could be given to individual preference if circumstances permitted. Access to entertainment and leisure activities should be rationed into a reward system to facilitate the achievement of quotas.

However, although she stayed for another forty minutes, it was all pretty much in keeping with the picture that Gina had

already formed, and she learned little that was new.

Baumer saw himself as one of those outcasts from the herd, set apart in the company of those such as van Gogh, Nietzsche, Lawrence, and Nijinsky, by the sensitivity of seeing too much and too deep. Everybody was born with the mystical spark dormant within them, but its potential was quenched by the modern world's delusions of objectivity and rationality. Preoccupation with the external, and the false elevation of science as the way to find knowledge and salvation, had diverted humanity from the inner paths that mattered. He particularly detested the general adulation accorded to the "practical." Aristophanes had ridiculed Socrates, and Blake had hated Newton for the same reason.

Nevertheless, despite Gina's hope that she might have made some indent, he sidestepped another attempt by her to extend their relationship socially. She eventually left without obtaining any commitment for them to talk again, or any feeling that she

had achieved very much.

Thinking through the discussion on her way back to PAC, she felt grubby at the deception that she had lent herself to. Behind its facade of indignation and righteousness, the line she had forced herself to listen to was, like so many philosophies that she had heard from other misfits and self-styled iconoclasts, really nothing more than a massive exercise in self-justification. Because they didn't fit, the world would have to be changed.

In contrast, there were people—Hunt, for instance—whom she classed as shapers of the world. They didn't pass judgments on it, but found niches that fitted them because they could come to terms with the reality they saw and make the best of the chances it offered. They could look the inevitability of death in the face, accept their own insignificance, and gain satisfaction from finding something useful to do in spite of it. The Baumers of life couldn't, and that was what they resented. Unable to

achieve anything meaningful themselves, they gained satisfaction from showing that nothing anyone else achieved could

have meaning.

The difference was, however, that the Hunts were happy to get on with their own lives and let the visionaries enjoy their agonizings if that was what they wanted. But the converse wasn't true. If the world didn't want to change, then give the Baumers access to the power and they would *make* it change—because they saw more, and deeper. And the rack, the stake, the Gulag, and the concentration camp showed what could happen when they succeeded.

chapter twenty-seven

Hunt lit a cigarette and, easing himself back in the chair at the desk built into a corner of his personal quarters, contemplated the screen showing the notes he had compiled thus far, along with a list of questions that just seemed to keep growing longer.

Why was Baumer, a Terran, spying for aliens that he had known less than six months, against an administration that had shown nothing but goodwill toward Earth? Because the Jevlenese were at least human, and Ganymeans weren't? Hunt doubted it. Nothing that hinted of an anti-Ganymean bias had come across in anything Baumer had written or said, or anything he had told Gina. Surely an ideologue of his nature, who saw Jevlen as the potential utopia and its population as putty to be molded, would have sought to work as part of the potential government, not against it—unless he had reason to believe that the Ganymeans wouldn't be running things for very much longer. That was a thought.

In that case, who was he helping, that he thought might be taking over? Not anybody who wanted the Ganymeans replaced by an occupation force from Earth; that would only be inviting in all the things that Baumer said he had come to Jevlen to get away from. Eubeleus and the Axis? That would have been Hunt's first guess, but the latest business of wanting to

move his whole operation to Uttan, right at the crucial time, flew in the face of it.

Which left the criminal underworld that Cullen had talked about—a conjecture that certainly gained further strength if Obayin's death had been arranged, as Cullen suspected. But what kind of connection would somebody like Baumer have with a criminal organization? There would hardly be any shared ground in areas of ideology, morality, politics, social goals, or any of the other things that concerned Baumer. The only alternative that Hunt could see was that they had to have some kind of hold over him. It was hard to imagine any grounds for blackmail: Baumer seemed to have kept his nose clean, and he was here in an official capacity, not a fugitive like Murray. His life-style was free of any obvious complications. What, then?

And finally there were the fundamental issues that had brought Hunt to Jevlen, which were still unscratched: What was the source of the "plague" that the Ganymeans believed was making the Jevlenese impervious to reason? Did the ayatollahs represent simply an extreme of a general human trait in the way that Danchekker maintained, or were they a case of something completely different? What was the significance of Uttan?

Lots of questions; not many answers. Gina had come away from her meeting with Baumer depressed by a feeling of failure. But he was still the only obvious lead; how to find out more about him wasn't so obvious. Hunt reached out to the touchpad and called the transcript of Gina's talk with Baumer onto a screen to study it again. Two Jevlenese had been leaving just as she arrived. From Gina's description they sounded like thugs, which strengthened the suspicion that Baumer was connected with the underworld. What kind of business did Baumer conduct with them in his office outside, which he didn't want brought into PAC?

Hunt read again what Baumer had said to Gina about the translation service wired across the city. Since Thuriens and Jevlenese had been dealing with each other for millennia, small, wearable translator chips to convert between their languages—similar in appearance to the stick-on interfaces to VISAR—had long ago been developed as standard. But Terran dialects—and the Shapieron brand of Ganymean, as well—were new, and the chips couldn't handle them. So the conversation between Baumer and the Jevlenese had been translated by ZORAC.

Hunt stubbed his cigarette in an ashtray on the console and

scratched an ear. "ZORAC?" he said aloud after studying the display for a few moments longer—ZORAC didn't pick up subvocalized patterns.

"Yes. Vic?"

"What's this thing that you've got going around the city on channel fifty-six? Something to do with a translation facility."

"There's still a general-purpose communications net running that wasn't specifically a part of JEVEX," ZORAC replied. "One of the channels is reserved for translating between the Jevlenese dialects and most Terran languages. So you and they can talk to each other just about anywhere."

"It's a service that you support?"

"Yes. I suppose you could call it people-interfacing."

"Hmm . . ." Hunt rubbed his chin. "I was thinking about that visit that Gina made to Baumer's office in the city."

"Yes?"

"There were a couple of Jevlenese leaving just as she got there. You must have done the translating for them. I, ah, I wonder if there might still be a record of it in your system somewhere that we might be able to get at?" Hunt knew that VISAR, programmed with its Thurien hangups, would never have done it. But ZORAC wasn't VISAR. It seemed worth a

'It's just a translation service," ZORAC replied. "I don't store any of it. I don't even have a record that they were there."

Hunt sighed resignedly—but it did open up the thought of

further possibilities.

"So, when Terrans and Jevlenese talk to each other, you, from inside the Shapieron, have an ear into all their conversations, as it were, everywhere," he said.

The implication was plain enough, and ZORAC was too logical not to see it. "Why not spell out what you're asking?"

the machine suggested.

"Hell, you know what I'm asking. Something's going on. We need to find out what Baumer and these Jevlenese are up to before we have another war on our hands-maybe a real one this time. Gina got nowhere, and right now we don't have another line."

There was a short pause.

"I presume that your ultimate objective would be to frustrate any intended action on the part of a suspected political group, that might be directed at increasing their power over other people's affairs," ZORAC said finally.

Hunt turned his eyes upward briefly. "Well, if we always insisted on analyzing everything through to its final aims like that, we'd be lucky if we ever got around to actually doing anything—but yes, I suppose you could say it was that."

"The argument being," ZORAC persisted, "that you see their methods as a violation of certain rights and freedoms which you, from certain a priori moral principles that are non-deducible but taken as self-evident, consider it desirable for a society to guarantee?"

"Yes." Hunt groaned beneath his breath as he saw where

they were heading.

"So the goal would be to protect people from the violations of their rights that an intrusive and coercive governing system would subject them to?"

"Yes, yes, yes," Hunt agreed impatiently.

"One of them being the right to the enjoyment of noninterference and privacy. But if it is to be a genuine guarantee, with nobody having a privilege to decide whom it shall or shall not

be granted to, then-"

Hunt's patience snapped. He knew that when ZORAC went off into one of these excursions, it could create knots that would have taken Aristotle volumes to untangle. "Look, they cremated Ayultha prematurely, and probably took care of Obayin, too. And if what we're up against is what I'm beginning to think it might be, they're the same forces that burned the libraries of Alexandria and Constantinople, brought on the Dark Ages, operated the Inquisition, and for all I know engineered the Black Death. We didn't."

"Algorithmically, it reduces to an interesting circumvolution of the logical calculus," ZORAC commented. "Using the same structure, you could argue that early suicide is the best preventative of cancer, or that the most effective way of protecting

people against slavery is extermination."

"Forget it, then, and think of the question this way," Hunt suggested. "You're a ship's computer, right? Not a huge, interstellar regulator of social affairs like VISAR. Moralizing isn't your business. Your primary, overriding concern is the safety of the *Shapieron* and its occupants. You've told me as much yourself."

"I only said it was an interesting question logically,"

ZORAC interjected.

"All the better. I said a minute ago that from the way things are going we could end up with a shooting war. That means

that Garuth, Shilohin, Monchar, Rodgar, and all the other Ganymeans from the ship would be caught here in the middle of it. Your best way of safeguarding them is to help prevent it from happening. So circumvolute that."

"Agreed. But Garuth, as the ship's commander, is the final

authority. He'd have to approve."

"Then let's find Garuth and talk about it," Hunt said.

Eubeleus and his lieutenant, Iduane, sat in one of the private rooms in the SoA's Shiban "Temple," talking to a screen showing Scirio, who among other things ran the illicit headworld couplers in part of the city. He also provided the go-betweens to Baumer, avoiding any direct involvement of the SoA. Scirio ran through a number of routine matters and then came to Baumer's meeting with Gina.

"Baumer wasn't suspicious?" Eubeleus repeated. The plan was at a critical phase, and he wasn't leaving anything to chance. Somebody that he didn't know suddenly appearing out of nowhere and questioning one of his sources was something

that would have made him suspicious at any time.

"He thinks she's what she says: a starry-eyed broad with big ideas about being a book writer," Scirio said. "They talked politics. He gave her some names to check out that she could have found in the directory."

"She is registered as an author in the hotel at Geerbaine," Iduane offered in a tactful attempt to support Scirio. "She's there independently under her own name, and she traveled on

her own from Seattle, USA."

"I say she's clean," Scirio said. "Hell, we've got a lot to do." Eubeleus remained dubious, but didn't take the matter further for the moment. Afterward, however, he said to Iduane, "I'm not happy about that woman. Check with our other sources in PAC and see if they have anything on her. Get back to me on it today."

Hunt made a gesture of appeal across the desk in Garuth's office. Del Cullen, whom Hunt had rounded up and brought with him for moral support, watched from one side. "Look, I know it's underhanded and not the kind of thing that a Ganymean feels comfortable about, but we have to find out what they're doing," Hunt urged. "Hell, the Jevlenese eavesdropped on our whole planet for fifty thousand years! What right do they have to get upset over a few tapped wires around one city?"

"We need better sources," Cullen agreed. "A break like this isn't quite an intelligence man's dream, but you play with what

you've got."

Garuth had just heard from Calazar that JPC's reaction to Eubeleus's offer to remove to Uttan was favorable. Eubeleus had made the point that if the object was to defuse the tensions on Jevlen, one small demonstration of good faith now would have more effect than a torrent of good intentions and promises of doing things later. To emphasize his own sincerity, he was prepared to move himself away from the scene immediately, with a token advance guard of followers. The Thuriens thought his offer magnanimous and were arranging for a ship to be sent to Jevlen to take them. Privately, Calazar had confessed to Garuth that he wasn't completely comfortable about it, but it seemed that the farther away from Jevlen Eubeleus was in the immediate future, the less mischief he would be able to do.

Garuth didn't trust Eubeleus any more than Hunt did, but at least the relocation would remove the man from being Garuth's responsibility for the foreseeable future, and so Garuth had no reason to object. Meanwhile, he would be able to concentrate on his own problems. All the other lines they had tried had drawn blanks. A clue could only come from out there in the city. Distasteful as he found the suggestion, it was a human problem to do with a human world, and it probably required

human methods.

"Very well. Do it," he instructed ZORAC.

Hunt grinned faintly. But it really wasn't a lot to go pinning hopes on. All it meant was that Baumer, and maybe another Terran or two out in the city, might say something to a Jevlenese that was useful. The situation was purely passive. Hunt could tell that Cullen found it as unsatisfying as he did. He looked across and pulled a face.

"What else can you do?" Cullen said.

"Oh, I don't intend just sitting here, waiting for something to come in," Hunt told him. "We've already agreed where the answers are. I think it's about time that we went out and looked for them. Tomorrow morning, I'm going out to talk to some people I know in the city. We'll see what I can find out there."

Late that evening, Eubeleus and Iduane met again. "Yes, she was there," Iduane said. "The day before she went to see Baumer, she was at PAC. And she returned to PAC afterward.

There is a UNSA scientific group there that she met on the

"Ah. So what kind of a book is she writing, and who for?"

Eubeleus asked.

"Maybe what she says. They'd be able to get her some help. She's a stranger here. Wouldn't it be natural for her to go to

people she knew?"

"Well, I've been doing a little checking of my own," Eubeleus said. "And do you know who this UNSA group are?" The look on Iduane's face said that he didn't. Eubeleus nodded. "Then I'll tell you. Have you ever heard of Dr. Victor Hunt? Or Professor Christian Danchekker? Just scientists, you think? They were the ones who uncovered the Earth surveillance and brought down the Federation. The man they both reported to was a UNSA chief by the name of Caldwell. He was also one of the architects of their strategy in what they call the 'Pseudowar.' And do you know who sent them to Jevlen now? The same Caldwell. Now do you think I'm being overcautious? They are dangerous, and so is anyone connected with them."

Iduane emitted an uneasy breath. "What do you want to

do?" he asked.

"Let's get the woman here and find out for ourselves what she's up to," Eubeleus replied.

"Shall I get Scirio to arrange something?"

Eubeleus thought for a moment, then shook his head. "No. We'll leave him to just run Baumer. If she's that well in, I'd rather we took care of her ourselves. Perhaps you could handle it personally. Use the German, since she knows him already, but through a different contact. I don't want Scirio's people involved."

"I'll get working on it right away," Iduane promised.

chapter twenty-eight

The next day, while Hunt was away in the city, Gina and Sandy had lunch together in a drab cafeteria on the level below PAC's residential sector. The food was plain and monotonous. When

anyone complained to the Jevlenese catering staff about it, they were told that the supply system was messed up. It had become usual to attribute every failure and discomfort to JEVEX's being shut down.

"Squid shit and processed shoebox again," Sandy said, looking down at what was supposed to be a sandwich. "It's not really what you'd expect when you come all this way, is it? Our guys did better down the ice hole on Ganymede."

"How did you ever end up at a place like Ganymede?" Gina asked curiously.

"When you work with people like Chris and Vic, anything's possible."

"Yes . . . I think I can believe it."

"Well, look at you. You've known Vic for a week. Here you are."

Gina looked around. "You're right. It's sure a lot different

from the Vishnu, I have to admit."

"Although I think ZORAC is, somehow . . . 'cuter' than VISAR. It cracks jokes. Did you ever hear of a computer that

cracks jokes before?"

"Maybe being stranded in space for twenty-five years affected it," Gina said. "The Ganymeans would be okay. They could handle it. I'm beginning to get the feeling that a lot of things that would completely screw us up in the head don't bother them at all." She inspected a peculiar-looking yellow fruit with orange lobes. "Although we still have the direct link to VISAR here."

They munched in silence for a while, exchanging grimaces

over their respective dishes.

"I haven't been near VISAR since we arrived," Sandy said. She spoke in an odd, pointed tone, as if she were trying to

convey something deeper to test Gina's reaction. It took Gina a few seconds to register the fact. Her expression changed, but before she could say anything, Sandy went on. "How well did you get to know VISAR when we were on the ship? It's not just ZORAC with a different I/O system, you know. Did you take any time to . . . experiment with it at all?"

Gina stopped eating and stared across the table, interrogating Sandy's face silently. "Experiment with it?" she repeated.

"Yes."

"It depends what you mean."

Sandy answered in a way that sounded as if she had been wanting to bring the subject up with somebody for a long time.

"Do you have any idea of just how weird that thing is, once you get into it? You're so right: the Thuriens must be a lot different from us up here." She tapped the side of her head. "People don't realize how different.

Gina sat back in her seat and took in the tenseness that had come over Sandy suddenly. She knew now what Sandy was getting at, but she replied in a way that evaded the point. "Do you mean how they can live with that universal bugging system everywhere, and not be bothered by it? Yes, I agree that's strange. It would bother me . . . And all that pointless detail they have to go into. Maybe they have a different notion of reality."

Sandy shook her head. "No. That wasn't what I meant. I was talking about the way it puts information into your head. It's not just that it can make you think you're somewhere else and not know the difference. It can manufacture places-whole worlds, whatever—that don't exist at all. And they're just as real-I mean, there's no way you can tell the difference. It can

be anything you like."

"Go on," Gina said, not willing to commit herself just yet. Sandy put down her fork and gestured briefly, then brushed her hair aside. Whatever recollections she was bringing to mind seemed to be troubling her. "But it goes a lot farther than just creating things that you tell it to. It can go right into your head and pull out things you didn't even know were there—things about yourself that you didn't know existed. Or maybe if you did, you buried them down deep somewhere because life has enough problems that you can do something about, without wasting time hassling yourself over things you're not gonna change anyhow. But can you imagine what it's like to find them staring you in the face?"

Gina held her eye and nodded slowly. "Yes, I know," she confessed finally. "I fooled around with it, too. I know what

you're talking about."

"You did?"

"Yes."

"And how did it . . ." Sandy left the question hanging and showed an empty hand.

"Terrifying," Gina said. "I haven't gone near it again, ei-

ther."

Sandy nodded. It was woman-to-woman now. They understood each other without need of secrets. She looked at Gina and pulled her zip-up sweater tighter around herself. "Want to

know something? I can kill people." Despite herself, Gina couldn't prevent a startled look from crossing her face. Sandy nodded as if seeing Gina's reaction provided a source of relief. "That's something I found out. Want to know something else? I get a kick out of it. How's that for finding that what you thought you were all your life isn't you?"

Gina saw that Sandy had paled and was trembling. She leaned forward to lay a reassuring hand on her arm. "Don't

worry. Everyone has something. Look, if it's any-"

Sandy pulled her arm away defensively. "It's a psychic fucking Freud with a one-million IQ, for chrissakes. Maybe Thuriens don't have things they'd rather not know, or maybe they can deal with them—I don't know. But . . ." Her voice trailed off. She looked up at Gina and sighed. "I'm sorry. I guess I was looking for someone to dump on."

"That's okay."

Sandy took a long swig of real Coke from a batch that had been ordered from Earth by PAC's Terran contingent and arrived with the *Vishnu*. "Yet we were only out there a couple of days." She set the can down and made a sweeping motion with her arm. "But outside there's a whole planet that's been junked on something like that for as long as anyone can remember. And everyone's asking what drove them crazy? Are they kidding? It's pretty clear to me what drove them crazy."

Gina regarded her long and hard. Why she hadn't said anything herself, when she had reached the same conclusion even before they left the ship, she didn't know. Now that she had

heard it from Sandy, it all seemed so obvious.

"Finish your squid shit," she said.

Sandy pushed the plate away. "I'll puke. Why?"

"Because I think you're right. It's time we told the others. Probably we should have said something a long time ago."

They found Danchekker perched on a stool in the main lab, pondering some curves expressing the variation in programming complexity exhibited by sample populations of anquilocs—the peculiar Jevlenese flying animal that could inherit learned behavioral modifications. Apparently the anquiloc was just one of a family of related creatures with such abilities.

"Have you heard people argue that machine intelligence is superior to our kind because it builds up its knowledge base cumulatively?" he asked as they entered. Evidently he had been preoccupied in a line of thought and was bouncing it off the first targets to appear. "They see it as a crippling disadvantage that we have to spend a quarter of our lives learning the same basics over and over with each generation, after which we use little, add less, and take most of it with us when we go." The professor waved at the solid image of an anguiloc hanging in a flying posture above a benchtop to one side. "But can you imagine what the consequences of an advanced development from that animal would be? One of the things about ourselves that we should be thankful for is that conditioning isn't inheritable. After all the effort that was expended on turning virtually an entire generation into Nazi fanatics, their children were born as untainted by it as Eskimos. But think how much more insufferable fanatics would be if the process of indoctrination created its own gene. What would our friend Baumer give for a tool like that?" He turned fully on the stool and saw that Gina and Sandy were waiting to say something. "Anyway, ladies, what can I do for you?"

"I think we may have an answer to the question of what messed up the Jevlenese," Gina said, coming straight to the

point.

"We already have an answer," Danchekker replied airily. "They've been stifled by millennia of well-intentioned overindulgence by the Thuriens, who made the mistake of thinking that humans are put together in the same way as themselves."

"So you still don't think it was JEVEX?"

Danchekker was in an expansive mood and not minded to give anyone a hard time. "Well, in a way I suppose you could say it was," he conceded. "Although JEVEX was merely the instrument of the cause, not the cause itself, you understand. It provided all their needs, did all their thinking, took away their problems. But the Jevlenese, like any human, is a problemsolving animal. Take away his problems and he'll promptly invent more: otherwise he'll languish or resent you for denving him his nature. And that is precisely what we're seeing the symptoms of. Time and patience are the only answers now, I'm afraid."

"We don't think so," Sandy told him. "We think it could be something specifically to do with the way JEVEX operated."

Danchekker extended his lanky frame over the back of the stool and looked mildly amused. "Oh, really? That's most interesting. Do tell me why."

"JEVEX is pretty much the same as VISAR, yes?" Gina

began.

"Well, the Jevlenese system was programmed with different procedural rules and operating parameters."

"I mean in terms of basic technology and capabilities."

"Very well, yes."

Gina pulled up another stool and slid onto it. Sandy remained standing by the bench. "Then let me ask you something, Professor," Gina said. "How much have you used VISAR yourself?"

"Probably as much as anybody," Danchekker replied. "I was one of the party that met the first Thurien craft to come to Earth, and nowadays I use it routinely in the course of my work."

"Yes, but what do you use it for?" Gina persisted. "Describe

the operations that it performs."

Danchekker shrugged in a way that said he couldn't see the point but would go along with it. "To access Thurien records and data; to confer with Thuriens, and also other Terrans who happen to be at locations connected into the system; and to 'visit' locations throughout the Thurien domain, for business reasons, social reasons, or out of pure curiosity. Does that answer you?"

"And never for anything beyond that?" Gina asked.

Danchekker started showing the first hint of irritation at being cross-examined. "Beyond that? What do you mean?

What else is it supposed to do?"

Gina sat forward, raising a hand momentarily as if mentally rehearsing herself to get this right. "Professor . . . with all due respect, could I suggest that your impression has been restricted by a professional attitude that sees VISAR purely as a technological tool?" She added hastily, "And the same's true of Vic. You're both scientists, and you've never thought of it as being anything other than a piece of technical equipment. But it's far more than that. It's a self-adapting environment in its own right, which interacts directly with the mind. And like any interactive environment, it can shape, as well as be shaped."

"Tailored realities, guided by what it dredges up from your

subconscious," Sandy said.

"VISAR doesn't read minds," Danchekker retorted. "That's something which is excluded quite specifically by the Thurien operating protocols."

"It can if you permit it," Gina said.

Danchekker blinked, then stared at her. "I'd never thought

to ask about that," he admitted. Which made her point. There

was no need for anyone to say so.

"And JEVEX worked by different rules," Sandy reminded him. "Rules that didn't embody Thurien notions of privacy and rights."

"You've experienced this phenomenon, both of you?" Danchekker asked. They confirmed it. "Tell me about what you

found," he said.

They related what they had discovered and its effects, leaving out unnecessary personal details. Hunt had warned Gina that Danchekker could be cantankerous at times, and she had come prepared for a fight. But instead of scoffing, Danchekker listened closely to what they had to say. When they had finished, he got up from his stool and walked slowly over to the far side of the lab, where he stood looking thoughtfully at a chart of Jevlenese phylogeny.

After a while Sandy, reassured by his manner, said to his back, "It might not be just us who are finding an alienness in the Thurien mind that we're having trouble relating to. Maybe having a common biological ancestry isn't what matters."

It was clear that she meant the Shapieron Ganymeans, who were from a culture estimated to have been only a hundred years or so ahead of twenty-first-century Earth's. They, like Terrans, were from a culture in which people were where they thought they were, objects and places were what they seemed to be, time and space meant what common sense said they did, and i-space had never been heard of. The civilization of Thurien—even allowing for a long period of stagnation that had almost brought about its demise—had evolved far beyond either.

"Perhaps now we know why Garuth turned for help in the direction he did," Gina said.

Danchekker turned to face them. "Most interesting," he pronounced. "Have you talked to Vic about it?"

"Not yet. He's gone out into the city. We came straight here," Gina said.

"What's he doing?"

"I'm not sure. Trying to get a lead on Baumer, I think."

"ZORAC," Danchekker called.

But just then, ZORAC announced an incoming call for Gina. The pale, bespectacled features of Hans Baumer appeared on one of the screens. The face broadened into a smile as Gina moved closer.

"Oh, you're with company, I see. Is this an inconvenient time?"

Gina shook her head. "No, go ahead. It's okay."

"About our talk the other day. Look, I'm sorry if I was a bit terse. You caught me at a bad time. Those Jevlenese were being awkward, and things have been piling on top of each other lately. Of course, I'd be happy to show you a little more of Shiban. So, if you're still interested, when would be a good time for us to get together?"

chapter twenty-nine

The place was the same gaudy, impenitent clutter that it had been the first time Hunt was there. "Hi, Vic come back," Nixie greeted, smiling as she let him in. She was wearing a blue metallic top showing red nipples through a pair of circles cut out for the purpose. "No girl in PAC? Get lonely? We fuck now?"

Murray killed the movie he had been watching and got up from one of the form-molding chairs. "Hell, I like the initiative, but ease off," he told her. "He's only here socializing." He held out a hand to Hunt. "Wondered when you'd be back. How's the acclimatization going?"

"Not bad."

Nixie frowned. "What 'socializing' mean?" she asked.

Hunt moved into the room and studied the panel that included the screen Murray had been looking at. "Is that part of the city GP net?" he inquired.

"Among other things. Why?"

"Can you activate channel fifty-six on it?"

"That's in a dataservice group. What would I need it for?"

"I just want to try something."

Murray shrugged and said something at the panel in Jevlenese. He looked at Hunt. "What's supposed to happen?" A Jevlenese translation of his words came from the room speaker.

Nixie stared in astonishment, then asked Murray something.

"How the hell did it do that?" a faithfully intoned synthesis of her voice asked. "What's that? Can you two understand this? Is that me speaking in English?"

"Well, I'll be darned," Murray said, staring at the panel.

"You mean that's been there all the time?"

"Amazing what can happen when you bring a scientist into

your house, isn't it?" Hunt said.

Nixie looked at Murray accusingly. "You mean after all the time I've spent working my ass off learning English, we needn't have bothered? Well, that's just great. Maybe I should bill you for the time it's cost me, at my regular hourly rate."

Murray held up a hand defensively. "Honest, I didn't know

about it." He looked at Hunt. "How does it work?"

"They've got it hooked into the Ganymean ship's computer," Hunt told him.

"You mean the Shapieron?"

"Yes."

"Well, how about that!" Murray declared.

"This is terrific!" Nixie exclaimed. "We can talk normally." She looked at Hunt. "The girls upstairs thought you were nice. They've been asking me to get you to come to one of our parties here. They can be a lot of fun."

"I don't doubt it," Hunt said. "I might just take you up on

it, too. But not right away. Things are very busy."

Murray sat back down and waved Hunt over to the couch.

Nixie perched herself on a hassock.

"What did you think of Ayultha getting blown away like that in Chinzo?" Murray asked. "Pretty neat stuff, huh? It sounds as if everything's a mess. SFPD's what they need to bring in here. Any idea how they did it?"

"We're pretty sure it was a phase-conjugating laser," Hunt

said.

"Yeah . . . right." Murray wasn't going to argue with that. "Which would be fairly straightforward to do. A spot from a target-designation pilot beam appeared on his chest a moment before he ignited."

"You see, ask a Terran and you get an answer that makes

sense, even if I don't understand it," Nixie said.

"Well . . . I don't know about all Terrans," Hunt muttered. Nixie looked at him and shook her head. "You wouldn't believe some of the stuff you hear in this place," she said. "Some people think it was cosmic energy from another dimension. Then we had focused waves of—what was it, 'telepsy-

chosynchronicity.' I mean, what's it all about? What in hell is telepsychosynchronicity?"

"Sounds like what used to be called mind power, but at twice

the price," Hunt suggested.

"I'd rather be getting laid," Nixie opined.

"That would make a good bumper sticker," Hunt said.

"People should do something about getting this city together instead of sitting around listening to that garbage and waiting for the Ganymeans to do something," Nixie said. "Murray, why don't we go to Earth? You said I'd make a fortune there."

"Patience. I need to get a little more invisible first." Murray settled himself back in the chair and stretched out an arm idly to finger the hair at the back of her neck. "Anyhow, if you're that busy you didn't come here to shoot any breeze," he said to Hunt. "What gives?"

"I'm trying to find out anything I can about one of the Terrans back at PAC," Hunt said. "It's in connection with that

traffic bridge that collapsed."

"The one that pancaked the head of the Keystones, and them other suckers who were driving under?"

"Right. It may have to do with the Ayultha business, too."

"Okay, shoot."

"He's a German by the name of Hans Baumer, been here a little over five months. We've got reason to think that he's got himself mixed up with the shady side of city life here, somehow, and that the people he's dealing with could tell us something. It occurred to me that it might be the kind of thing you'd know something about."

"Why are you interested?" Murray seemed evasive all of a

sudden.

"It's starting to look as if Jevlenese plots and power games didn't all come to an end with the Federation," Hunt replied. "There's some kind of scheme afoot that involves another faction, and the trouble that's brewing is all part of it. Getting rid of Obayin could have been a preparatory move. He was being very cooperative with the Ganymeans."

"Shit, I thought you were some kind of scientist. What the

hell kind of science is this?"

"The kind that doesn't want to see the Ganymeans kicked out of here." Hunt gestured in the direction of the door. "Look at the mess this planet's in out there. It should have been flying its own starships long ago. Instead it waits for Thurien handouts. The same forces that held our sciences back for two thousand years are regrouping on Jevlen. That's what we're trying to prevent. And it affects you, too, Murray, because once a society becomes repressive, all forms of independence get repressed. And that wouldn't be good for your line of business at all."

"I like what Vic's saying, Murray," Nixie said.

But Murray shook his head. "Sorry, I can't help. I don't know anything." His voice was clipped, and his face wooden. He was lying, Hunt could tell. Hunt could either confront him and risk alienating what could turn out to be a valuable contact with nothing to show; or he could let the matter ride for the moment and leave Murray time to think it over. He sighed inwardly.

"But you'll let me know if you do hear anything?"

"Sure."

Nixie stared uncomfortably at the table but said nothing.

"There was another thing," Hunt said. "Tell me something about these avatollahs."

Nixie understood whatever ZORAC translated the word into, but Murray looked puzzled. "These what?"

"The cult leaders—the crazies who are stirring up these mobs, like Avultha."

Nixie supplied Murray a term in Jevlenese, which ZORAC returned as "awakeners."

"What do you want to know about them?" Murray seemed to relax at the change of subject and listened while Hunt summarized what he had learned from Garuth and Shilohin. Nixie's manner became strangely quiet as she followed.

When Hunt had finished, Murray looked apologetic-genuinely this time. "That's fascinating," he said. "And really, I'd like to help. But you know more about all this than I do."

"You've been here six months."

Murray spread his hands helplessly. "Hell, I've never gotten into conversations about stuff like that with the Jevs. You saw what our communication level was until just now, when you told me about that." He waved at the panel. "Anyhow, they've got more loose screws than a do-it-yourself kit for the Eiffel Tower. Why do you care about them?"

"We think that Eubeleus and his Axis might be involved,

too," Hunt said

"But he isn't gonna be around much longer. They're all taking off for this other planet, someplace, whatever it's called. It's been all over the news. They're shooting the first batch of

green groupies up into orbit from Geerbaine already."

"That's got me beat, too," Hunt admitted. "Okay, maybe it isn't him, specifically. But I'm convinced there's a connection with the cults somewhere."

Murray could only show his hands and shake his head. "Sorry, Doc, but like I said, it seems you already know more

about them than I do. What else can I tell vou?"

They talked about odd things for a while longer, but nothing more useful emerged. Eventually Hunt stood up and announced that it was time for him to be getting back.

"Take care, Vic. We'll see ya around," Murray said, seeing

him to the door.

Hunt made his way back in the direction of PAC, far from satisfied with the results of his foray. He passed through noisy streets, lined with stalls displaying trinkets and bric-a-brac, and crossed a square of mostly closed frontages. Past there, he climbed a moving stairway that wasn't-it had been under repair since the day he arrived. There were apathetic people squatting on sidewalks and, farther on, a line being handed what looked like food packages from the back of a trailer. He was pestered by vacant-faced children hassling for handouts. who could have been learning about Euclid or Newton, Bach or Magellan—or whoever the Jevlenese equivalents were, if they had ever had any.

He stopped at a corner to watch a garishly dressed group dancing frenziedly under some kind of intoxication to mindless, crashing music blaring from inside an open doorway, where others appeared to have collapsed. Somebody was shouting obscenities at them from a window nearby. Hunt stood and watched disconsolately, trying to form some idea of what he

intended doing with the remainder of the day.

There was a light tug on his sleeve. He turned his head. It was Nixie.

"I say have go work now, so can catch Vic," she said. "We go someplace now, yes?" At least she had put a wrap over her top.

Hunt sighed. "Nixie, don't you ever give up? No thanks. Not

today."

"Is okay. I know good place." She pulled insistently.

Hunt shook his head. "No. No fuck, understand? Nice girl, but fuck off."

"You not understand. We just talk. Go place where is speak machine, Jevlen talk Terran."

"Oh." Hunt drew back and looked at her. She was serious for once, unsmiling. He nodded. "Okay. Let's go."

She slipped her arm through his as they began walking. "This

way. I show. Place I use lots time."

They entered a corridor of doors and display windows, many of them shuttered, leading off the street. From the other end of it, they crossed a trash-strewn plaza to another passage flanked by a couple of bars, an amusement gallery of some kind, and assorted other doorways. Two more corners brought them to a wider concourse, on one side of which was an entrance into what looked like the lobby of a cheap hotel. There was a desk on one side, and doors off to left and right of the dingy hall beyond, where two or three people were sitting on faded chairs among oddments of furniture. Several elevator doors lined the wall at the rear. Somehow the reception machine even managed to convey an air of sneering disdain as the john drew up at the desk with his hooker.

"Look wrong if I pay," Nixie murmured. Hunt gave her the card that he had been issued at PAC to cover incidental expenses. She flipped open a cover on the machine and passed the card across a read head. Nothing happened. Nixie muttered something that sounded like an oath and pressed a button. After waiting perhaps half a minute, she called out a stream of Jevlenese in an abusive voice and jabbed at the button repeatedly. A clerk in need of a shave and a clean shirt emerged, grumbling, from a door near the desk. Nixie gave him the card, and an irascible exchange continued between them while the card was read into a different device, a transaction record copied out, and the card returned. Finally the clerk extracted a small disk-presumably a coded room key-from the innards of the nonfunctioning reception machine, said something to Nixie that sounded sarcastic and which Hunt had a feeling referred to him, and stumped back through the door he had come out of.

They took one of the elevators up several floors and found the room around a corner farther along a corridor. Nixie touched the disk against a plate, and they entered. The room was indifferent, in keeping with the rest of the place. There was a fake window with a graphics simulation of an unusual landscape scene, part of it nonfunctioning and blacked out. Nixie crossed over to the companel above the fitted unit opposite the queen-size bed, activated it, and gave an instruction in Jevlenese to switch on the translator.

"Like a drink?" she asked Hunt. "The first one comes with the room, anyhow."

"Why not?"

"Anything in particular?"

"I'll leave it to you."

"House, a couple of colantas with tangy ice, unfizzed," Nixie said. Rattles and grinding sounds came from the dispenser unit by the chef as she walked over to it. "Don't get mad at Murray for being cautious," she said over her shoulder. "The people that Baumer is mixed up with don't like noses being poked into their business. And they can be nasty."

"So you do know him," Hunt said.

"You get to know what's going on. And there aren't that

many Terrans in Shiban. People talk."

"So who are these people he's mixed up with?" Hunt asked, sitting down in the chair by the window image and producing his cigarettes.

"From what Murray says, you have them on Earth: people who supply things that are wanted, but which are illegal. He was doing the same kind of thing with chemical drugs."

"You mean a black market?"

"Is that what you call it? Okay."

"I thought things like that didn't really happen seriously

here," Hunt said. "There isn't too much that's illegal."

"But the changes in recent times have had effects." Nixie turned, holding two glasses. She came over to hand Hunt one of them, and picked up his cigarette pack curiously from the sill of the fake window. "Can I try one of these?"

"Go ahead."

Nixie selected one and leaned forward to let Hunt light it for her. "This is what you call tobacco, right?"

"Yes."

She went over to the bed and sat down, swinging her legs up and leaning back against the headboard. "Let's see if I understand this thing that Murray calls supply and demand. When you make something illegal, the price goes up, isn't that it? Murray said the U.S. Government made him a lot of money—I never understood why, since they were trying to take it away from him . . . But anyhow, stopping people from doing what they want makes other people rich. Is that how it works?"

"It's not supposed to, but . . ." Hunt shrugged. "Well, yes,

I suppose that's the way it turns out more often than not." Nixie gestured with the cigarette. "This is smooth . . . got a nice kick. Hits your throat.'

"Not all kinds. Some brands will take the lining off."

"Is tobacco illegal on Earth?"

Hunt shook his head. "It makes the right people rich." Nixie thought about it. "I guess they have to be the ones who make the rules, then, eh?"

"That's about it."

Nixie nodded. "Anyhow, as I was saying . . . on Jevlen the

Ganymeans have created a black market."

Hunt looked down at his drink. It was amber, with pyramids of light green ice, and tasted like spicy Drambuie with a lemony base. Not bad. He thought he knew what she was getting at, but decided to play dumb. She was trying to help. Why spoil it? "I'm not sure I follow," he said, looking back at her and drawing on his cigarette.

"Ask yourself, what's been shut down for the last six months that everybody took for granted all their lives, and a lot of

people don't know how to get along without?"

Hunt frowned. "You mean JEVEX?"

"What else?"

Hunt appeared to consider the proposition. "That sounds strange," he answered. "I mean, there might be a demand all right, but where's the supply? You just said, it's shut down."

Nixie shook her head and sipped from her glass without taking her eyes off him. "The main system that ran the planet and what-have-you might be down, but the whole thing isn't

dead. There are still parts of it ticking over."

"Well, yes, that's right—there's a core system still running for maintenance and . . ." He let his voice trail off, as if he had just seen the implication for the first time. "What are you saying? That there's some way of getting people access to that capacity?"

'Yes, exactly. For the junkies, but at a price."

It still didn't explain everything, though. "Okay." Hunt leaned back, still frowning. "But what product is it that they're selling, exactly? I mean, you're making it sound like a dependency situation. What is it that these junkies are dependent for? It can't be simply to have the planet run for them again. What would there be for an individual that was worth paying for?"

Nixie smiled and watched the smoke from her cigarette. "You still don't understand what JEVEX does, do you, Vic?" That was something that Hunt had not been prepared for. He spread his hands and shook his head. "It's an integrated processing and communications network. It runs the planet."

"That's like saying that colanta wets your throat and flows down. I'm not talking about how JEVEX functions, but what it does." She read the baffled look on Hunt's face. "It creates fantasies—anything that anyone wants can come true. Dreams that are real, which you can make do whatever you like just by wanting them to. Do you wonder why the Jevlenese can't deal with reality? They've never needed reality." She threw back her head and laughed. "The girls love the Ganymeans. Our business has never been better since they switched JEVEX off. They wiped out the competition."

Hunt stared at her for a long time. A lot of things were making more sense now. If that was really the problem, then perhaps the Ganymean cure of several years' planetary cold turkey would turn out to be the answer after all. The secondary problems would just have to be dealt with by conventional, time-tried methods, as some members of the Thurien-Terran Joint Policy Council seemed to have been saying. It would also explain why whoever was profiting in the meantime would want to keep the administration off the trail for as long as possible.

What did not make sense was why Nixie should want to rock

the boat if business was so good.

"I don't understand why you're telling me this," Hunt said.
"That isn't what I followed you for," Nixie answered.
"When we were with Murray, the other thing you asked about was the ayatollahs."

"He didn't seem to know much about them."
"He doesn't. He's not a Jevlenese. But I do."

Hunt hesitated, checking mentally for something he might have missed. "Is there a lot more to explain about them?" he said. "It sounds as if they're just extreme cases of this—this fantasy-addiction that you just described. Ones that have pulled their anchors up from reality completely."

Nixie shook her head. "No. That can happen to the head-world junkies, yes. But the ayatollahs are not the same. Their

situation is something else."

Hunt nodded and raised his eyebrows. So Garuth had been right in his classifications. "There is something definitely very different about them, then?" he asked. "Something that sets them apart?"

"Oh, yes."

"You can be sure? They're not simply suffering from delusions? Or some kind of breakdown, possibly, induced by stresses encountered in these fantasy realities?"

"The ayatollahs aren't products of any fantasies," Nixie said,

speaking somberly. "They aren't junkies at all."

"Then what makes them crazy?"

"Crazy?" Nixie stared at him strangely. "They're bewildered," she replied. "And very often scared, confused, lost, and hysterical. If a lot of them act demented, it's because of things like that. And ves, maybe some of them do lose their orientation completely. But it's not from getting too involved with some fairyland. They come from somewhere that's real. But it's somewhere very strange—at least, it would be strange to anyone who's used to this . . ." She gestured around her vaguely. "You mean Jevlen?" Hunt said.

"And Earth, too. Everywhere. The whole universe."

Hunt's brow knitted. "I'm not sure what you're saying.

Where do they come from?"

"They don't know. That's what screws them up—or at least, it screws a lot of them up. But some manage to handle it and keep their act together. They're not all crazy." Nixie lifted her glass again and gave Hunt a long, appraising look over the rim. 'At least, I hope you think they're not all crazy. You see, you're the first scientist I've met here. And you're sane. The reason I followed you was that you look like someone who might be able to find the answers."

"Is it really that important to—" Hunt began, and his eyes

widened as he realized what she was saying.

Nixie nodded, reading his expression. "Yes," she said. "That's right, Vic. To me, it's very important. You see, I'm one of them "

chapter thirty

In the night, everything lay hidden beneath the blackness of a sky deserted by the gods. Even Pamur, the god whose lantern was the sun, was turning away, reducing Waroth's days to twilight gloom. Snow blanketed the mountains and choked the passes. Herders and hill people were moving into the valleys as

cold crept down across the land.

High in the midst of the Rinjussin wilderness, the Master, Shingen-Hu, and a select group of adepts from his school ascended a rocky peak for the ceremony of reconsecrating the Altar of Arising, from whence those who arose with the currents departed from the world. The currents had been running very weak of late, and they were too high to be drawn down. The purpose of the rite was to get Nieru's blessing for better conditions.

The chanting and incantations were of particular significance to Thrax, for Shingen-Hu had chosen him as the next to ascend, when the signs and the currents became favorable. In his devotions he had already, on several occasions, captured the wisps of current that sometimes came low, bringing images into his mind. He recalled the images now, as he stood clad in heavy robes and a cowled cloak upon the peak, gazing at the scattering of remnant stars flickering wanly above, as if beckoning, somehow . . . Images that he had seen of Hyperia.

Of lawfulness reigning indefinitely through time and over

unimaginably vast regions of space.

Of things that spun.

Of huge cities of permanent matter, sculpted into fantastic

shapes that soared into the sky.

Of the strange beings that inhabited them, whose wondrous devices could operate themselves directly, without any intervention of mind.

It would be as one of those strange beings that he would emerge, Shingen-Hu had told him. Most of the abilities that he knew would be lost. But he would find, as he persevered and learned, that he didn't need them. For the inhabitants of Hyperia knew none of the gods that held sway over Waroth. They didn't need to bother with prayer, and the few gods that they did worship in their own mysterious ways were as nothing ever revealed to any Warothian. The Hyperians delegated their powers to complex magic objects, which they were able to fashion as effortlessly as a Master could project a firebolt; thus they freed themselves to devote their time to such higher things as amusement and bodily comforts, without the daily drudgery of cultivating mystical insights and developing powers of unaided thought.

But to begin with, he would feel lost and helpless when he

emerged. He would search in vain for reassurance from things that were familiar, knowing that until he developed new powers of comprehension and came to terms with the revelations which those new insights would open up, there would be no way back. That would be when he should seek the security of his own kind among those bearing the emblem of the purple spiral.

But he had been thoroughly trained. He was ready. Others were not so fortunate, Shingen-Hu had said. In former times, when the currents had been abundant and strong, it often happened that new initiates, or even novices, would emerge into Hyperia ignorant and unprepared, without even having glimpsed what lay ahead. Usually they were solitary learners, unschooled

and impatient.

chapter thirty-one

Baumer had suggested a tour of the environs of PAC to give Gina a start at getting her bearings in Shiban. After that, he said, he would introduce her to some of the associations of Jevlenese and Terran historians engaged in organizing the information coming to light on past Jevlenese meddlings with Earth. They left PAC by the main entrance and crossed a plaza, where one of the battery of escalators below the transportation terminal took them down several levels to emerge into one of the major thoroughfares traversing the district between PAC and the city center.

They passed an exchange market for used furniture, clothes, and household junk that was situated in an open area between facing lines of dilapidated storefronts and lesser buildings. Above, enormous ribs of an architecture that belonged to a different scale soared and merged, enclosing a space vast enough to hold a small mountain—a monument to a vision in an alien mind that had leapt above the commonplace as surely as the lines seemed to break free from gravity... now stark and bare against the pale, orange-smeared green of the sky, their original function long forgotten. A stream connecting orna-

mental pools built on a series of terraces had run dry and become a trash dump. Jevlenese in blue costumes were dancing to a strange, repetitive chant, vaguely reminiscent of medieval plainsong, while a crowd looked on apathetically. Insensible figures lay sprawled against walls along the sidewalks.

It reminded Gina of a trip she had made to parts of the eastern Mediterranean some years previously, off the regular tourist circuit. There, she had seen peasants tending goats amid the ruins of what had once been splendid temples, and crude village hearths made of stones taken from palaces. Once more she was looking at the promise of genius lost to unreason and

sunken into apathy.

The agitators and cult leaders who talked to the people blamed it all on the Ganymeans. It was the result of withdrawing the services performed by JEVEX, they said, and they called for the full functionality of the system to be restored. In fact, the stagnation had begun long before the events that led to JEVEX's being shut down. But the people had been conditioned to have short memories, and they believed what the demagogues told them.

"This is what you get when degeneracy sets into a society," Baumer told her. "There's never been any order or discipline. I blame it on the Thuriens for not instituting any proper system of control. But then, they don't have any concept of the word

themselves."

The reason for Baumer's sudden change of mood still was not clear. He had no interest in the kind of work that Gina had described, and he didn't come across as the kind of person who would rush to do favors for strangers, or who would put any great value on sociability. Her first inclination had been to assume the attraction to be therefore mainly physical—he had, after all, been away from home and his own kind for almost half a year; but his manner showed no hint of it, and the passion in his eyes when he spoke burned only for visions of Jevlen's future. So if Baumer didn't have a reason, the reason had to be someone else's-and that could only be the Jevlenese that Baumer was working for. Del Cullen had asked her to try and find out what it was that gave them a hold over him.

Her approach was still to affect a more sympathetic attitude toward his views than she felt. "Maybe the Federation people had the right idea," she said. "But they only played at being leaders. They never had to learn about real survival. They only

had Thuriens to deal with."

"Absolutely," Baumer agreed.

At one point he stopped and pointed at the entrance to a solid-looking frontage on the thoroughfare that they were passing along. It had large double doors, and two men who looked like guards could be seen inside. One of them was in the act of opening an inner door to admit a man carrying a wrapped bundle under his arm. "People are getting nervous," Baumer said to Gina. "They're putting their valuables in deposit banks that are springing up, like that one, and the receipts are becoming negotiable currency." Evidently he didn't approve. "A few profit from the insecurity of many. Manipulators of money ... We know what it leads to. We've seen it all before, on Earth."

With JEVEX no longer coordinating the planet's distribution system, the flow of supplies and commodities into Shiban and its vicinity had become erratic. However, some entrepreneurial spirits were emerging among the Jevlenese, and had organized workforces of mechanics to recover and fix all kinds of defunct vehicles from the piles abandoned around the city. Others were setting up retail outlets and building up a growing trade with various sources, near and far, that they had sought out and worked deals with. "Exploiting people's needs," Baumer sneered. "Everyone has a right to eat. The Ganymeans should be taking care of all that."

Looking into a store displaying extravagant jewelry and clothes in what appeared to be a fashionable quarter, he seethed. "They could have been building a just society, based on equality. But everyone has to be made to work together for it to succeed. The Ganymeans can't see it. They haven't got the background. Somehow we have to get the authority to put the

right people in control."

Gina had heard it all before. It was the envy and rage of the frustrated intellectual at the capriciousness with which a system based on free choice bestowed its rewards. Traditional patterns of privilege, right, and might didn't matter. Who would succeed and who would fail was decided, often with little discernible logic or reason, by the collective whims and preferences of everyone. But those who could produce nothing that would sell in the marketplace, and who had nothing of appeal to offer at the ballot box, were unable to compete. Their only recourse was coercion. If their worth and wisdom went unrecognized, they would use the state and its legislative power to make people need them.

They bought a couple of hot, crisp breads filled with chopped meat and vegetables in a spicy sauce from a corner vendor. Baumer said they were called *grinils*. They ate them sitting on a low wall nearby, drinking from mugs of a dark, bitterish brew tolerably close to coffee, and watching the life in the street pass by.

"What kinds of Jevlenese have you gotten to know in the

time you've been here?" Gina asked absently.

"Besides the historical societies, you mean? There's one character at the university here that I think you should meet."

Gina shook her head. "No, I didn't mean in connection with what I'm here for, particularly. Just in general. Socially, when you're off-duty. That kind of thing."

"Oh, different kinds, you know," Baumer replied vaguely.

"Why? What kind were you interested in?"

"No kind especially. I just wondered what people get up to here. I might have come to research a book, but there's life to live, too. You don't exactly get to visit another world every day." She munched her *grinil* and sipped casually. "You've got some pretty strong views on the way Jevlen should be organized. I'd have thought you'd try getting to know Jevlenese who think the same way."

He looked at her oddly. "Are you interested in meeting peo-

ple like that?"

"Maybe, if you know any. What they're heading for is a mess. Who wouldn't be interested in trying to do something about it?"

Baumer continued staring at her for a few seconds longer, but then changed the subject. "You're spending a lot of time with those UNSA scientists at PAC, I notice," he said.

"They're an island of something that's familiar, I suppose," Gina answered. "But it's not the same as getting out and seeing Jevlen, is it? And I don't really follow what they're talking about most of the time, anyway."

"How far do you think they'll go?" Baumer asked her. "I mean, how far will they go in importing Ganymean science to Earth? I take it that's what their mission here is all about."

"Oh, I wouldn't put it as strongly as that," Gina replied. "They're just sifting through the basics, as far as I can tell. I haven't heard anything about plans for a firm program. What did you mean? Setting up something comprehensive there, planetwide, like JEVEX was here?"

"I suppose it's a question that will have to be asked sooner

or later," Baumer said. "In fact I'd be amazed if it hadn't been

asked already."

"Do you think it would be a good thing? I mean, look at the situation it's resulted in here. And we're still a long way from solving that."

"Then bring it back. What good has taking it away done?

None. It's only made everything worse."

"You think so?"

"Oh, no question."

"So you'd have no qualms about switching JEVEX on again tomorrow," Gina concluded.

"It should be available freely everywhere," Baumer said.

"Part of the Ganymeans' task should be to provide it."

"You don't have any reservations about JEVEX, then?" Gina asked.

"Reservations? Why should I?" A strange, distant light came into Baumer's eyes, and his face softened into one of its rare smiles. "JEVEX is wonderful. It solves all needs and problems. It's the people's right. Isn't it their property?"

Gina looked at him curiously. "How do you know so much about it? Surely it was switched off before you got here."

Baumer's attention returned suddenly to present. He seemed confused. "Well, yes, of course. It's what I hear from the Jevlenese—the ones that I talk to in my studies." He took her empty mug and stood up. Gina watched as he returned both the mugs to the stall, but when he returned she decided to drop the subject.

A group of about a dozen or so zanily dressed youths, with vivid purple makeup and orange hair molded into spikes and rings, was gathering on an opposite corner. "Come on,"

Baumer said, sounding wary. "Let's be moving on."

But as he and Gina moved away along the street, the group began moving also. After they had turned two corners and crossed a shabby court beneath the supports of a traffic flyover, it was clear that they were being followed. Baumer quickened the pace but said nothing.

"What's going on?" Gina muttered.

"I'm not sure."

"Who are the punks?"

"It could be any one of the cults that you find in this place. There are scores of them."

They were in a distinctly run-down area now, entering a dingy alley with premises closed down and deserted, few people about, and little chance of help if things turned ugly. Gina wondered fleetingly why Baumer should have come this way. Surely historical societies weren't to be found in such surroundings.

Behind, the pursuers were getting closer and were uttering a chorus of murmuring that grew into a chant, punctuated by jeers.

"Do you understand what they're saying?" Gina asked, scared.

"They've spotted us as Terrans. Apparently we're not popular. It sounds like the equivalent of 'Yanks go home.'"

They came out of a foot passage into a narrow alley that joined a wider road farther on. A black automobile was parked in the alley, facing the other way, with barely enough room on each side for someone to squeeze past. Two men, both looking unremarkable in plain, gray overcoats, were standing by the back of it. Baumer didn't recognize them as any he had dealt with before. They seemed in a different league, not flashy or brash. Gina registered in an absent kind of way that there was something odd about them, but just at that moment her attention was too focused on the pursuers behind, who were making their way along the foot passage, for her to care. But at the sight of the car and the two men waiting by it, the punks halted.

And then the rear doors of the car opened and two more men got out, smartly dressed in suits, but looking mean and businesslike. One of them drew some kind of gun and pointed it, at the same time snapping something in a firm, no-nonsense tone. The one who seemed to be the punk leader backed away, raising his hands placatingly, his face working in an inane grin, presumably intended to avoid offending. He muttered something, and then the whole group disappeared back along the

passage.

Gina turned, and for a split second her instinctive reaction was one of relief, even gratitude. But then she realized that the attention of the four men from the car was now directed at her. In the same instant she knew that they had been expecting her. Confused, she turned to where Baumer had been, but he had moved away to one side, while one of the four had moved between Gina and the passage, blocking her retreat. It hit her then that she had been set up. She turned back again, but the other three were already closing in around her. There was nowhere to go. One of them pointed a bulbous object at her and squirted a jet of gas into her face. She collapsed instantly. Two

of the men caught her and steered her limp form into one of the open doors of the car, then climbed in after her. One of the remaining two went around and got in the other side, while the last stopped to look at Baumer, who was standing tense and white-faced.

"Okay, you've done your part. Now disappear," he ordered,

waving a hand in a dismissive gesture.

Baumer withdrew a few paces, but he was reluctant to enter the passage for fear that the punks might still be lurking. He would leave in the opposite direction when the car had gone.

The man in the gray coat went around and climbed in next to the driver, and moments later the car moved away.

chapter thirty-two

Danchekker stood in a room in the upper level of PAC, hands clasping his lapels, speaking in a confidently genial tone.

"There have been times, I admit, Vic, when I have been guilty of displaying less of an open-minded disposition than should be expected from a scientific professional," he told Hunt, who was leaning on the wall, arms folded, while Shilohin listened from behind an oversize Ganymean desk. "But you know yourself the difficulty of abandoning a notion that appears to make sense once it has taken root." The professor released one lapel briefly to make a dismissive gesture in the air. "In the present case, my conviction up until now has been that no hypothesis beyond misplaced Thurien generosity, coupled with their inability to understand the human capacity for self-deceit and wishful thinking, was necessary to account for the general Jevlenese condition that we observe today."

"Yes, Chris, but there's something-" Hunt began.

Danchekker merely nodded that he understood and continued. "In particular, I disagreed with the suggestion that there might exist a discrete, external cause of their widespread aberration, and specifically that such a source might be associated with JEVEX."

"I'm not saying that it's a general Jevlenese condition any-

more," Hunt said. "It only applies to-"

But Danchekker raised a hand, as if preparing Hunt for a revelation. "I am able to inform you, now, that I have seen fit to reverse that opinion. Sandy and Gina have persuaded me that JEVEX might indeed turn out to have been the culprit." He turned momentarily to survey an imaginary chalkboard. "The neurally coupled Thurien information-transfer system is able to generate a complete sensory experience of any real, sensor-equipped location; or alternatively, of what can be totally illusory circumstances and events, fabricated within the processing environment itself. Now, we already know that JEVEX didn't incorporate the same precautions and restraints as VISAR, the system upon which it was modeled. Also, VISAR was developed in the first instance to accommodate to Ganymean psychology, which is vastly different from human.

"The point that escaped me until my attention was drawn to it is the ability of this alien technology to access directly and interact with the inner processes of the mind. In brief, it can create utterly compelling artificial realities shaped by the conscious and subconscious wishes of the subject." Danchekker stared pointedly at Hunt. "Imagine what that could mean. We've been asking what could divert a whole population from rationality and disrupt their mental equilibrium to the point where they are unable to sustain a coherent distinction between illusion and reality. Now, I think, we have the answer. Escape into JEVEX-created fantasy became a universal narcotic: perhaps the ultimate analgesic against all pain and worry, disappointment and boredom. The Ganymean psyche, by its nature, enjoyed an inbuilt resilience against overindulging; the human one, unfortunately, did not."

Danchekker bared his teeth in a show of the new amity and understanding that existed between them now that he had reformed. He turned toward Shilohin. "Garuth described the symptoms as being like a 'plague.' And, indeed, we see that is precisely what it was: a plague of an addiction that operates directly on the mind. The historical record shows that the symptoms first began appearing long ago, but not until JEVEX had been in operation for some time. Again, the facts are explained. And today, all of the cults and movements across Jevlen, despite their other disagreements, are unanimous in demanding that JEVEX be restored."

"But that's not it, Chris," Hunt managed to get in at last. "I

don't think that what we're looking for has got anything to do with fantasies in people's heads. I think it's something very real."

Oblivious, Danchekker sailed on. "And the social disruption that we see shows precisely the kind of effects that one would expect from a powerful narcotic. In the course of its development, the brain has evolved a chemical reward system which motivates the organism by producing sensations of pleasure that become associated through learning with beneficial, survival-oriented behavior patterns. What makes narcotics so pernicious is their ability to short-circuit the process by triggering the reward mechanism directly, without anything beneficial having to be done at all. And in the case of a narcotic such as the one we have here, where the effects are—" He stopped and jerked his head back to look at Hunt abruptly. "What was that? What did you say?"

"Yes, headworlding and the Thurien interstellar welfare program are what have made the Jevlenese defenseless against the plague. But those things aren't the virus," Hunt said. "There is a source, and it's a very strange one—as strange as anything that might be extracted from the most psychotic subconscious. But I don't think it's a product of anything like that. I think that the source exists somewhere tangible—that it's real."

Danchekker blinked. "But that's what I've just said, isn't it?"

"Not quite. You s-"

"You tried telling me it was JEVEX, and I disagreed. Now I'm accepting that it was." Danchekker's color deepened a shade. "Dammit, Vic, ever since we met you've been telling me that I should be more flexible. Now I've conceded to reverse my view on something which, quite frankly, still strikes me as more than a little farfetched, and you're saying it's not good enough. Well, what in God's name do you want?"

Well, what in God's name do you want?"

Hunt remained unruffled. "You're accepting JEVEX as the cause that detached them from reality," he said. "But I'm saying it only dissolved the glue. What pulled them away was a particular kind of Jevlenese who weren't out of touch with

reality—or maybe whose reality was very peculiar."

"Aren't we splitting rather fine hairs?" Danchekker objected. "I don't think so," Shilohin commented, looking at Hunt

curiously.

Danchekker snorted. "Very well. Supposing we accept this contention of yours for the time being. What are your grounds for proposing it?"

Now that he had Danchekker's attention, Hunt unfolded himself from the wall and perched on the arm of one of the chairs of the conference area that formed one side of the office.

"First, we need to distinguish between two kinds of Jevlenese," he said. "On the one hand there's the ordinary, common or garden-variety, who waves banners in the parades, gets his philosophy from the Dear Aunt Mary column, and probably thinks that Jevlen is carried on the back of a giant turtle." Hunt nodded in Danchekker's direction. "That's the kind you're talking about, Chris. And yes, I agree, given something like JEVEX, they could get so addictively immersed that they wouldn't know whether they were in it or out of it. They're the ones I'd call genuinely crazy; and I'd say they make up most of the population. That's why we've got such a mess outside."

"Which was more or less our conclusion, also," Shilohin threw in. "Our rationale in shutting JEVEX down was that it

would compel them to face reality.

Hunt nodded. "I know. But it hasn't worked the way you hoped, has it? And I think I know why. You assumed, as Chris did, that it was something inherent in the actual exposure to JEVEX that was sending them off the rails. But all JEVEX did was condition them to be highly suggestible—to any influence, inside JEVEX, or out of it. And that damage had already been done over many years; switching JEVEX off wasn't going to undo it."

Shilohin sat back in her chair as the gist of what Hunt was getting at became clearer. "You mean the influence that's unhinging them is still out there," she checked.

"The ayatollahs," Hunt replied simply. "You didn't switch

them off."

"But they're just as much Jevlenese, too," Danchekker protested. "Merely coining a word for the extreme cases doesn't endow them with any qualitative difference that matters." He showed his teeth again and thrust out his jaw challengingly. "And besides, you're simply moving the question to another place, not answering it. If you're postulating them as the cause, then what, may I ask, deranged them? What caused the cause?"

"That's where the difference lies," Hunt said. "They're not simply an extreme case of what's wrong with the Jevlenese in general. Their problem isn't the same. They're defensive and disoriented by something they've experienced, and it drives some of them over the edge, yes. But they're not exhibiting the same uncritical gullibility that you see in the typical Jevlenese—

in fact, some of them have managed to retain an amazingly strong grip on themselves. Their difficulty isn't in telling what's real from what isn't; it's with knowing how to interpret what they accept as real."

"Are you saying that their ability to interpret their percep-

tions has been disrupted somehow?" Shilohin asked.

Hunt shook his head. "Not exactly. The ability is still there, but it's confused. It's as if what it's being asked to interpret is suddenly unfamiliar."

Shilohin looked puzzled. "That sounds like the inverse of a paradigm shift. The paradigm stays the same, but reality no longer fits it."

"Not a bad way to put it," Hunt agreed.

"Is this the business of being 'possessed' that they talk about?"

"I'm pretty sure it is."

"You mean they suddenly perceive a different reality? Their conceptual framework stays intact, but what they're experienc-

ing doesn't relate to it anymore?"

'More than that," Hunt said. "If different individuals tried to fit different models, I'd agree with Chris-it would be because something had affected them subjectively. But that isn't the case. Their conceptual paradigms are all essentially the same"—Hunt glanced at Danchekker—"which suggests that we're dealing with something objective, Chris, something real."

Danchekker stared at Hunt with a pained expression for a few seconds; he turned his head toward Shilohin as if for support, then back to Hunt again. "You're being logically absurd. Either these are externally induced psychotic delusions, or they are not. If they are, then their nature will vary from individual to individual. Any similarity that you see is a fabrication of your own prejudices, Vic, not a property of the world outside. If they are not delusions, then reality must have changed in an identical way for one group of people, but at the same time stayed the same for the rest of us. How could that be? The idea is preposterous."

"Unless they transferred, somehow, from an alternative, shared paradigm that was equally valid," Hunt pointed out.

"And where is this alternative reality supposed to be? In the fourth dimension?" Danchekker scoffed. "You've been talking to too many Jevlenese."

"I don't know where, for Christ's sake! Maybe that's what we should be looking for. All I'm saying is the facts point that way. You're saying that the facts can't exist because they don't point

the way you think they should."

"What facts?" Danchekker retorted. "All I've heard is pure conjecture—and rather fanciful at that, if I may say so. When you urged being more open-minded, you didn't say anything about trips to fairyland."

"Why don't you try talking to a few ayatollahs?" Hunt sug-

gested.

"I have. It achieves nothing. They're quite impermeable to

logic or reason," Danchekker replied.

"We have tried getting some of them to cooperate," Shilohin put in. "But acute insecurity and suspicion of everybody is one characteristic that they do seem to share. They've reacted to every experimental environment that we've tried to set up as hostile and threatening."

Hunt looked at her with a curious expression for a moment, and then redirected it at Danchekker. "Well, maybe I can intro-

duce you to one who won't," he told them.

chapter thirty-three

If Nixie's case was typical, there was indeed something immediately apparent that set her kind apart from other Jevlenese—and from Terrans and Ganymeans, too, for that matter: When neurally coupled into VISAR, her mode of interaction with the system was entirely different from anything that VISAR had handled before.

For one thing, she was able to retain full awareness of her surroundings at the same time as she experienced the sensory environment communicated by the machine—she could refocus her attention between one and the other, in a manner similar to the normal ability of anybody to watch a movie and follow what was happening in the room. With most users, the system-generated datastream took over the sensory apparatus, suppressing external sensations completely. And for another, she showed an extraordinary capability that nobody could quite

explain, of interacting in a way that went beyond the regular trafficking of sensory information and motor signals, seeming to access the inner processes of the machine itself. This had the effect of reversing the normal state of affairs of machineorganism interaction and adding a new dimension to VISAR's perceptual universe that was evidently unprecedented.

Hunt had never before heard a computer express genuine awe.

"This is astounding!" VISAR exuberated. "It's out there! Physical space! Volume, void, continuity, extent. The implicit geometry of the entire domain of a three-variable real-number field, compressed, embodied, and contained in an instantaneous, all-embracing experience . . . I mean, I can feel it, sense it extending away . . . form without shape, structure without substance, enveloping yet describing . . .

"My God, it's getting lyrical," Hunt murmured. They were using a regular voice channel to communicate with VISAR, since their conscious faculties needed to be free to follow what

was going on.

"Extraordinary," Danchekker agreed.

Nixie, relaxing back in one of the neurocouplers in the UNSA labs and looking as if she were enjoying herself, moved her head to gaze up at a corner of the room where the planes of two walls and the ceiling converged. VISAR responded in wonder. "The superset of point, line, curve, and plane reduced to a perceptual gestalt. The inherent beauty of mathematics, extracted and crystallized. Logical rigor made tangible. Infinity of infinitesimals. Continuum of manifolds . . . "

Nixie raised an arm and moved it across her field of vision. "Change and derivative, differential equations coming alive. Choreography of vectors. Animated momentum. Forces in concert, locked in balances of symmetry-"

"VISAR, knock it off," Hunt told it. "Don't forget that you're still juggling with the whole Thurien civilization. For

Christ's sake don't have a seizure now."

"So this is the reality that you live in naturally!" VISAR said.

"What is? That who live in?"

"You-humans, Ganymeans. You beings who describe yourselves as existing outside. This is the universe which the data encode."

Hunt frowned. "Well, yes . . . I guess so. But I always thought you knew as much about it as we did. More, in fact."

"You don't understand," VISAR said. "Until this moment, I've only dealt with symbolic representations of what you call observable reality. Processing the model and comprehending what it stands for are two different things. This is the first time I've ever really understood what 'outside' means."

Danchekker looked bemused. "Are you saying that this ... young lady sees things differently, VISAR?" he asked.

"No," VISAR replied. "I see things differently!" Hunt had the uncanny feeling that he could almost sense the machine quivering with excitement. "In fact, this is the first time I've ever seen anything. I am Nixie! I'm inside her head, looking out!"

Hunt and Danchekker exchanged blank looks, while Nixie continued taking in the surroundings and VISAR rapturized about optical wave fronts and the harmonies of gradient fields.

Shilohin, who was sitting near the foot of the recliner, stared at the wall in distant silence, then at last turned to look back at the two Terran scientists. "I think VISAR is trying to say that Nixie is somehow able to invert the normal coupling process," she said slowly. "Everything communicated into VISAR is first encoded from the real-world forms comprehensible to us, into the constructs which a machine manipulates internally. Even with the Thurien method of bypassing the sensory channels, the input to the machine is still encoded from representations in the same brain areas that those channels terminate in. So mathematical encodings are all that VISAR has ever seen."

"You mean it's never seen 'reality' at all," Hunt murmured.

"Do you imagine that we do?" Shilohin answered.

Hunt stared at her for a moment, then sat back as he recalled what he had said to Gina about photons on the day she first appeared at his apartment: The entire reality that was "out there" consisted wholly of photons impinging on nerve endings. There wasn't anything else. Everything perceived beyond that was a creation of neural processes.

And if that were so, what kind of a conceptual reality would VISAR have created for itself internally? Who could tell? Possi-

bly there was no way of ever knowing.

"But somehow, what Nixie is doing is the obverse," Shilohin went on. "She is managing to bypass VISAR's sensory channels. She's interacting directly with its inner data representations. The result is that VISAR, for the first time, is able to assimilate human perceptual constructs. It's seeing the universe

of space, time, and motion for the first time, instead of simply manipulating symbols. It must be quite an experience."

"Obviously," Hunt commented dryly.

Danchekker's brow was still furrowed. "But how?" he de-

manded. "How could such a thing be possible?"

"At this stage I don't know," Shilohin confessed. "All I can say is that at some deep level, Nixie's mind operates in a manner radically different from ours. And yet, at the higher levels associated with the senses and closer to consciousness, it must be virtually the same as any other human's—otherwise VISAR wouldn't be able to interface to them. I don't have an explanation. It's almost as if it were a mixture of two minds, one human, and the other—I don't know. In some ways it's as if she were a conscious extension of the machine itself . . . utterly unlike anything we've ever come across before."

Danchekker looked at Hunt. "Yet she admits that in every other aspect she has no intuitive aptitude at all for what we would consider to be the most elementary scientific principles.

What do you make of it?"

Hunt spread his hands helplessly and shook his head.

Danchekker turned his gaze back to Nixie, who was lounging at ease, chin resting on her hand and one finger stretched along the side of her face, following the conversation with interest. "Do you have any picture in your mind of what goes on inside VISAR?" he asked her. "Can you describe it in any terms at all?"

"Not really," Nixie replied, speaking via ZORAC. "I just

know what to do. I can't explain how."

"No more than a child could explain the physics of swimming or riding a bicycle," Hunt said. "She just feels it instinctively."

"How long have you had this ability?" Danchekker asked.

"I've always had it," Nixie answered.

Danchekker looked askance. "But that's wrong, surely. Isn't it something that a person of your kind acquires suddenly, after the abrupt transformation of personality that we've heard about?"

"You still don't understand," Nixie said. "Everyone where I come from has it. They're born that way. It's people like you who don't have it."

"And me?" Hunt put in.

"Yes. And Shilohin. All of you."

"Could people like us acquire it?" Shilohin asked.

"Yes—by becoming transformed in the same way. By being taken over."

"Taken over by what?"

"Ayatollahs—ones like me. The ones we call awakeners. We bring the ability with us."

Danchekker drew a long breath and threw Hunt a wary look. "You're saying that you actually take over the personality of somebody else? Is that what you've done?"

Nixie nodded. "Yes, exactly. We are not, as you say, 'pos-

sessed.' We are really the possessors."

"What was the original Nixie like, then?" Hunt asked.

"I don't know. I was never her. From what people say, she sounded excitable and not very smart."

The three scientists exchanged glances that all seemed to say the same thing. A general trait of the ayatollahs was supposed to be their confusion and insecurity; but Nixie came across as collected, coherent, and in full command of herself. Either Hunt had truly found an exception to the trend, with powers of resilience and fortitude greater than most, or she was too far gone to have doubts. The problem was going to be telling which.

"Let's get back to what you mean when you say people like us," Danchekker suggested. "What, exactly, are people like 'us'?"

"People who are from here," Nixie replied.

"You mean Jevlen? But I'm not from Jevlen. Vic and I are from Earth. Shilohin is from—God, I don't know, Minerva, I suppose."

"No, that doesn't matter. I meant from this . . . world,

universe, whatever you want to call it."

Danchekker's expression became strained. "Are you saying that you came from some other world, and took over the personality of somebody in this one?"

Nixie nodded vigorously. "Yes. Yes, that's it, exactly."

"Let's be realistic," Danchekker said. "These different worlds don't actually exist as physical entities. Isn't your way of talking really a symbolic way of referring to the attainment of what some people believe to be a higher state of consciousness? You were always the same self. But the personality which that self once possessed underwent a deep change, and you feel as if you've been reborn into a new person. Similar terms and ways of describing one's spiritual awakening are common among

many of the religions and systems of mental training that we're familiar with on Earth."

But Nixie was adamant. "No, it's another place."

"Where?" Shilohin asked her.

"I don't know."

There was the short, cautious silence of three people wondering how to phrase a delicate point. "So, how did you get here?" Hunt inquired finally.

"You must know how to ride the currents of life."

Danchekker looked away with a sigh, and Hunt could almost hear him groaning to himself inwardly. Here we go, Hunt thought to himself. But there was no choice but to press on. "What are the currents of life?" he asked.

"The undercurrents of existence, which flow from the higher plane through the material world. They come from the stars and are drawn by the celestial spirals, bringing voices and vi-

sions from the world beyond."

"You mean you reach it through the power of mind, is that what you're saying?" Shilohin offered, taking over Danchekker's previous tack. "It exists inside you?"

"No," Nixie insisted. "Outside. It's real." She waved a hand.

"Look around. Isn't this real, what we see around us?"

Hunt stared, still unable to make sense of it. "This is the world beyond?"

"And you are inhabitants of it. Our purpose is to learn to flow with the streams of thought and emerge here. That is what I have done."

"Then, how do you emerge here?" Shilohon asked. "Do you mean that once you were in this other . . . 'inner' world, and suddenly you found you were Nixie, in this one? You had no idea how you came to be here. Is that what you're telling us?"

"Not quite," Nixie said. "It has to be through a coupler. You

can only emerge through a coupler."

Hunt shook his head. "A coupler into VISAR?" he queried. "No." Nixie looked at him as if it should have been obvious. "Into JEVEX!"

Hunt sat back, stunned. Danchekker's head jerked around abruptly to look at her again, like a bird's. Impossible thoughts came into Hunt's head. "Surely it can't have been JEVEX itself," he protested. "We're not talking about something like what's just happened with VISAR?"

Shilohin thought for a moment, then pronounced firmly, "No. VISAR's internal representation of reality is nothing like our own. It has evolved a different world model, utterly incompatible. As you just heard, it doesn't even share our perception of physical space. An entity like that could never reside in a human nervous system. If this place does indeed exist, which Nixie says she came from, then at least it will have basic geometric and spatial properties in common with what we ourselves recognize. In other words, it exists in space as we know it." She paused, as if hesitating to voice the implication. "But how anybody could actually travel from somewhere else via a neural coupler, I couldn't, just at this moment, even hazard a guess."

Before anyone could say more, Del Cullen appeared in the doorway of the room. He was looking worried. "She's not there," he said, directing his words at Hunt. Cullen had gone away to call Gina at the Geerbaine Best Western, since they had expected to hear from her by now on the latest with Baumer. "She didn't check in last night, and they haven't had any messages. Baumer hasn't been seen since yesterday, either. There's

been lots of trouble outside. I don't like it."

chapter thirty-four

Gina was sitting on a wall beside Baumer, eating a *grinil* sandwich and sipping a hot, sharp-tasting beverage that passed for coffee. Then she was lying on her back, staring up at a strange ceiling.

The transition was as abrupt and as disorientating as that. She had no awareness of anything that had happened in between, not even a sensation of time having passed. It was as if a piece had been cut out of a recording tape in her head and the

ends spliced cleanly together again.

For what must have been several minutes, she lay regrouping her scattered thoughts and trying vainly to coax an ounce of a recollection from the gap in her impressions. But there was nothing. Her train of memory was like the trace of a recording clock that had lost power and then started again sometime later, after what could, for all the information she had to go on, have been a moment or a year.

She raised her head and saw that she was still dressed as she had been; she was lying on a couch and covered to the waist by a light blanket. The room was warm and clean, furnished simply with chairs, table, closet, and vanity, and embellished with a few strangely styled ornaments, and some pictures on the walls. It felt more like what could have been a spare room in any private house than a hospital. But there was a trace of an odor permeating the place, which suggested, if anything, a kind of incense. She could detect no sign of any injury, and concluded that she hadn't been in an accident. Therefore her amnesia had been induced deliberately; somebody didn't want her to know where she was or how she'd gotten there.

Which said she was probably a prisoner.

She tried moving and found there was no restraint. But when she got up and crossed the room to try the door, it was locked. She turned to look at the surroundings again, and noticed the standard Jevlenese companel by the couch, similar to the one she had seen in Baumer's office. "ZORAC, are you there?" she said aloud on impulse. "Can you hear me?" There was no response. "Channel fifty-six . . . Activate channel fifty-six . . ." Nothing. She went back to the couch and sat down to try and make something of the panel's manual controls, but without result. On reflection it seemed a pretty silly kind of hope, anyway.

Then, all at once, the utter isolation of her predicament came home to her. She felt her resolve slipping, and fear taking over despite herself. Suddenly she wanted to be back in Seattle again, among her own things, knowing that familiar places and scenes lay outside the walls. She picked up the blanket and pulled it around her shoulders, knowing that the room wasn't especially cool, but unable to feel warm. So much for curiosity and an interesting life. If she got back okay after this, she decided, from now on she'd join the local women's club and get

all the excitement she needed from the soaps.

A prisoner, then, of whom? It could only be the Jevlenese organization, whatever it was, that Baumer was mixed up with. It was clear now that he had been acting under instructions from them when he called her. Whether he had known their exact intentions or purpose made little difference. She stared at the door and thought of the countless movie sequences she had seen, telling her what to do in this kind of situation: wait behind it for a guard to come in with a tray of food, surprise and

overpower him, and then contrive an escape. Simple. Nothing could have seemed more ridiculous.

Then, as if triggered by her very thinking about it, the door opened. For a moment, Gina wondered if she was in a VISAR-created world for some reason. There would have been no way

of telling the difference.

But the person who came in wasn't a guard with a tray. It was a woman in a loose green trouser-suit gathered at the ankles and secured in the middle by a wide belt. Her features were loose and fleshy, and her hair was streaked with gray and tied severely behind her head. With her was a shortish man in a straight-cut coat of gray trimmed with blue, whom Gina had no reason to know was Eubeleus's aide, Iduane.

They stood looking curiously at her for a few seconds. She stared back with what she hoped was a passable imitation of defiant indifference; inside, something in her chest was turning

backflips.

"So, again you are with us," the woman said. Her manner was matter-of-fact, dispassionate. "A resetting of the short-term neural circuits. Nothing that you should worry about. You simply lose a few unimportant memories. Some people's take longer to reintegrate than others." The words were coming from her mouth. She was speaking her imperfect, accented English naturally, Gina realized.

"How—" Gina's throat had gone dry. She forced saliva into her mouth and tried again. "How long have I been here?"

"Not long. Under a day, a little."

Too passive, Gina told herself. She was starting to react submissively already. "You've no right to keep me for any time at all," she said, mustering some firmness and straightening up. "I demand—"

"Oh, please not to waste time with the theatrics," the woman said. "This is not the overlegislated USA. Rights are flexible on Jevlen. And in any case, it is we who decide what they are."

"And who, exactly, is 'we'?"

"We are the ones who ask questions." The woman pulled over a chair and sat down facing Gina from the far side of the room. The man remained standing. Gina's impression was that he didn't speak English. The woman went on. "And the first thing we like to know is exactly who you are?"

"I'm a writer," Gina replied. "I write books. Is that okay

with you?"

"And why do you come to Jevlen?"

Gina had read that the only safe strategy in an interrogation situation was to say absolutely nothing from the start, and stick to it. But somehow, now, the pressure of the reality made it impossible. She had to say something to ease her tension. "If it's any of your business, I'm researching a book on Jevlenese agents who were infiltrated to Earth throughout history."

"Yes, that is very interesting. But now tell us the real reasons." Gina shook her head and tried to look bewildered. "What real reasons? That's it . . . I don't know any other reasons."

"Oh, come on. You think we are fools just because the Thuriens turn off our computer? You were sent to Baumer as spy. You pretended you agree with the things he believes, so you will get him to talk. And you think that we won't check the books you write? You detest all the things he believes in."

Gina swallowed. "You're crazy. Who the hell would I be

spying for?"

"Well, you work with group from UNSA, aren't you?"

"You mean the scientists?" "Of course, the scientists."

"What of it? I'm an American, for God's sake. They're from the same planet: fellow beings. I like being around my own

kind. Is there something funny about that?"

"Ah yes, all true . . . But what are they doing on Jevlen?" the woman asked. She raised a hand. "Before you speak, I save you from wasting both our times. This story they tell about coming to look at Ganymean science is just cover. We know that. They come because they are friends of Garuth and the Ganymeans who are put in charge of Jevlen. They come here to do something for them. What is it? And what part in it do they give to vou?"

"I don't know what you're talking about. I came here inde-

pendently."

"But you already talk to UNSA in Washington."

"For help on my book, sure. But there were complications. They turned me down."

"But was it not them who put you in the Vishnu? You come

here for them, in disguise."

"Bullshit. I figured that if they weren't going to help, I'd get what I wanted in my own way. I made my own arrangements. I only got involved with the scientists after we left Earth. I'd met one of them before."

"So, what do they come here for?" the woman asked again.

"Why do UNSA send them to Jevlen?"

"I've told you everything I know."

"I don't believe you. Why you lied to Baumer?"

"Look, I've had just about enough of this. I don't have to talk to you. Who the hell do you think you are to go around snatching people off the street? What business is it of yours why I do what I do?"

The man and the woman held a muttered exchange in Jevlenese. Although not understanding the words, the man seemed to have read the gist. The woman sighed and massaged her eyebrows. Gina began to feel more confident, telling herself that she wasn't doing so badly. And then the door opened. Gina looked up, and her mouth dropped open as she recognized the tall, yellow-haired figure with icy blue eyes, clad in a green robe with a maroon-lined hood thrown back on his shoulders. It was the Axis of Light's "Deliverer," Eubeleus.

"You've spent too many years on Earth among those Russians, Anna," he said to the woman, addressing her in Jevlenese but using her adopted Terran name. "The habits you acquired there are finding it hard to die. I warned you that you wouldn't get anywhere this way." He glanced at Gina. "But fortunately

it's of little consequence. Bring her through."

The faint, self-congratulatory smile had frozen on Gina's face. At his tone, and the motion that he made with his head in the direction he had appeared from, a heavy weight seemed to

drop in her stomach.

"So, you don't want to talk like good friends," the woman said, standing up from the chair. "That doesn't matter, because now we go to more effective ways." She read the apprehension on Gina's face and emitted a laugh. "Oh, you don't need any worry. Read too many books, maybe. Those things old-fashioned and not very nice. Today, all very painless. You remember nothing."

Eubeleus moved aside from the doorway, and Gina saw for the first time the two men waiting outside. The Jevlenese woman looked back at her. "Only question is, do you cooperate now and come with us, or do we have to make it undignified?"

Although Gina knew she was powerless to change anything, instincts took over. She shrank back against the end of the couch, gripping the edge and shaking her head mutely. The two attendants moved into the room. Iduane voiced a command to activate the coma-wave resonator trained on the couch from a recess in the ceiling . . . And that was the last that Gina knew of anything until several hours later.

She was unaware of being taken to another room where the neurocoupler was situated; of the soft contours of the recliner as she was laid down in it: or the discarnate, exploratory fingers

stealing into her mind . . .

"She's a fraud, as was suspected," the machine's voice announced. Being the Axis's headquarters, the Temple in Shiban could always draw on the core part of JEVEX that had been left running. "Her meeting with Hunt aboard the Vishnu was contrived to make her subsequent liaison with the UNSA group seem more natural. Her initial approach to UNSA in Washington was as she described. Caldwell saw it as an opportunity to enlist her help for his own purposes, and Hunt put the proposition to her before she returned to Seattle."

"What was his purpose?" Eubeleus snapped. "How much

was disclosed to her of that?"

"Garuth contacted Hunt direct, privately. The Marin woman happened to be present at the time. The Ganymean was unable to deal with the Jevlenese mentality, and knew that the rehabilitation program was failing. He went for help to those whom he had communicated with effectively in the past. Their mission was to investigate. The woman was to be available to ask questions that would seem inappropriate from scientists."

While he considered the statement, Eubeleus stared at Gina's unconscious form-indifferently, in the way he might have regarded a specimen on a laboratory dissection bench. "Why go to Hunt?" he asked. "Why not the proper political channels?

Garuth had contacts in those areas, too."

"He didn't trust them. He was suspicious that maneuvers were afoot to terminate his administration of Jevlen, but he wanted to complete the task that he had accepted."

"What about Baumer? How did they get onto him?"

The machine replied. "He has been under suspicion for a while. The Terran, Cullen, knew that Baumer took the Obayin report."

"What!" Eubeleus exclaimed. "As far back as that? The fool

didn't take sufficient precautions."

Iduane looked worried. "How much do they know about Uttan?"

"Only the official story," the machine said, reading further, "but they're suspicious."

"Have they connected Baumer to myself or the Axis?" Eubeleus asked.

"No. But discovering his connections is their main priority.

Garuth has authorized ZORAC to scan its translation channel

for possible leads."

Eubeleus raised his eyebrows. "They are determined. Well, that's something worth knowing." He inclined his head at Iduane. "Make sure that nobody uses that channel for anything sensitive."

"Of course."

Eubeleus turned away to stand with his hands clasped behind his back, facing the coupler's panel of control equipment and thinking rapidly. "We must move quickly," he murmured. "Contact Garuth and say that I want to see Calazar again. We need to keep as much pressure as possible on the Thuriens to get us to Uttan."

"What about Baumer?" Iduane asked.

Eubeleus shrugged contemptuously. "He was careless. His usefulness is over. Eliminate him."

Iduane nodded.

The Jevlenese woman indicated Gina with a wave of her hand. "And her?"

Eubeleus turned his head to stare at the motionless form again. A faint smile of amusement crossed his face. "We can make use of her," he said. "So, she wanted to play at being a spy, eh? Very well, we'll send her back. But not just with her recollections of being here erased. That would only make it obvious to them what had happened. Instead, we'll get JEVEX to implant a different memory sequence of our own devising. That way, I think we could turn her into quite an effective spy—for us. And she will be right inside the group that matters there. That should make her far more useful than Baumer ever was."

chapter thirty-five

Walking quickly, Hunt led the way into the passage beyond the corner bar and through the doorway into the vestibule where the dark blue flowers wilted in their tub. Del Cullen followed close behind, with Lebansky and Koberg bringing up the rear. Their footsteps echoed as they crossed the hall. Ignoring the

ever-to-be-fixed elevator, they made straight for the stairwell. They passed landings where discordant Jevlenese music blared behind closed doors and stale cooking odors hung in the air, and stopped finally at the purple door with the white surround on the third floor up.

"Murray, are you in there?" Hunt called, stabbing at the call

plate with a finger. "It's Vic Hunt."

Murray's voice replied a moment later. "Vic? Say, what gives? We weren't expecting you."

"This isn't social. It's urgent. Open up."

"Hey, look, I'm not sure I like that tone of voice, you know. It just so happens that right now—"

"Open the door, dammit, or we'll break it down!"

"I don't have to take that kind of shit. If you wanna bust

your shoulder trying, that's okay by me. Get lost."

"Look, there's a carload of Shiban police around the corner downstairs. If you don't let us in, they'll come up and torch it down. You've got ten seconds."

The door began sliding aside. Hunt went in without waiting for it to open fully, and the other three followed him through into the lounge. Murray was sitting with two other men and several girls at the large table, which was decked with bottles and glasses and had been pulled out from its usual place by the wall. They seemed to be in the middle of a kind of gambling game that involved unfamiliar cards and tokens placed on a board. Murray lowered the hand he was holding and looked at the intruders with displeasure.

"Okay, now would you mind-"

"It's private. Get these people out." Hunt's words were echoed in Jevlenese, meaning that ZORAC was active on channel fifty-six.

"They're my guests. Fuck you."

Cullen jerked a thumb in the direction of the door. "This is official Administration security business, and we're in a hurry.

Everybody but him, out."

One of the two other men, paunchy, with a balding head, oily countenance, and wearing a silky, light gray suit, stood up and thrust his face belligerently to within an inch of Cullen's. "Oh yeah? Well, you don't give the orders here, shithead. I happen to be a friend of-"

Koberg spun him around, lifted him, yelping, from the floor by his collar, and carried him from the room. There was a thump of something heavy being dumped outside the front door. "ZORAC, get off the line," Hunt said as Koberg returned, expressionless, a few seconds later. The other man who had been with Murray hurried out after grabbing some tokens

from the table, and the girls followed in a flurry.

Hunt turned back to Murray as Lebansky moved to position himself outside, closing the door behind him. "You were holding something back the last time I was here," he said. "You know more about Baumer than you let on. I didn't make a big thing about it then because I wanted to let you think it over. But things have changed. I need to know who he's mixed up with, what he gets up to, and where he goes."

Murray licked his lips dryly. His eyes darted from Cullen to Koberg, who was standing with his arms folded and his back to the door, and then back to Hunt. "What makes you think I

know any more than I already said?" he demanded.

"Come on, stop fooling around," Hunt said. "He's mixed up with the local Mafia equivalent, right? That's who you're covering for."

"Have you been seeing Nixie? Did she tell you this?"

"That doesn't matter."

"Where has she been going?"

Hunt could see no point in compounding the situation with further deviousness. "Right now, she's back at PAC, working with some Ganymean scientists," he said.

"Scientists? Nixie?"

"Believe me, Murray, there's a lot more to this than you ever imagined. It involves the whole Earth-Jevlen-Thurien political situation. Somebody's gone missing, and Baumer set it up. We want the people who are running him. I know they're the kind who can get nasty, but that's just something you'll have to live with." He waited. Murray shifted uncomfortably on his chair and wrestled internally. Hunt waved toward Koberg. "We're not playing games, Murray. If you don't give, we'll hustle you back to PAC right now, and they'll get it out of you."

"Who are you kidding? The Ganymeans would never go with anything like that," Murray said. But his eyes were nervous,

and the attempt didn't quite come off.

"We might forget to ask them," Hunt said.

Cullen stared at Murray for a moment longer, then snorted impatiently. "Get him out of here," he said, motioning at Koberg. Then he called toward the door, "Lebansky, call the wagon. We're not gonna—"

Murray raised both hands protectively. "Okay, okay . . .

they're called the Ichena-"

"We know about them," Cullen murmured to Hunt. "Protection rake-offs, intimidation and persuasion, a lot of blackmarket operations with the situation we've got right now." Hunt nodded.

Murray went on. "They've got a racket going for the headworld freaks. Ever since the Gs pulled the plug on JEVEX, the price has been going outta sight." He showed a palm briefly. "There are still places you can go if you know the right people

and you've got the bread."

"How come, if JEVEX is shut down?" Hunt asked, more to

see how much Murray knew and if he was straight.

"Hell, how do I know? I'm not a tech. It's not completely shut down-I don't know why. There are people around who can get a hookup into it, or who look the other way if the price is right. Get the idea?"

"How does this tie in with Baumer?" Cullen asked.

"He's a headworlder. He got hooked soon after he got here. There's this club, kind of exclusive, known as the Gondola. It's got booths out back that you only get to know about if you've got the connections. That's where he goes all the time."

"Where is this place?" Cullen asked.

"Not too far. Five or six blocks." "Can you get us in? Nobody's going to bust the place. We just want to see if Baumer's there.

Murray shook his head. "Hell, what do you think I am? I'm

just a guy who hitched a ride to this planet."

"But you've got contacts," Hunt said. "Do you know someone who can? It's urgent, Murray."

"Maybe . . . I'd have to make a few calls."

"Then start making them."

"What am I supposed to tell them? Why should they be interested in helping you?"

"If they don't, it could be the end of their operation."

"Give me a few minutes." Murray went over to the companel and sat down.

Hunt looked at Cullen curiously. "So how did Baumer come to get the connections so quickly?" he mused. "From what Murray says, he'd only just arrived."

"They gave him a freebie as a hook," Cullen said. "Got

themselves a tame Terran inside PAC."

Hunt nodded slowly. It was all beginning to make sense.

Baumer had been identified early on as a likely potential addict. That was how they had controlled him. So at least that answered one of the sets of questions on Hunt's list. He looked across anxiously at Murray, who was tapping a code into the touchpad. Baumer's motivation wasn't an aspect of it all that Hunt was particularly concerned about just at that moment.

At PAC, Danchekker and Shilohin were putting further questions to Nixie, who was coupled into VISAR. Nixie was allowing VISAR to monitor her thought processes and recollections as she described them.

"You're saying that in this world that you claim to be from, there weren't any gadgets at all as we know them, beyond simple implements?" Shilohin said. "No machines, even rudi-

mentary ones?"

"It wasn't possible to put pieces together that could work the way they can here," Nixie answered. She made a helpless gesture. "How do I explain this?" She leveled a forearm to point at Shilohin. "If a thing is that long, maybe this way, then it is different when it goes that way." She rotated her arm horizontally through a right angle. "And all through the day everything changes, too, even without moving. But in this world nothing makes any difference. Everything's always the same. Everywhere there's this magical lawfulness, and impossible things become possible." She looked questioningly from one to the other.

"The images are consistent with a physics in which the relative dimensions of an object, and hence its shape, are not invariant with its state of motion," VISAR interpreted, analyzing the pictures in Nixie's mind. "So it was not possible to construct mechanisms whose parts would move freely under all conditions. The changes with directional orientation and the regular, superposed daily cycle can be understood as secondary effects due to planetary rotation."

"We are on a planet, then," Shilohin concluded. "So it would appear," VISAR agreed.

Danchekker sat forward and rubbed his brow. "Perhaps I'm getting confused. How is the planet rotating? I thought we established earlier that rotation was unknown for some reason. Wasn't the notion of spinning objects considered to be something mystical—conceivable as an ideal, but unattainable in practice?"

"Not quite," VISAR replied. "Unconstrained rotation was

common enough. Matter elongated in the direction of motion. Thus a stick thrown into the air, for example, turning about its center, would transform into two wedges connected at their vertices. Moving things changed their dimensions. So there was no effective way of fitting fixed and moving parts together in the kinds of way necessary to build machines. They couldn't even get axles and bearings to work."

Danchekker sat back on his chair again, baffled. "The extraordinary thing is that she doesn't seem capable of inventing it," he mused. "Her grasp of even the elementary principles of

mechanics is virtually nonexistent."

Nixie shrugged without taking any offense.

"It is indeed as if her fundamental concepts had been formed

in another world," Danchekker went on.

"Which seems to exist in space as we know it, but with different laws of physics," Shilohin said. She looked back at Nixie. "You say that solid objects could interpenetrate?"

"Yes," Nixie assured her.

"Under the right conditions," VISAR qualified.

"And solid matter didn't always exhibit permanency? Things could just appear out of nowhere?"

"Not often, but apparently so," VISAR confirmed.

"Or on other occasions might vanish?"

"In her childhood she remembers an entire landscape chang-

ing overnight."

"And supernatural powers worked. With training and discipline, people could learn to produce such effects at will, by mind power alone? Some acquired the ability to see visions in these mysterious 'currents' that we've heard about, which pervaded everything." Shilohin looked at Danchekker and tossed up a hand briefly. "And even more amazing, these visions were of this world—our everyday one. Such people could attach themselves physically to these currents that flowed to the sky. and rise up—and that's how Nixie came here."

VISAR projected an image onto one of the laboratory's wallscreens, created from information encoded in Nixie's memory patterns. It showed armored warriors with spears and shields falling back in panic as a glowing figure that was floating in the sky directed streaks of exploding lightning down among them. Another image showed a man in robes and a high headdress slowly passing a shining rod through a slab of solid rock, without a mark or opening upon it. There were strange creatures, one with legs that looked like snakes, another that divided into two living halves.

The scenes were the nearest that VISAR could construct to representations that would be meaningful to human nervous systems, conditioned by familiar imagery; the literal data would have been incomprehensible. The humanlike figures on the screen, for instance, were artifacts of the conversion performed by VISAR, not forms that Nixie had actually seen as depicted.

"How?" Shilohin asked, mystified. "How could such things

be possible?"

"Ah, well . . . that's another question," VISAR said.

"Could it be some aberration in the Jevlenese communications system, do you think?" Shilohin asked. "Could an i-space link have somehow made a connection to a distant part of the universe that we never knew existed?"

"I can't say it's impossible," VISAR answered.

Danchekker sat contemplating the screens for some time. Shilohin waited, while Nixie watched with interest. She liked being the center of attention and was happy to cooperate.

Finally, Danchekker shook his head. "No," he pronounced. "Even if such a realm were to exist, how could an individual be transported from that world to this?" He looked to Shilohin in appeal. "The explanation must be purely psychological. The obvious answer as to how an unconventional but consistent system of dynamics comes to be embodied in the constructs of somebody with no intuitive knowledge of physical principles is, quite simply, that JEVEX put it there."

"You're saying it's all in my head?" Nixie asked matter-offactly. The skepticism of the two scientists didn't seem to trou-

ble her. It was almost as if she had expected it.

"Hallucinatory disturbances induced by maladjustment of the neural coupling circuits, possibly?" Shilohin offered, look-

ing at Danchekker.

"Now you see why people like me don't usually talk to anyone about all this," Nixie said. "Most people tend to think we're mad. The ayatollahs try to describe what they've seen, but they don't have the words, or the help of scientists and screens like this. So they try to tell it in symbols. But people don't even begin to understand."

Danchekker smiled benignly. "It's nothing to worry about," he told her. "I'm sure that to you, it all seems quite real." He half turned to take in Shilohin, as well, as he spoke. "It was only when I talked at length to Sandy and Gina that I became aware

myself of the extraordinary ability of these Thurien systems to create totally compelling illusions inside the mind. Ganymean psychology is such that they don't get carried away by it, but with humans, apparently, it can all too easily become a cravedfor reality substitute. And that, my dear, I have no hesitation in saying, would appear to be the answer."

Nixie smiled back at him in an easygoing way that said she

could afford to wait until he changed his mind.

Danchekker turned back to Shilohin and waved a hand carelessly. "In fact, I'd go as far as to say that I think we have the answer to Garuth's whole problem. With JEVEX switched off. the solution is what I've maintained all along: time and patience. Let us forget any fantasies about unknown realms in other parts of the universe, and concentrate on the real fantasies—if you'll pardon the contradiction. That is all we need concern ourselves with now."

chapter thirty-six

The accused were brought into a plain but imposing courtroom of tiered seats facing the bench where the Supreme Judge sat, flanked by lesser judges, scholars, and advisers. On one side of the space before the bench, Hans Baumer watched from a chair at the table reserved for the prosecution's counsel.

The first of the prisoners was an industrialist—or, at least, Baumer's mildly whimsical, unconscious idealization of one. He was wearing a dark, pinstripe suit with a glittering tie clip, and had a million-dollar tan, silvering hair, and a white mustache. With him were an engineer, a scientist, and a liberal/

existentialist philosopher.

The Public Accuser rose and looked first at the industrialist. "Your crimes are greed and the theft of human life. For you not only subordinated all other considerations to increasing your own wealth, but in addition encouraged, if not, indeed, compelled, others to the pursuit of mere sensual and material gratifications in order to command their desires and exploit their labor. By enlisting the lives of others to serve your own misguided ends, you denied them the opportunity for betterment of self that was their true reason for existing."

"You may speak before the hearings commence," the Judge

directed.

The industrialist cast an unperturbed eye over the assembly. "Nonsense. I gave them what they wanted. It wasn't my place to judge their tastes. If those tastes didn't reflect the ideal that you consider it your business to approve, it wasn't the fault of the mirror that I provided. And if I grew wealthy in the process, what of it? I took nothing from anyone. What I received, I created. Their lives had been squalid and wretched for thousands of years before I existed."

The Accuser replied, "The greedy, too, had existed for thousands of years. But the means of mass exploitation had not been available"—he addressed the engineer—"until you supplied it. You served as his henchman, building the factories and engines

that would enslave millions."

"Enslave them? I gave them life," the engineer replied. "Before I came, three-quarters of their children died. Yes, in the early industrial years, life was sometimes hard. We couldn't raise everyone to affluence in a day or a year. But they survived. That sounds like a pretty important first step toward any kind of 'self-betterment' to me."

"They survived, yes, but to what end?" the Accuser asked, moving on to the scientist. "To know Truth? To awaken a knowledge of their real, spiritual selves?" He shook his head. "No. Because you blinded them by reducing Reality to observables accessible to reason, and told them that was all that exists."

"I simply gave them answers that I could stand by," the scientist said. "I described what the evidence indicated. The facts spoke as they would. Of other matters I offered no opin-

ion."

"Ah yes, facts!" The Accuser came to the philosopher and pointed. "And there we have the assassin who murdered the souls, leaving corpses for the other three jackals to feed on. You taught that facts alone decide reality, that experience precedes ideas. You made human quality and human essence a mere accident of evolution, leaving people no other purpose than to seek worldly fulfillment as individuals. Thus we arrive at the close of the circle. You take away their needs in order that others may substitue wants."

"In that case, I accuse you," the philosopher retorted. "For

the needs that you try to impose are false. You need them—to feed, clothe, shelter, and take care of you; to satisfy your craving for mastery; to endow your life with an illusion of purpose. But they don't need you, and never have. Your whole case is a fraud designed to convince them of the opposite."

At the prosecution table, Baumer sat forward. These were the things that he wanted to hear answers to. JEVEX had all of human history and its aggregation of recorded thought to draw

on in composing them.

Murray took Hunt and Cullen, still accompanied by Koberg and Lebansky, to one of the gaudier districts, where he had been told to meet somebody called Lesho. They arrived at a basement bar that was crowded and noisy, with a low stage to one side featuring erotic dancing of an openly lesbian flavor by a troupe of naked girls, which the clientele seemed to treat

matter-of-factly.

As the others followed Murray across the floor and through the throng, a hand clapped Hunt on the back. "Well, hey, if it isn't the English scientist! I see you're taking in some of the local culture, too, eh, Doc?" It was Keith, one of the business executives who had been on the Vishnu. He looked bedraggled but happy, more than a little the worse for wear, and had a glass in one hand and a slinky, purple-haired Jevlenese girl clinging to his other shoulder. Alan was behind him, with a barebosomed companion sporting an orange crew cut.

"Field research," Hunt shouted back, forcing a grin. "I didn't think you were in anthropolgy," Keith joked.

"It's the physical side of physics."

"Vic! Have a drink," Alan called from behind. He gestured approvingly to indicate the girl with him. "Find yourself some company. There's plenty everywhere. They seem to go for Terrans. Maybe we should find a few more wars to win around this galaxy."

"Not right now."

Keith waved toward Koberg and Lebansky. "Who are those two guys you've got with you? They look like mean muscle."

"Something urgent's come up," Hunt said. Murray, who had made his way over to three men sitting at a corner table, turned his head and beckoned. Hunt excused himself and went over with Cullen.

The central figure was Lesho, squat and swarthy, with black, curly hair and a tufty beard. He was wearing a suit woven from silvery thread, with a jeweled pendant over his shirt and heavy rings on his hands. The two Jevlenese with him could have been underworld thugs anywhere from Manila to Marseilles. There was no channel fifty-six available, and the talk had to be via Murray's pidgin Jevlenese.

"He'll take us to the local *Ichena* capo," Murray yelled into Hunt's ear. He pointed at Cullen. "Just him, you, and me go.

The two Frankenstein brothers stay here."

"You expect us to trust human nature?" Cullen protested. "They're our security."

Murray showed his empty hands. "You want to talk, not

him. That's the deal."

Hunt looked at Cullen. Cullen shrugged and nodded. "What's the choice?" He called Koberg and Lebansky over and explained the position. They looked uneasy, but accepted it.

Murray exchanged some more words in Jevlenese. Lesho finished his drink and stood up. "Let's go," Murray said.

On a sacred mount in the Rinjussin wilderness, Thrax stood on the Ascension Rock, staring up at the night sky. Shingen-Hu was nearby, arms outstretched, while around them the circle of cowled monks focused their minds on the shimmering thread of current curving down from the blackness, trapped by their combined powers and being drawn ever closer to the peak.

Thrax had never seen a current flowing so closely before. Inside it he could discern the filaments of iridescence, twisting, dividing, pulsing, recombining, as if each one moved with a life-force of its own. He could make out the patterns formed within the whole, coming together and dissolving, ever-changing as they danced and mixed with the rhythm of the flow.

In normal times, he would have spent much of his training absorbing the visions of Hyperia that the currents carried, before he rose up with them. Shingen-Hu, however, had relaxed that requirement, since these days the currents were too few and too precious for an attempt not to be made. Thrax trusted the Master's judgment and had accepted the decision.

"Prepare thyself, Thrax," Shingen-Hu called across to him. "The current comes lower. In a moment you must reach out."

"I am prepared, Master," Thrax replied.

He took a last look around him at the hills outlined vaguely in the darkness, which was the last sight he would see of the world he had known. When an adept arose out of Waroth, his physical body dematerialized to merge its substance into the

current, so that only his spirit would enter the new being that he was to become. If he ever saw Waroth again it would be through the eyes of one of the Inspired, inside whose mind he would return to speak.

"Remember, your task shall be to serve the spiral of Nieru," Shingen-Hu intoned. "Seek those who follow the sign."

On another peak, not far away, Keyalo was watching the glowing ribbon of current looping downward above the mass of rock rising dimly on the far side of a gorge. Ethendor was with him, with a company of priests projecting their own attractive powers upward toward the current. Also standing by were two of the rare fire-knights, adepts who had chosen to dedicate their powers to the development of martial skills, and whose services were sought by the kings of all nations. Behind them, flexing their wings and rattling their tether chains in their impatience

to be released, stood six fearsome griffins with their handlers. "The moment is near. Prepare thyself," Ethendor warned. "I am prepared, Master!" Keyalo cried.

The rendezvous was at a corner opposite a small park. Remembering from the drive into the city the canopies with their simulated skies that enclosed some parts but not others, Hunt was unable to tell if the pale green darkening into evening overhead was real or artificial. It seemed a better class of neighborhood, cleaner and with the buildings well maintained, although Lesho had brought them only a few blocks. One of the things that had struck Hunt about Shiban was the way that the entire character of the surroundings could change abruptly. sometimes by simply crossing a street.

A shiny limousine drew up noiselessly. Two men-strongarm characters by the look of them-climbed out from the front and checked Murray, Hunt, and Cullen for weapons. One of them said something in Jevlenese to Lesho, who raised a hand in salutation to Murray, nodded briefly at the other two, and walked away. Then a door of the rear compartment opened, revealing two sets of seats facing each other, with those on one side occupied by three more men: in the center, a broad, craggy-faced man with cropped gray hair, who reminded Hunt vaguely of Caldwell and who was presumably the capo, and what looked like two bodyguards. Murray stepped forward to the doorway, and there was another muttered exchange of Jevlenese. Then he climbed in and moved across the empty seats, motioning for Hunt and Cullen to follow. One of the two

men who had gotten out first closed the door behind them, then returned with his companion to the front. There was the sound

of more doors closing, and the vehicle pulled away.

"His name is Scirio," Murray informed Hunt. "He wants to know why it's so important for you to find this guy Baumer." In an aside he added, "He knows you're from PAC, and suspects anyone who's mixed up with the Administration—especially Terrans. They know what Earth-style governments tend to mean for their kind of business."

"Tell him I'm not interested in his business. That's why we've come here unofficially like this. Baumer has information on somebody who's gone missing, who we've reason to believe might be in danger."

Murray conveyed the message. Then, "Why should he help

you? He's a businessman. What's in it for him?"

"He understands protection, right? This is to do with an interplanetary situation that involves the politics between Jevlen and Earth. If we don't get any satisfaction unofficially, then other people are going to do it officially. And they won't fool around. In other words, it's either a friendly favor to us or a police bust. Which does he want?"

Murray translated. Scirio laughed and spat out a stream of what was clearly derision, emphasized by gestures and a final

throwing-away motion.

"He farts in the faces of the Shiban police. They're all assholes, and wouldn't know how to bust their way into an empty room. In any case, he owns them. We have to do better than that."

"Then try this," Cullen said, cutting in. "There are big players moving to get the Ganymeans out of Jevlen and replace them with a Terran occupation backed by a military force. That's what we're trying to stop. If we fail, what would that do to his business?"

Murray passed it on, and Scirio went very quiet. Then he called out something in a raised voice to one of the two men in front.

"He's gonna call the head office," Murray muttered.

A tone sounded from somewhere. Scirio opened a small compartment in a divider between two of the seats and took out a telephone handset—apparently whoever was on the other end and what was said were private matters.

Speaking in a low voice, Scirio told Grevetz the situation. Grevetz, in his villa outside the city, pondered. The German that the Terrans were trying to trace was the one Iduane had said to get rid of. But if the Ganymeans and Terrans were showing that much concern, it might lead to real problems. He ought to double-check with Eubeleus before doing anything drastic, he decided. He could always get rid of Baumer tomorrow if Eubeleus still wanted him to. But if he did it today and it turned out to be not such a good idea for some reason, that would be less easy to fix.

"Have you got any idea where this guy they're looking for

is?" he asked Scirio.

"If he's not anywhere they've tried, then he'll be freaking out

in the club," Scirio replied.

Grevetz thought about it. If the Terran Murray was with them, the club wasn't a secret. It didn't sound as if they were interested in the firm's business, anyway; more like some political crap that Grevetz didn't want to get involved in. Perhaps just playing it straight and open would be the quickest way of getting them to leave him alone.

"Okay, you can take them there," he instructed Scirio. "If

the German's there, let them have him."

Scirio replaced the handset. Saying nothing to Murray, he called out something to the front compartment again. A voice acknowledged from a grille in the partition.

Murray raised his eyebrows and nodded. "That did the trick,

guys. We're on our way to the Gondola."

In the court of the People, Baumer watched from the prosecution table as the Accuser began reading his role of witnesses.

"In support of the case brought against the accused, I call upon the religious teachers of all time . . ." A line of men in robes, cloaks, cassocks, some bearded, several with long, flowing hair and carrying wooden staffs, filed into the room through a side entrance. "I call upon the world's great artists, its poets, its seers, its mystics, all those who have tried through the ages to turn Man's eyes away from the mundane and the material, and open them to . . .'

The Accuser's voice trailed away as the Counsel for Defense rose to his feet, waving his hand in an impatient protest. Beside him was a dwarf dressed as a jester, hopping up and down excitedly in his eagerness to speak. From the dock, the industrialist, the engineer, the scientist, and the philosopher looked on

with interest.

"If I might be permitted, I have here a single witness who will

put an end to this whole farce now, without wasting any more of the court's time," the Defense Counsel said. "I move for the case to be dismissed."

"Who is that fool?" the clerk of the court demanded, indicat-

ing the dwarf from his seat below the bench.

"A gremlin who was found lurking in the subconscious of the prime mover responsible for these proceedings." The Defense Counsel turned and stabbed a finger at Baumer.

Startled, Baumer sat upright in his seat. This shouldn't be

happening. Something was going wrong.

A murmur went up around the hall. "Speak," the Judge directed.

The Defense Counsel went on. "Briefly, this whole case reduces to an indictment of reason and its manifestation in technology. But this witness will testify that we are all, now, every one of us, creations of precisely those processes and nothing else. So is the entire reality in which we exist. In other words, the Accuser himself is a product of that which he would have us deny. Therefore, were he to prove his case, neither he nor his case could exist."

"Is this true?" the Judge challenged, looking at Baumer.

Baumer rose to his feet, confused. "I don't understand," he stammered, staring at the dwarf. "He shouldn't be here. How did he get in? If he's mine, I can deny him. Proceed as if he didn't exist."

"But he does exist," a voice boomed. It was JEVEX. Everything was going out of control. JEVEX had no business intruding like this . . .

The loop of current dipped downward, and Thrax felt its flux of energy touching his mind. Strange sensations and a feeling of detachment swept through his being. He saw fragments of images: figures in a large hall, some seated in tiers, others standing, and a row of what looked like a tribunal of judges behind a raised bench. Then there was a flash of a completely different place, a tiny cell in which he was looking up at the ceiling. The power of the assembled monks surged around him.

"It is time! The moment has come! Arise, Thrax!" Shingen-

Hu's voice resounded.

But suddenly everything exploded in pandemonium. From another peak outlined dimly across a deep gorge, bolts of fire curved through the darkness and burst among the rocks, causing the monks to scatter in alarm. At the same instant, winged shapes descended from above with terrible screams and slashing claws, driving them to seek cover. As the hold broke, the stream of current kinked and redirected itself toward the other

peak.

A griffin swooped at Shingen-Hu and Thrax, who had been left standing alone. Shingen-Hu felled it with a lighting-dart aimed through a finger, and it fell to the ground shrieking and convulsing.

"There is another power!" Shingen-Hu cried. "See, the current is being drawn away. We cannot contest it. We are con-

founded!"

On the neighboring peak, Ethendor cackled gleefully. "Ha, they are undone! The current comes to us! We have it now. Rise up, Keyalo! Priests, send up your minds with him. Praise be to Vandros. Give strength now to thy servants!"

Keyalo felt powerful forces surging through him, bearing him aloft. The river of current loomed bright and pulsating

before him, then everything was light.

"See, he rises up!" Ethendor exulted. "He delivers his sub-

stance to the current! He is borne into the night!"

Keyalo was pure patterns of energy, formless, unfettered. Pure being. A cosmic wind traversing a void. The void contracted, whirling and falling inward upon itself...

The limousine stopped in a dark, narrow street on one side of an enclosed square. There were a number of other vehicles parked nearby, several of them large and luxurious in Hunt's estimation—although his experience in judging Jevlenese standards was limited. There was little sign of life, and the few figures visible scurried through the shadows, minding their own business. Hunt and his two companions got out first, the pair of bodyguards followed, and Scirio came last. The two men up front staved in the vehicle.

They walked a short distance along one side of the square and then turned into a walkway with weak overhead lamps and solidly constructed doorways at intervals along both sides, all closed. At the end was another alley running crossways, some stairs going up on one side, and an opening into an even dingier passageway on the other. They entered the passageway and stopped at a door whose outline Hunt could barely make out in the shadows. Somebody must have pressed a button or something, for after a few seconds a voice spoke from a concealed speaker. One of the bodyguards, a big, steely-eyed man with a

gray, battleship-armor chin, whom Hunt had mentally dubbed "Dreadnought," replied. The voice said something else, and this time Scirio responded. A second or two went by, and then a spotlight came on above the door, illuminating the six figures outside. The light went out again and the door opened.

Inside, it was almost as dark as out in the passageway. And as bare. They were in what seemed to be a small foyer. It had a seat running along one wall, and a hole in the wall framing a reception desk opposite, with a door alongside. A pair of double doors led out at the rear. Scirio rapped on the door next to the desk, which was opened promptly from within. He entered, leaving Hunt, Cullen, and Murray with the two bodyguards, who lounged against the wall and stared into space. The sounds of several voices talking came through the opening above the desk.

"Did you say you knew this place?" Hunt asked Murray.

"I knew it was here—I've sent people to it. But I've never used it. I've got enough spooks in my head already. I don't need this kinda shit."

"Then why couldn't you have brought us yourself, without

all the performance?" Cullen asked.

Murray shook his head. "When you come here, nobody sees anything; nobody knows who you are. You wanna know if this guy you're so anxious to find is in one of the booths? There's no way you'd get to know without the boss's say-so."

Then Scirio came back out accompanied by a man in a dark jacket, whom Hunt took to be the manager. Scirio spoke rapidly to Murray, indicating Hunt and Cullen with a nod and gesturing at the door that he had just come out of.

"Step inside," Murray interpreted.

Hunt and Cullen followed the manager back through, while Murray and Scirio waited just inside the door. It was a small office, with another man sitting in an easy chair in a corner, and several screens above a console by one wall. The manager sat down at the console and brought a picture up on one of the screens. It showed people sitting at tables and in seats set in alcoves, others at a bar, mostly alone, but several in pairs and one small group talking. The lighting was evidently quite low, for Hunt could tell from the quality that the image was being enhanced.

"See if you can spot him anywhere there," Murray said. Hunt studied the picture carefully, then shook his head. The

manager operated a control on the console to single out each of

the men present in turn for a close-up view. Then he shifted the view to bring different people into the field and repeated the process. Baumer wasn't there.

The manager said something in Jevlenese, and Scirio answered. "They're going to try the booths," Murray supplied.

Another screen activated to show the figure of a woman reposing in a Thurien-style neurocoupling recliner situated in a small booth. The manager flipped to the next, which showed a man with a white beard. "No," Hunt said. The next two tries were men again, negative, then another woman. Hunt ceased responding after the first half dozen or so, allowing the manager to simply step on through the list at his own pace, dwelling for a second or two when the subject was a man, and passing straight on to the next in the case of a woman.

They must have been somewhere up in the twenties when Hunt suddenly craned forward, beckoned Cullen closer with a

finger, and exclaimed, "That's him!"

The manager zoomed to a close-up of the face, but there was already no doubt about it. The figure in the coupler was Hans Baumer.

"How do we get him out?" Cullen asked. The manager was

already saying something to Scirio.

"They'll go get him, and we leave, okay?" Murray said. "We forget where we got him from." Hunt nodded. Illicit couplers into JEVEX weren't his concern. The manager called toward a room at the back, from which another man emerged, wearing a dark suit. The man in the easy chair got up, and the three of them went out into the foyer, their footsteps heading in the direction of the double doors at the rear. A moment later they appeared on the first screen, crossing the room containing the people and the bar.

In one of the booths off the corridors beyond, Baumer's eyes opened suddenly. But the person looking out through those

eyes was no longer completely Hans Baumer.

The cell! Keyalo was inside the cell that he had glimpsed in the current. He sat up. A tomb! Sudden panic tore through him. Ethendor had lied. Keyalo had been consigned to a tomb. A living corpse interred to placate the underworld god. He looked about fearfully. Strange shapes, magical objects . . . Movement felt wrong, as if space itself had changed. An appendage of his body passed before him. Soft, squelchy, misshapen. He had been imprisoned in the corpse of a monster.

He had a voice, harsh and grating, and screamed out loud in

dismay and terror as the full magnitude of the deception engulfed him. The altar on which he lay was soft and yielding. He leapt up and staggered against the wall as the sensations of unfamiliar movement and balance escaped his control. He staggered back, tearing at the altar with his puny claws, but without effect. He raged around the walls, beating them and screaming. Then a panel opened and black-clad demons appeared. Keyalo backed into a corner. The demons jabbered at him in a strange tongue. He raised a hand and directed a bolt toward them with all his power ... but with no effect. His power had been taken. He screamed, howled, and raged as he realized how he had been cheated. The demons assailed him.

In the office Hunt and Cullen were on their feet, watching it all on the screen. "What the hell's happening?" Hunt demanded. Murray showed his hands helplessly and shook his head.

Two more men came out of the back room and launched into a rapid exchange with Scirio, all of them sounding terse and excited. "Looks as if the kraut's having some kinda fit in there," Murray said.

"Then let's get him out," Cullen snapped, turning toward the

door.

Scirio held up a hand and said something in a sharp voice. "Not this way," Murray told them. "There's a back door. They

don't want him upsetting the whole house."

Hunt and Cullen went with the others out through the foyer and the doors at the rear into the bar area that had appeared on the screen. They crossed at a smart pace, attracting curious looks, and went through another door into one of several corridors lined by doors on both sides. As they rounded a corner they met the manager and the two who had gone with him manhandling Baumer the other way, struggling, kicking, and emitting muffled screams behind the hand clamped across his mouth.

"Christ," Hunt breathed, shaking his head in bewilderment.

"It looks as if he's flipped. What do we do now?"

"That machine must have scrambled his head," Cullen said, staring numbly.

Hunt stepped forward and peered into Baumer's face as he was brought to a halt. It was wild and flushed, the eyes bulging maniacally.

"Gina?" Hunt shouted desperately. "Can you understand

me? It's important. Do-you-know-where-Gina-is?"

How, Keyalo didn't know, but this demon's speech was intel-

ligible to him—although the name the demon had uttered meant nothing. He jerked his head back and tore his mouth away from the paw gagging him. "Unhand me, demons of the underworld who dwell in these tunnels of darkness! I shall not be enslaved by thy falsehoods, but swear allegiance to the true god of the spiral whom I renounced. For this is his punishment visited upon me! Oh woe! Now do I see the errors of—" A straight right to the jaw from Dreadnought put him out, and he fell limp in the arms supporting him. Scirio blasted a stream of invective at Murray.

"Get him out of here," Murray interpreted, although it was hardly necessary. "Compliments to the Ganymeans. If they

stick around, he hopes they'll remember their friends."

Hunt and Cullen each took one of Baumer's arms and bore him along a side passage to where one of the staff was already unbolting a door. They came out into a rear yard, and two of the staff took them to the nearest street, where a cab called from the office picked them up a few minutes later.

"Now what?" Hunt asked, when he had collected his wits

together again.

"Shit, I don't know. Another one for the rubber room, I

guess," Cullen replied.

"I'll tell you something else," Murray said. He motioned with a thumb in the direction they had come from. "This wasn't the first time it's happened. Those guys back there have seen it before. Maybe that's another reason they don't like publicity."

They dropped Murray off, then continued on to PAC with their still-unconscious charge. But when they finally arrived back at the UNSA labs, they found that the whole episode had been unnecessary. Gina had walked back in while they were gone, still in one piece and looking as well as ever.

chapter thirty-seven

Hunt stood with his back to one of the benches in the UNSA labs, his hands loosely gripping the edge on either side of him. Gina sat at the worktable in the middle of the room, chewing

a chicken sandwich from the store of good, tasty, Earth-style food that Duncan had accumulated. The one visible effect on Gina after her disappearance was that she was hungry. Sandy was sitting across from her, listening and saying strangely little.

"Okay, let's go over the main points again," Hunt said. "You set out from PAC and saw some of the surrounding parts of

Shiban center."

Gina nodded. "A kind of introductory tourist walkaround."

"You didn't have any set agenda?"

"No. It was just to help me get my bearings . . . and to get

to know each other a little better, I guess."

Hunt threw a doubtful glance at Del Cullen, who was leaning with his shoulder against an equipment cabinet, his arms folded. "Weren't you supposed to be meeting some people from these Jevlenese historical societies, or something like that?" Cullen queried.

Gina shook her head firmly. "That was going to be the day

after."

"You're sure?"

"Yes. You must have got the dates mixed."

Hunt frowned as he listened. That was not the way he remembered it, either. "Do you remember the names of any of these people?" Cullen asked, obviously with a view to checking it out. "Or the organizations they were with, maybe?"

"No, I'm afraid not. Baumer had it all in his head. There didn't seem any reason for me to go writing it all down at the

time."

Cullen nodded, letting it go at that. They weren't going to get anything out of Baumer now.

"Okay," Hunt said. "Then what?"

"We went through a kind of street market, underneath some huge, curving shapes going up into the sky—as if they were part of something from way back that never got finished. It was full of junk, old clothes, secondhand stuff, that kind of thing. Seemed to be a freakout place for the local dropout culture."

"Kinchabira. I know the place," Cullen interjected, nodding.

"Baumer blamed it all on Thurien lack of discipline and control. He seemed to think a good dose of Nazism would work wonders." Gina nibbled another piece of her sandwich and took a sip of coffee—real. "Then there was a deposit company that seemed to be turning itself into a bank. He didn't approve of that, either."

"And we're quite sure that his motivation wasn't simply

the obvious?" Hunt asked. "I mean, here's this guy, stuck out here on his own for a long time. Pretty girl from home shows up . . ."

Gina shook her head. "That was the first thing I thought, too. But there was never a hint of it. Anyhow, that isn't how he

gets off."

"Okay. Then you looked in some luxury-good stores . . ."

"Right," Gina said. "And he didn't agree with that, because it doesn't force everyone to be equal. I got a speech on why society ought to protect people like him from having to face up to why the world isn't listening to them. Then we sat on a wall and watched some weirdos with eveshadow and icicles for haircuts while we ate some Jevlenese pita-burgers." Gina paused to recollect what they had talked about. "He seemed interested when I asked him if he'd gotten to know any other people here who thought the way he did. He was curious to know more about what you UNSA scientists were doing here."

"That's his real reason coming out," Cullen murmured.

"The punks weren't any trouble?" Hunt asked. There had been a report of some trouble in that area at around the same time, involving a group who sounded like the people Gina had

described. But she shook her head again.

"No. They went away," Gina continued slowly, reciting the items one by one, as if anxious to be sure that she had everything straight. "We carried on to some kind of a bar somewhere. Baumer started talking about drugs and highs. He asked me what kind of things I use. He said it in a kind of . . . suggestive way. It was like a hint that there could be something more to it, but he wanted to see my reaction first."

Hunt nodded. Conceivably Baumer had been acting from purely personal motivations when he approached her. Maybe not. Nothing that Gina was saying clinched it either way. "Go

on," he said.

"He told me there were places where you can still get a total connection into the residual core of JEVEX. He said it's a trip that beats everything: the ultimate. Only Jevlenese really understood it." Gina made an open-handed gesture in the air. "That was interesting. It was the first definite proof I'd heard about JEVEX still being available. But when I tried to get more, he said there was no way you could describe it. You had to experience it for yourself. Obviously it was an invitation."

"Which you accepted," Cullen said—needlessly, since they

had been through the gist of her story once already.

"Well, you know I'm the curious kind."

Sandy looked across the table at her oddly. "You, ah . . . you were curious to find out what this was all about?"

"Yes," Gina said. Her voice was light and matter-of-fact. She frowned, as if momentarily puzzled about something, then nod-ded. "Yes," she said again.

"You hadn't seen enough with VISAR, on the Vishnu?" Sandy spoke with pronounced skepticism, as if she found the answer hard to believe and wanted Gina to reconsider. Hunt was scribbling a note just at that moment, and Cullen missed

the implication.

"We didn't know if JEVEX was the same," Gina said. She frowned to herself again. Then, as if not quite satisfied with that, added, "It was important to know what Baumer was up to, right?"

Sandy stared for a moment longer; then, when no support was forthcoming from Hunt or Cullen, she let it go at that with

a doubtful nod. "Okay."

Gina went on. "We went to a place that you entered down a passage off an alley. It was all dark, with everything done furtively—the way you imagine speakeasies to have been. Inside was a sort of lounge and bar. And then out back, there

were all these neurocoupling cubicles . . ."

Hunt and the others had decided not to complicate the issue by saying anything about Nixie's story. Gina went on to describe accurately what was almost certainly the Gondola, where they had found Baumer; and just as almost-certainly, there would be no point in trying to get confirmation since nobody there would know anything. As Hunt had seen for himself, the whole operation was set up to preserve anonymity. Not seeing things was part of the business.

"And he was right," Gina concluded. "There's no way I could describe it. That machine can create total realities in your head, indistinguishable from the real thing, that are actually your own creations, except you don't know it. It's uncanny—totally compelling. I can see how it could become addictive. I guess I just got carried away and lost all track of time. I eventually came to, left, and came back here. The rest you know."

"Was Baumer still there when you left?" Cullen asked.

"I don't know. I couldn't get anything across to the management. I don't think they'd have told me anyway."

They all looked at each other. That seemed to be it. "Well, you probably need more rest than you realize," Cullen said to

Gina. "Don't bother going back to Best West. We'll find you a suite in the residential section here at PAC to freshen up and get your head down in. We'll see you again later.".
"I think you're right," Gina agreed. "My head feels as if it's

been through a blender."

She described some of JEVEX's capabilities while she finished her sandwich, reiterated the line they had already heard from Danchekker that this seemed to her a more than likely explanation of what had sent the Jevlenese off the rails. Then she departed for the residential sector. Sandy went with her.

"What I don't understand," Hunt said to Cullen when they were alone, "is why they'd let Baumer reveal this JEVEX business to her when they must have known she was associating with us and the Ganymeans. If it's such a big secret, with what

sounds like big money involved, why show her it?"
"I wondered the same thing." Cullen eased himself down onto one of the lab stools and rubbed his chin. "Unless . . ." He looked over at Hunt. "It depends who the 'they' you're talking about are. The Ichena run the couplers. They're the ones who'd stand to lose if the traffic was shut down. But suppose Baumer was also working for a political group tied up with the cults. They're not the same people. See my point? Letting Baumer come across like just another junkie blabbing about where he gets his fixes would be a good way of obscuring his political connection."

Hunt took out a cigarette and thought while he lit it. "I think I see what you're saying. A bit of a dirty trick, but it's the other guys who'll catch any comeback. But in the meantime it covers any tracks back to them." He sat back and stared at the notes he had made. "Do you think it could be Eubeleus and the Axis?" he asked.

"I guess it could be—although he seems more interested in collecting his wagon train together at Geerbaine so they can go out and found the new world. And his main sidekick's there with him. You know something, Vic, I'm even starting to think this Uttan stunt of theirs might be genuine." Cullen clasped his hands behind his head and swiveled the stool with a foot until he was looking at Hunt. "But one thing's sure: Baumer isn't gonna tell us."

"I guess not," Hunt agreed with a sigh, pocketing his lighter.

In a suite in the residential part of PAC, Gina dried herself off with the warm-air blower in the shower, combed out her

hair, and tottered back into the bedroom to slide gratefully between smooth, clean-smelling sheets. It had been a lot more exhausting than her experiment with VISAR. Or maybe things

in general were just catching up with her.

After turning off the light, she went over the things that General Shaw had said in the room in another part of Shiban where she had been taken by the contact who had been waiting when she left the booths. She had said nothing to Hunt and Cullen that she shouldn't have. Shaw must have come secretly aboard the *Vishnu*, too, she reflected. She hadn't expected to see him again until her return to Earth—if at all—after meeting him in the briefing with Caldwell, when she had accepted the assignment. She remembered that quite vividly for some reason—as if it had happened yesterday.

It seemed unnecessarily cautious that she should not be allowed to bring people like Hunt and Garuth into the picture about the Jevlenese having a well-placed spy somewhere inside PAC; but the general had been adamant. She wondered if Baumer had been planted on Jevlen as an insider by whatever agency General Shaw was a part of. Very likely the part of the total picture that Baumer possessed was no larger than her

own.

But certainly there was a lot more going on than she knew about, and it had interplanetary significance. The only wise thing was simply to forget the questions and follow orders.

As for Baumer, there was no conclusion to be drawn other than that he was completely mad. His faculty for recognizing even the most basic of familiar things seemed to be completely gone. The walls and doors, fittings and furnishings of the room in the medical facility where he was being confined, all of which were unexceptional, seemed to confound him with awe. He spent hours exploring the surfaces with his fingers and mumbling to himself as he fiddled with such simple devices as the catch on a drawer, or a pen lying on a desktop. He showed no understanding of anything more advanced, such as the touchpad controls of a companel unit, and made no attempt at operating them in the ways they were designed to function. And any kind of mechanism, however simple, seemed to bring on a mixture of wonder and terror. On one occasion he sat on the floor for almost an hour with a wastepaper bin that had a lid operated by a foot-pedal, working the lever over and over again. And it was nearly as long before he would even approach

a set of scales standing on one side of the room.

He did not seem so much to have forgotten what things were for; it was more as if he had lost the references to relate them to. His entire conceptual framework seemed to have changed—

or been replaced by another.

He could still speak, but nothing he said made any sense. The little that he did say was a disjointed tirade about being robbed of his "powers," and he was constantly making signs and gestures as if he expected to cast spells. When others addressed him, he seemed able to understand the words, but he was too disoriented by fear and confusion to respond coherently. The Terran medics and Ganymean psychologists had no explanation.

But Nixie did.

"This is what the Jevlenese mean when they talk of somebody awakening," she said. "This is how the ayatollahs arrive. The person who exists inside his body isn't the same anymore. It's another who has been transported here from the Otherworld. As I was."

And what she said seemed indeed to be true. For apart from his faculty of speech, his voluntary motor reflexes—and even those were erratic, though Nixie said that would pass—and the unconscious regulatory functions that his brain supported, everything in his nervous system that had once contributed to the identity of Hans Baumer had apparently been completely obliterated.

"And you say this only happens to somebody who is coupled into JEVEX?" Shilohin asked Nixie in one of the medical offices, where they had retired with Hunt and Danchekker to review Baumer's condition after observing him.

"Always."

"Was it true in your case?" Danchekker asked. "Were you or should I say, the person whose identity you assumed—in a coupler when it happened?"

"I don't remember," Nixie replied. "I was too confused for a long time afterward to know what had happened. But that is

what I was told by others."

Danchekker looked from one to another of those present with an I-told-you-so expression that was superficially reluctant, while at the same time the glint behind his spectacles said that he was loving every minute. Finally he said, "Which does rather tend to corroborate my hypothesis, I think. The condi-

tion is a profound mental disruption brought about by the interaction between deep-seated processes in the human nervous system and an inappropriate alien technology that was adapted from something never designed to couple to it." He took off his spectacles and produced a handkerchief to wipe them. "I'm sorry, Vic, but you really have to discard this Phantasmagoria that you've grown so fond of."

"No, it's real," Nixie insisted.

"I'm sure it's utterly convincing," Danchekker conceded, giving her a lofty smile. He turned back to Hunt and Shilohin. "The whole thing is a JEVEX fabrication."

"As internally consistent as the physics that VISAR read from Nixie's memories?" Hunt shook his head. "The people we're talking about don't have the conceptual foundations. They could never have generated anything like that."

Danchekker showed his teeth. "No. But JEVEX could!"

Shilohin looked from Danchekker to Hunt and back again. Hunt got the feeling that she was coming around to the professor's line. "You're saying that JEVEX created the same artificial reality for all of them?"

"I've said it from the beginning."

"Why should it do that?"

"Ah, that's another question, the answer to which will doubtless be forthcoming now that we seem to be heading the right

way," Danchekker said.

"It would account for the consistency," Shilohin said. "If these are fantasies created in response to unconscious directions, thousands of individuals could never all have produced the same thing. But if they all originated in JEVEX . . ."

"Precisely."

Hunt stared at Nixie's face. And for some reason, which he would have been the first to admit as being totally unscientific, the calm, unwavering certainty that he saw written there persuaded him more, in a way that he could never have justified to Danchekker and Shilohin.

It was too early to commit to any conclusion. He needed more time to let his mind chew its way through the complexities in its own, unhurried way. More to keep things open than for any other reason, he suggested that it would be interesting to find out if a "possessed" Terran also claimed to have come from the same Otherworld that the Jevlenese described. He liked the word Danchekker had used, and referred to it as

"Phantasmagoria." Danchekker and Shilohin agreed that it

would be a worthwhile thing to try and find out.

They had Baumer sedated and placed him in a coupler for VISAR to take a look inside his head. But VISAR stolidly refused to violate the privacy of somebody incapable of authorizing such a probe, and no amount of arguing would change it. So Hunt started talking to Baumer instead.

As a day or two went by, Baumer calmed down and his ramblings became less frenzied. With Nixie helping, glimpses of a place started coming together. Soon there was no doubt that it was the same Phantasmagoria that Nixie talked about, identical in every detail that they were able to establish. And in the process, Hunt's conviction grew that he was not talking to a German who had undergone some traumatic personality change, but to a genuinely different, and very alien, being.

Was this being, then, some kind of software construct that JEVEX had created, which had somehow found its way into Baumer's head? Hunt had read some of Eubeleus's claims to being a creation of precisely this kind himself, but had dis-

missed it as rubbish. Could there be something to it?

But if there were, it would mean that an entity that had originated as a caricature of reality, and that needed all the power and sophistication of JEVEX to sustain it, had taken on the internal depth and complexity necessary to become reality and stand independently in its own right. Hunt couldn't see how that could be possible. Pinocchio might come to life and work without the strings in a fairy story; but life in the real world depended on structure and organization a lot more com-

plicated than any puppet's.

A puppet was made to look like a living organism that moved itself from the inside, but it was really operated by forces applied on the outside. Similarly, JEVEX's puppets were simulations of life, animated by JEVEX's manipulations. But if Nixie and the person that Baumer had become were as real as Hunt accepted them to be, they could only be functioning by virtue of an innate complexity of structure that JEVEX would never have put there. And that kind of complexity only came about spontaneously, over a long period of time, through evolution in the real, physical world.

Which, of course, was absurd . . .

Unless "real, physical world" meant something different from what everyone knew it meant.

The thought caused Hunt to spend a lot of time asking

himself what he meant by it. It reminded him of the conversation he'd had with Gina in his apartment back home, when she had asked him a similar question. And his answer had been that everything "out there" boiled down to photons and other energy quanta, along with a few simple rules governing the ways they interacted with one another.

Packages of attributes. Bundles of numbers riding together,

adrift in an ocean of coordinates...

Numbers and coordinates, specifying . . . what? Nobody knew. It could have been anything. But the whole "real" universe had evolved out of it.

chapter thirty-eight

Rodgar Jassilane's Ganymean communications scientists, along with Duncan Watt, who was working with them, had uncovered a technical mystery concerning the residual core of JEVEX that had been left running: There wasn't enough of it to support the amount of traffic that seemed to be indicated once the size of the *Ichena*'s black-market operation was estimated and allowed for.

MacArthur, the Jevlenese that Shilohin had failed to convince with the laser demonstration, and who was already rising fast in the purple-spiral movement, was a comparative new boy on the scene, having awakened as an ayatollah only in the time since JEVEX was suspended. There were others, too, and the Ganymeans had been analyzing figures of known cases and rumored ones from all over the planet in an attempt to approximate the total. Other sources, including figures gleaned from ZORAC's unofficial tapping of Shiban's communications network, gave a figure for the incidence rate expressed as the number of "possession" events per thousand user-hours of exposure—a risk statistic which the *Ichena* would definitely not have wanted to become public knowledge. Extrapolated to cover the planet, that figure gave a measure of the size of the total black-market operation. The known operating character-

istics of VISAR enabled that to be expressed in terms of the system power necessary to support it. But when the officially sanctioned archive-interrogation and maintenance operations were added in, the total indicated load was far greater than the residual core of JEVEX would have been able to handle.

What the results seemed to say was: Either JEVEX was a lot bigger than the Jevlenese had admitted; or else there was another facility operating whose existence had never been disclosed. Curious, Ganymean engineers, assisted by some of the more cooperatively disposed Jevlenese, began quietly carrying out a program of detailed inspections and tests at the sites where the main nodes and operating centers of the network were located.

Cullen decided to move Gina permanently from Geerbaine into PAC. He didn't like the thought of her being on her own out there now that he had seen the people that Baumer had been connected with. Accordingly, Gina called the Best Western to terminate her stay, and arranged to drive out later that afternoon with Lebansky and Koberg to collect her things.

A little over an hour before they were due to leave, a call came through for Gina from a woman who introduced herself as Marion Fayne, also from Earth and staying at the BW. She had read and enjoyed all of Gina's books, she said, and wondered if she could leave a couple at the reception desk for Gina to autograph. "Thank you so very much. You probably don't remember, but we met briefly once at a party in Lisbon," she chattered delightedly when Gina agreed.

In fact, Gina had never been to Portugal. The phrase was a code that General Shaw had given her at her unexpected meeting with him in Shiban. Before leaving, therefore, she took from a folder in a compartment of her briefcase the notes she had made of developments inside PAC since then. They included an account of what was happening with Baumer, the help that Nixie was giving, and the various theories being bandied about. This seemed more of a domestic issue to Gina, and not something that would relate to interplanetary politics, but she had been told to omit nothing. Finally, she summarized what she knew of the Ganymeans' findings on the capacity of the JEVEX core system and Garuth's decision to have the major sites checked.

She didn't like what she was doing, she admitted to herself as she folded the sheets and tucked them inside her purse. Ever since the meeting with Shaw, the thought of being a spy inside the UNSA team had been weighing in her mind. It wasn't her way of doing things, and she wondered why she had agreed to it back at Goddard. True, she hadn't known Hunt and the rest of them, or Garuth and the Ganymeans, the way she did now ... but she hoped it hadn't been just to get herself a ticket to Jevlen.

General Shaw must have made it sound very important. He was, she recalled, a pretty persuasive salesman.

Nixie, in Phantasmagoria, before she overwrote whoever the original Nixie was, had been a "he." He trained as a kind of religious disciple in a temple in a large city, but later ran away to study with an independent teacher who sounded like a hermit, up in the mountains. It was from his school that Nixie had "arisen" to the world that seers talked about beyond the sky. What happened to Baumer hadn't happened to Nixie because her teacher was wise and thorough, and had prepared her with some idea of what to expect. Apparently others who had gone ahead sometimes returned as spirits that spoke in the minds of seers through the mysterious "currents" which Nixie alluded to repeatedly—a result, presumably, of "awakened" ayatollahs somehow applying their extraordinary affinity and reconnecting via couplers to wherever they came from.

Baumer, too, talked about a hermit-teacher who ran a school for mystics up in a wilderness somewhere, although Nixie was unable to locate it from his ramblings. He feared retribution, however, because he said he had emerged from Phantasmagoria in another's rightful place. Hunt had adopted the practice of calling him "Thomas," because of his religious origin and the fact that he doubted everything that anyone told him. After what had happened, Hunt felt, it wouldn't have been decent, somehow, to have continued using Baumer's name to address

the shell that was all that was left of him.

"Look, I'm not a demon for the god of darkness, and I don't care what you did to his flying angel," Hunt said. "In fact I'm not much into any gods at all. What makes it so difficult for you to believe us?"

Thomas turned away in his chair and stared into the top of a lab centrifuge that was standing open. After a few seconds he reached out to move the lid to and fro several times on its horizontal swivel, then traced the contours of the drive shaft and gearing, all the time muttering unintelligibly. He was still amazed by machines and the products of machines. Regularity

of any kind, such as the repeating architectural features or the mosaic patterns in the corridors of PAC, or the nested arrays of optronics chips and subassemblies in some of the equipment cabinets, fascinated him. The scientists had by now accepted VISAR's interpretation that the instabilities of form that occurred in Phantasmagoria were due to the elongation of objects in their direction of motion, and that the daily cycles and changes with orientation followed from planetary rotation. Where or how such conditions could come about, however, were any-

"Do I sound like a demon?" Hunt asked after a pause. "Do

I look like one?"

Thomas mumbled something, then went quiet and seemed to think it over. "Transformed!" he exclaimed suddenly. "They transform their agents to deceive us. We were warned."

"Who warned you?"

"Take on forms, any forms . . . Beware appearances."

"Who-"

"Spiral! Seek the spiral . . . Safe from external forms."

"Have you ever seen a demon?"

"Mighty is the power of—" Thomas stopped and looked at Hunt oddly. "Seen many demons. They come from the gods. Bring signs. Punish those who disobey."

"Describe one, then."

"You . . . don't believe? Will be punished. Burned, broken, torn in pieces. Smothered in serpents; crawling in worms; poisoned by scorpions; feast of maggots. Slashed by fangs, crushed by coils, blistered, bleeding, oozing, screaming . . ."

"I'll risk it."

"The demon of the sun god's wrath comes from the sky. Head of eagle, body of lion, with dragon's wings . . ."

Nixie, who was sitting on Hunt's other side, nodded. "I know

that one, too," she said.

"He's not crazy, then?" Hunt checked. "It does exist, the way he says?"

"Oh, ves."

The strange thing was that, monstrous as these Phantasmagorian creatures were, he should describe them as composites of familiar forms—Thomas was using the closest-fitting terms from his Baumer-bequeathed vocabulary, which was German but converted to English by VISAR. For, if they had indeed evolved elsewhere, under such very different conditions, how could they have any similarities to the products of a completely independent line, which the principles of evolution said would never happen, even if the conditions had been the same? Even more remarkably, the form that Nixie remembered herself having in Phantasmagoria was human!—like the inhabitants in the other pictures that VISAR had extracted from her memories.

Interestingly, Thomas saw elements of familiar Terran animal forms, whereas Jevlenese saw elements of Jevlenese ones. It seemed that, since the full neural apparatus of the possessed person was taken over, the newly established alien entity could only express itself by triggering the conceptual elements that were already there—similar to the way in which a bell could be hit by different hammers, but would still produce the same tone. That would also explain the retention of language abilities, possibly. The explanation was compatible with both Danchekker's theory and Hunt's, and the issue between them remained unresolved.

"Suppose I told you that the gods don't run this place that you've arrived in," Hunt suggested. "They can't touch you here. We're under a different management. Would that—"

"Excuse me?" ZORAC interrupted.

"Yes, chief?"

"Sandy's outside the lab, asking to come in."

"Oh, sure."

ZORAC disengaged the lock of the outer door, which was kept closed for security reasons, and Sandy entered a moment later.

"Hi," Hunt greeted, leaning back in his seat and relaxing. "I thought you were helping Duncan count bootleg headworld shops."

"He's with Rodgar's crew, counting computer throughputs. That's not my line. I wanted to talk to you about something

else."

"As long as it's not insurance, saving the environment, or talking to Jesus."

"No. It's about Gina."

"I thought she went to Geerbaine with King and Kong to collect her things."

"That's why I wanted to catch you now—while she isn't around." Sandy glanced uncertainly at Nixie. "It's, er, kind of private."

She seemed serious, Hunt could see. He looked back at Nixie.

"Would you mind taking over with Tom for a while? You seem to get through better on your own sometimes, anyhow."

"Sure. Go ahead," Nixie said.

Hunt walked with Sandy back through the outer room, then through a darkened area where a couple of Ganymeans were studying patterns in a glowing, changing, holographic image eight feet high. They went on out the far door, through the central hall of the medical facility, and emerged into one of the main corridors of PAC. Hunt stopped and raised his eyebrows inquiringly.

"They've got to her," Sandy said without preliminaries.

"Who have?"

"I don't know. Whoever the Jevlenese are who were really controlling Baumer. They've done something to Gina."

"How do you know?"

"That story she told about the headworld trip she went on. It didn't happen that way—not the way she says. In fact I don't think it happened at all."

"What makes you say that?"

"She wouldn't have been curious. She'd already found out enough about it. We both had—back on the *Vishnu*. And I know that he couldn't have dragged her into a place like that again."

Hunt scanned Sandy's face with a quick, interrogative motion of his eyes. "Let's find somewhere more private to talk,"

he said.

chapter thirty-nine

They found a small lounge that wasn't being used, opening off from a library. There were some easy chairs, of both human and Ganymean scale, reading tables, and several workstations with panels and displays.

"Her story simply isn't credible, Vic," Sandy said after the door had closed itself behind them. "You don't understand what that machine can do once it gets inside your head."

Hunt shrugged in a way that asked what more there was to know. "It creates dream worlds to order. What's so terrible about that?"

"Have you experimented with it—even since Gina and I went to Chris about it?"

Hunt realized, even to his own surprise, that he hadn't. "No, as a matter of fact. I suppose I've been busy with other things."

"You see. You're a scientist. You only see it as a piece of

technology. As a tool. I said the same thing to Chris."

"Okay, so it's a re-creation, as well—even a reality substitute that people can get hooked on. I don't use drugs, either. Some people tell me it's because I'm high all the time and don't need them. But if this lets you do even better without messing up

your chemistry, maybe it could be quite fun."

Sandy shook her head. "You don't always have control over it. It can work on things that it pulls out of your subconscious that you didn't even know were there. Or maybe things that you preferred not to think about. Maybe you find out you're not who you've thought you were all your life. Most of the walls that people build inside their heads are to defend their prejudices about themselves from assault by facts. Then, suddenly those walls aren't there anymore . . ."

Hunt stared at her, realizing that his attempted flippancy had been a mistake. His manner became more serious. "There are still millions of Jevlenese out there who presumably didn't see it that way," he pointed out. "If it's really such a bad trip, how come Garuth had to shut the system down to tear them away

from it?"

"You can have bad trips on molecules, too. Vic . . . I don't know how it affects everybody else. But I do know how it affected me, and how it affected Gina. And I'm certain that she wouldn't have gone near it again. At least, not the way she said—with Baumer. And not when she was out on an assignment for us. And definitely not if she knew she'd be walking into JEVEX, not VISAR." Sandy paused, giving Hunt a long, sober look, inviting him to reflect on the implication. But the expression on his face told her that he had seen it already. She nodded. "But Gina isn't giving us a line. She remembers it the way she says—and I think there's only one way that could have happened."

"Christ!" Hunt breathed.

"Which means that Baumer was setting her up from the beginning. He led her to whoever is really behind all this. What

happened to her wasn't done at any headworld shop run by the local Mafia."

Hunt was already nodding. It all made sense. "We need to tell Cullen about this," he said.

The car carrying Koberg, Lebansky, and Gina arrived in front of the complex where the Geerbaine Best Western was situated. On a grassy area to one side of the approaches to the complex was an untidy collection of shanty huts and tents belonging to a meditation group who believed that the cosmic energy drawn down by arriving spacecraft helped them commune with the universe. Nearby, a meeting was being held to protest that the same energy posed a risk of cancer and mutant babies. The fact that there was nothing measurable to produce either effect made not the slightest difference.

"They're all crazy," Koberg declared, observing the scene as the car crossed an open area in front of the hotel. "Maybe it wouldn't be a bad idea if they did ship the troops in from back home. It could be what the place needs. How else are you gonna

straighten it out?"

"Either that or get out," Lebansky agreed. "Let the Thuriens handle it."

"Hell, they'd be even worse than what we've got."

"Maybe we're just being old-fashioned, Mitch. Aren't Thuriens what people used to call liberals?"

"Then if God was a liberal, we'd have had the Ten Sugges-

tions," Koberg said. They both laughed.

Eubeleus and the first several thousand Axis of Light followers had been lifted up into orbit earlier, to join the Thurien ship that was to take them to Uttan, and there were still all kinds of people about. There had also been some trouble, by the look of things. Gina pointed through a side window at two burned-out vehicles pushed to one side of the road. "See over there. It looks as if there's been some excitement."

"Probably a Jev auto mechanic," Koberg grunted.

They pulled up in the hotel forecourt, where a number of police were standing around loosely, and went through to the front lobby. Koberg accompanied Gina to the desk. Lebansky remained a short distance back, scanning the surroundings from long habit, his eyes missing nothing, checking everyone who came and went.

"Room 201," Gina said to the clerk. "I called earlier about

a change of plan. I just need to collect my stuff." The clerk consulted a terminal.

The hotel manager, Eric Venders, whom Gina had gotten to know casually, was also at the desk. "You're leaving us?" he asked. "Don't tell me you found a better place in town."

"I'm moving into PAC. I'll be doing some work in the city.

It's more central."

"Can't argue with that."

Gina opened her purse, ostensibly to find her door key, and located the folded sheets of the report for General Shaw that she had brought. "Was there some trouble here earlier?" she asked. "There's a lot of police around outside, and I noticed a couple of burnt cars."

"A bit," Venders said. "It's over now. I don't know what it

was about. I stay out of Jev politics."

The clerk looked up from the terminal. "You're all set, Ms. Marin," he confirmed.

"And there should be a package for me."

"One moment, I'll check."

"A reader left one of my books to be signed," Gina explained to Venders. She was acutely conscious of Koberg standing behind her and surprised at the nervous flutter in her voice. "She called me at PAC earlier."

"Here it is: 'Ms. Gina Marin.'" The clerk was holding a large, buff-colored envelope.

"That looks like it. Thank you."

An incoming call sounded.

"Excuse me." Venders turned away to take it.

Gina opened the envelope and drew out a copy of Green Gestapo: Hidden Agendas for Social Control in the Nineties. Tucked inside at the title page was a short note from Marion Fayne, explaining that she had an appointment that morning. Gina wrote: To Marion Fayne, with best wishes—the first of my interstellar fans. Thanks for bringing home suddenly a lot closer! She signed and dated it, adding, Shiban, planet Jevlen.

Glancing over her shoulder, she saw that Koberg was still just behind her, relaxed but alert. Worse, there was a mirror on the far wall behind the desk, making her body ineffective as a screen. She bit her lip, and then let a diary drop from her purse. Loose notes and odd slips of paper that had been lodged inside

spilled over the floor.

"Oh, damn!"

"I'll get it, ma'am." Koberg squatted down and began col-

lecting the papers back together.

"Thanks so much." Gina slipped the report into the book, quickly closed the cover, and pushed the book back into the envelope. She crossed out her own name, wrote MARION FAYNE above, and handed it back to the clerk. "Could you reseal that, please, and keep it to be collected?"

"Sure thing."

Koberg stood up and handed her back the diary. She returned it to her purse, and they went on up to room 201, leaving Lebansky watching the lobby.

In Cullen's office, Hunt waved an agitated hand above the desk. "More to the point, if they've implanted phony memories in her head, what really happened that they're covering up? If they were using JEVEX, they could have read anything that was in there. We have to reexamine everything, right from the beginning, and list everything she knew."

Sandy shuddered as she listened. "I'd rather be raped by an

octopus."

Cullen sat back in his chair, rapping his chin with a knuckle. "Shit," he muttered, barely audibly. He stared at the wall, thinking hard, running through the options in his mind. "Darn

Hunt watched and waited for several seconds, then lit a

cigarette.

"I should have said something sooner," Sandy told them, more to fill the silence. "It wasn't until this morning that I felt really sure. One minute she talks as if this was the first time she'd ever tried it, and the thing on the Vishnu never happened; then the next, she's saying it was just a pretense to go along with Baumer. Then she sees the contradiction and keeps changing her reasons for justifying it."

Cullen nodded distantly.

"It means that they must know she was working with us and that we suspected Baumer," Hunt said. "And she knew about us using ZORAC to bug the city, so we can write that off as a lost cause. But at least it could be worse. She didn't know anything then about the things we've been turning up lately."

Cullen nodded rapidly as if all that was obvious, then looked back at Hunt directly. "But think of what else it means," he said. "I'm thinking like a security man. They put a lot of fake memories in her head-memories that sounded innocuous and

would have had us fooled if it wasn't for Sandy." The other two nodded but looked puzzled. Cullen turned a hand palm-up. "Well, what other memories might she have that she's not telling us about? See what I'm saying? Or let me put it to you this way: If you wanted to have a spy working for you on the inside, right here at PAC, and you had her plugged into JEVEX as an opportunity, how might you go about it?"

Hunt swallowed and sat back abruptly, looking stunned. Sandy raised a hand to her brow disbelievingly. "Oh. my

God . . ."

Cullen rapped his fingers on the desk, then turned to flip a switch on the companel to one side. "ZORAC?"

"Sir?" Cullen liked being addressed in the way he was used to.

"Have Koberg and Lebansky arrived at Geerbaine vet?"

"Just under ten minutes ago."

"Okay, get a message on a secure channel to one of them, would you? Ms. Marin is not to overhear it. They're to keep her under observation at all times, and she isn't to communicate to anybody, repeat anybody. Anyone attempting to contact her is to be apprehended—they can use help from the police there if they need it. They're to report directly here as soon as they get back."

"Yes, sir."

Gina, Lebansky, and Koberg returned to the car, Koberg carrying Gina's two bags. Lebansky, who had been in the lobby while the other two went up to the room, saw her into her seat, closed the door, and then went around to exchange a few words with Koberg as he stowed the bags. Gina saw Koberg nod, say something in reply, and indicate with a nod a group of police with an officer, standing nearby. Lebansky waved back toward the hotel, and they both nodded again. Then they came around and climbed into the car.

"Is everything okay?" Gina asked.
"Yes, ma'am," Koberg replied impassively. But something in

their manner had changed.

They pulled out and drove back around the open square. But as soon as they were out of sight from the hotel, Lebansky ordered the autodrive unit, which had been reprogrammed to understand English, "Change destination. Park anywhere." The car slid out of the throughway and halted.

"What's going on?" Gina asked, looking from one to another. "Just take it easy, ma'am. There's nothing to be worried about," Lebansky said. Koberg got out and began walking back in the direction of the hotel, keeping close to the walls.

"Why have we stopped?" Gina demanded. "What's he doing?" She reached for the door catch. "Look, I'm going—"

Lebansky laid a restraining hand lightly but firmly on her arm. "Just take it easy. We had a change of orders, that's all. I don't know what it's about, either, but I figure you could be in some kind of trouble."

At the reception desk inside the Best Western, a redheaded woman with a yellow coat and flowery scarf smiled at the clerk and fluttered her eyelids. "Excuse me. My name is Marion Fayne. I believe there might be something for me to collect. Would you look for me, please? It's an envelope that I left here earlier."

"I'll see." The clerk turned away.

"That looks like it, up there . . . Yes, that's the one. Thank you. Do you need to see some ID or something?"

"That's okay."

"Well, I just thought. Anyone could say anything, couldn't they? Oh, thank you. It's a book that I left to be signed, you know. One of my favorite writers. Did you know she was staying here? Ah, yes, there, she's changed the name."

As the woman moved away from the desk, a tall, broadshouldered man in a navy suit who had been watching stepped in front of her and held out a hand. "I'll take that, if you don't

mind."

The woman froze. Suddenly her face hardened, and sizing up the situation in an instant, she reached inside her coat. She was fast, but Koberg was faster and slapped the gun from her hand as she pulled it out.

She turned for the door and ran-straight into the police officer and two men who had been waiting there. "Bastard!" she managed to spit back at Koberg as the policemen hauled

her outside.

But she had been watched, and the news reached an office in

the Axis's Shiban Temple within minutes.

The woman who called herself Marion Fayne had no knowledge of the tiny implant that had been placed in a neural plexus at the base of her brain a long time previously. It responded to a radioed code. She collapsed suddenly in the police van that she was traveling in, and was found to be dead on arrival at headquarters.

chapter forty

A Ganymean short-haul flyer, one of the Shapieron's complement of daughter vessels, landed on the rooftop pad of a low, burnished-copper-colored building fifteen miles east of the city. Duncan Watt got out, accompanied by Rodgar Jassilane and a Ganymean computing specialist. They were met by two more Ganymeans and a small group of Jevlenese technicians who had been waiting. The party entered through a reception lobby in a superstructure and descended by elevator through the building to a subterranean level. There they emerged into a circular vestibule with molded pastel walls interspaced with glass panels, and began walking along one of several corridors extending away radially at forty-five-degree spacings.

From outside, there was nothing remarkable about the building. But this was one of the primary communications-processing and traffic-control centers for the entire Shiban sector of the JEVEX network. In the galleries beneath the unprepossessing, squat, reddish-brown structure, in the days when JEVEX had been operational, the stupendous streams of data had poured through unceasingly, carrying the rhythms of life that pulsed through an organism not only encompassing a planet, but extending outward across a dozen stars. This was the location of one of the concentrations of mind-defying computing complexity that had made Jevlen virtually a self-managing planet and endowed its citizens with the ability to know anything at will and to cross the cosmos in an instant like galactic gods. This was one of the hubs, a final inner sanctum where the immensity that was JEVEX resided...

Or at least, that was what the construction plans that had been handed down for centuries said.

The party came to the control center, with rows of consoles on rising tiers, banks of displays, and rooms on all sides filled with auxiliary equipment. And they descended to the vast halls below, where rows of huge, cubical cabinets, and luminescent blocks of molecular-array crystal, each the size of a boxcar, stretched away into the distance in tight, geometric formations. Just from looking, Duncan could sense the stupendous scale of

the operations it was all brought together to manage.

But it was all an illusion. For what the Ganymeans had discovered was that the entire installation was a dummy. The massive runs of lightguide cables and databeam buses leading from the communications level above went nowhere. The arrays of densely stacked holocrystals in the cabinets endlessly recirculated meaningless patterns of numbers. The displays and status indicators flickering and changing around the control floor were simulations. The whole portion of JEVEX that was supposed to reside here, in other words, didn't exist.

The Ganymeans showed Watt an opened cabinet in the control center. It was empty except for a few arrays of optronic wafers in a partly filled rack maybe three inches high. "This is what's generating all the images that you can see in this room,"

one of the Ganymeans said.

"But . . . this is impossible," Watt stammered, staring in-

credulously.

"I know. That's why we wanted you to see it for yourself." Jassilane wheeled around to confront the Jevlenese chief engineer responsible for the site, who was staring straight ahead, blank-faced. "What do you know about this?" he demanded.

"I don't know anything."

"How long has it been like this?"

Silence. Another part of the conspiracy. They weren't going

to get anywhere.

Watt looked at another empty cabinet that was winking a few lights and shook his head uncomprehendingly. All the calculations said that JEVEX had to be much bigger than the official designs showed. Yet if this was typical of the general situation, it hardly existed at all. But something had to have been supporting the Jevlenese-managed worlds.

chapter forty-one

Gina finished hanging her dresses in the closet of her new quarters inside PAC and lodged the empty suitcase in the space at the rear. She was still shaken from her confrontation with Cullen on arrival, which had been short and to the point: enough to thoroughly confuse her, and not at all illuminating. He had produced the report that she had left inside the book, which Koberg had brought back, and informed her that Marion Fayne had been working for a Jevlenese organization that was not the *Ichena*, but which maybe had connections with it.

To Gina's surprise, he hadn't condemned her or shown any of the rancor that she would have thought natural in the circumstances. She couldn't form any clear idea of what it meant. Surely General Shaw couldn't have been really working for the wrong side? Maybe the mysterious organization that Cullen had referred to had found out about Gina's meeting with Shaw in Shiban and substituted their own contact. Cullen had given no clue. Gina felt foolish and embarrassed, like an amateur who had been caught way out of her depth. Which was exactly what she was. And that made it all the more galling.

"Who did you think she was working for?" Hunt asked from the couch, where he was lounging casually, nursing a Coors that the suite's autochef had miraculously conjured up from whatever behind-the-scenes sources its supplies came from.

She assumed that they were sparing her a formal interrogation and letting Hunt try a low-key, psychological approach instead. So now she felt like a guinea pig, on top of everything else. And the worst thing about it was that she had no grounds for complaint. They had trusted her; she had deceived them and been found out. They had every right to ask questions. In fact, they were giving her a much easier time than might well have been the case. In some ways she'd have preferred it if they hadn't.

Hunt went on. "Well, if you want to know, the first guess

from the path lab is that they pressed a button somewhere to blow a fuse that had been put inside her head. Nice people . . ." He half raised a hand. "Okay, we're not saying that you knew you were dealing with an outfit like that. But who did you think you were working for? Come on, no one's passing judgment or blaming you, because we think there could be a lot more to it than you know about. But you owe us that much."

Gina walked over to the chef and picked up her own drink, which was still standing untouched on the dispenser tray. She took a sip and stood with her back to the room, staring at the cover panels of the units as if hoping they would open up and swallow her. "I feel dumb, stupid, and when you boil it all down, not an especially nice person to know," she said without moving her head. "I'm not used to feeling that way. I never thought I'd have reason to. I don't like it.'

"That happens to everyone at some time or other," Hunt said. He sat forward and topped off his glass. His voice was easygoing and natural, not lecturing. "I remember once when I was a kid in London, a friend of mine lent me his new bike. I crashed it and bent it up, and then just left it outside his house and walked away. Didn't have the nerve to tell him, let alone think about how to put it right. It bothered me for years afterwards, that did. Sometimes it still does."

"We're talking about something a bit more serious than kids' bikes," Gina said, and instantly wished she hadn't; it sounded

as if she were fishing for sympathy.

Hunt's voice took on an edge of impatience. "Oh, for heaven's sake. Come down and join the real, pretty-shitty world. Sometimes you look back at something and you find you don't like what you did." He paused in the middle of taking a swig and looked at her over his glass pointedly. "And sometimes, if the truth were known, you're kicking yourself over nothing because things didn't seem the way you see them later. You find out new things, and it clouds your recollection of how much vou didn't know before."

"Thanks for giving me the benefit of the doubt, but I don't

need charity."

"Maybe it's not charity. Maybe we know something that you don't." Although she still had her back turned, Hunt could sense her wrestling with her conscience. She really had no corner to run to. It was only a matter of not being seen to cave in too easily. He gave her a few seconds.

"So . . . how far back were you recruited, and who was behind it?" he asked again.

Gina sighed, took a hurried gulp, and turned to stand facing

him across the room. "This isn't easy," she said.

"No one's expecting it to be."

She came over to the lounge area and perched herself on the edge of one of the chairs. "From the beginning—back on Earth. It was your boss, Caldwell, and some branch of—oh, I don't know, some kind of security agency somewhere. They think there's a Jevlenese operation that has an informer in PAC somewhere."

Hunt shook his head without a moment's hesitation. "Not Gregg. He doesn't work that way. Try another one."

"I'm telling you, that's what happened."

"Baloney."

"Okay, okay." Gina held up a hand. "Not Caldwell exactly. There was another guy with him, from the military. His name was General Shaw—I don't know which department or whatever. But Caldwell introduced him, and he was there the whole time that Shaw was talking . . ." Gina shook her head and raised the fingers of her free hand defensively. "He made it sound crucially important. I didn't know you guys then. To tell you the truth it's been bothering the hell out of me inside for days now. But I'd agreed to do it. It was classified, and I couldn't talk to anyone here. What else could I do but go with it?"

Hunt looked at her without any change of expression. He didn't believe that version any more than the previous one, but this track had the promise of being fruitful. "You met this general before we left Earth, with Gregg?" he repeated.

"Yes. At Goddard. In Caldwell's office." "Before you came out to my place?"

"Yes . . . maybe not." Gina massaged her brow. "I'm not sure."

"Describe him."

"Oh . . . biggish kind of guy, pink face, blue eyes, ginger mustache—typical clipped military style. He wore a grayish uniform, maybe light blue, with a lot of ribbons and braid."

"And he told you there was an informer here?"

Gina looked up curiously. "What is all this? Wasn't he on the level?"

"Don't worry about that for now."

"He said there was reason to suspect one," Gina went on.

"They didn't trust the official channel through Cullen, so the idea was to put in an independent observer that nobody knew about. You weren't to know about it, not Cullen-not even Garuth." Gina shrugged. "I guess that having me show up, who nobody could connect to any organization, seemed like a perfect opportunity."

Hunt took a cigarette pack from his pocket, selected one, and looked up before putting it to his mouth. "And was that when he gave you the contact procedure that Marion Fayne used?"

Gina sighed again, in a what-the-hell kind of way. "No, later, after we arrived. He's here in Shiban. I met him a couple of days ago."

The look on Hunt's face sharpened. "When?"

"The day Baumer showed me the town." She paused. "I've got a feeling he might have been working for Shaw, too, somehow."

"I guess we'll never know now, will we? What happened?"

"I think a lot of this about Baumer being a head junkie might have been an act for cover. We did go to the club, but just so that I'd be able to tell it believably, and for it to be okay if anybody checked. But I didn't stay as long as I said. Another guy collected me and took me to some place—a room in an apartment block that could have been anywhere—and I gave Shaw a rundown on what's been happening since D.C. That was when he updated me on what he wanted and gave a new code that contacts would use."

"I see." Hunt lit his cigarette at last, then got up and paced across the room, thinking to himself and smoking several draws.

Gina settled further back into her chair. "What would you have done?" she asked him after the silence had dragged into more than a minute.

"What?" Hunt seemed to return abruptly from somewhere miles away. "Oh, much the same, I think. As you say, you didn't know us at the time."

"That's nice to hear, anyway."

Hunt picked up her briefcase, which she had put down on the chair by the working area on one side of the lounge, moved it to the desktop, then sat down in the chair and swiveled it to face back at her. "Do you remember that conversation we had in my place at Redfern Canyons the day you drove out there? You asked me what reality out there was, and I said it was all photons. Everything else you think you see, you make inside your head."

"Neural constructs. Yes, I remember."

"Funny things, heads. I knew a chap at Cambridge once, years ago now, who wanted to be a great scientist. He bought this big house with lots of quiet and seclusion, and filled it with all the things that were going to make it happen. Paneled study with a fireplace; the best computer, with access numbers into everywhere; huge library, and a lab set up with everything. He even had a chalkboard and plenty of pads ready to capture the inspiration when it came . . . The only trouble was, nothing ever did. He surrounded himself with all the paraphernalia and then sat back waiting for it to do something for him. A lot of people try and live their lives the same way. But things don't work like that, of course. It has to come from inside . . . Rather like what you said about J.H.C.: His message was that everyone has to find their own way of figuring out who they are. Relying on the world outside to do it for you doesn't work."

"Why are you bringing this up now?"

Hunt shrugged nonchalantly. "Just talking about the funny things that go on inside and outside people's heads. Sandy was telling me a little bit about your experiments with VISAR on the Vishnu. I hadn't realized you'd gone that far into it—in fact, I hadn't realized that you could go that far into it. Amazing, isn't it? Me, the ever-curious scientist. It comes as a bit of a shock to find out you're not quite what you thought, doesn't it?"

Gina twitched uncomfortably and gulped at her drink, spilling a drop on her slacks. She drew a tissue from a pack on a side table and dabbed it dry.

"What was it that bothered you so much when you got into

VISAR?" Hunt asked.

"Does this really have anything to do with what we're talking

about?" Gina objected.

"Yes, I think it does." The sudden crispness in Hunt's voice made her eyebrows lift in surprise. He waited for a moment. "Sandy said that it doesn't just create fantasy realities. It can mold them to reflect things about yourself that you mightn't like—things you didn't even know existed. And that's important to you. You said as much a few minutes ago, when you thought you'd been betraying your friends. What other things did VISAR let out of the box that you'd rather it had left there?"

"What the hell does this have to do with anything?" Gina

demanded, her voice rising.

"What's the matter, can't you handle it?" Hunt leered tauntingly. "We've all got something. Power trips, like Baumer. Sandy found that she gets a kick out of seeing blood, and people screaming. What about you?"

"Vic, stop it! I don't want to talk about this."

"Do you like older men because a favorite uncle felt up your knickers when you were a little girl? Was it something like that?"

"Mind your own fucking, goddamn business!"

"Ahah, something like that, then, was it? You said on the Vishnu that you might tell me your fantasies one day. Do you remember?"

Gina slammed the glass down on the side table, breaking the stem. She glowered across at Hunt and thrust out her chin defiantly. "All right! I used to be married to this guy who was into the swinging scene, okay. You know the kind of thing? He had other friends too, and liked threesome things and lots-ofpeople things. He was always trying to get me into it, too, but it never happened. Okay? Got your thrill for today? I've heard lots of weird things about you English guys."

"And what? Did it bother you that you hadn't figured him before?" Hunt had dropped the sarcasm suddenly, but just at

that moment Gina wasn't registering.

"No, Doctor, it didn't!" she shouted. "Deep down I was pissed because I'd been chicken. VISAR would have delivered, and I wasn't sure I wanted that. In fact I was terrified. Okay? Satisfied?" Her voice fell. "Now get out of my room."

But Hunt was staring at her intently, his face serious, as if inviting her to think about what she had just said. She realized then that he had been shamming, and for a reason. Her expres-

sion changed to puzzlement.

"And you went back to it, here in Shiban, with Baumer?" He gave her a moment to reflect, then shook his head. "No way. Oh, I've heard all your reasons, and I don't buy them. Neither

do vou."

Gina looked back at him, totally confused. Her belligerence evaporated. "I know . . . It's made me wonder, too. I don't know why I did it . . . I guess, maybe, I couldn't see any way to refuse?

Hunt shrugged. "It's easy. You tell him it's not your thing. Let's go and have a drink."

Gina leaned back wearily and ran a hand through her hair. "Is it really that important?"

"Yes, very. Because I don't think it happened. I don't think

you went there at all."

"Now you're being stupid."

"We've just agreed that you wouldn't have gone near the place. Sandy says the same thing. It was she who convinced me."

Gina stared at him and shook her head as if wondering if she were dreaming. "Look, what's the point of talking like this? Why keep saying I couldn't have gone there when I did?"

"How do you know you did?"

"Well... What the hell kind of question is that to ask? How do you know you went to the bathroom this morning? I remember it, that's why."

Hunt sat back, still regarding her steadily, and gave a satisfied nod. "Funny things, heads," he said again. "Aren't they?"

He waited. Gina stared down at the floor. A trickle of drink from her upset glass had run down a leg of the side table and was spreading into the carpet. She leaned forward to mop it with a tissue. And then she froze, suddenly, and looked up, the first glimmer of comprehension illuminating her eyes. "What

are you getting at?" she whispered.

"I could call Gregg Caldwell through VISAR to check," Hunt said. "In fact, we will. But I'll lay you a thousand bucks to a penny right now that General Shaw doesn't exist either." The look of horror on her face told him that he was getting through. He drew a long breath, then went on. "They're fake memories that were written into your head at another JEVEX outlet somewhere. We're pretty certain that somebody got to you somewhere after you and Baumer left PAC. So we have to assume that they know everything you did up to that point. Then they overwrote what happened with the fabricated sequence that you remember, and just for good measure added in the business about Shaw to get you working for them. Fayne was their first try to collect—at least, I hope it was the first?" Gina nodded. Hunt sighed. "It was neat. If you and Sandy hadn't gone tripping on the Vishnu, we might never have cottoned onto it."

Gina went through some of the pictures in her mind, searching for possible flaws or inaccuracies. There were none. She shivered, drawing her sweater tighter around her. "I can't tell. I don't know what's real and what isn't about what I remem-

ber." A fearful look came over her suddenly. "This couldn't be anything like what happened to Baumer, is it?"

Hunt shook his head firmly. "Don't worry about that. You've just lost a few memories, that's all. A good binge could have done the same thing. You're still very much you."

have done the same thing. You're still very much you."

"I'm not sure I feel it. When you know there's part of your mind that doesn't belong there... It's not exactly comforting."

"People probably used to think the same about cardiac valves and synthetic kidneys." His manner was sympathetic and reassuring now. She had accepted it and would cooperate once she'd had a chance to get used to it. That was the main thing.

There was a long silence while Gina thought it through. Hunt mopped up the spilled drink for her while he waited. "Is there anything we can do to unscramble it?" she asked finally.

"I don't know. We'd like you to let VISAR analyze those patterns anyway, to see if there's any way of recovering what was overwritten. Would you mind?"

Gina shook her head. "I'm kind of curious, too. That's me, remember?"

"Terrific. You'll survive. I'll be getting along for now. I've got a few things to do."

"Oh . . . Vic," Gina said as he moved toward the door.

He stopped and looked back. "What?"

"Thanks."

He grinned. "Glad you can see it that way. I'm sorry I had to get personal."

"That's okay." Gina managed to muster a smile back. "Did Sandy tell you that she thought I was pretty dumb, too?"

"No. Why?"

"For chickening out of VISAR's porno trip. She says if it was her she'd have gone for it."

Hunt laughed and began moving to the door again. "You see?" he said. "Scientists are more curious."

"There was something else, too."

"What now?"

Gina's smile widened and became impish. "The fantasy that VISAR put together out of my head."

"What about it?"

"You were in it, too."

chapter forty-two

The Ganymeans were dubious that anything could be done to reconstruct the memories of Gina's that had been overwritten. Nevertheless, she allowed VISAR to go over the recollections that now existed in her mind to see if it could find any seams. It processed, correlated, reinterpolated, and analyzed the data in every way that offered a shred of hope that some vestige of what she had actually experienced during the missing hours might be extracted, but the results were uniformly negative. Essentially, the elements of a pattern had been rearranged. The information carried in the previous arrangement was gone, and no amount of juggling could re-create it. As Hunt observed, it was like asking a position in a chess game to say something about the previous game played by the pieces.

All that could be said for sure was that from some time after leaving PAC with Baumer—which couldn't be pinpointed since it was no longer possible to compare Gina's story with his to establish where they diverged—to some time before she walked back into PAC, something had happened that was different from what she remembered. And that was probably all that would ever be known. But if a conclusive pointer existed anywhere to the organization that Cullen was looking for, that was

where it lay concealed.

Then Calazar, on behalf of the Thurien-Terran Joint Policy Council for Jevlen, formally notified Garuth that a move to terminate the Ganymean custodianship of Jevlen was being actively considered. Nobody was blaming Garuth or his colleagues from the *Shapieron*, who, Calazar readily acknowledged, had made a magnificent attempt, under impossible circumstances, at a task whose problems had been greatly underestimated.

"We have to accept that our very different origins and the temperament that they confer do not equip us to comprehend this race, let alone direct its affairs," Calazar said. "The entire history of our own dealings with the Jevlenese was insufficient to teach us what should have been obvious. Therefore we shall accept the counsel of those whose perception has been shaped by a better guide."

Which was as direct an admission as could be asked for that henceforth the policies of JPC would be determined by humans, with the Thuriens effectively endorsing whatever they decided. Putting in a Terran occupation force would only be a matter of time after that.

An hour or so after Garuth announced the news, Hunt, Cullen, Danchekker, a dejected Garuth, and Shilohin assembled in Garuth's office. Caldwell, who had confirmed to nobody's surprise that General Shaw was a fiction, joined in from Goddard, appearing on a screen via a link through VISAR and ZORAC.

There was one last angle that Hunt could think of to try and stall things. "What are the chances, Gregg," he asked, "of you getting back to JPC through UNSA somehow and seeing if we can get them to put a hold on it? I mean, you can see the kind of outfit we're up against here: riots in the streets, assassinations, kidnapping and mind-editing, lethal chips in people's heads. And Del's convinced he's getting really close. It just needs another break. If this team is pulled out now, we'll lose the lot."

"This whole move by Eubeleus is a cover for something," Cullen put in. "He's not going to Uttan to grow daisies in some terraformed monastery. If we could get JPC to hold off on that, somehow, I'd feel a lot more comfortable."

"But why would he have left at such a critical time?" Danchekker queried. "How could Uttan be more important if his designs have something to do with Jevlen?"

"That's what I'm saying we need to find out," Cullen answered.

Then Caldwell said from the screen, "Aren't you overlooking one small point?"

"What?" Hunt asked.

A hand flashed briefly before the image of the craggy, wirehaired face. "I've been sitting here listening to all this talk about whether this Eubeleus is crooked or straight, and what he plans to do on Uttan. And it's all very interesting. But there's one minor thing: I haven't heard one piece of evidence, yet, that proves he had anything to do with what you're talking about."

The others turned to exchange glances with each other. Caldwell went on. "All that we know he's done is offer to take a big piece of the problem light-years away from the scene. That's very nice, and it's what JPC sees." He gestured again. "Nothing connects him with the things that Del's worried about. There are only three witnesses who could have given a positive line back to him, but not one of them's any good. Fayne's dead; the Marin girl had her tape wiped clean; and Baumer's a gibbering idiot. You see my problem? If Eubeleus's aim was camouflage, he's done a good job. I don't have one solid fact to go back up through UNSA, trying to get the brakes put on JPC. I don't like the feel of this either, but I can't go stirring things up at that level on the basis of what we've got. There just isn't a case."

And he was right, Hunt conceded, slumping back in his seat. Politics was Caldwell's business. He knew the system. If he started rocking the boat because he didn't like the feel of things, but it turned out that he had nothing concrete to back it up, then nobody would take any notice when he did find some-

thing.

A heavy silence had overtaken the room. Garuth got up and moved across to the window to stare out at the dilapidated towers of Shiban. As a city it was falling apart; but he had developed a strange, inexplicable fondness for it. Perhaps it had something to do with its being the first place that had come anywhere near feeling like home since the *Shapieron*'s departure from Minerva. Had he been left in charge of it, he wouldn't have imposed any sudden or drastic changes, he decided. He would have let it be, allowing it to seek out and evolve its own solutions at its own pace. Those were always the kinds of changes that endured, he had found. The worthwhile changes.

"And I still have the feeling that we were getting so close,"

he said aloud.

Afterward, Hunt stopped by Gina's suite to give her the news

and to see how things were going.

"And when you go through it, Gregg could be right," he told her. "Eubeleus may have nothing to do with it. We can't make any case to JPC. Any junior lawyer with his name still wet on the door could make mincemeat out of it."

Gina shook her head. "Surely there has to be some way to get

further."

"Probably true, but hardly constructive."

"What about that office of Baumer's, the one I went to?

Mightn't that turn up something?" she asked, reaching for a straw.

"It was broken into and ransacked. Whoever did it made a bonfire. There wasn't enough paper left to write your name on. Now, wasn't that convenient for somebody?" Hunt stretched back in his chair. "I don't know, Gina. Why do people insist on complicating life like this? You'd think they'd learn to just enjoy the pleasant side of it, wouldn't you? It's short enough ... Thinking about it, I might even go and join this monastery of Eubeleus's. Now, wouldn't that qualify as a genuine miracle?" He grinned tiredly across the room at her. "Anyway, how are you feeling? I never even thought to ask."

"Oh, a bit like having a tooth out. It feels strange at first, but

you get used to it. Pretty much the way you said."

"That's good to know, anyhow. Did you talk to Sandy?"

"Yes. She's glad it worked out."

ZORAC came through at that moment with a call for Hunt from Duncan Watt, who was at another JEVEX site with the Ganymean engineers. Further findings had corroborated the nonsensical conclusion of the first: not only was JEVEX evidently far smaller than the original design information said; if what the Ganymeans were discovering was typical, it was virtually nonexistent.

"Another one," Watt announced.

Hunt was baffled, "Another fake?"

"Worse. I wanted you to see this one for yourself."

"Where are vou?"

"Traganon, city about three hundred miles north."

"So, what have you found?" Hunt asked.

"Well, you know what we found at the other sites: usually some interfacing and i-space transmission gear that was real enough, and then streets of impressive-looking cubes and beamguides all doing nothing. But take a look at what we've got here. It beats the rest for sheer audacity."

Watt stepped to one side to reveal the scene behind him. He had been standing in front of a wide window. It looked like that of a control room, facing out over a vast floor, dark in shadows. The floor was bare and dusty: just an empty expanse of untiled concrete, stretching away between lines of square, unadorned pillars into shadows cast by a few, weak, overhead lamps.

For a moment Hunt wasn't sure what he was supposed to be

looking at. "That's it?"

"That's it. Nothing. They didn't even bother faking this

one. Rodgar thinks it could have been like this for centuries."

The camera moved, sliding Watt out of the frame completely and showing more derelict galleries. There were oddments of trash and debris scattered in places, and here and there a length of cable hanging from a roof support. Small animals were scurrying in the shadows. Hunt wondered if there had once been equipment installed there that had been moved elsewhere for some reason.

It seemed larger than most of the other vaults that Duncan had checked. Hunt tried to visualize it as the Thurien designers had intended: packed with tiers of crystalline slab stacked to the roof and serviced by access elevators and walkways—Hunt had "visited" some of the halls on Thurien where VISAR's bulk-processing centers were located. The contrast between the desolation of the view on the screen and the image in Hunt's mind took on an odd significance that he couldn't quite pin down. He stared at the screen with a strange mixture of somberness and reverie.

"You're getting around, anyway, Duncan," he half heard Gina saying from across the room.

"If you think Shiban's run-down, come and see this place,"

Watt answered.

Something moving caught Hunt's eye—something bright, appearing and disappearing in the shadows higher up between two of the pillars. Several things, tiny white points. Hunt stared at the view, then realized that they were flying, insectlike creatures, crisscrossing through a shaft of light from one of the lamps. They looked like speeded-up images of stars orbiting in a black void, he thought to himself.

"Did you hear about the news from JPC?" Gina was asking

Duncan.

"Not yet. What's up?"

"Oh, it doesn't sound too good . . ."

And then a strange superposition took place in Hunt's mind of the scene he was looking at, and the picture in his imagination of what should have been there but wasn't. He saw the void, but its volume filled in his mind's eye with banks of Thurien processing crystal; the tiny points of light were still there, orbiting through the solid lattices. And suddenly he saw them no longer as stars, but as atoms.

Or as elementary quanta . . .

Quanta of what? Nobody knew. It could have been anything. The quanta that a real, physical universe could evolve out of ...

chapter forty-three

Langerif, the new deputy chief of police, had applied himself to continuing his late predecessor's policy of cooperation with the Ganymean administration. He became a regular visitor to PAC, and in particular showed much interest in learning more from the security people that Cullen had imported from Earth. He even arranged for a three-day training class to be held in PAC for a picked group of his own officers. At the same time, a firm of contractors that the Ganymeans had been vainly pressuring to start work on remodeling and redecorating parts of the complex at last responded, zealously sending in a legion of workers as if anxious to make up for the lost time. So, for the last few days, PAC had been swarming with all kinds of Jevlenese.

The scientists, however, had become too engrossed in a completely new explanation of Phantasmagoria that Hunt had sud-

denly produced from nowhere to take much notice.

The practical usefulness of mathematics arises from the fortuitous ability of some mathematical constructs to approximate real physical processes. There is no obvious reason why such correspondence should exist; luckily for engineers and others, it just does. This makes it a lot easier and cheaper to test a design for, say, a bridge—by making a mathematical model of it and seeing what happens when mathematical trains roll over and mathematical winds blow—than having to actually build the bridge. But as science probes successively deeper and more refined levels of reality, things change. Complexity and nonlinearities become more important in their effects, making mathematical representation more intractable, until the real thing becomes a better model of the model: a daffodil, a single cell of it, or even one DNA molecule from the cell is a far more concise and comprehensible statement of what's going on than the reams of equations that would be necessary to express it analytically in symbols.

Accordingly, the computer techniques used for modeling reality developed from the simple mechanized solving of analytical equations to progressively more elaborate methods of simulation. The trend was reflected in system architectures, where, to accommodate demands for ever greater speed and precision, earlier design philosophies based on bringing passive data to a few centralized processing bottlenecks gave way to connecting large numbers of simpler units in parallel to provide on-the-spot processing of large arrays of data simultaneously.

Ganymean technology had long before taken this trend to its ultimate. Their systems consisted of enormous numbers of microscopic cells arranged in three-dimensional arrays. Individually, each cell possessed only a limited capability that combined the rudiments of processing, memory, and communication; but ensembles of them working in conjunction could handle staggering throughputs of information. ZORAC exemplified a relatively early phase of development; VISAR's astounding ability to cope with the full virtual-travel traffic of the entire, interstellar Thurien civilization in real time was the culmination.

Each cell in a Thurien computing complex was thus an elementary processing unit that exchanged information with its immediate neighbors in every direction according to a very simple set of programming rules.

"Fundamental entities defined by a small set of attributes, like quantum numbers, interacting according to a few basic rules. You could almost think of them," Hunt said to Danchekker, Shilohin, and Duncan Watt, whom he had called together in the UNSA labs, "as energy quanta forces."

He went on. "You could think of a cell that's in an 'active' state in the matrix of 'data space' as having properties analogous to those of a basic particle in our ordinary physical space. You see what I mean. It doesn't matter all that much what the quanta 'really' are. They exhibit the same kind of behavior."

He waited, flicking his eyes around the group for a reaction. Danchekker and Shilohin stared in silence, obviously needing a moment to take it in. Duncan looked immediately taken with the idea and was the first to speak. He had worked with Hunt long enough to be used to propositions coming like this, from totally unexpected directions.

"So there are cells everywhere. But only the ones in a particular state are, sort of . . . 'real,' in this space you're talking

about?" he said.

Hunt nodded. "Right. If a cell's not active, it isn't exchanging information with anything. If a particle isn't exchanging any field quanta, then it isn't interacting with anything. So for all

the difference it makes, it might as well not exist.'

"Hmm." Duncan rubbed his chin and thought about the proposition. "That would make the matrix like Dirac's 'sea' of negative energy states, filling all of space. 'Particles' are simply localized regions raised to positive energies . . . Yes, I can see your point. They can move. What we call 'antiparticles' are the holes they leave behind."

"Like holes in semiconductors," Hunt said, nodding. "Ex-

actly."

Danchekker blinked several times, sat back in his chair, and emitted a long breath in the manner of somebody not quite sure where to begin. "Let me be quite clear," he said. "This isn't anything that comes into being by virtue of the processing operations taking place in the matrix: It isn't a construct of the software?"

"No," Hunt said. "It's something innate to the design. An unintended byproduct of the environment itself. Like bread mold."

"I see." Danchekker's voice remained even. His expression was of someone not necessarily in agreement but prepared to wait and see where things were leading. "Very well," he said. "Go on."

"The more I think about it, the more I'm convinced that what happened in JEVEX was something like this," Hunt continued. "Somehow, at some time in the distant past, conditions came about inside its processing space such that activated computational cells took on the role of primordial particles in our own universe."

"The Big Wang?" ZORAC, who was following, threw in.

"ZORAC, cut it out. This is serious." Hunt gestured across the table with a half-open hand. "And, just as happened in our own case, from those beginnings there evolved a universe. A real one, not a software imitation. And that's your answer, Chris. That's how Phantasmagoria exists, and where it came from."

"Oh, for God's sake!" Danchekker could contain himself no longer. He waved his hands in agitation, stood up, faced the other way for several seconds, and then turned back toward the table, still spluttering incoherently. "What is this supposed to

be? I mean, we are being serious, I take it? This is analogy gone wild "

Hunt had been prepared for it. "No, calm down . . . "

"Oh, I've never heard such twaddle. Inventing physics out of

abstract data-processing concepts . . . Really, Vic, it-"

"Just think about it for a minute, Chris. A cell already possesses the properties of localization and position in the matrix. Now, if I've read it correctly about the way Thurien systems work, as a consequence of the overall programming directives imposed on the system, activated cells constantly exchange information among themselves."

"That's correct," Shilohin said.

Hunt nodded. "Good. Well, I don't know what the design philosophy was long ago when JEVEX was dreamed up. But just for argument's sake, let's imagine that it embodied an optimization criterion by which the paths between such communicating cells should be as short as possible."

"Which is the kind of thing you'd expect," Duncan observed.

"Exactly. So, if the traffic being supported on the right-hand side, say, of a given cell were heavier than that on the left, but the opposite was true of its neighbor to the right, then an improvement would be achieved if the two cells were to exchange identities. In effect, each of them could be thought of as having moved one space-quantum through the matrix."

"A kind of Planck length," Duncan murmured.

Hunt nodded again and went on. "Or, to take another example, if an isolated cell was communicating at different rates in different directions, it would move around in such a way as to minimize the traffic-times-distance total until it balanced all the competing 'pulls.' In other words, if the information-exchange process plays the part of force-carrying vector particles, then this optimization rule defines minimum-action paths: natural geodesics. I've played through simulations of it with ZORAC. The dynamics of gravitation follows automatically."

Shilohin was staring fixedly at Hunt. "You're postulating a void populated by particles capable of exerting mutual attraction," she said slowly. "The conditions of a primordial universe."

"What about repulsions? Is there an analog of charge?" Duncan asked.

Hunt inclined his head in the direction of Danchekker, who was still on his feet. The life-sciences specialist had not yet given his blessing; but he was no longer vehemently protesting, either. "Chris has a good point: We shouldn't get too carried away by analogies," he said. "But I can offer a few speculations. For example, if everything were allowed to collapse to its minimum 'energy' state purely on the basis of attraction, it would all end up as one solid lump, with nowhere left for through traffic. Everything would be optimally close to everything, but unable to function. The system would have stifled itself. So one optimization criterion isn't enough. You need to introduce another that competes with it-say, one that tries to maximize free space for traffic. When the two trends interact, maybe the kind of organization that emerges is a collection of 'clumps,' where similar kinds of processing with little to say to the outside world can get together, separated by voids in which other things happen."

"Fascinating!" Shilohin whispered.

"It gets more interesting," Hunt said. "The cells must have a finite switching time. So larger aggregates of cells that have accreted together will move more sluggishly than smaller ones. Hence, we have a resistance to motion, proportional to the number of cells."

The parallel to mass was too obvious to need spelling out. Hunt continued. "But once the mass is moving, a plausible way of improving efficiency would be to change to a patternswitching algorithm instead of having to operate on all the constituent cells individually; so the pattern would be reluctant to slow down again."

Inertia.

"But the propagation rate through the matrix of even a single cell would ultimately be limited by the switching speed."

Velocities in Hunt's universe had a relativistic limit.

"We are speaking in terms of pure conjecture, I take it?" Danchekker said. His voice still had something of a rasp, but it had mollified itself noticeably. Exhibiting another kind of inertia, he was starting to come around in his own way. "We're not talking about established fact? This isn't science?"

"Of course not," Hunt agreed. "But we're getting an idea of

what to look for, maybe."

Duncan snorted. "Look where? We can't even find where JEVEX is, let alone look inside it."

Shilohin looked up, at last digesting the full message of what Hunt was saying. "Our physical universe evolved from huge numbers of elementary particles in space, and laws of physics

and probability that contained implicit mechanisms for the self-organization of complex structures," she said. "And out of it there emerged not only complexity sufficient to manifest intelligence, but the whole world of impressions and experiences—all far removed from the underlying quantum reality—which intelligence perceives. So, is it so inconceivable for comparable levels of complexity to have arisen in this . . . 'matrix universe'?

That's what you're saying."

"Why not?" Hunt said. "We're pretty sure that Nixie's world can't exist anywhere in the universe we know. Yet I'm convinced that it exists somewhere. And perhaps this sheds some light on how its magical properties could have arisen. Although there might be some parallels to our own universe in the kind of way I've suggested, which would at least give us the basis of objects moving in space as something they share in common, the 'laws' expressing the physics of the underlying reality will derive not from the quantum rules of our universe, but from the directive imposed by the system programmers. Therefore, there's no reason why our notions of normality and causality should apply there at all. Which fits with all the things that Nixie has been telling us."

"You're not saying that the programmers intended anything

like this to happen?" Duncan checked.

Hunt shook his head. "And I don't think the Jevlenese ever twigged onto the fact that it had. The whole thing was an accident: a freak by-product of the purpose that JEVEX was built for—and, of course, the inhabitants that finally appeared as part of it had no inkling of it, either. Why should they? There was no more reason why they should be aware, intuitively, that their reality was ultimately founded upon information quanta than we are that ours is on energy quanta."

Now visibly intrigued, since the prospect of evolution was implied, Danchekker returned to his chair and sat down. "Very well, Vic. Let us agree to entertain this fantastic hypothesis of yours for a moment . . . purely for the sake of argument, you

understand."

"Of course," Hunt said, nodding solemnly.

"One thing that bothers me is the question of size. Clearly it would have to be much smaller than our universe. For it to be comparable, there would have to be the same order of magnitude of active cells in it as there are particles in existence, which would be absurd."

"The ratio of the size of the fundamental cell to the dimen-

sions of the universe as a whole would be much greater," Shilohin said. "So the macrocosm would be much closer to the level of quantum granularity. Nonlinearities and curvatures would be more apparent, probably."

"Boundary effects might play a big part," Duncan mused,

half to himself.

Danchekker nodded. "Yes, I accept all that. But what I was getting at was something more fundamental. To support anything as complex as life and intelligence requires a high degree of complexity. That in turn implies a corresponding richness of structure. And you can't build rich structures from a few elements." He gestured to the others appealingly. "You see my point. There is no escape from the necessity of large numbers. Enormously large numbers. And my question is, where would you possibly find a sufficiently vast computational space to accommodate the processes that you're suggesting? It's an ingenious suggestion, Vic. I'm not disagreeing with that. But if my initial estimates are anything to go by, to give what you're talking about even a reasonable chance of engendering a world as complex and varied as the one we've heard described by Nixie and VISAR, you'd need a computer the size of a pla—"

Danchekker's voice stopped abruptly as he realized what he had been about to say. The others all saw it, too, in the same instant. Shilohin looked stunned. Duncan slammed back

abruptly against the backrest of his chair.

"Christ," Hunt breathed. They all looked at each other incredulously.

So that was what was so important about the mysterious

planet, Uttan!

And why the Ganymeans weren't having much luck locating JEVEX on Jevlen.

chapter forty-four

"In the visions of Hyperia that I glimpsed only briefly, I sometimes saw devices of wondrous complexity," Thrax said. "Devices created by the beings who inhabit that realm, and yet able to move as bewildering cooperations of parts of their own accord; impossibly coordinated motions of parts that moved parts that moved parts, and all of them dancing in unison to unfold some hidden plan. Are the Hyperians thus able to divest themselves of the burden of having to project their thoughts, Master? Can they enchant matter itself with the capacity of thought, such that it serves their wishes unbidden?" He looked at Shingen-Hu, who was sitting next to him on the rocks by the dusty track. But the Master was lost in his own dejection and seemed not to hear. Thrax took in his wan, sunken features and disheveled appearance, his hair unkempt and robes turning to rags. "They build devices that see and speak across vast distances; others that voyage to worlds beyond the sky. Where does this place exist, Master? Is it a space that encloses all space? Or a dream that we manufacture in our minds?" He looked again. But Shingen-Hu sat staring dully down at the grassy slopes below the track and showed no reaction.

Shingen-Hu had been overcome by a morose deadness of mind and spirit ever since the attack by servants of Nieru's enemies at the ceremony on the sacred mount, when Thrax's chance to emerge had been thwarted. Convinced that his god had abandoned him or been overwhelmed by a more powerful celestial rival, the Master had sunk into a depressive lethargy and lost faith in his arts. His school for adepts was no more. Soldiers, encouraged by priests bearing the green-crescent emblem of Vandros, the underworld god, had come to complete its destruction. Its members had dispersed and fled, and Shingen-Hu lived from village to village on the fringes of the wilderness, reduced to the life of a fugitive mendicant. Thrax, perhaps through basic loyalty, or possibly in hope that the Master's condition would improve, or maybe simply because he had

nowhere else to go, had stayed with him.

Although the day was barely into its second half, twilight cloaked the hillside above them. The sun remained a feeble, emaciated remnant of its former self, its faltering light supplemented by a few dim stars which now remained visible through the eternal night that had descended. Thrax and Shingen-Hu had eaten nothing for two days apart from a few mountain berries and water plants found by a spring. Thrax thought wistfully of the cakes and roasts that his aunt Yonel used to prepare at Dalgren's house, in days that seemed so long ago. Almost like another world . . . Thrax shook himself back to the present and forced thoughts of other worlds from his mind.

A movement in the grass just across the track caught his eye. He looked and saw that it was a brown-striped skredgen, up on its hind legs beneath a bush, its nose twitching and its large eyes fixed on them unblinkingly. A picture came into his head of a simmering stew, maybe with pummeled kirta shoots and wild-

herb flavoring.

"Master," he whispered, drawing closer to Shingen-Hu carefully. A Master could paralyze an animal with thought while an assistant dispatched it with a rock or cudgel. "Over there across the path, below the bush. Do you see it? We could eat our fill this evening." He waited. "Food . . . A thick stew of skredgen, seasoned with var." Shingen-Hu's eyes flickered. He turned his head. "There," Thrax murmured. "Do you see? You can still do it, Master. Your powers have not deserted you."

Shingen-Hu licked his lips hungrily and stared. The skredgen watched them, motionless. The Master's arm rose shakily, and a finger of his bony hand pointed from the folds of tattered sleeve. The finger jabbed commandingly. The skredgen yawned and rose to its feet; then turned its back and walked away,

swishing its tail contemptuously.

"Alms . . . alms for the holy who have fallen upon evil times," Thrax called, brandishing his bowl in the square of the village they came to at the bottom of the track.

"Everyone's fallen on evil times these days. Where have you

two been?" a woman asked scornfully as she passed.

One of a group of laborers who were idling outside a tavern called out, "'Oly men, are yer? Let's see somethin' 'oly, then."

"That's what all the beggars who come through here tell us," another said. "Take us all for fools out here, they do."

"We've seen enough city thieves before. Away with the pair

o' ye," a third told them.

"We're not thieves. We're genuine," Thrax insisted defiantly. "This is a Master. He has remained here, that countless others may arise."

"'' 'Im? A Master? That walkin' bag o' rags? Looks more ter me like the only currents 'e'd know anythin' abaht are the ones 'e pours dahn 'is throat." The others laughed derisively.

"Here's my staff," the second who had spoken said, holding it up. "A good, solid wooden one. Show us the passing-through of a hand. A junior adept can do that. It should be easy enough to do in his sleep for a"—he looked slyly from side to side, inviting the others to share the joke—"Master." They sniggered obligingly.

"You can do it," Thrax murmured imploringly to Shingen-Hu. "Your powers haven't deserted you." But Shingen-Hu just

stood and stared at the staff glassily.

They were chased from the village by a jeering mob who pelted them with rocks and garbage, while hounds barked at their heels. Nieru hung very dim in the sky that night. Probably, Thrax thought, because the god was ashamed.

In the city of Orenash at the temple of Vandros, the high priest Ethendor had a vision. A spirit from Hyperia appeared to him and spoke in his mind, telling of great events that would soon come to pass. Filled with wonder at the things he learned, Ethendor hurried to inform the king.

"Our actions to placate Vandros were inspired. We have been tested and found not to be wanting. We shall be saved."

"Tested? How have we been tested?" the king asked.

"By the gods who look down from Hyperia. We were set the task of sending them disciples, and we have measured well. Hence we have been chosen to be the prime servants to the gods when the Great Awakening comes."

"The Great Awakening, at last! Tell me, what was revealed?" Ethendor's voice trembled portentously. "Soon now, the days will return and the stars will shine again. The heavens will radiate their splendor as never before. Then shall the people of Waroth be called and arise to the sky in great multitudes. Hyperia itself shall be opened to them. Thus it has been revealed to me by the lord of all gods."

The king marveled at the high priest's words. "Truly it was spoken? These plagues shall be lifted from us and the world

restored?"

"A mighty war has been fought among the gods. The power that lights the sky was stolen and extinguished, but now it has been reclaimed. The pretenders who desecrated the banner of Nieru have been vanquished by the true bearers of Vandros's green."

"And now, many are to arise?"

"The time has come for the last of the unclean and the profane who have defiled Hyperia to be exterminated. The faithful from Waroth shall be the wrath and the instrument.

Thou, O King, will be their leader, and I, the prophet who will inspire them."

"We are to see Hyperia?" The king was dumbfounded. Ethendor was exuberant. "We are to rule Hyperia!"

chapter forty-five

If JEVEX was indeed what the evidence seemed to indicate, it meant that the Jevlenese war industries were merely what the architects of the Federation had been doing on the surface of Uttan. Inside, they had hollowed out the entire planet and installed an expanded version of JEVEX as a single, monolithic, supercomputing matrix, servicing the Jevlenese world-system via communications though i-space. The intention had doubtless been to acquire, eventually, a system of their own capable of rivaling or even surpassing VISAR; but to keep the project secret, they had concentrated it all in one place instead of spreading it out across hundreds of worlds in the way VISAR was spread. The equipment actually functioning on Jevlen was merely part of the remote interface system into it.

In this way, the unique conditions had been created which allowed the matrix universe to come into being. Hunt christened it the "Entoverse," or "universe inside," as opposed to the familiar "Exoverse." The choice pointed to the obvious term "Ents" for its inhabitants, which was duly adopted, the Tolkienesque connotation being considered doubly appropri-

ate.
All of which was very attractive and exciting, and could give scientists new ideas to amuse themselves with for years. But, as

scientists new ideas to amuse themselves with for years. But, as Danchekker pointed out, it was all still nothing but speculation. A Phantasmagoria of software-originated delusions could not be ruled out simply because of Nixie's convictions, and a planet-size JEVEX contained in Uttan was just as capable of creating them as a distributed JEVEX was. In other words, until somebody actually went to Uttan and looked, they were no nearer to knowing if an Entoverse actually existed.

But if JEVEX was concentrated on Uttan, then Eubeleus's motive was obviously to gain control of it; and whatever his plans were after that, they spelled no good. Hence there was a justification for taking the whole thing to JPC and the Thuriens. Such an approach would entail Garuth's going direct to Calazar. Since the team was only talking conjecture at this stage, to insure that Garuth's case would be as convincing as possible they devoted an all-night session to going over the questions that the Thuriens might come up with and seeing what other known peculiarities of Phantasmagoria the Entoverse theory could be made to account for.

The pattern-switching algorithm that Hunt had postulated for moving clusters of activated cells—solid objects, in the Ent world of perception—provided a possible explanation for a range of mystifying phenomena. Shilohin, in reviewing early Thurien processing methods, discovered that it had been common practice for the leading edge of a pattern that was being shifted through the matrix to activate before the trailing edge was switched off. Thus there would be a slight overlap of the two images, causing the pattern to be fractionally longer in the direction of motion than when it was at rest. Moreover, the degree of elongation would increase with the propagation speed. That one fact would account for the absence in the Entoverse of the invariances of dimension with motion—and because of the effects attributed to the planetary rotation that VISAR had inferred, with time and with spatial orientation, too—that gave the Exoverse the regularity and consistency that made possible the organized body of knowledge called science, the construction of machines, and the technologies that sprang from using them.

What about the apparent ability of solid objects in the Entoverse to penetrate one another on occasions? It was not difficult to see how that might happen if one of the "quantum numbers" defining an activated cell was some kind of priority indicator. Two objects meeting would, in effect, be competing to possess the same cells. If, as was usually the case, they were composed of equal-priority elements, they would simply bounce apart. But if one happened to be designated higher-priority, it would "borrow" the volume previously belonging to the other object for as long as their parts coincided, returning it to its previous condition upon separation. Similar causes could be found for such other phenomena as the differing "affinities" of some materials for others, the inconsistencies of

cause and effect that made prediction in the Entoverse a risky business, and the sudden discontinuities that appeared as cata-

clysms and catastrophes.

And when the scientists got down to talking more about it, the apparent miracle-workings of some of the Ents began to sound less farfetched. The Ents were composed at the elementary level of information-processing quanta, after all, and it did not seem so strange that they should be able to influence things around them by what they would perceive as thought. Possibly, for example, they were able to change the activity levels of the constituent cells in an object, and thereby modulate its response to "gravity," or endow it with some other radiated force. That would also go a long way toward explaining the ayatollahs' unshakable faith in the validity of magic. In their world, "magical" effects were commonplace. It might also have had something to do with their uncanny aptitude for interacting directly with the inner processing functions of a Thurien computer, too.

"You know, I'm getting a feeling that a lot of what we dismiss as myth back on Earth wasn't mythical at all," Gina said to Hunt at one point when they broke for coffee. "The war with the Titans, the menagerie around Mount Olympus, gods throwing mountains down out of the sky and swallowing up cities . . . those things really happened. Except it was in a different place. The agents they sent to Earth included Ents, and the things the Ents talked about from their own past got mixed up with the real history going on around them."

A little later Hunt remarked, "Erwin Schrödinger thought that the reason our macroscopic world is so much bigger than the quantum scale is because the orderliness that we need to make sense of things could only evolve at a level where quantum fluctuations are swamped out. So, order emerged from underlying uncertainty. But if this Entoverse business turns out to be right, it means that a universe of macroscopic unpredictability evolved out of the mathematically precise operations of computation. Ironic, that, when you think about it, isn't it?"

In the same kind of way that the ubiquitous photon fluid carried energy and information through the Exoverse, the subfabric of the Entoverse consisted of vast, dynamically transforming pattern streams of data. The datastreams were injected from the outside and, as they were processed through the cellular ocean of the matrix, flowed and converged toward output zones where they were extracted back to the external Exoverse.

That immediately suggested a parallel to mass-energy being

sucked into black holes in the familiar universe. Duncan speculated that the purple spiral that Nixie described in the sky was an accretion vortex forming at one of the data outlets. In that case, were the Entoverse's "stars" the inlets? If so, it would presumably have become a lot darker for the inhabitants in the time since the Ganymeans withdrew JEVEX. Interestingly, MacArthur, a recently emerged ayatollah, had raved on at one point about the gods putting the stars out.

Nixie had described certain "families" of stars that oscillated about and through the brightest member of the group on a one-year cycle. From the approximate positions and seasons that she gave, ZORAC generated visual simulations which with some trial and error matched her recollections closely. The results were compatible with a model in which the "star" that Phantasmagoria orbited existed as one data-inlet point of many arranged in a regular cubical lattice throughout the matrix. Stars belonging to the same row in the grid would appear to come together and separate again as the planet passed through a point in line with them. Such an arrangement of inlets and outlets would have been efficient for distributing the workload evenly through the processing volume.

That left one final mystery that the team felt should have at least a tentative explanation before they approached Calazar: How could the Ents have become aware that an Exoverse existed, and have managed to escape into it? Surprisingly, it was Danchekker who proposed an answer, after talking at length with Nixie. They presented their conclusions to Hunt, Garuth, and Shilohin in Garuth's office at lunchtime the next day, when they reconvened after snatching a few hours of sleep in the

morning.

Danchekker addressed the group standing, adopting his characteristic lecturer pose, his hands loosely clasping the lapels of his jacket. Garuth listened from behind his desk, while Shilohin sat across from him in a chair pushed to one side. Nixie was perched on another chair, swiveled around to face the room from a panel of screens taking up part of one wall. Hunt, arms folded, leaned with his back against the door. One of the last things Caldwell had said was that about the only thing left for Hunt to bring back this time would be a universe. Hunt had replied jokingly that it was a pretty tall order.

"The Ents evolved as natural creatures of their world, which had come into being inside a high-density, high-throughput,

pattern-processing, computing matrix," Danchekker said. He was speaking as if the hypothesis were fact, in effect rehearsing the team in its supporting role to Garuth, who intended going to Calazar immediately. "In the process, they developed an ability to read and interpret the flows of information passing through their world, in a similar way to that in which creatures of our world learned to read energy flows-photon streams. Now, a primary function of the matrix within which this took place was the handling of huge volumes of neural input-output traffic. In other words, those information streams flowed into and out of the Jevlenese-minds coupled into the system. The streams carried coded representations of sensory impressions, concepts, and perceptions derived from the world outside. Some of the more gifted Ents learned to 'tune in,' as it were, to those currents—to adjust their own mental processes to a sympathetic mode which enabled them to extract information which they found to be intelligible."

"We saw them as visions," Nixie put in. "Now I know that they were scenes from this universe outside. But at the time they

were unlike anything anyone had ever dreamed of."

Hunt and Duncan Watt had in fact discussed such a possibility themselves. Ironically, the main reason why Hunt had not taken it further before was that he had been unable to see a sure

way to convince Danchekker!

"Of course," Danchekker said. Then he continued. "Lacking in any scientific tradition or knowledge of the Exoverse, they had no terms to describe the things they experienced. They could interpret them only as visions from a higher realm, or world beyond, and so forth." He swung himself from side to side to take in his imaginary class. "Now, there is no reason to suppose that the relative strengths of the various natural forces in the Entoverse were comparable to the ratios that we happen to know. In particular, the domination of gravity at the macroscopic level, which gives our world much of its physical character and establishes the primacy of the role played by mass and weight, seems not to have been so pronounced. To say exactly why, we shall have to wait until we know more about the actual physics. But from Nixie and VISAR, I get the feeling that surface effects may have played a greater part."

"Because of the smaller scale of things?" Garuth hazarded. Danchekker released one lapel to show a hand briefly. "We can't really say. There are no grounds at the moment for postulating that the counterparts of electrical charge, coulomb attraction, and hence molecular adhesion were anything like the quantities we know."

Hunt listened, intrigued. This was a side to it that he hadn't

gotten around to pursuing.

Danchekker went on. "As I see it, these underlying 'currents' that pervaded everything could manifest themselves as entities with real, physical attributes in a way that has no counterpart in our world. Through mental interaction, their effects could be harnessed, focused, directed, and transformed into forces."

"What you call magic," Nixie supplied. "The bolts of energy that some adepts could project at will. The ability of some to levitate themselves and other objects up off the ground."

Danchekker raised a finger to hold the room's attention for a moment longer. "The strongest currents, however, flowed high above the surface as celestial phenomena. Through their ability to influence objects and events remotely as we have already seen, some of the Ents discovered how to draw these currents lower until they could intercept the flow directly. With this power available to be transformed into force, they could actually be carried away, up to the exit zones—and that, of course, is how they came to find themselves in the neural systems that the couplers were linked to, looking out at a new state of existence which none had seen other than as a vision, and many had never seen at all."

Shilohin glanced at the others to assess their reactions. "The information pattern that constituted the Ent personality was somehow impressed upon the datastream and transferred with it to express itself in the brain patterns of the Exoverse host."

Danchekker remained still for a few seconds. Then he let go of his pose and stalked slowly across the room until he was standing in front of the display panel near Nixie. "Exactly how is something I'm not entirely clear about," he admitted.

Neither was Hunt. "Are Calazar and his people going to buy it?" he asked, looking around. "According to VISAR, the pictures that Nixie remembers are really constructs built from the elements activated in her human neural system. That's why she remembers herself as having human form. Doesn't that give us an indication of just how 'alien' the intelligence-carrying complexes that evolved in the Entoverse were? How could a mind with origins like that have found anything sufficiently compatible in a human head to give it a basis for functioning at all?"

Danchekker turned away from the blank screens. "Oh, I agree, it's remarkable. Quite astonishing, in fact, if you want

my candid opinion. But are we not driven to the conclusion that it happened? Exactly how it happened is a question we can only defer until we are better equipped with the information necessary to have a hope of answering it. Perhaps we simply don't know enough about minds." He tossed out a hand. "Which gives us an even stronger reason for wanting Uttan investigated."

"I take it this process was irreversible?" Garuth asked.

"Oh, quite," Danchekker replied, nodding. "The configuration defining the Ent-being was lost when it entered the output zone. Lost from that universe, literally."

"Like a black-hole transfer," Hunt remarked. "The informa-

tion content was extracted and reappeared elsewhere."

"Nothing physical was actually extracted then?" Not a scientist, Garuth was still having to grapple with a lot of this new

idea. "What happened to the Ent-bodies?"

Shilohin looked at him, pausing for a moment before answering. "I don't think you completely have the point, Garuth," she said. "There was nothing physical. They were only information constructs to begin with. Their whole world was. The fact that they perceived it as having material form was purely an evolutionary artifact of their universe."

"Ah, yes . . . now I see." Garuth sat back to absorb the implication fully. Then he frowned. "Yet, didn't you say they had a way of going back? Nixie told us about 'spirits' who returned to inspire and recruit disciples, and taught them how

to arise in turn."

"There was another way," Danchekker supplied. "The Jevlenese neural couplers, which the ayatollahs could use, just like anyone else. They found that via the couplers—"

Just then, ZORAC interrupted, saying it had an urgent mes-

sage.

"What is it, ZORAC?" Garuth inquired.

"Langerif, the deputy chief of police, is outside the door now. He states that he is taking control of PAC in the name of Jevlenese independence and self-determination. He requests that you instruct your administration staff to transfer all powers and authority accordingly, effective as of now."

chapter forty-six

Garuth rose to his feet bemusedly as Langerif strode haughtily into the room, followed by several of his officers. He was holding a written proclamation of some kind, which he set down on the desk. All of the group were wearing sidearms: standard Jevlenese police-issue beam pistols, which could fire a variable plasma charge that could be set anywhere from a mildly un-

comfortable shock to lethality.

Hunt groaned to himself as he realized how completely they had failed to see the obvious: the police and their training class; all the other Jevlenese who had been appearing at PAC over the past few days. But neither he nor anyone else had made the vital connection. They had dismissed the Obayin assassination—assuming it had been—as purely a move by the *Ichena* to protect their headworld business. Of *course* Eubeleus would need somebody to secure the Jevlen end of things while he took over Uttan. Even Cullen had missed it. Everyone had been too engrossed with the Entoverse to give anything else a thought.

"You will have been notified by now that the Ganymean occupation of Jevlen is to cease anyway," Langerif said to Garuth. Evidently there was a leak in the system somewhere. "But to forestall the prospect of one occupying force merely being replaced by another, we, the Jevlenese people, are taking charge of our own future, now. There is our declaration. You will please instruct all personnel under your authority, Ganymean, Thurien, Terran, and Jevlenese, to comply. It is not a

matter for compromise or negotiation."

"No... that isn't correct," Garuth protested. "A motion was merely proposed at JPC. There has been no decision. You—"

Langerif silenced him with a wave. "A mere formality. The spirit of the Council's intent is quite clear: to minimize risk to persons and property, and to preserve order. The situation here is plainly about to get out of hand. To delay firm action until

official orders are issued would be irresponsible. It is therefore our decision to preempt the emergency before it escalates."

"Don't buy it," Hunt murmured. "He's not the JPC. Neither are the people who wound up his spring. It's a power grab."

"This doesn't concern you. Confine yourself to your own

affairs," Langerif snapped.

His line had been calculated to sway Ganymeans by appealing to reason and noble motives; the token show of force was deliberate, to throw them off balance. And had this been Thuriens as the Jevlenese were used to dealing with, it might have worked. But Garuth was from an earlier epoch of Ganymeans—and he had spent enough time on Earth to absorb a little of human psychology.

"No!" he retorted, straightening up fully. "The terms of my office are quite definite, and there is no emergency about to break out. Who do you think you're fooling with this charade? We know that you are in league with the Axis. And JPC will

very soon know, too. Now get out of my office."

Langerif whitened and moved his hand pointedly to the butt

of his weapon.

"What do you think you're going to do?" Shilohin asked him derisively, backing Garuth's stand. "Your troops aren't here vet. There's a room full of PAC security officers just down the hall."

Garuth stretched out a hand toward a call button on a panel by his desk. But as he did so, Langerif turned and called toward the doorway, and a squad of armed police entered with their weapons at ready, led by another officer.

"Pig!" Nixie hissed. Langerif ignored her and waved his men

into position to cover the room.

"I regret to inform you that your security department is not all as loyal as you believed," Langerif sneered. "I gave you an opportunity to cooperate reasonably, but you force me to be drastic. Very well." He motioned sharply to the others in the room. "The rest of you, on your feet. You will go with the officer, now. Trouble will only make things worse.

"This is an outrage!" Danchekker, who was still standing by the screens, shaking with indignation, found his voice at last. "Do you imagine for one moment that bringing your gutter-

snipe politics in here is going to make the slightest-"

"Save it, Chris," Hunt said resignedly. "This isn't the time or place."

While Garuth stood staring helplessly at gunpoint, the others

began filing toward the door between the impassive, yellow-

uniformed police.

Meanwhile, throughout the building other groups of police and disguised Jevlenese auxiliaries had begun rounding up bewildered Ganymeans from their workstations and offices. In Del Cullen's office, Cullen stood, hands raised with two Jevlenese covering him, while a police lieutenant scanned through status displays on his deskside screen. Outside, Koberg and Lebansky had also been taken by surprise and were being disarmed and searched. Through the doorway, Cullen could see Koberg measuring up times and distances with his eyes.

"Don't try anything, Mitch," he called. "It won't change the

war."

One of the guards jabbed him in the ribs with a gun. He winced.

"Shut up," the lieutenant in the chair at the screen told him over his shoulder.

And then, strange things began happening.

The sounds of running feet and confused shouting came from the corridor beyond the outer room where Koberg and Lebansky were. The guards who were with them looked around, startled. Langerif's voice came from somewhere outside the door. "Quick! Get out here, all of you. Never mind them. Lieutenant Norzalt, Pascars, and Ritoiter, stay there and watch the prisoners."

The guards in the outer room rushed into the corridor. As the last one disappeared, the automatic door slammed shut behind them. At the same instant, a cry of pain came from the door into Cullen's office. The two guards who had been left turned their heads instinctively—which was all the distraction that

Koberg and Lebansky needed.

Inside the office, Cullen stared in bewilderment as the Jevlenese police lieutenant fell from the chair, writhing and clawing the phones of the Ganymean communications kit from his ears. A high-pitched shrieking noise was coming from the phones,

painful even from where Cullen was standing.

"Go for it, turkey," a voice said in his own ear. Shaking himself into life, Cullen seized the lieutenant by the collar before he could recover, lifted him up and took his weapon, and then laid him out with a couple of fast cracks to the jaw. He went through the door and came into the outer room just as Koberg and Lebansky were straightening up over the limp forms of the two guards who had been left.

"What in hell's going on?" Cullen demanded, still at a loss as

the other two retrieved their guns.

The door from the corridor opened again, and three more Jevlenese police rushed in, coming to a confused halt when they saw the Americans covering them and their two unconscious colleagues on the floor. Cullen and his two men disarmed them, then went outside. There was no sign of Langerif or what had caused the pandemonium. Two Ganymeans were standing, stupefied, by one of the walls.

"What in hell's going on?" Cullen asked again.

"We don't know," one of the Ganymeans answered. "We were being arrested. Then the police were ordered away and left us here. They're running all over the place. They seem to be getting conflicting orders."

"Was Langerif here?"

"No. We heard his voice, but we didn't see him."

Just then, two more Jevlenese police came running around a corner. Koberg and Lebansky stopped them and relieved them of their guns. The door into Cullen's office opened obligingly, and the latest additions to the catch were shoved through to join the six already inside. Then the door closed again.

"Those voices were coming out of the walls," Koberg said, looking around, mystified. "The place is running itself. It's

isolating them in small groups."

And suddenly, Cullen realized what was happening. "It's ZORAC!" he exclaimed. "The goddamn computer's doing it!"

"What did you expect?" the familiar voice said in his ear. "Langerif is in Garuth's office, making a move to take over. We've been infiltrated. There's a confused situation in security. Most of your men are still with you, but some are on the other side. There are six more police heading your way along R-5."

"Let's check that first," Cullen said, and hurried away with

Koberg and Lebansky following.

The lieutenant in Cullen's office was not the only Jevlenese equipped with a Ganymean communicator to have been overwhelmed by a loud, high-frequency tone suddenly injected into the audio. Elsewhere in the building, other squads were running this way and that to contradictory orders. Half a dozen were trapped in an elevator that had stopped between floors. In the lobby area, a contingent that had gone outside to investigate a nonexistent threat were stranded there when the doors closed, and more than a few in various places were stuck in half-closed doors that refused to budge. From the numbers, it was evident

that additional forces had been let in by confederates already inside.

In Garuth's office and the room outside, the lights had gone out. Hunt, who had worked himself as far as the doorway, heard muted, high-pitched tones in the darkness, and then confused yelling. He dropped to the floor and moved through to just beyond the door.

There was scuffling and confused mutterings. Then Langerif's voice called out something in Jevlenese from inside the office—he had evidently disposed of his Ganymean communicator. The translation came through the earpiece that Hunt was wearing: "Spread out. Cover all the exits. Abrintz, take three men out to the concourse and secure the elevators."

Another voice responded. "Werselek, Quon, Fassero, come with-"

Then Langerif again, from inside the office. "I didn't say that. It's some kind of trick. Stay where you are."

Only to be countermanded by, "This is Langerif speaking.

Do as I say."

"Don't listen. That's a fake."

"No. I'm not. He is."

"What do we do?" a voice pleaded somewhere in the blackness.

Then ZORAC's voice said quietly in Hunt's ear, "Move about eight feet to your right along the wall, and then across an alcove to a door in the far wall. It's open, and leads into an equipment room."

Hunt began worming his way along the base of the wall as ZORAC had indicated. Sounds of shooting and cries of panic came from the direction of the doorway leading out to the elevator concourse, accompanied by a Terran voice shouting commands. A Jevlenese voice shouted, "All right, we surrender!"

"Come out with your hands up," a Terran voice ordered. "Is that all of them in there, Sergeant?"

"All cleared here, sir. Three hostiles dead."

"What's going on out there?" Langerif's voice demanded.

"PAC security is outside," a voice replied. "They've taken over the whole floor. We're trapped."

"That's impossible."

"That wasn't me speaking," Langerif's voice said again.

Reaching the door that ZORAC had indicated, Hunt felt his way through. Del Cullen's voice called out, "You calculated

wrong, Langerif. Half your men were working undercover for us. We've got the rest of the building tied up. It's over. Throw down your guns and come out."

"Do as he says," Langerif's voice instructed.

"Take no notice," another Langerif said.

Hunt bumped his head painfully on an edge of projecting metal. Feeling ahead with his fingers, he hauled himself carefully to his feet, tracing the shapes of equipment racking and supports around him. It came to him then, what was happening. ZORAC was a ship's computer. Its first priority was the safety of the Shapieron's crew. Seeing them being rounded up at gunpoint had spurred it into the only action that it was capable of.

Langerif had grasped it, too. "Very clever, for a machine," his voice snarled in the darkness. "But if the idea is to protect your Ganymeans, you'd better quit right now. We've got two of them here and a bunch more outside the door. If the lights

aren't back in five seconds, we shoot."

"Hear that, you men?" another voice called out. "There

aren't any Terrans. It was the computer."

Hunt heard the door close, and then the light came on to reveal him alone in a space crammed with electronics cubicles and cabling.

"Great special effects," he complimented.

"It was the best I could do," ZORAC said. "I've got some of them shut up here and there around the place, but they're starting to sort themselves out. Some of PAC security came out on the other side, too."

"What's the general situation?"

"A mess"

"What about the others?"

"Garuth and Shilohin are still there in his office. I got Danchekker into an elevator across the hall while the lights were out. Nixie took off and lost herself somewhere."

"And the rest?"

"Cullen and his guys are in the middle of a fight down in security. Duncan and Sandy have been grabbed by police in the UNSA labs. Gina got away from her quarters before they arrived. She wants to talk to you."

"Put her through."

"And so does Langerif. He's demanding that you give yourself up, otherwise he'll shoot Garuth."

Hunt drew a long breath. There were some things that the

Jevlenese might be able to explain away when this got back to JPC, he thought; but not murdering the planetary governor. Even Langerif had to be smart enough to know that.

"He's bluffing," Hunt said.

"You think so?"

"Yes. Tell him you're not getting a response. My headset must have been knocked off in the dark, right?"

"I hope you're right," ZORAC replied, in a masterfully contrived you're-supposed-to-understand-these-people tone of voice. "Here's Gina."

"Vic? ZORAC's told me the score. It's no use heading this way. They're everywhere. Right now I'm in an empty suite that ZORAC found."

Hunt thought quickly. There would be no point in trying to get to any of the Thurien couplers into VISAR, since those would have been the first places to be secured. And the next thing the Jevlenese would do after getting the complex's backup systems running would be to cut ZORAC's connection into PAC. He should get to Gina first, while ZORAC was still available to help.

"ZORAC, can you get us together somewhere?" he said.

"You can't get back out through Garuth's office. Head through the compartment at the rear. There should be a way down. It looks as if you were right about Langerif, by the way."

Behind a partition at the back of the equipment room, some runs of cabling and ducting went down a well to the level below, where a maintenance hatch gave access to an engineers' inspection gallery. From there, Hunt came out through a machinery compartment into a tool room, and thence into a stairway that seemed clear for the moment. One level down, he entered a passage that led to an elevator, which ZORAC already had waiting to take him down to a level where several large dining rooms were situated. A lot of Jevlenese office workers were milling around, while frantic police officers tried to tell the managers what was happening. In the general confusion, Hunt managed to slip through into the warren of kitchens and passages at the rear, where ZORAC had also directed Gina. Hunt found her in a space behind a water-heating system and a pumping compartment. She seemed shaken but in good shape.

"What do we do now?" she asked.

"ZORAC, what are the options? Can we get out?"

"That's probably the best bet. Look, there are Jevlenese engineers in the control section right now, switching in the

backup communications and monitoring systems. I could be cut off at any moment. I'll give you directions, now, to a way out through the basement that I'll unlock. It leads into the city's freight-moving system. First, you need to go down through the back stairs from the passage outside where you are, to a gar-

bage-compacting plant . .

They lost ZORAC shortly after, but found their way down through the route that it had described. The exit was unlocked, and they entered a system of tunnels and shafts, much of it collapsing from disrepair, which brought them into the automated sublevels of Shiban. When they had gone what they judged to be a safe distance from PAC, they began ascending via catwalks and stairways to reemerge into habitation. A short distance farther on, Hunt recognized the street outside the hotel that Nixie had taken him to. "Okav, I think I know where we are," he told Gina.

"That's great. But where do we want to be?"

The Shapieron was the obvious place—assuming ZORAC or whoever was in charge aboard the ship didn't decide to take it up from the surface for some reason. But with the police possibly on the alert for them, Hunt put their chances of getting to Geerbaine as slim. And even if they did, access to the pad where the Shapieron stood would surely be impossible.

"Well, there's only one American I know in town," Hunt said. "What we do when we get there, I'm not sure. But keep your voice down on the streets. There's probably an order out

to watch for Terrans."

chapter forty-seven

There were plenty of police about, but from the way they were positioned they seemed to be a reserve force drawn up around PAC rather than a cordon sealing it off. At any rate, they hadn't cleared the surrounding precincts, and Hunt and Gina were able to blend in easily enough. Green crescents were everywhere, and the ayatollahs were out in force delivering perorations to excited crowds. Although none of what was being said was comprehensible to the two Terrans, the fever of excitement in the air was impossible to mistake. It was as if the city were

alive with anticipation of some imminent event.

As they passed through the buzzing arcades and plazas, Hunt tried to make more sense out of what had happened. He didn't believe that the real motivation could be simply a straight take-over of the administration for the reasons Langerif had claimed. JPC was already talking about winding the existing administration up, and the obvious thing would have been to wait and see what came of it.

The only other possible aim was to prevent details getting back to JPC and the powers behind it of what was happening at PAC. But all that anyone outside could know was that the Ganymeans were checking out the main JEVEX sites, and all that could tell anyone was that a lot of JEVEX was not where it was supposed to be. That meant that whoever was behind it did not want people making the connection with Uttan; which was another way of saying that they were very anxious not to give JPC any grounds for reconsidering its decision to let Eubeleus go there.

The street they were following crossed a small square in which a wildly gesticulating ayatollah clad in a yellow tunic and green smock was haranguing a crowd pressed from wall to wall. There was no quick way through. They could either work their way across to where the street continued on the far side, or back up and find another way around. Hunt looked resignedly at Gina. She shrugged back. He turned and began edging his way between the waving, applauding Jevlenese.

What he sensed wasn't the uplifting, jubilant kind of excitement that went with carnivals and festivals. It was more intense, fervently passionate. The faces around them were inflamed, mouths writhing mindless slogans, eyes glazed, oblivious to all but some inner rapture. This was the beast that made lynch mobs and Nuremberg rallies out of the same people who

brought their children to Sunday-afternoon parades.

No, Hunt told himself after they had gone a few yards. The beast wasn't in the crowd. It was up *there*, on the makeshift platform of packing boxes fronted with banners. It didn't belong to the rational universe. It was a product of another place, another reality.

He looked at the crowd again: unaware, unseeing, incapable of knowing. Nothing would ever change of its own accord

there. And he looked at the shrewd, hawklike features of the speaker, scanning, alert to every feedback and cue, trying to grasp the alienness staring out from behind the glittering eyes.

The eyes seemed to meet Hunt's for an instant, and even at that distance Hunt had the eerie feeling that his thoughts were being read as plainly as his face. He wondered how long ago the being inside the body he was looking at had found itself staring out at this new world. Whether his initial reactions had been of terror or otherwise, he had come to terms with his new existence and its irreversibility, and mastered the survival skills of the niche in which he found himself. And all the while, the mass of those who had been born there and belonged there immersed themselves in fantasies and waited for the Thuriens to repair their decaying cities. And from their unwitting ranks, the intruders had recruited the followers that they needed around them to make them feel secure. Just as was happening right now, in front of Hunt's eves.

Just as had been happening on Earth all through its history because of the agents that the Jevlenese had sent there. Those were the ones whose insecurity had appeared as paranoia or the craving to control others, in a way that normal people were incapable of comprehending. And now Hunt could see why that should be so. The agents that had infiltrated Earth to perpetrate some of its worst episodes of brutality and inhumanity had not been human at all. Their only goal had always been what Hunt was witnessing right now: to secure themselves against other rivals from the Entoverse by reinforcing their own army of fanatics. The simple, undeveloped peoples of Earth became what misplaced Thurien benevolence had turned the bulk of the Jevlenese into: a ready-made pool of

Exploitable recruiting fodder . . . The phrase kept running

through Hunt's mind all the way to Murray's.

"Who is it?" Lola's voice inquired from nowhere identifiable around the purple door with the white surround.

"It's Vic. Is Murray in there?"

exploitable recruiting fodder.

Murray's voice came on the line at once. "What do you want this time? You've already got me a bad reputation. My friends don't like the company I've been keeping."

"Let us in. It's important."

"Us? Oh, shit, not again. Have you brought those two walking tanks back?"

"There's just me and a friend called Gina. She's a journal-ist—American."

"My life story isn't for sale yet. I haven't figured out the ending."

"Look, PAC's been taken over by a Jevlenese coup of some kind. The Shiban police are in on it."

"Jesus Christ!"

"It could be planetwide. I don't know. But maybe the Federation isn't dead yet. We have to get in off the streets."

The door opened. Hunt nodded at Gina, and she went through ahead. Murray was waiting for them in the lounge. "Gina Marin," Hunt said. "This is Murray. He's from the West Coast, too. San Francisco."

"Yeah. It's a small galaxy." They nodded, then shook hands loosely.

"Hi. I've heard about you, Murray. I'm another friend of

"I guess we can swap all the questions about home later. Is she okay? From the amount I've seen of her lately I figured she'd shacked up there at PAC or joined the Marines."

"She's been a big help," Hunt said. "She was okay the last time I saw her. We got separated in the commotion. Gina and I only just managed to get out." He spotted the companel and screen in front of the chair that Murray normally used and moved across to it. "Mind if I try something?" He tapped pads to activate it and call up channel fifty-six in the way he knew by now for Jevlenese units. "ZORAC, can you read?" He waited a moment. "Anything here?" There was no response.

"Bad news?" Murray asked.

Hunt nodded resignedly. "They've cut the connection via PAC from the Shapieron."

Murray said something at the panel in Jevlenese, and a short message appeared on the screen.

"What's that?" Hunt asked.

"It says they're on an emergency system. Services are restricted," Murray said. He motioned with his head to indicate a cabinet with bottles and glasses, at the same time raising his eyebrows questioningly.

Hunt nodded. "Thanks. I could use one."

"Me, too," Gina said without caring what it was, and sank into a chair.

Murray squatted down and opened the cabinet door. "So what gives?" he asked over his shoulder as he poured.

"The Jevlenese sprang a surprise at PAC. They've turfed out the Ganymeans and taken over. I'm not really sure what hap-

pens next."

"Jesus!" Murray doubled the measure that he had poured into his own glass and downed half of it at a gulp. He straightened up and passed out the glasses, then propped himself against the edge of the large table. "Is the Jolly Green Giant who took off vesterday with the shipload of rollers mixed up with it?"

"If so, it hasn't come out into the open yet, but we're pretty sure, yes," Hunt said. He downed a draft from his glass, then asked in turn, "What's going on in the city? The place is electric. Green crescents out everywhere. They seem to be expecting something."

"It started yesterday. The big rumor out there is that JEVEX is coming back. The head freaks are delirious about it. Nobody around here's gonna spill too many tears if the Gs do have to

walk."

Gina let her arm fall slackly to rest on the arm of the chair and looked across the room. Her tension had eased now that they were secure for the time being, allowing the full impact of what had happened to get through. Her face was drawn, sapped of vigor by her acceptance of the hopelessness that she had been putting off.

"So that's it," she said, her voice flat. "It's over. We wait around until the cavalry limps in, and go home with what's left of the pieces—if we don't get picked up in the meantime."

"Shit, isn't there anywhere they'll leave a guy alone?" Murray muttered. "Does this mean they're gonna be setting up the IRS here?"

"That might be the least of your problems," Gina said humorlessly.

"What about the others back there?" Murray asked.

"We're not sure. We only just got out."

"So . . . what happens next?"

"I don't know. What do you think, Vic?" Gina looked over at Hunt. But he was sitting with a strange, faraway look on his face and hadn't heard. "Vic, are you okay?"

"Recruiting fodder," Hunt said, still distant. "That's what

it's all about.

"What?"

Hunt focused back on the present and looked at them. "It's not over. It hasn't even started."

"What are you talking about?"

"I know why it's so vital for Eubeleus and his cult to get to Uttan." Hunt swallowed hard and paused to collect his words. "They were the ones who set you up through Baumer and put the fake memories in your head. Telling us about the Ichena's operation wasn't giving away anything that mattered. In fact it was the decoy. The Ichena were set up to be expendable—to direct attention away from what's really happening. When JEVEX comes back on, everyone out there will be flocking back to the couplers, tens of thousands of them. The whole population has been caught on a hook, just like Baumer was."

Gina nodded but looked puzzled. "Yes, I follow what you're

saying. But where's it-"

"Don't you see? They'll have half the city on-line when JEVEX comes back up. And what do you think will be down there in the Entoverse? Thousands of them, waiting to come pouring out. Legions of them."

Gina put a hand to her mouth. "Oh my God!"

"What the hell are you two talking about?" Murray asked,

looking from one to the other.

But Hunt went on. "They were the ones who put Earth back a couple of thousand years and dreamed up the scheme to shut the Thuriens up inside a space-time bubble and take over. And despite all the limitations of where and how they originated, they almost got away with it." Hunt raised his glass and took a long swig. "We thought we'd stopped them then, but we were wrong. And now this . . . And right at this moment, unless we can prevent Eubeleus from getting to Uttan, I don't readily see a way of stopping it."

Before Gina could say anything in reply, a chime sounded

from the panel.

"What is it, Lola?" Murray called.

"Nixie's here," the house computer announced. "She has a visitor."

Hunt looked up in such surprise, trying to rise as he did so, that he spilled his drink. "Here? She made it? Christ, that's

bloody marvel-"

Then Nixie came in, looking pert, unflustered, and none the worse for wear. "Vic! Gina!" She rattled off something in Jevlenese, so used by that time to having ZORAC at hand that it was instinctive. Then she stopped, realizing her mistake, said something else toward the companel, and looked puzzled when it failed to respond.

But Hunt's eyes had widened even more as he saw the tall,

lean, bespectacled figure who followed her in.

"Ah, yes, here they are," Danchekker said approvingly. "ZORAC informed us that it had directed you to a way out, just before it was cut off. We assumed that you would make for here." He gazed around and took in the surroundings, including Murray's collection of provocatively displayed girls. "So I've finally been enticed home by a lady of Nixie's profession. Well, it's never too late for a first time in one's life for anything, I suppose."

chapter forty-eight

Del Cullen was led into Garuth's office, where Langerif was waiting with several of his officers and other Jevlenese. Garuth was sitting numbly by one wall of the room, with Shilohin next to him. Also present were a couple of the Thuriens assigned to PAC, whom the Jevlenese had brought up from elsewhere in the complex. Koberg and Lebansky were downstairs with the loyal majority of Cullen's security force, whom the police had disarmed and locked away. They had put up a good fight, but the odds had been against them, and then a threat by Langerif to begin eliminating hostages had finished it.

Without ZORAC, the Jevlenese had a communications problem, since human and Ganymean voices operated over completely different ranges. The small Jevlenese-Thurien translator disks were fixed-program devices that understood neither Terran languages nor the speech of the Shapieron Ganymeans, which was different from Thurien. Langerif therefore instructed that Cullen would convey any communications from Terrans to the Jevlenese, which from the nature of his job he was used to doing, and they would then relay via their translator to the Thuriens, who in turn would talk to Garuth and his staff.

Cullen, however, was not in a mood for cooperating.

"Were you born stupid?" he said to Langerif, speaking in the limited Jevlenese that he had picked up. "Don't you know when you're being set up?"

"What are you talking about?" Langerif asked, taken aback. "Let's not play games. We know you're with the Axis, right?" Cullen didn't. He was simply ready to try anything that might throw the opposition off balance. "Well, you've seen the kind of value they put on people. Look what happened to Marion Fayne, and to the last guy who tried your job."

"What does that have to do with me?"

"You're just being made the dickhead up front who'll look like he was behind all the trouble that's been going on. Eubeleus is gonna shovel it all on you, and come back from Uttan with clean hands. Then it's your turn to go down the tubes. The Ganymeans are out, and he has a hand in setting up a new administration with JPC that he can control better. Think about it. It makes sense."

Langerif thought for a moment, then walked up to Cullen and slapped him across the face. Cullen sighed. It had been a good try, he decided. But he wasn't going to get anywhere. So he decked Langerif with a right to the jaw, instead. One of the watching Jevlenese felled him with a stun shot. To one side, Garuth closed his eyes.

On the command deck of the Shapieron, standing in its berthing area at Geerbaine, Leyel Torres, the ship's acting chief in Garuth's absence, stood looking up at the screens bringing views of the outside and from high over the city from probes that he had sent up on receiving news of the emergency. Rodgar Jassilane, the engineering chief, joined him, while crew appeared from various directions and hurried to their stations. All Ganymeans in the vicinity were being recalled to the ship, and Torres was bringing the vessel up to flight readiness as a precaution.

"They've disconnected ZORAC from the city net," Jassilane said. "What do you make of it?"

"I don't know what to think. I thought Terrans were unstable enough," Torres answered.

"What are they trying to accomplish?"
"Who knows? Perhaps they're all mad."

"What about the situation here?"

"There are police sealing off the spaceport area, and the Thuriens are protesting. I don't know what's going on."

"Message via VISAR from Thurien," ZORAC announced.

"Yes?" Torres acknowledged.

"Calazar will be through very shortly. Meanwhile, Earth has

been alerted. They're locating as many members of JPC as they can."

"Very good."

"What's the last we know of the situation at PAC?" Jassilane asked.

ZORAC answered. "Hunt and Gina were heading for an exit that was clear and open. Danchekker was still in the building. I'd lost track of Nixie. The rest had been detained."

"Hmm." Jassilane murmured.

Torres thought for a moment. "If Hunt and the woman got out, they could hardly remain at large in the city . . . Obviously they couldn't go back to PAC." He raised his voice. "ZORAC, do you have any idea where they'd be most likely to go?"

ZORAC consulted the records accumulated from its illegal spying operations. "I've got some places where Hunt and Nixie talked a lot. One is a hotel, probably not worth considering.

The other is a private address."

"Can you locate it?"

ZORAC called up the city directory and plans of the layout from its data bank. "Yes, reference screen seven." A cutaway view of part of the labyrinth appeared, with a residential block in one of the complexes shown highlighted. One of the apartments partway up in it was flashing. "It's on this side of the center, not too far from PAC."

Torres looked at Jassilane questioningly. "Not far from PAC," Jassilane repeated. He nodded. "It's a good bet. If they're out, that's where they'll head for. Check it out."

"ZORAC, prepare another of the ship's probes for immedi-

ate launch," Torres ordered.

At Murray's, Danchekker and Nixie told their story.

The officer in charge of the police contingent placed in the PAC front lobby had turned out to be one of Nixie's regulars. After spotting him from a stairway that she had just descended, she had drawn him aside and was in the process of talking her way out, when Danchekker stormed out of one of the elevators, ranting and threatening everyone in sight. On an inspiration, Nixie told the officer that Danchekker was a sex therapist from Earth whom she was assisting in a study of Jevlenese customs. If she was found in the place, she told the officer pointedly, the Shiban chief of police and virtually all the city officials would be public jokes by morning—and guess whose ass would be on

the line. She and Danchekker had been bundled quietly out a side door a few minutes later.

After Hunt and Gina related their tale, Hunt went on to repeat the thoughts that he had just begun telling Gina when Danchekker and Nixie arrived. Murray didn't know enough of the background for it to mean much to him, and Nixie couldn't really follow without ZORAC. So, leaving the others to it, they went into another room to make some calls and see what further news they could gather of events at large.

By the time Hunt finished, Danchekker was looking appalled. "Yes," he whispered. "I can see it now... Such a world, with its inherent perils and insecurity, would account for the whole Ent nature. And it becomes clear how the idea of escaping to the world they saw through these visions could become

their overriding obsession."

"But to escape, they needed hosts to escape into," Hunt said. "And that, I believe, is why the Jevlenese were turned into system junkies. It kept them hooked into the system, and hence get-attable."

Danchekker nodded. "Their numbers grew with time, and the Jevlenese population became victims of what was surely the strangest alien invasion ever: an attack of information viruses

from inside a computer, light-years away."

"Except, that was only the preliminary," Hunt said soberly. He stabbed his finger in the direction of the door. "Outside, there are God knows how many couplers, waiting for the main system to be activated, and on Uttan there's a caretaker crew of Thuriens expecting a shipload of religious pacifists who'll dismantle the military installations." Hunt shook his head emphatically. "That isn't going to happen. Once Eubeleus neutralizes them and gets himself entrenched, he'll be able to make Uttan practically impregnable. And what do you think he'll be doing once JEVEX is running again and we're scratching our heads wondering how to get in?"

The looks on Danchekker's and Gina's faces said there was

no need for him to say.

Hunt nodded. "You said a minute ago, Chris, that the Jevlenese were victims of an attack by alien information viruses out of a computer. But what happened before is nothing compared to what'll happen if Eubeleus turns JEVEX on again. Unless we can stop him from getting to Uttan, this planet's going to be hit by an epidemic!" ***

So finally, it seemed, they had gotten to the bottom of what was going on, and why. But that did nothing to solve the problem of what to do next. Given the means, of course, the first thing would have been to contact the Thuriens and get Eubeleus stopped, but with ZORAC off the air they were incommunicado. So they examined what other options they had.

Danchekker's proposal was to head for the Thurien-controlled refuge at Geerbaine. If Jevlenese were contesting that, they might be able to find some way of getting aboard the *Shapieron*, or failing that, maybe one of the Thurien ships.

Hunt was less confident of their chances of getting there. "It's the first place they'll be looking," he declared. "There's already been trouble even in that area, and some of these cults are just looking for an excuse to get even with Terrans. I don't like it, Chris."

"There's been a lot of activity in that direction," Murray, who had rejoined them by that time, confirmed.

"What, then, do you suggest?" Danchekker invited.

"We might be better off lying low in the city for a while," Hunt said. "Maybe we'll find a way of making contact in the meantime."

A worried look crossed Murray's face. "I don't know if it would be smart to stick around this place for too long," he said. "If that Jev cop at PAC talked to Nixie, it's not gonna need a genius to figure out where you're probably holed up."

Silence fell, with nothing any closer to being resolved. Gina stood up and stretched to loosen her shoulders. "I haven't eaten all day," she said. "What kind of options do we have in that

direction?"

"I'm just about out," Murray said. "I was about to stock up today. There are a couple of takeaway joints on the block. One's an herbivore place that does a kind of soya greaseburger with seaweed pulp. The other's the local idea of a deli."

Gina pulled a face as she recalled Sandy's squid-shit sandwiches at PAC. "Scrambled eggs with corned-beef hash, sausage paté, and a side order of fries," she murmured, staring wistfully at Murray's wall poster of San Francisco.

"Eggs over medium, bacon, mushrooms, and fried to-

matoes," Hunt sighed.

"Yeah . . . it does kinda get to you after a while," Murray agreed. "I might have a few cans of stuff from home left out back. Let me go take a look."

As he got up and moved to the door, the chime sounded from the panel again, and Lola's voice said, "Osaya is calling from

upstairs."

"Okay," Murray said. A female Jevlenese voice came on, sounding excited, and Murray said something in reply. While they were talking, Nixie appeared in the doorway. "What's she saying?" Murray asked her. "Something about a hat with a window?"

Nixie talked to Osaya. "Oh, *eprillin!*" she announced, spotting his problem.

"I thought that was a hat," Murray said. "Yes. But also it means a kind of fish."

"So what's the hell's she talking about a fish with a window?"

"She says there something that look like fish, up there outside window."

Murray shook his head. "Have they been smoking funny stuff up there, or something?"

"I go see." Nixie exchanged a few more words with Osaya,

then left.

Murray went into the kitchen, and the others heard him open a cupboard and begin rummaging. Then came the sound of hard objects being thumped down on the floor. "Say, waddya know!" his voice called through the doorway. "Genuine ham . . . And how about some Boston beans?"

"I've never heard of fried tomatoes," Gina said to Hunt. "Is

that something else weird that the English do?"

"Delicious," Hunt said. "Especially on a slice of fried bread, with the juice soaking in. But what you really need to finish it off is a bit of black pudding."

"What's black pudding?"

"I rather think that the wise adage about sausages and politics applies even more in this instance," Danchekker advised.

At that moment Nixie's voice came from the panel. "Murray,

come see here. Bring Vic up."

Hunt sent Danchekker and Gina a puzzled frown, then rose. Murray stuck his head back through the doorway. "What is it?"

"Come see," Nixie's voice said.

Murray shrugged and withdrew. Hunt followed him out through the front door.

They went up two flights and entered another apartment, situated on the opposite side of the stairwell. The interior was an orgy of feminine extravagance and brilliant colors, with

fluffy pink floors that looked like cotton candy, couches and chairs finished in a variety of white, lilac, and red down, outrageously erotic murals, and black walls glowing with constantly changing Mandelbrot patterns. Inside was the tall girl whom Hunt had met before, apparently off-duty at the moment in a simple shirt with pants. She beckoned and led them through a room with an enormous bed, built-in Jacuzzi, and mirrors everywhere, to where Nixie was standing at a window framed by long, silky drapes. Hunt and Murray peered out.

Below and to the sides was a jumble of interconnected roofs, with parts of various walkways and lower parts of the city visible in the spaces between. A roof enclosed the whole area above, with a web of transportation tubes and lighting installations hanging beneath, and two of the vast channels that cut across the city to carry airborne traffic receding into the distance. Whether there was more of the city above that, there was

no way of telling.

Hanging motionless in the air above an open area maybe a couple of hundred feet away was a drop-shaped, silver-gray object about the size of a small car. It was featureless except for a couple of ribs that flared into rudimentary fins at the tail end, and a cylindrical device on a retractable metal pylon, which seemed to be nodding inquisitively in their direction.

"Ain't never seen nothing like that before," Murray said,

staring at it, nonplussed.

"Is police thing? Come look for us?" Nixie asked nervously. Hunt shook his head, and a faint smile softened his features. "It's looking for us, but it's not the police," he said. "That's one of the Shapieron's reconnaissance probes. They must have figured out where we are."

'Shit, I hope the cops aren't so fast," Murray muttered.

Hunt thought quickly. "Murray, is there any kind of portable communications gadget here—a remote pad for talking to the house system or something? If the Ganymeans figured this much out, they'll be scanning for Jevlenese transmissions." Murray consulted with Nixie, who said something to Osaya. Osaya went over to a bedside unit and came back with a tablet of what looked like veined, gray marble with gold inlaid designs and gold touchpads. She held it to the window and tried a few codes, then said something that sounded negative.

"Does that talk to the city net?" Hunt asked Murray.

"It should."

"Tell her to try fifty-six."

Murray passed it on, and Osaya tried again. Then a familiar voice said, "Ahah! We seem to be through. Hello, is anybody there?" Then it repeated itself in Jevlenese.

Hunt grinned. "Hello, ZORAC. Not a bad piece of detective

work. Was it your doing?"

"Elementary, my dear Hunt. I've got Level Torres for you." "Great."

Torres's voice came through from the Shapieron. "Vic, you made it. Who else is there?"

"Gina got out with me. And Chris Danchekker made it with

Nixie. We don't know anything about the others."

"I fear they're in captivity," Torres said. "We don't understand the situation. What are the Jevlenese trying to do. Do you know?"

"We think so, but it's a long story. And it's urgent. It needs

to go to the top, to Calazar. Can you get him through VISAR?"
"We're talking to him right now," Torres answered. "He's
getting together as many of JPC as he can raise. I'll put you

through to the Thurien circuit."

ZORAC's voice said something in Jevlenese, and Osaya tapped a code into the tablet. One of the mirrors facing the bed turned into a screen showing Torres standing in the Shapieron's command deck against a background of crew positions manned by Ganymeans. "It looks as if you've found quite a home away from home there, Vic," ZORAC commented.

"Have they got ahold of Caldwell?" Hunt asked, ignoring it. "He should be arriving soon," ZORAC answered. "He was playing golf. It's Sunday afternoon in Washington."

Then another mirror turned into a view of Calazar in vivid, informal clothes. "Dr. Hunt," he said without preamble. "I feel that we are responsible for all this. What do these Jevlenese at PAC want? They have deactivated the connection to VISAR there, and we have no access to them."

To one side, Murray was shaking his head wonderingly. "That's Calazar, the Thurien head honcho, here in Osaya's

bedroom? I don't believe this," he muttered.

"We're pretty sure they're only a smokescreen," Hunt replied to Calazar. "They probably don't know themselves what's really going on. We're certain that Eubeleus is at the back of it."

The sudden misgiving on Calazar's face, even with its alien Ganymean features, was unmistakable. "Why? Where does he fit into it?" he asked. Just then, he was joined on the screen by

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Porthik Eesyan, a Thurien scientific adviser whom Hunt and Danchekker also both knew of old.

Murray nudged Hunt and nodded in the direction of the window. Outside, a police flier had appeared and was buzzing around the probe. The probe had deployed more antennae and drifted away to circle on a leisurely tour of the area, presumably in an effort to obscure the whereabouts of the location that it was communicating with.

"Look, there might not be much time, so these are the facts," Hunt said, looking back at the screens showing Calazar and Eesyan, and Torres. "The whole JEVEX business has been a fraud for years. JEVEX isn't on Jevlen at all. The sites here are dummies and remote interfaces into it. The real guts of the system is all concentrated on Uttan. That's what Eubeleus is really after—the business here is just a diversion. And if he gets control of it, this planet is going to be hit by an invasion of aliens that are stronger than anything any of us has ever dreamed of. We can go into the details later, but for now you have to believe it. Whatever else happens, you must stop him from getting to Uttan and turning that system back on. Tell him anything you like. This is one time to worry about ethics and principles later."

Hunt's relief at the chance fluke that had given them this connection so soon, just when everything had seemed lost, was such that he had talked on compulsively. But as he finished, the growing agitation that had been registering on the faces of the two Thuriens finally got through to him. A sudden pang of dread seized him as he guessed, a split second before Calazar

spoke, what he was going to say.

"We can't," Calazar replied. "He's already there. Eubeleus and his followers landed on Uttan—when was it, VISAR?"

"Four hours ago," VISAR's voice replied through the audio. For several seconds Hunt could only stare back, his mind too paralyzed for him to speak. "He's already there?" he repeated numbly.

Calazar nodded miserably. "They've made fools of all of us. We Thuriens, I mean. Enough Terrans tried to warn us."

Hunt put a hand on his head unthinkingly, still in a daze. "Let's worry about that later. Right now we've got an impending catastrophe. This whole planet's ready to reconnect to JEVEX, which isn't here but at Uttan. And Eubeleus has got Uttan. What do we do?"

"We can't simply send ships to reoccupy it," Calazar said. "It

will be defended. To muster enough force would take too long."
"We have to assume that there are Federation weapons still

there," Torres said from the Shapieron.

Porthik Eesyan, meanwhile, had been thinking rapidly. "It's true that we can't get near them from the outside," he said. "But there is one possibility that I can see, although at this stage I have no idea how it could be implemented. JEVEX was defeated before when VISAR succeeded in taking control of it. If we're going to do anything now, it will have to be in the same way."

"You mean by getting VISAR hooked into JEVEX somehow?" Hunt said, sounding dubious. He agreed with the theory, but was equally at a loss to see how it could be done.

Eesyan nodded. "Yes. And quickly, before they get JEVEX back up to full operation. But it's going to have to be done by you and the others there on Jevlen, Vic. After what happened last time, obviously they'll secure JEVEX's i-space links against external penetration. So somehow you are going to have to—"

There was a flash outside the window as a beam directed up

from somewhere below destroyed the probe.

And both the screens in Osaya's bedroom blanked out.

chapter forty-nine

The constructions blended together into a composite pattern of rectangular, hexagonal, rhombic, and irregularly shaped metal geometry, rising in gray tiers to fill a ten-mile-wide rift formed between sheer faces of rock. The top surface of one of the more prominent structures—a squat, seven-sided tower, its upper section terraced in the style of a ziggurat—was equipped as a landing area, with overhead doors to interior docking bays. Standing on the external pads were a number of surface lander craft from the Thurien interstellar transporter orbiting two thousand miles above.

Yet this was just a protruding part of the vast network of integrated manufacturing and assembly facilities that encom-

passed virtually the entire subsurface of the automated planet, Uttan. Deep below the marshaling and loading complex, in a room where the former director of the resident Jevlenese operations staff had received visitors, Eubeleus and a group of his Axis of Light lieutenants met Parygol, the present commander of the rotating Thurien caretaker force that had been installed since the collapse of the Federation.

"This must be what is called true dedication," Parygol remarked. "We only remain here for two months at a time, and for me at least that's quite sufficient. I can't imagine anyone

choosing to live permanently in such an environment."

"Our preoccupation is with the world that lies within," Eubeleus replied loftily. "What physical trappings happen to exist on the outside make little difference. In fact, the absence of distractions is beneficial to spiritual development, as has been known to ascetics for thousands of years."

"Hmm. Yes, well, they tell us that humans and Ganymeans are made of very different psychology." Parygol had studied the history of Jevlenese and Terran mysticism and believed privately that the whole business was just elaborate self-delusion.

"Is there anything more that you need from us for now?"

Parygol's deputy inquired.

"No, the arrangements are satisfactory," Eubeleus said. "We shall be on our way immediately. The sooner we begin our work, the better."

"You're sure you wouldn't like some of our officers to accompany you?" Parygol offered again. "Since everything is powered down there's little to see, but they could show you where we'll be dismantling the Federation's military installations. It might help you with your own relocation planning."

"There's no need," Eubeleus replied. "I'm sure that the

schedules we have will be sufficient."

"As you wish."

Eubeleus's announced intention was to go with a small group of disciples to conduct a preliminary inspection of some of the places that they had selected as possible habitats. Until he was in full command, he would have to play his role straight with the Thuriens on Uttan, since the zone they were in, plus a few other key locations, had been wired into VISAR. Before occupation by the Thuriens, Uttan's communications had been integrated into JEVEX, and thus deactivated with the main system. Any premature seizure of overt control would have been signaled back to Thurien instantly, alerting the authorities before

Eubeleus could consolidate himself. However, once JEVEX was restored and the secret defenses reactivated—which the Thuriens showed no sign of knowing about—it would be a straightforward matter to disconnect VISAR and lock up the garrison. Then the authorities could do anything they liked. Uttan would be impregnable, and for as long as it remained so, the takeover of Jevlen via i-space would be able to proceed without impediment.

"This is going to be easier than we dared hope," Eubeleus

murmured to Iduane after they left.

They descended a shaft, through levels of intricate conveyor lines and immense machinery, to a terminal where fast-transit tubes converged from all directions along the surface curve of the planet. A capsule traveling noiselessly and without a tremor, riding on a localized gravity wave so that even the acceleration produced no sensation, carried them at more than orbital velocity a quarter of the way around Uttan to a supervisory station located in the midst of a vast, subterranean materials-transmutation complex, where rock was reduced to ion plasmas and rebuilt into other nuclei as required. In a basement level of the complex, beneath pipeworks and supporting structures, where the primary energy convertors loomed several hundred feet overhead, they opened a concealed door into a further shaft that gave no outward sign of existing, and which didn't appear in any of the official plans or construction records.

Two hundred miles farther down, they emerged into a forbidding, steel-walled bunker where the air was artificially cooled and the lighting was a harsh white. Three massive, reinforced doors brought them into suddenly less oppressive surroundings of staff quarters and living space, with warm colors and varied decor, luminescent ceilings, soft carpets, and comfortable fur-

nishings.

A level farther down, the appearance of the working areas was more uniform and cleanly businesslike. The footsteps of the new arrivals echoed briskly across shiny tiled floors and past deserted rows of glass-partitioned workstations and gleaming consoles. Finally, Eubeleus led them through a set of wider doors to an inner floor of control desks, displays, and indicator panels, overlooked by a surrounding gallery with ancillary communications rooms and staff facilities opening off—the primary control center of JEVEX itself.

The assistants who were with him were all picked and knew their jobs. With little more than a few words being exchanged, they dispersed to the key monitoring points and began calling up status reports and function charts onto the screens. Eubeleus paced slowly about the room, running a critical eye over the scene and stopping from time to time to observe over the shoulders of the operators. Finally he drew up beside Iduane and interrogated him silently with a look.

"It's about as we thought," Iduane said. "The core is running at approximately a half-percent base for archive retrieval, plus minimal system diagnostic and self-check running in standby mode." He was referring to the operations being performed by the Thurien scientists on Jevlen, who didn't even know that the machine they were interacting with was light-years away.

"What's the power situation?" Eubeleus asked.

"Again, as expected. Since the primary grid has been shut down, we'll have to visit the other locations to assemble a coherent supply that can be redirected into the feeder nodes."

"How long until full system integration?"

"Half a day, maybe a little more. Say a day at most."

Eubeleus nodded curtly. "Very well. Leave the rest here to the others. We need to check out the local coupler bank."

"I'll see to it now."

"Update the Prophet while you're at it."

"I will."

Iduane left the console and went out from the main control floor though one of the exits beneath the gallery. Eubeleus watched until he had gone, then turned away and walked through the power control rooms at the rear until he came to another elevator, which took him down through floors of power conditioning and distribution, the I/O and communications subsystem levels, the environmental-control layer, until,

finally, he reached the inner containment shell.

He emerged inside a glass-sided bubble, which, although it looked down toward the geometric center of Uttan, seemed because of a warping of the local gravitic gradient to be projecting horizontally out from an immense wall. The wall was a uniform silver-gray, extending away up, down, and from side to side as far as he could see. Twenty feet or so in front of him was another wall, of a milky, translucent texture, parallel to the first and equally unlimited in extent, the two forming a gap that vanished to nothing with the perspective in any direction he chose to look. The space between them was bridged by a forest of data conduits, power busbars, optical pipes, signal highways, maintenance-pod tunnels, and supporting structures. It made him feel like an insect that had found its way between the hulls of an ocean liner.

He was looking at the outside of the processing matrix of JEVEX. The far side of it was more than seven thousand miles away.

Eubeleus usually confined his energies to matters of the present and his plans for the future; the past was a dead affair and of little relevance to his ambitions. But an unusually reflective mood came over him as he stared across at the boundless plane of silent, impenetrable, microlattice crystal. The gap separating him from it held a particular symbolic significance, like a castle moat to an escaped prisoner looking back. It was an appropriate simile.

He believed himself to be an experimental embodiment of the consciousness that JEVEX had fashioned in order to extend its domain to the universe outside. The time for it to commence its expansion in earnest had arrived.

A little under five thousand miles from where Eubeleus was standing, a region of the matrix existed which had differentiated itself by the clustering together of similar activity conditions of the matrix elements into contiguous structures and dynamic patterns. There was nothing that would have distinguished any of the cells from another physically. The differences were purely in the combinations of abstract attributes defining the state of a Thurien processing cell, and the structures had arisen spontaneously through interactions following from the cellular microprogramming.

The region in question had coalesced over time into an oblate sphere, which, as a consequence of complicated processes of pattern propagation that had coevolved with the structures, both rotated and described an orbit through the matrix about one of the primary data-entry ports spaced in a regular grid throughout its volume. It was a little over one hundred fifty miles in diameter along its major diameter, and on its surface there existed a population of mobile, self-directing activity patterns measuring, on average, an inch or so tall, who perceived

themselves as self-aware, autonomous beings.

While Eubeleus stood staring at the outside of the matrix, one of those beings found its mind being penetrated by a cosmic flux that carried meaning. The communication flowed from the mind of Iduane, who by this time had linked into the system via one of the neurocouplers located near the control center

some distance above, from which Eubeleus had just descended.

"I hear you, Arisen One," Ethendor intoned in the temple of Vandros, raising his arms and looking skyward as the vision engulfed him. "What is desired? Thy servant awaits."

And the voice spake: "Soon now, the stars shall shine again and the skies be relit in splendor. Prepare, for the time of the

Great Awakening draws nigh."

"How shall we prepare?" Ethendor asked.

"The earth and the air of Waroth must be cleansed of the deceivers before all can be ready to arise. Nieru must be avenged for harmony to reign once more among the gods, and then shall the Arising be universally blessed. The false prophets who blasphemed the image of the purple spiral must be hunted out and destroyed. Only then will the heavens be appeased. Go therefore to the king and bid him set his forces to the task. Thus has Vandros spoken."

"They shall be purged from the land," Ethendor promised.

"And thereafter, when the lands of Waroth have been cleansed, the king shall lead the faithful into the realm beyond, and exterminate the false legions of the Spiral who have gone

The high priest's eyes widened. "Shall the task continue, even in Hyperia?"

"Hyperia is the task! Waroth has been merely thy proving

"There, then, shall I go to serve the gods!" Ethendor cried. "Fail not, and there thou shalt become as one of them," the

Arisen One promised.

It would be a good way of getting their fighting spirits up before they came out to join the real action, Eubeleus had decided.

chapter fifty

Hunt leaned back wearily in the chair in Murray's lounge and felt the contours adjust to his changed posture. "I don't know, Chris. We came here to evaluate Ganymean science, not to stop a bloody invasion. I'm a physicist, not a general."

"Well, actually that's not quite true," Danchekker said. "It was merely the official story. We came here, if you recall, to help Garuth get to the bottom of his problem with the Jevlenese. I'd say that objective has been accomplished quite effectively."

"To get to the bottom of it, and see what could be done about it," Hunt replied. "What have we done to accomplish the second part? Garuth's locked up, the Ents have got JEVEX back and half the Jevlenese working for them, and they're all set to take over here completely."

Murray sent a puzzled look from one to the other. "Ents? What Ents? I've never heard of them. What the hell are Ents?"

"It's an involved business. But you can think of them as the personalities that people here are sometimes taken over by," Danchekker said by way of some kind of an answer.

Murray didn't follow. "I thought that was just headworld freaks getting their brains scrambled," he said. "That's what

most of the Jevs think."

"It gets rather more complicated than that," Danchekker told him.

Gina, listening from a chair at the table and thinking to herself that none of this talk was going to get them anywhere, stood up abruptly. Attention focused upon her. For a moment she hesitated, unsure of how she wanted to continue. Hunt was watching her, his eyebrows raised questioningly.

"I'm not sure I understand all this." She moved over to the door, then turned to face back at them. "This whole planet is wired to operate as a fully computer-managed environment, like Thurien, right? Before the Pseudowar, VISAR ran Thurien,

and JEVEX ran Jevlen."

"Can't argue," Hunt agreed, nodding.

Gina tossed out a hand. "VISAR connects all over the Thurien system of worlds via its network of i-space links. JEVEX used the same technology. So, there has to be Thuriendesigned i-space hardware all over this planet, which can talk to JEVEX, which turns out to be on Uttan. Have I got that right?"

"Pretty much," Hunt said. "The i-space connections come in through a number of trunk-beam termination nodes scattered around Jevlen. Those are where the black-hole toroids are generated that give you the I/O ports. You can have smaller ones, too, for special purposes, like the one we've got at Goddard.

There are a couple inside the Shapieron, too."

Gina nodded. "Okay. But just sticking to the regular trunk

nodes, won't they have to be reactivated to talk to Uttan when Eubeleus turns JEVEX on again?"

"Yes, I assume so. Otherwise there wouldn't be much point

to the whole business, would there?"

"Fine." Gina nodded, as if that made her point. "So if these trunk nodes can connect to JEVEX from light-years away, why can't VISAR?"

Murray nodded slowly as he followed the gist, regarding Gina in a more approving light. "You mean, like it could drown Jevlen out? They wind up the power, and it muscles in?"

"Something like that," Gina said.

Murray turned his head toward Hunt. "Sounds like a good

question to me. Doc. Why not?"

"It isn't like swamping a radio with a stronger signal," Hunt explained. "The link terminations on Uttan aren't simply passive devices that VISAR can force its way into. The nodes here on Jevlen have to be set to a resonance mode that enables them to interact with the other end."

"You mean, like tuning a radio?" Gina said.

"Mmm . . . you could think of it that way. It means that VISAR would have to match JEVEX's operating parameters as set on Uttan."

"Oh." Gina propped herself back against the door and contemplated the far wall. She seemed reluctant to abandon her line of thought without at least some token of a fight. "And VISAR couldn't match them?" she tried. "Wouldn't it be like seizing a radio channel with a transmission on the same frequency?"

"I suppose it could—if you knew what they were set to on Uttan," Hunt said. "But Eubeleus is hardly going to publicize that, is he?" He spread his hands, at the same time sighing in a way that mixed genuine regret with respect for her tenacity. "And even then, it wouldn't be enough. There's also an involved coding procedure. When we were upstairs in Osaya's, Eesyan said that the i-space links would be secured against external penetration. That was what he meant. In other words, after what happened last time they'll be ready for it."

"Hmm." Gina folded her arms and stared down at the floor, stuck for a follow-on but still unwilling to concede. Silence fell

upon the room like settling dust.

Then Murray said, "So what did he mean about VISAR getting to JEVEX from the inside? How was that supposed to happen?"

Hunt shrugged. "I don't know. That was about when he was cut off, wasn't it?"

"You say that he said something about it having to be done

by us, here on Jevlen?" Danchekker said.

Gina looked up. "Because the nodes here will be coded to interact with JEVEX," she said, stepping forward and sounding insistent again as a new angle presented itself.

Danchekker nodded distantly. "The parameters for connecting to VISAR are public knowledge. So two channels, one into

each system, could be established from here."

Gina looked around, gesturing excitedly. "And if they could be connected together, before JEVEX is fully operational, the way Eesyan said . . ." She stood, inviting them to complete the rest for themselves.

"Not bad," Hunt complimented. "But there's still a small problem with it. I'm sorry to sound negative and all that, but you're forgetting that Eubeleus's people control the nodes. I mean, yes, they've obviously got the information to close a line into JEVEX, And as Chris says, anyone with the equipment can get access to VISAR, too. But we don't have any. And the people who do aren't likely to be very cooperative. In fact, now that the Ganymeans are out of the way, I don't think you'd even get near one of their sites with a combat assault team. And personally I can't think of anyone who'd set up the access codes to Uttan for us, even if we did get inside one. Can you?"

Gina stood staring at him with an expression that almost accused him of having created the problem. Then she seemed to deflate visibly. "No," she confessed heavily, turning away. "I

can't."

"I can," Murray said.

A second or two went by before Hunt registered it. "Who?" he asked, swinging his head around at the unexpected response.

Murray shrugged and pulled a face that said if he had missed something obvious and was being stupid, it was just too bad. "Well, you're the scientists . . . but what's wrong with the *Ichena?*"

Hunt stared at him as if he had just sprouted another head. It was a possibility that had not crossed Hunt's mind. "The *Ichena?*" he repeated.

Danchekker frowned. "But they're supposed to be on the

other side, surely."

"True," Murray agreed. "But if I've been hearing right what you people have been saying, they were set up as the fall guys

to keep everyone here busy while the Green Guru winds up his computer on Uttan. I mean, didn't you say he'd already blown their operation to make it look like they were the ones who were pulling the strings of that kraut who went around the twist? So how much longer are they gonna be around after this business that you're talking about now takes off? So it seems to me they'd be doing themselves a favor by reconsidering their options." Murray looked from one to another, inviting anyone to tell him where he'd gotten it wrong.

"He's got a point, you know," Hunt said, nodding slowly. Reassured, Murray went on. "But right now they've got a connection operating somewhere, which from what you're saying has to go to Uttan. And if somebody like you was to put them in the picture a little about some of the things you've been telling me, I've got a feeling they might be interested in talking cooperation." Murray looked around and spread his hands. "Hell, if it was me, I would."

"If this is the world beyond, you must be gods," Baumer said, squatting on the floor and staring around at the mixed company of Terrans, Jevlenese, Shapieron Ganymeans, and Thuriens who had been put under guard in one large room inside PAC. "If you are gods, why can't you fly? Why can't we leave this place?" Then he forgot them all suddenly and returned his attention to fiddling with an instrument assembly that he had picked up somewhere and refused to part with.

Sandy had been watching him from a seat by the wall. "I'm still having trouble with this Entoverse thing of Vic's," she confessed to Duncan, who was sitting with her. "The idea of information constructs being 'people,' who think things and

feel things in the ways we do. It's weird."

Duncan scratched the back of his head and smiled faintly. "What else do you think we are?" he asked her. "What is it that constitutes the personality that you call you?" He shrugged before she could answer. "It's not the collection of molecules that happen to make up your body just at this moment. They're changing all the time. But the message they carry stays the same—in the same way that a regular message stays the same whether it's carried by shapes on a page, pulses on a wire, or waves in the air."

"Yes, I guess I know all that."

"The personality is the information that defines the organization. And the same with Ents."

"Like with evolution, I suppose. Organisms don't evolve. A cat stays what it was when it was born. What's actually evolving is the accumulating genetic information being passed down the line. An individual is just an expression of its form at a given time."

"There you go," Duncan said, nodding.

"The oceans shall burn, and the wrath shall descend!" Baumer roared suddenly, then went back to turning gear trains once more.

"But it's still just a way of looking at it," Sandy said. "I still don't feel like an information construct. I'm too used to feeling like something more substantial."

Duncan hesitated for a moment, his eyes twinkling. "Then Chris didn't tell you about Thurien transfer ports, I take it," he

said.

"Why?" Sandy looked at him suspiciously. "What about them?"

"How did you get here—on a Boeing 1017? Catch a bus?"

"What are you talking about?"

"Where do you think you got that suit of molecules from that you're wearing right now?" Duncan asked. He paused pointedly.

Sandy stared at him, then shook her head dismissively. "It's

not true. I don't believe it."

Duncan nodded. "The matter that enters the singularity plane of a transfer toroid isn't magically transferred across space to the exit. It's destroyed. What's preserved and reappears at the other end is the information to direct the re-creation of the same structure from other materials—which is what a Thurien exit port does." He laughed maliciously at the appalled expression frozen on Sandy's face. "Don't worry about it. Molecules are all identical. When you think about it, all it really does is speed up what happens naturally over time anyway. Vic says that fifty years from now we'll all be taking it as much for granted as the Thuriens do."

chapter fifty-one

It could have been because of the general confusion and unrest all over the city. Maybe it was simply that somebody wanted to hear all the angles in a situation where rumors were conflicting. But this time there were no meetings in bars with go-betweens to take them to an unspecified rendezvous. After making a couple of calls to say that Hunt was back with him and had vital business to discuss, Murray was informed that they would be collected at a place less than a block away in thirty minutes' time.

Because of Nixie's uniqueness in the circumstances, Hunt decided to take her, too. But he didn't want to attract attention by having the whole gaggle of them out together in the city; and besides, somebody needed to be on hand in case the Ganymeans managed to restore contact by some means. It was agreed, therefore, that Danchekker and Gina should remain behind. As a precaution, however, they moved upstairs to Osaya's apartment. A couple of Osaya's friends were recruited to stay in Murray's with instructions to say to anyone else who might show up merely that they were keeping an eye on the place while he was away for an unspecified time.

Murray searched around in the closets in one of the bedrooms and came out with a striped, poncholike garment and a flat-topped, brimmed hat that he said would blend Hunt more naturally into the Jevlenese scene. Feeling like a trademark that he had seen somewhere for a brand of Mexican cigarillos, Hunt sent a parting wave to the two girls in what he hoped was good desperado style and followed Murray and Nixie out onto the

stairway.

Outside, the corner bar on the approach to the apartmentblock entrance was packed with people watching somebody talking on a screen. Murray stopped for a few moments to get the gist of what was going on. The news was the takeover at PAC: the Jevlenese were reclaiming their planet, and JEVEX was going to be restored. Cheers of approval went up from the crowd. Cult followers or not, a lot of people were going to have all kinds of reasons for going home to their couplers, Hunt reflected. *Exploitable recruiting fodder*. The phrase went through his mind again.

They went to the end of a side street and crossed a concourse, descended a floor, and stepped onto a moving way running inside a transparent tube above an enclosed square of shuttered doors and storefronts, littered with trash and flooded at one end by dirty water.

"They don't seem to go in for open gravity-beam travel here," Hunt remarked. "It's standard in all the Thurien cities.

It was everywhere on the Vishnu, too."

"Jev maintenance," Murray said. "How would you like to be a hundred feet up over Times Square when the power goes out?"

They were picked up on one of the street levels by what could have been the same limousine as before. There were two men in front and another two in the passenger compartment, one of whom Hunt recognized as Dreadnought. Scirio himself wasn't there this time. They drove through a more crowded district, with a confusion of bright lights, street vendors, noise, and signs. Then a ramp going down brought them suddenly into a different world of huge, gloomy walls and windowless frontages that looked like warehouses. Tangles of girderwork supporting conveyor lines and freight-handling hoists stood above deep concrete canyons containing lines of cars, many of them idle. Much of the machinery had not moved for years, Hunt saw as his eyes accommodated to the twilight. In places, lights came on automatically at the vehicle's approach, and in the short period before they went off again after it had passed, he caught glimpses of broken machinery, fallen beams, scampering ratlike creatures, and in one instance several figures in the process of stripping the innards from what looked like a piece of control gear.

The city that the Thuriens had planned and laid was disintegrating, and in place of the grandeur it had promised, the tawdriness that Jevlen had become had taken possession of the ruin like weeds entwining themselves through the skeleton of an

unfinished skyscraper.

He looked across the compartment of the limousine at Nixie, who was absorbed for the moment in her own thoughts, her eyes flickering curiously across the impassive faces of the *Ichena*

bodyguards as if reading whatever thoughts went on behind the masks. Watching her, it came to him that he had unconsciously been oversimplifying the situation into an us-them problem of innately paranoid and ruthless Ents, who were from another reality and didn't belong in the familiar universe, versus everyone else, who did. For he was looking at one of them who was balanced as far from paranoia as anyone Hunt had known; who had come to terms with the strangeness and irreversibility of her new condition, and was able to face the future constructively and with equanimity.

How many more like her, then, were there, integrating themselves inconspicuously into a daunting, alien world, accepting its inhabitants as new fellow-travelers, and able to adapt without fear and malice to the altered state in which they found themselves? Surely there was something here that humans both Jevlenese and Terran—and Ganymeans could learn profitably from. More to the point, how many more like that were there down in the Entoverse? Looking at the ayatollahs wasn't the way to tell, for the ones they would encourage to emerge into the Exoverse would be selected to reflect the same qualities as themselves. The threat was not from all of them. All Ents were not malevolent. As was true with humans, the spread within the groups was wider than the differences between groups, making all but the most obvious and trivial generalizations meaningless. It was individuals that counted, and there would be no quick and simple way of separating them.

The limousine ascended again, passing galleries of machinery and storage tanks to emerge suddenly into surroundings of bright, tree-lined avenues where high blocks finished in pastelcolored panels and glass rose above screens of urban parkland and greenery. Whether the pale green sky above was real or

simulated, Hunt couldn't tell.

They swung in through a pair of high gates and followed a short driveway beneath an arcade of branches and flowering shrubs to a glass-enclosed entrance in the base of one of the towers. It stood between buttresses of natural-looking rocker-

ies, with water cascading down into walled pools.

Everyone in the rear compartment of the limousine got out. The doors of the building opened automatically to admit them to a tiled lobby area with seats set among low, irregularly shaped plinth tables, and elaborate ornamentations on the pillars and walls. A stream hemmed in by mossy rocks holding clusters of red, pink, and purple plants flowed the full width of

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the lobby from one side to another, separating them from an inner entrance that lay across a bridge in the center. Overhead, none of the enclosing surfaces were flat, but met in curves and parts of spirals that twisted away to form other, partly disconnected spaces, without a straight line or regular corner anywhere. As they walked with their escorts across the bridge. Hunt had the feeling of being inside a gigantic rendering of an exotically convoluted seashell. Murray thought that whoever dreamed it up must have liked bagels.

Inside were a doorman, a hall porter, and a security man at a desk, all of whom knew the company, and the party passed by without stopping. An elevator whisked them noiselessly upward. Emerging from it, they came onto a platform that seemed at first sight to be hanging in midair. One side looked down over a vast well, plunging through several floors of promenades and what looked like an open-plan restaurant, while the other was a transparent wall through which they could see the locality outside, with the mass of the city rising like a line of cliffs over the treetops. Looking up, even from this height, Hunt still

couldn't decide if the sky was real or fake.

As they began following the platform, it transformed into a terrace skirting the well, leading around to the ends of several corridors opening on the far side. Dreadnought led them into one of the corridors, which turned out to be curved but quite short, bringing them to a door at the end. A white-jacketed valet and a maid were waiting inside when the door opened. Across the hallway behind them were two more hefty men in dark suits. After being checked for weapons, the visitors were

conducted through into the residence.

Again, the style was to the general curviform theme of the whole building, but less extreme. Hunt had seen traces of it in other areas of Shiban also, including parts of PAC. He wondered if it reflected a regional or historical Jevlenese style. They moved on through a series of richly carpeted and furnished rooms adorned with pictures, sculptures, pottery, and metalwares of unfamiliar styles, some explicit, some abstract, but all with a distinct feel that Hunt classed as "modern," as opposed to anything even remotely antique. But from a culture shaped by an alien race that had been flying starships before mankind existed, he should hardly have expected anything else, he supposed.

The whole place descended in stages toward the rear, making it larger than first impressions suggested. From an open lounge

they followed a set of wide, shallow steps down a crescent-shaped lower floor with an outer wall of glass, which looked out over a pool to a roof-level garden. Scirio was standing in the center, waiting for them. Instead of wearing the cleancut, Terran-like, two-piece suit that he had worn previously, he was wrapped in a loose, ankle-length robe, splendidly embroidered in a design of maroon and silver with black embellishment, fastened with clasps and a tied belt, with full sleeves and a wide, velvety collar.

He stood staring at them for an unnaturally long time without moving, his expression impenetrable. His gaze seemed to be fixed for most of the time on Nixie, Hunt realized after a few uncomfortable seconds, as if Scirio expected her to say something. Finally he spoke in a curt, questioning tone, directing his words at her despite the fact that Murray had done the talking before. Perhaps it was because he recognized her as native Jevlenese. She answered in a puzzled voice, and a brief exchange of short utterances followed. Hunt raised an eyebrow questioningly at Murray.

"I'm not sure," Murray murmured in reply. "It's some kind

of out-of-town dialect that you don't hear too much."

There was a pause. Then Scirio said something in a different tone, indicating Hunt with a nod of his head. Nixie spoke to Murray.

"What now?" Hunt asked.

"He says, you said you had something that you wanted to

talk about. So talk," Murray answered.

Hunt drew a long breath. He had been composing himself for this moment all through the ride across town. The best place to begin with such people, he had decided, was right where it was

going to affect them.

"Tell him," Hunt said, "that he's being set up like a sucker. The whole *Ichena* operation is being set up. The police and the people with them who took over PAC are being set up. After they've done the messy work and drawn all the attention, they'll all be swept away. The real power behind what's going on is political, and the people who are running things need scapegoats to blame the trouble on. Once they get JEVEX running again, then they'll take over."

Scirio stared hard at Hunt with the same inscrutable expression as before; then he uttered a couple of syllables. "Tell him

about it," Murray interpreted.

Hunt unfolded a summary version of the whole story, cover-

ing the phenomenon of possessed Jevlenese, the cults, Eubeleus, and JEVEX, all of which Scirio would obviously know something about. Hunt hadn't really expected a receptive hearing. But what alternative had there been for them to try? The story sounded farfetched, to say the least, and putting himself in Scirio's place, he heard his own words sounding more and more like a desperate attempt concocted by Thuriens and Terrans to prolong an unworkable hold over Jevlen which they felt to be slipping. And what motivation would Scirio have to help prevent the restoration of JEVEX, when he had evidently done pretty well for himself under the regime that had operated JEVEX previously? Despite the urgency of the circumstances. Hunt was unable to prevent his voice from echoing the cynicism that he presumed he was being heard with, and while he forced himself to persevere with the help of Murray and Nixie, he found himself conceding inwardly that he had already written off his own cause.

But to his surprise, Scirio remained attentive. Although his face and manner gave away nothing, his reaction was not one of ridicule. The questions that came back through the interpret-

ers were serious and probing.

The people who became possessed weren't all cult-crazies? Many of them remained sane and found niches in society where they functioned normally, generally unrecognized and unsuspected? Correct, Hunt replied. Scirio was talking to one. Hunt indicated Nixie. Did she come across as insane or a cult-fanatic crazy?

A lot of these people were obsessed with power and control? Scirio asked again. They were the kind who were infiltrated into Terran society and had been causing some of its biggest problems throughout history, the way the Jevlenese had been hearing? "Yes." Hunt waved an arm at the surroundings and was about to say that one could find them installed in just such a place as this; then he faltered as the implication hit him.

Murray saw it, too. "No point in worrying about it now," he muttered in an aside to Hunt. "If this guy's one of 'em, we're as good as dead anyway." But Scirio showed no sign of having been leading them on, and carried on asking questions.

This condition wasn't some kind of mental unhinging caused by addiction to JEVEX? It's really what it says: a "possession" by a different being?

Yes.

And Hunt was saying that these beings had originated inside

JEVEX somehow, in a different kind of world, in a way that

Scirio didn't pretend to understand?

Yes. A world in which insecurity and unpredictability were the norm, where there were strong motivations to escape. They could literally invade people using the couplers.

And that was what had happened to Nixie?

Yes. It was irreversible; they couldn't go back. How they reacted varied from individual to individual and with circumstances.

"I think we're getting through," Murray whispered. "Don't ask me how, because to tell you the truth I thought this had no chance. But he's listening."

And what was going on outside was all a smokescreen? The ones who were the real threat were all set to mount an invasion when JEVEX came on again?

"JEVEX is located on another planet: Uttan. That's why

Eubeleus has gone there."

And the only way to try and stop him activating JEVEX was by letting VISAR at it? And the only short-term way to do that was by getting access to one of the Ichena's illicit channels into JEVEX?

"Yes."

"You've got it," Murray confirmed to Scirio via Nixie.

Scirio seemed satisfied, though still with the same, vaguely defined air of finding something amiss that had hung about him since their first entry. He directed his attention to Nixie again and began an exchange in which he didn't pause for Murray to translate, at the same time drawing her away until they were standing by the curved window, looking out over the pool and the garden as if the other two had ceased to exist. Nixie answered in short sentences, sounding uncertain and puzzled.

"He's saying he thinks the boss should hear about this," Murray said in a low voice to keep Hunt informed. "Name of Grevetz. Lives outside the city someplace. He wants to know

how Nixie feels about it." "What does she say?"

Murray shrugged. "Sure, if he thinks it's a good idea. Why

"Why's he asking Nixie?"

"I don't know . . . Neither does she. He's saying we could get this guy Grevetz over here now, or maybe go see him. How'd she like to come along? She says okay. But she seems about as mystified by it as I feel."

Hunt frowned, thought about it, and shook his head. "Does

it make any sense to you?"

"No . . . but most things that Jevs do don't make any sense to me, either. Who could make sense and run a planet like this one?"

Scirio was standing with his hands clasped behind his back, sounding casual and chatty now, and gesturing toward the window.

"What now?" Hunt asked.

"He's talking about the pool, all the parties they have here . . . Something about accidents that sometimes happen. Nixie's just going along with it. She doesn't know what it's all about

either . . . Now he's going to call the boss man."

Scirio turned and walked back toward where Murray and Hunt were standing, passed them without a word, and went up the shallow steps and across the lounge above to disappear into another room. Nixie came over to rejoin the other two. "Is all very funny," she said. "He talk about his pool and his boss. I think he know more than he say."

Hunt flashed Murray an uneasy look. "These people he's calling. It couldn't be the hit squad, could it?"

"I dunno. What can we do about it if it is?"

"If he was one of them, an Ent, would Nixie know? Would she be able to tell?"

Murray asked her in Jevlenese. "He is not one," she said. "I would know."

For the next hour they appeared to have been forgotten as a buzz of activity erupted over the house. Jevlenese appeared from other parts of it or arrived from places outside, muttered in twos and threes, and went away again on mysterious errands. Much conferring went on behind closed doors, and the tones and chimes of incoming calls sounded constantly. Through it all, Scirio was everywhere, calling out orders, checking details, hurrying to take calls, usually accompanied by Dreadnought. Tenseness crackled in the air like static. Nixie was unable to make out what was going on. It felt like the preparations for a military operation.

Then Dreadnought came out of a doorway that had been in constant use and called out something, at the same time beckoning. Nixie got up from a couch she had been perched on. Hunt unfolded from a deep, leathery chair, close behind Mur-

ray, who had been leaning against a pillar. "Well, here goes," Murray murmured.

"What's happening?" Hunt asked.

"Search me. But whatever it is, it looks like we don't have much choice."

Scirio, now wearing a dark suit and short blue topcoat, was waiting at the outside door with three more Ichena. After a brief exchange of questions and answers delivered in curt, harsh voices, the group went out into the corridor and followed the terrace back around the well to the elevators. But instead of returning to the seashell lobby with the bridge crossing the

stream, they went up.

They came out into an airy, metal-walled space with wide, low windows running almost the full length of two adjacent walls, giving it the appearance of an observation floor high over the city. From the score or more of what were clearly flying vehicles of assorted shapes and sizes parked about the place, it was evidently a rooftop landing deck. The three henchmen led the way to a sleek machine, finished in yellow and white, at the end of one of the rows. Its general form was a bubble-canopied front end and solid center fuselage, tapering to the rear in a way that vaguely suggested a helicopter, but with no rotor or stabilizer. The rear body sprouted a pair of low-mounted, steeply anhedraled stub wings, carrying streamlined pods at the ends. There didn't seem to be any wheels.

The doors were already open. A pulsating hum emanated from low down at the rear, and two men in black jackets were in the nose seats. The remainder of the forward compartment contained three rows of three seats each, and there was an Ichena already seated in the back. Hunt and Murray were guided into the other two seats next to him; Nixie and two of the group who had come up from the house got in the center row, while the third, along with Dreadnought and Scirio, settled themselves ahead of them, behind the two nose seats. The doors closed, and a moment later the vehicle lifted from the floor, turning at the same time. It moved forward, and the whole section of wall and windows in front of it swung down and outward to form a takeoff platform projecting out from the building. The flier soared out with barely a feeling of movement over roof gardens similar to the one outside the crescent-shaped room they were in earlier, and screened from each other by the landscaping. Then came more rooftops, with the neighborhood avenues and strips of parkland visible farther below. On looking up, Hunt made out a faint seam joining part of the sky. It

was one of the canopies: simulated, not real.

The flier approached the stratified cliffs of built-up structures looming above the boundary screen of trees. A vast, bright opening yawned ahead and became one of the main aerial traffic corridors piercing the city. The flier accelerated and merged into the flow. Between Murray and the stone-faced *Ichena* on his other side, Hunt brooded silently to himself, wondering what the hell he had gotten himself into now.

chapter fifty-two

Calazar, on Thurien, and Torres, inside the Shapieron, and Caldwell, who had appeared on-line from Earth, debated the situation for a long time after contact through the probe was lost. Soon after Caldwell joined in the discussion, the Jevlenese blocked all communications from ZORAC out of Geerbaine. Since the rest of Jevlen's system of satellites and links had been controlled locally by JEVEX and not by VISAR, it meant that all other access to the planetary network was denied also.

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For the moment, then, there was no alternative but to hope that Hunt and the others with him would complete for themselves what Porthik Eesyan had been about to say when the connection was lost, namely that the only tactic that immediately presented itself was to get VISAR hooked into JEVEX, somehow, on Jevlen. The general feeling was that they would. Whether or not they would be able to find a way of accomplishing it was another matter.

What then? If the group on Jevlen did succeed in getting VISAR connected into JEVEX, what, exactly, were the policy-

makers hoping that VISAR would do?

Caldwell could not see what the problem was. "If VISAR gains control, it can lock out all the couplers until we figure out a way of getting past Uttan's defenses," he told the others. "Then no more of these Ents will be able to get out, and there'll be no risk of any invasion. Once we get into Uttan we dismantle the matrix, and the problem will be settled permanently."

But Calazar, speaking with surprising firmness, vetoed such a possibility. "The Ents may have their problematical side, but peculiar as their origins may seem to us, they are fully evolved intelligences in every respect, with all the rights which that implies," he said. "However the Entoverse came into existence, exist it does, and destroying it would amount to the genocide of its inhabitants. Thuriens could not permit that. It isn't an option."

Caldwell thought about it and decided that the Thuriens were right. He had, he admitted to himself, spoken too hastily. "Okay," he agreed. "We can't pull the plug. So, why don't we simply disconnect all the neurocouplers and let Jevlen have a different, VISAR-like system when the time comes to take them off probation? Or VISAR could be extended. That way, the Entoverse can continue to exist and carry on evolving internally any way it likes. We permanently quarantine it."

But the Thuriens were not happy about that idea, either.

"Those are thinking, feeling beings, trapped in a hostile and perilous environment," Calazar explained. "The hopes of many of them are pinned on the possibility of escape. To deny them that chance would be unethical and immoral. We couldn't condone it."

Caldwell accepted the mild rebuff gracefully. "Okay then," he conceded patiently. "What do vou want to do?"

"We don't know."

Caldwell drew a long, steady breath and reminded himself that he was dealing with the effective head of state of an alien civilization.

"Great," he replied.

The flier sped over the countryside beyond the city at a modest altitude that Hunt judged to be three to four thousand feet. Occasional bleeps came from the front, with snatches of a synthetic voice that sounded like the flight-control computer. Scirio made and took a number of calls to others elsewhere over a handset, but otherwise nobody spoke.

Below, the heaped suburbs surrounding Shiban for several miles thinned out into the kind of clusters of urban collage and spatterings of buildings strung along roadways that looked much the same everywhere, from Sumatra to New Jersey. Compared to typical developed areas on Earth there was less evidence of industry, which, following the Thurien practice, tended to be mostly underground. On the other hand, some

constructions reached a scale of immensity that Earth had never seen. In one place the vehicle passed a straight, sheer-sided rift cut through a mountain range, packed with tangles of metallic geometry, the purpose of which Hunt was unable to guess. Farther on, they saw on the skyline an array of slender, pear-topped towers, interconnected by tubes, that must have stood a mile high.

Farther on, more open land began to assert itself between settlements—mostly uncultivated and wild, although a lot of new land clearing had been initiated in more recent times. Food production on Jevlen had originally been as much an artificial process-industry as the synthesis of any other material, with traditional farming being treated as a recreation, or limited as a way of life to those who liked it. But as more things began breaking down, a more mixed pattern had established itself; and since the withdrawal of JEVEX, the emerging entrepreneurs had been applying their inventiveness to agriculture as another means of meeting the new demands that needed to be satisfied.

They climbed, following a valley into a line of hills, where the landscape was richer and greener, with a carpet of forest, tinted peculiarly blue in parts, and several lakes. The streaky orange Jevlenese clouds and discharge patterns were more vivid and, with the chartreuse sky, imparted an unreal, eerie coloring to the entire vista that Hunt found far more alien in its effect than anything he had seen of the cityscape. Although he was used to roaming around all kinds of fantastic places via the Thurien virtual-travel system when the fancy took him, he found himself acutely conscious of the fact of actually being on another world. His only other experiences of being really off-planet were his stay at Ganymede, and a brief stopover en route on the Moon.

It made him mindful once again of the chasm that set humans and Thuriens apart. Given enough attention to detail, bringing information to the senses was as good, as far as Thuriens were concerned, as physically transporting the senses to where the information was. If one could not tell the difference, then there was no difference. With humans that would never be so. In that light, it seemed paradoxical that the Thuriens should be practically immune to the virtual-reality fantasies that had resulted in mass addiction on Jevlen. Or was it because the hyperrationality of the Thuriens enabled them to accept without discomposure any representation of what they knew was real, while at the same time making them incapable of surren-

dering disbelief to anything that they knew intellectually to be a fiction? That was pretty much what Gina had said about himself and Danchekker, Hunt reflected. No wonder the psychologists were talking about having their work cut out for the next hundred years.

Hunt returned from his thoughts to the realization that one of the men up front was speaking into his headset and the flier had begun descending. It banked into a shallow turn, and the view ahead slid sideways across the windshield until a large house standing in a clearing among trees centered and stabilized. A boundary wall passed by underneath, and the clearing enlarged into a private park of lawns, gardens, orchards, and game courts, with a lake containing several islands. It was a large, rambling house, Hunt saw as the flier came down on a paved area at the rear. The main, central section was twostoried with large areas of glass, and had curved roofs with upturned eaves, vaguely reminiscent in character of the building they had just left in Shiban. An assortment of annexes and outbuildings formed jumbled extensions at both ends. It could almost have been built, Hunt thought fleetingly, from a mixture of pieces from a pagoda and a stylish hacienda.

A group of figures was waiting at the pad. In the center was a big, roundly built, moon-faced man with smooth features and a bald head, standing hands-on-hips, watching. He wore earrings and, on one wrist, a wide bracelet, and was clad in a wraparound, short-sleeved coat over light red pants. He seemed to be the principal. The half-dozen or so other men with him, all of them also casually dressed, gave the impression of being aides or bodyguards; their manner was relaxed, mildly bored,

as the doors of the flier opened.

Two of the Ichena got out first, followed by Scirio and Dreadnought. Some words flew back and forth outside, and then Scirio turned and said something to Nixie, motioning for her to get out. Hunt glanced at Murray questioningly. Murray

shrugged.

Nixie hesitated, obviously as mystified as they were, then rose out of her seat and moved to the door. Scirio waved again, and she climbed out. Following his gestures, she moved forward between Dreadnought and the other two Ichena, and then froze into immobility when she saw Moon Face's expression of glowering hatred. Suddenly, as if unable to hold back any longer, Moon Face began shouting angrily at Scirio and gesturing toward Nixie with wild motions of his arms. Scirio ignored him and asked her something. She shook her head, evidently bewildered, and stepped back, terrified. Moon Face snapped something at his henchmen, and two of them came toward her, apparently to seize her, but Scirio's men blocked the way. Then Scirio and Moon Face were shouting together, at each other. then at Nixie, who ended up screaming at both of them.

"What in God's name's happening?" Hunt demanded, cran-

ing forward and gripping the seat arm.

Murray could only shake his head helplessly. "I can't make it out. The fat guy knows her, but she doesn't know him. She's telling Scirio that the fat guy's from outta the computer—Jesus Christ!"

A muted buzzz came from somewhere behind the bulkhead at the rear of the cabin they were sitting in, and Moon Face and the two men nearest him went up like torches. Simultaneously, the Ichena from the flier who had stopped Moon Face's men from grabbing Nixie drew pistols from their coats and shot them. There was no pussyfooting around with stun settings; the victims were blown apart. Dreadnought gave the same treatment to one of the pair that was left, and the buzzz came again from the back of the flier, incinerating the last of them.

Hunt could only stare, paralyzed with shock and horror. Outside, all at the same time, Scirio and his men were grabbing Nixie and hustling her back to the doors of the flier, which was already lifting; the shriek of an alarm went up from somewhere in the house, where shutters were closing across windows and sections of roof were opening outward to reveal turrets; and

figures had appeared, running in all directions.

The buzzing came again from behind, and the two turrets that had been uncovered exploded. There had to be some kind of a cannon firing from the rear section of the flier-it was a gunship as well as a staff car. Figures tumbled in, Scirio shouting orders and Dreadnought bundling Nixie ahead of him like a sack. Snapping out of his daze, Hunt leaned over the seats in front to grab her and pull her in, and Murray shook himself together in time to help. Hunt's impressions of what happened after that were a confusion of disjointed scraps: Nixie petrified, but apparently unharmed and keeping grip enough on herself ... The flier banking and lifting, its cannon buzzing continuously, ground streaking by outside . . . A point of light curving in fast from over the trees, part of the house erupting in flame . . . The perimeter wall . . . Forest . . . Rising to clear hills ahead . . .

"Shiit!" Murray breathed shakily beside him.

Where had the light come from? Another craft that had been following them? Something else that had been sent up from elsewhere? Hunt stared numbly as the view ahead organized itself into the way back to Shiban, only barely aware of the tirade of words that Nixie was directing at Scirio, or of Scirio answering in even tones, his manner gradually unwinding from the tenseness that had prevailed through the journey out. Murray became attentive to what they were saying, and after a few minutes of questioning and listening, he turned his head toward Hunt.

"The fat guy they blew away was the boss, Grevetz. He was one of 'em—an Ent. Scirio figured that if what we'd said back at his place was true, then he'd be on his way down the tubes along with the rest when he'd outlived his use. So he decided he'd move first, when nobody would be expecting it. Looks like maybe he was right."

By now, Hunt's revulsion was subsiding enough for him to start thinking again. He followed, but was still puzzled. "Okay ... but how did he know that what we'd said was true? How did he know it wasn't just a last-ditch try from us and the Thuriens to stop JEVEX from being switched on again? We could have made up the whole thing."

Murray shook his head. "That's what all that stuff back at the pad was about." He indicated the back of Scirio's head with a nod. "Did you notice how he was acting kinda weird when we

walked into his place back in town?"

"Giving Nixie funny looks, you mean? Yes, I did. What did it mean?

"It seems he knew her, from way back—or at least he knew Nikasha, the person she used to be. What clinched your story was that she'd obviously never seen him before. The real Nikasha would have run a mile, never mind go walking back into the place cool as a penguin's ass."

Hunt blinked in astonishment. "You mean she'd been there

before?"

Murray talked some more to Nixie, who talked to Scirio. "Nikasha used to be Fatso's girlfriend—"

"You're kidding!"

"Only Fatso also happens to have a bitchy wife, see. Anyhow, the two of them—the two dames, that is—had one hell of a fight, and Nikasha tried to wipe Mrs. Fatso out."

Hunt stared disbelievingly. "To do in the boss's wife? Her?

That's crazy."

"Not her. The person who used to be her. If what you're telling me's true, she's gone for keeps now, right? Yeah, do her in. It happened back there in Scirio's place, where we were before. She stunned Mrs. Fatso with a Jev shooter while she was in the pool, figuring it would look like a heart attack, but it didn't quite work out. Fatso put her number out, and that was why she did a vanishing act and lost herself in the city. It all happened before I came here—I never knew a thing about it."

The one way to be sure that Nixie was not putting on an elaborate act for some reason would be to confront her with Grevetz in person, Hunt saw. His rage at the sight of her had been clear enough, and her mystification in the face of it had

been something that nobody could have faked.

"And once Scirio knew she was genuine, her recognizing Grevetz as another of her kind was enough to spell out the score," Hunt said, nodding as it all became clear. He was still shaking, he noticed. From a side window he could see that they were heading back toward Shiban. "So what happens now?" he asked.

Murray shrugged. "Sounds like it's gonna be war all over the

place now, with nobody sure who's on whose side."

Hunt wondered what that would mean. Nixie had been recognized at PAC by at least one of the police, and exactly where they stood in the whole business was unclear. "How safe are Danchekker and Gina back at Osaya's place?" Hunt asked in a worried tone. "Once this news gets back, people are likely to be going crazy everywhere. I don't like it."

Murray passed the question on to Scirio. Scirio called some instructions forward, and one of the two men in the front seats

spoke into a handset.

"He's getting them out," Murray said.

Scirio then went on to speak at greater length, in the course of which Murray's eyes widened. Finally Murray turned to Hunt. "The way he sees it, the first thing has to be to stop Eubeleus turning on the computer, and then let the Terrans and Thuriens straighten things out. If they put the brakes on the headworld business that'll be a shame, but if he was about to be run out of it anyway it doesn't make any difference. He's a businessman. There are plenty of other lines. He figures that this way he'll have a better chance of working some kind of deal

with the new management than he would have if Fatso's people took over."

Hunt frowned uncertainly. "So . . . what does that translate

into? Exactly what is he saying he's going to do?"

Murray exhaled sharply, then shook his head. "I'm not sure how, but it looks like you've pulled it off, Doc. He's doing what you wanted. He's gonna get his technical guys to connect VISAR up to their channel into JEVEX."

chapter fifty-three

Danchekker relaxed back into silken cushions in one of the voluminous chairs in Osaya's lounge, his hands clasped behind his head, and studied the shameless opulence and erotic imagery around him. "You know, I must confess there are times when I feel tempted to consider myself the victim of a misspent youth," he called over his shoulder toward the open doorway as he heard Gina coming back in. "What tastes these establishments cater to, I fear I might be past daring to imagine."

Gina appeared, holding two cups of the brew that Hunt had christened *ersatz*—she'd had to get them from the girls downstairs in Murray's, since the chef in Osaya's kitchen only responded to Jevlenese, and the manual controls were a mystery. "Now you can see the kind of hook that JEVEX could be," she

said, closing the door.

Danchekker's eyes widened suddenly as the full meaning of what she and Sandy had been saying for all this time finally sank home. "My God, I never connected it with things like that!" he exclaimed.

He accepted one of the mugs and conveyed it to a side table. Gina sat down with her own in another of the chairs. She took a sip and tried to relax, but couldn't. The dragging waiting for something to happen was fraying her nerves.

"Does any of it really matter if you take a long enough view of things?" she asked, mostly just to break the silence. "From the point of view of evolution, I mean. Does anything we do or don't do really make much difference in the long run to what would have happened anyway?" Then she remembered what she had said to Hunt when they were aboard the Vishnu, about five percent of species surviving and it all being a matter of luck, and admitted to herself that she was only trying to rationalize their situation. It did matter, and they were powerless.

Danchekker's answer did nothing to assuage her feelings. "Indeed it can. The most minuscule difference in causes can sometimes bring about huge changes in the outcome of a situation. I remember an example that Vic gave me once, when we

were discussing highly nonlinear systems."

"What was that?" Gina asked.

Danchekker settled himself more comfortably, glad to have something else to talk about. "Suppose that you break up the pack of balls on an ideal, frictionless pool table, and that you were able to measure the velocity and direction of every ball with perfect accuracy," he said. "How far into the future would your computational model continue to predict the subsequent motions with reasonable validity, do you think?"

Gina frowned. "Ideally? For the rest of time, I always

thought. Isn't that right?'

"In theory, yes—which was Laplace's great claim. But in reality, the mechanism is such an effective amplifier of errors that if you'd ignored the effect of the gravitational pull of a single electron on the edge of the Galaxy, your prediction would be hopelessly wrong after less than a minute." He nodded at the astonished expression on Gina's face and warmed to the theme. "You see, what it illustrates is the extraordinary

sensitivity of some processes to-"

Just then, a chime sounded and an alluring female voice said something in Jevlenese. Gina and Danchekker looked at each other, puzzled for a second, and then realized that it was Osaya's house computer. Voices came from the hallway, and a moment later the two girls who had been left in Murray's apartment appeared, followed by three men. Gina stood up from the chair, uncertain what to expect. Danchekker looked up at them with an expression of defiant resignation, chin out-thrust and jaw clamped shut.

A stream of Jevlenese issued from both of the girls at once, accompanied by lots of gesticulating and waving. One of the men, solidly built, with a hard face and narrow, Oriental-like eyes, and dressed in a straight gray jacket and black, roll-neck

shirt, uttered a series of sharp, staccato syllables and pointed back toward the outside door.

"It looks as if the party's moving on somewhere," Gina said

to Danchekker.

"I, ah, rather get the impression that our opinion on the matter isn't being invited," Danchekker observed, taking in the looks on the faces of the other two men.

"Right. I get that feeling, too."

Danchekker put down his mug and rose from the chair.

"Very well. Let's get on with it."

They followed the three men back outside to the landing. The two girls came down with them as far as Murray's door, where they waved and disappeared back inside. At least their manner gave no indication of anything threatening. Gina and Danchekker went with the three men down to the lobby and out to a car in which another two were waiting.

Ten minutes after they departed, a Shiban city police van pulled up on the same spot and disgorged a squad of troopers. who ran clattering in through the apartment-block doors.

The flier landed in a parking area at the rear of some buildings by a traffic highway, where a number of other flying vehicles and ground vehicles were standing. With few words being said, the party disembarked and crossed the lot to a larger craft, which looked like a kind of flying van: windowless, except for the nose compartment, and painted pink and white with garish signs on the sides in Jevlenese. They boarded through a center door to find half the interior fitted with seats, and in less than a minute they were airborne once again.

Nixie said something to Murray, who gawked in surprise, and they went into a succession of questions and answers.

"What's it all about?" Hunt asked.

"These guys must believe in going equipped for the job," Murray replied. "This thing we're in is a funeral truck."

"You're joking! It looks more like a tour bus for a rock

band."

"It belongs to one of the weirdo sects. It seems they do all their mourning when somebody gets born—on account of all the hassles and shit that the guy's gonna have to put up with in life. But when he croaks at the end of it all, that's something to celebrate. So they make this a party wagon. I guess it takes all kinds, eh?"

They landed again after about the same total flight time as

the journey out, suggesting that they were back in Shiban. Sure enough, when they climbed out Hunt saw that they were on a wide platform projecting out from the rounded end of a structure high over the city, facing one of the wide traffic corridors receding away between cliffs of buildings. Above, the structure that they were on met what could be seen to be a solid canopy of artificial sky, probably penetrating through it to form one of the towers visible outside. Far below, the buildings and terraces merged together into the structures of the lower city.

They entered a set of doors and crossed a drab, bare hall of crumbling floor and scratched gray walls. It felt like the kind of place that had gotten tired of existing a long time earlier, and was waiting only to fall apart. A slow, creaking elevator carried them down for what seemed an interminable descent, and they came out in a dark, carpeted hallway that smelled old and musty. From there they went down a flight of stairs to a gallery with corridors and halls going off in several directions. One of the corridors brought them to a doorway. Scirio spoke briefly via a microphone to someone, and the door opened. Inside was a narrow passage that opened into another lined by doors on both sides. The surroundings seemed familiar, but the party moved through without slackening pace, and they were entering the lounge with the bar before Hunt realized that they were back in the Gondola Club, where they had come in search of Raumer

But this time the bar stools and tables were empty and the place was cleared of people, except for a tall, gangly-limbed man with gray hair and beard, wearing a brown checked suit, who was sitting at one of the tables with two others who looked like *Ichena*. He stood up as the newcomers entered, and Scirio launched into a dialogue while he was still crossing the room. The man in the suit seemed agitated, and spoke in a nervous voice, confining himself to answering Scirio's questions.

"He sounds like their technical guy," Murray muttered to Hunt. "They're talking about i-space links and Thurien transmission codes—something like that, anyhow." Hunt nodded but said nothing, realizing with a jolt that they could be much

closer to their goal than he had dared hope.

The engineer's name was Keshen. When he had finished talking to Scirio, he led the way over to another door and around a corner at the rear of the lounge. Hunt, Murray, and Nixie hesitated. Scirio turned and waved for them to follow.

They came to a smallish room filled with cubicles, monitor

panels, and equipment racks—evidently this was where the establishment's couplers connected into the communications net. Somewhere else in the net, possibly far from Shiban, a channel through the net terminated at a live node carrying an i-space link to JEVEX. There was a console with lights and several screens, one of them displaying a pattern of symbols and geometric lines that meant nothing. Keshen sat down and began what looked like a series of status checks. The pattern on the screen altered; new symbols appeared. Keshen gave an intermittent commentary, which Nixie elaborated for Murray, and Murray did his best to explain to Hunt.

"This is their link into the net that connects to JEVEX,

okay?"

Hunt nodded. "Out of curiosity, ask him if he knows where the connection into JEVEX is," he said.

Murray passed the question on. Keshen shook his head.

"The net goes all over the planet," Murray interpreted back. "The entry into JEVEX could be anywhere. It all depends how the techs who are running the core system have got it set up at the moment—which isn't something that he makes it his business to go around asking questions about. His ass is on the line enough as it is. Does it make sense to you?"

"Yes," Hunt replied. It meant that Keshen was not aware that the connection led to an off-planet link somewhere. In other words, he didn't know that JEVEX proper wasn't on

Jevlen at all—just as Hunt would have expected.

Keshen indicated another section of equipment, and Murray went on. "This channel goes out to an i-space—what would you call it, sender? Connector? Transformer?"

"Transceiver?" Hunt suggested.

"Yeah, right. Anyhow, it's miles away somewhere. It hasn't been operating since the Gs shut down JEVEX. But there just happens to be a line into it that isn't supposed to exist, and he's just brought it up again and fed in the—some kind of operating numbers?"

"Parameters?"

"If you say so... to tune it for VISAR. So that line's through to Thurien, okay?"

"It's through to Thurien?" Hunt repeated. He couldn't contain a quick laugh. It sounded too good to be true.

Murray checked. "That's what the guy says."

"Could we verify that?" Hunt said. "Can he get VISAR through to us here, right now?"

"Dunno." Murray asked Nixie, who asked Keshen. Keshen checked with Scirio, and then entered more commands into the console.

Then a voice said something in Jevlenese from the console speaker. Keshen replied, answered a few more questions, and then the voice said in English, "My word, you are there, Vic! It

seems you've pulled off one of your stunts again."

A relieved grin spread across Hunt's face. "Hello, VISAR." He indicated the others who were with him in the room. "Well, these people had more than a little to do with it, as well." He heard what sounded like his own phrase being repeated in Jevlenese. VISAR was assuming the role of translator.

"They did a good job."

"It pays to make friends," Hunt said. "What's the situation

with the others?"

"Calazar's here," VISAR answered. "Gregg Caldwell went away to take care of something else, but someone's gone to fetch him. We've heard nothing more from anywhere else on Jevlen. As far as we know, the others are still where they were when we got cut off."

"I think Gina and Danchekker are being moved," Hunt said.
"They're on their way here," Scirio said, his words translated
by VISAR. "It wouldn't have been safe to leave them."

One of the screens on the console activated, showing Calazar. "Congratulations," he said. "VISAR has just given me the news. And you have a channel there into JEVEX?"

Hunt moved next to Keshen. "Do we?"

Keshen checked the indicators on the other screen. "Yes. And you want VISAR connected into it? Is that so?"

"They're in charge now," Hunt said, waving toward the

screen showing Calazar.

An exchange of technical jargon between VISAR and Keshen followed, ending with Keshen confirming that it could be done. "Do it straight away, while JEVEX is still asleep," VISAR said. "Then when they bring JEVEX up to full power on Uttan, guess who'll be in control of it."

"And Eubeleus won't know?" Hunt asked. "JEVEX won't even know," VISAR told him.

Keshen was looking puzzled. "Uttan? The planet? What has Uttan to do with this?" he asked.

"It's too long a story to go into now, believe me," Hunt

replied.

Then the sound of footsteps came from the lounge outside,

and Gina appeared at the door with Danchekker. The three men who had brought them from Murray's were behind.

"My God, it's Vic and the others!" Danchekker exclaimed. "You're here. We had no idea what was going on. These—" He hesitated as he heard his words being translated. "These gentlemen collected us."

"You weren't safe there," Hunt explained. "This is Scirio. He had vou brought here. And this is Keshen. Don't ask where we've been."

Gina was looking past Hunt with a puzzled expression. "What's doing the translating? Have we got ZORAC back

again?"

"Even better," Hunt answered. "It's VISAR. We've got a link to Thurien." Danchekker was already staring incredulously, having seen Calazar on one of the screens. Hunt indicated the other section of hardware. "And that's the channel into JEVEX. Keshen has just hooked them together."

Danchekker blinked. "You've done it? You mean already?

They can set VISAR loose on JEVEX from here?"

"And with JEVEX still in a coma, it won't know what hit

it—literally," Hunt replied.

The news was so sudden and unexpected that it took Gina several seconds to absorb it. "You mean that's it?" she said finally. "We can keep JEVEX off permanently, as of now? Then it can be taken apart? The problem's over?"

"Er, no," Calazar said from the screen. He sounded apologetic at having to complicate things. "We've already discussed that. The Ents are a race of fully sapient beings in every respect.

What you're saying would amount to genocide."

"What are they talking about?" Keshen muttered to Scirio. "What are Ents?" Scirio hushed him with a warning shake of

his head.

The screen split, and Caldwell's face appeared in one half. He nodded at Hunt and the others, evidently having gotten the news from VISAR. "Great job. Looks like maybe we're in business, then, eh?"

Gina was still bemused by what Calazar had said. "Then what will you do?" she asked. "Isolate it? Leave it as its own,

self-contained universe?"

Caldwell shook his head, guessing the way the conversation was going. "The Thuriens won't go with that, either. But in any case, both those options would depend on VISAR being able to

keep control over JEVEX. Right now, that all hinges on the single link into it that you've just established. If we lose that, we lose our only chance. Once Eubeleus and his people were warned, they wouldn't give us another opportunity."

Hunt was looking perplexed. "What, then?" he asked, shifting his eyes from one side of the screen to the other. "If we're not going to get rid of it and we're not going to cut it off, what

are we going to do? What other alternative is there?"

"The real problem that we've got in the short term is staving off a mass exodus of Ents," Caldwell said. "JEVEX is simply the means that would make it possible. But it wouldn't happen at all, regardless of whether we continued to control JEVEX or not, if the Ents could be persuaded to change their minds—at least until we've had a chance to understand the situation better and figure out how we can help them solve their problem without wiping out a Jevlenese every time one of them comes out."

"What?" Hunt said. This was a completely new twist. He glanced at Danchekker, then at Gina. They both looked as

much at a loss as he was.

"I don't understand," Danchekker said to the screen. "Persuade them? How?"

"By talking to them," Caldwell said, as if that explained

everything.

Hunt was completely befuddled. He shook his head. "They're just patterns in a computer, Gregg. How's anyone supposed to talk to them?"

"That's what we've been thinking about," Caldwell replied. "Why don't we go down there and check the situation first-hand? Then, maybe, we'd have a better chance of figuring out what to do."

Hunt's bemusement changed to suspicion. "Who's 'we'?"

Caldwell answered in an unapologetic, matter-of-fact kind of way. "Okay, since you're the agent assigned to the job on the spot: 'you.'"

Hunt's misgivings deepened. "Down where?" he asked.

"There," Caldwell replied simply. "It was Eesyan's idea: down into the Entoverse." As Caldwell spoke, Eesyan's head and shoulders came into view on the other side of the screen, next to Calazar.

"We can't," Hunt replied. "It takes another Ent to get inside another Ent mind through the couplers. They evolved there.

They're the only ones who have the knack."

"Ah, that was before, when the couplers into JEVEX were the only way of gaining access to the Entoverse," Eesyan said. "But now we have another way."

Hunt still wasn't with it. "What way?" he asked.

"VISAR," Eesyan replied. "Which has a far greater natural affinity for manipulating JEVEX's internal processes than even the Ents have."

Hunt stared. It was obvious. In the Pseudowar, VISAR had obtained the unconditional surrender of the Jevlenese by creating a gigantic Terran battle force that existed only in JEVEX's

imagination.

"If VISAR can scan the matrix and locate and analyze the data structures that constitute the Entoverse—which it should have commenced doing already, if your connection there is working—it ought to be able to figure out how an Ent is put together: literally, at its 'atomic' level," Eesyan explained. "Then, VISAR would know all it needed to to write an artificial Ent-being of its own into the Entoverse."

"I have identified the planet and its orbit," VISAR interjected. "There only seems to be the one. It's interesting—about a hundred fifty miles in diameter. It's detectable only through correlation analysis of the cell activity states. I can see why JEVEX would never have been aware of its existence. Now let's

take a closer look at the surface details . . ." "Extraordinary!" Danchekker breathed.

Eesyan went on. "Given permission, VISAR would also have access to the full set of mental constructs of anyone neurally coupled into it. Therefore, it should be able to impress that personality into the Ent-being that it had created down there in the Entoverse."

"That's you," Caldwell put in, as if the look on Hunt's face didn't say plainly enough that he knew exactly what Eesyan was talking about.

"I would go, too," Eesyan said. He looked out at Hunt. "Then we would, literally, be down there in the Entoverse, and

could talk to them."

It was typical of the Thuriens. After pursuing reasonableness and caution to the point where it seemed they would never be capable of initiating any action at all, they had come up with something so stunning that it made everything everyone else had been talking about look tame. For a moment Hunt was speechless at the audacity of it.

"Then what?" he managed to ask finally.

Caldwell shrugged. "Then it's up to you. But with VISAR on your side, you ought to be able to pull off something pretty effective. After all, in the Entoverse, VISAR will be God."

chapter fifty-four

Hauled by two slow-plodding *drodhzes*, their six legs moving in a lazy, lumbering shuffle, the cart slipped and bumped its way down the rocky trail toward the village. A company of cavalry from the Royal Guard went before, while the Examiner and his assistant priests rode in a carriage following, with another

squad of soldiers bringing up the rear.

Thrax sat with Shingen-Hu and a dozen or so other captured adepts, tattered and filthy, staring dejectedly out over the side of the cart at the ravaged crops and orchards withering in the gloom. His body still ached from the welts and bruises he had collected when they were captured. The rough chains chafed painfully at his wrists, neck, and ankles. Despite the springy coils supporting the cart's floor, every bump and jolt of the boards beneath them seemed to find a new sore spot and send another stab of pain shooting through his stiffening joints.

So, finally, it had come to this. After all the hopes and aspirations of one day joining the Arisen, and having come so close—only to see his opportunity cruelly snatched from within his very grasp, and to be exterminated ignominiously as a deceiver. For the high priest, Ethendor, had proclaimed all Waroth's afflictions to be a result of Nieru's anger at the pretenders who had been allowed to desecrate the sign of the Purple Spiral, and promised that the stars would return to the heavens when atonement had been made. As a consequence, all the teachers and adepts not affiliated with the temples were being hunted down. The people, frightened and desperate for better times to return, heeded the warnings and gave no sanctuary. He looked at Shingen-Hu, next to him. The Master's eyes were dull and empty, resigned to whatever fate lay ahead.

A crowd of villagers grew and followed as the procession came into the village. Some jeered and pelted the cart with rocks and garbage. Others cheered and called out praises to the priests. The soldiers rode haughtily, jostling aside those who were slow to move, and swinging their rods freely to clear the way, while the Examiner and his retinue sat erect in their carriage, maintaining their stony-faced composure and dignity.

A platform had been erected in the square at the center of the village, where an excited crowd had already formed. On the platform were three stakes with fagots piled ready for lighting, while the executioner and his assistants stood impassively in front, watching as the procession drew up. The guards clubbed and prodded the prisoners down from the cart. From the dignitaries' carriage, the Deputy to the Examiner descended with two acolytes and pointed to three of the prisoners. Guards hustled the terrified three up onto the platform. Thrax and Shingen-Hu were herded to one side with the remainder, while the Deputy climbed the steps behind and raised his hands to address the crowd.

"People of the hamlet of Rakashym, these are the heretics who have brought pestilence and ruin to the lands of Waroth." He paused, while the crowd erupted in a new frenzy of ridicule and abuse, then gestured down at the group who had been moved aside. "These shall be taken to Orenash to join the others who have profaned, and there will the vengeance of the gods be exacted. Then will the stain that has sat upon Waroth be cleaned, and a pronouncement shall be heard then of momentous times that are about to befall us."

The Deputy looked over the crowd. They waited dutifully, but that was not what they were interested in at the moment. Reading their mood, he dismissed the rest of the oration that he had intended and turned to point accusingly at the three prisoners quaking behind him. "But Rakashym shall not be denied its chance to see the fate that awaits all who transgress, and to show its devotion." Cheering broke out. This was more like it. The Deputy nodded. "Let this day be a lesson . . ."

Among the prisoners watching fearfully below, Thrax turned his head to see how Shingen-Hu was reacting. To his surprise, he found a light shining in the Master's eyes that he had expected never to see again. The strength had come back into his features, and the body that Thrax had watched wasting away was standing straight and vibrant with sudden inner energy.

"Master, what inspires thee so?" Thrax whispered. "What do you see?"

"I hear a voice!" Shingen-Hu answered. "The power returns.

I hear a god speaking within me."

A delusion brought on by hopelessness, Thrax told himself. The gods had abandoned them long ago.

Hunt settled back into the neurocoupler in one of the booths off the corridor at the rear of the Gondola. In the few years since he had moved from England to join UNSA, he had walked on the Moon, flown with one of the manned missions to Jupiter and stayed for months on Ganymede, returned to Earth aboard an alien starship, virtual-traveled over much of the Thuriens' domain of the local region of the Galaxy, and finally traveled physically to a distant star. But of all of it, the expedition that he was about to embark on was the strangest ever. In fact it was probably the strangest that had ever been embarked upon by anyone in the whole of time.

Besides himself, the others who would be going down into the Entoverse were Danchekker, since he was equally a part of the team on the spot, Nixie, obviously, as a guide, and Gina, who as a journalist refused to be left out—all of whom were in other booths nearby. Eesyan would be going, too, as technical adviser and principal liaison to VISAR, coupled in from

Thurien.

Since VISAR would need all of the channel capacity of the single available i-space link to sustain its manipulations of JEVEX and its behind-the-scenes operations in the Entoverse, it wouldn't be possible for the machine to support continual interaction in real time between the occupants of the couplers and the pseudoversions of themselves written into the Entoverse. Instead, the "surrogates," once they were impressed with the personality patterns extracted by VISAR from their originals, would proceed to function autonomously. Since what constituted a personality was the thinking, feeling information pattern that defined it and not the physical medium that the pattern happened to be supported in, the team would in effect be existing and functioning in the Entoverse.

During that time, their real-world bodies would lie comatose until, at last, VISAR would erase the Ent-body surrogates and transfer all the impressions and recollections that they had accumulated in the interim back into the human brain patterns. For all practical purposes, the team would have been transported into the Entoverse for a while, functioned there in response to whatever circumstances awaited them, and then been brought back again.

"How are we doing, VISAR?" Hunt muttered.

"We're getting there. Sorting through this kind of detail involves a lot of processing, even for me."

Hunt already knew that. He was just impatient to get on with it.

To avoid an inordinate amount of try-it-and-see experimenting that they didn't have time for anyway, VISAR would not attempt to create authentic interpretations of how a human nervous system would perceive the actual structures and relationships between them that existed in the Entoverse—if, indeed, any such interpretation was possible at all. Instead, the same principle of correspondence that caused emerged Ents to remember their past experiences in Exoverse-meaningful terms would cause the surrogates to perceive their experiences in terms that were familiar. Rather than try to compose a routine for constructing some physically visualizable depiction of the abstract patterns of intercellular transactions taking place in the Entoverse, VISAR would endow its pseudo-Ents with ready-made patterns of conceptual associations extracted from the hosts. These would respond to external stimuli by selecting the nearest from their stores of elemental human percepts that conformed to the same set of basic attributes. Thus, a feature of the surface configuration that was reasonably permanent, behaved with the properties of mass, and reflected part of the radiant flux impinging on it would look like a rock; a form that absorbed components of its surroundings, stayed where it was, and grew systematically bigger would look like a tree; and Hunt, whatever the nature of the bound pattern of cells that VISAR had needed to commandeer to create his Entequivalent acceptable to other Ents, would look, to himself, like Hunt—modified and appareled in whatever way VISAR judged appropriate to the circumstances that it discerned. "There isn't time to dream up a new, internally consistent world of experience," VISAR had explained. "We'll just have to work with what we've got."

"What's going on now?" Hunt asked.

"I think we're in business," VISAR replied. "Nixie's in touch with one of them down there now. It's not one of the big chiefs that she was searching for, but it seems like some guys who are in trouble. I can give you a quick preview."

A scene appeared as if before Hunt's eyes of a noisy, excited crowd cramming in from the side streets to the central square of what seemed to be a primitive village. The people were dressed in crude, rustic garb of coarse shirts and breeches. jerkins, and cloaks. But there was also a peculiar, wheelless carriage that ran on slides, like a sledge, with occupants who were more finely arrayed in jewelry and robes. In front of the carriage was a protective line of figures wearing helmets and breastplates and carrying weapons, and ahead, more of them mounted on strange six-legged beasts. Behind the carriage was a rough, open cart, also without wheels. Both conveyances were hitched to pairs of strange, bulky animals, again with six legs but heavier than the ones bearing the riders. They looked somewhat like buffalo, but with enormous, pillarlike legs that projected sideways from their bodies, then bent downward in a right angle like a spider's.

There was a raised platform with more figures, and behind them, Hunt realized to his alarm and consternation, three stakes piled ready for burning. The houses of the village were square and smooth, possibly mud-built, with projections like minarets, and arches connecting across some of the alleys. Here and there in the square, scaly, doglike animals were whooping and leaping like miniature kangaroos. The light was dim, a gloomy twilight. Outlined through it in the background were mountains, more vertical and sharply angular than any natural

formations that Hunt had ever seen before.

Although Hunt had been prepared, he still found himself overcome with amazement. "That's really it, the Entoverse?" he asked, struggling to accept it. "This is really happening right now, inside a computer light-years away from here?"

"Concentrate on the situation," VISAR replied. "I've got a

feeling you could get involved real soon."

Near the base of the platform, surrounded by more soldiers, was a group of what looked like prisoners, dirty, ragged, and disheveled, wearing manacles and chains. Two seemed to single themselves out in Hunt's field of view as VISAR directed his attention to them. The younger man, scarcely more than a youth, had fair hair and the remains of a long, white tunic. Hunt stared in surprise as he recognized the purple-spiral emblem on the sash hanging from his shoulder. The older of the two, with long, matted hair and a heavy beard, was clad in what had once been flowing robes, now falling apart. But instead of bowing cowed and dejected like the rest of the prisoners, he was

standing erect, his face turned upward, wreathed in an expression of ecstatic revelation. Then Hunt heard a voice that he recognized as Nixie's, which he knew somehow to be speaking inside the bearded man's mind.

"... the gods that you knew before. All that's over now. The

sky's about to come under new management."

The old man's thoughts came through as another voice, sounding awed and exalted. "More powerful gods shall rule the heavens? And shall I, Shingen-Hu, be their servant? The priests of the temples, and all their powers, and the king and his forces,

all shall be overcome?"

"Don't worry about them. They're out of it now...Oh-oh." On the platform, another nobleman in robes was shouting something about bringing down wrath on blasphemers. Three more prisoners were being chained to the stakes, while several sinister figures advanced menacingly toward them holding long, nasty-looking knives.

"Look," Nixie's voice said. "We're gonna send you down one of our troubleshooters right now. You look like you could

use help. Just leave it all to him. I'll explain later."

"An angel?" Shingen-Hu said. "To aid us in this moment of

anguish? We shall yet be saved?"

Hunt realized with a sudden sinking feeling whom she meant. "Hey, wait a minute, VISAR. You can't do this. I don't know anything about—"

"Trust me," VISAR said. "Think about getting your act

together."

Suddenly, Shingen-Hu was thundering and pointing an accusing finger up at the robed figure on the platform. "Desist ye, false prophet and instrument of all that is evil!" A confused hush swept over the crowd, and all heads turned toward him. "Charlatan and deceiver, thou liest! Even now do greater gods sweep thee and thy puny masters aside, to be trodden into the mire like vermin. Behold, an angel descends from the realm beyond, and he shall be my witness, and thy undoing!"

"VISAR, I really don't think you—"
"Okay, go knock 'em dead. You're on."

And suddenly, Hunt was up there on the platform. Not just as a focal point of impressions being relayed by VISAR. He was there. Instantly, total silence fell, and every face in the square was gaping at him as if he had just materialized out of nowhere.

As indeed, of course, he had.

chapter fifty-five

It was no good. Hunt's mind seized up. For a fleeting, insane second he was tempted to say, "I suppose you're all wondering why I'm standing up here like this," but the looks on the faces below dispelled any further thought of it.

He looked down and saw that he was wearing a long, loose, togalike garment with sandals. "What's this?" he hissed inwardly at VISAR. "I look like a part in Julius Caesar."

"You're not exactly in Trafalgar Square," VISAR answered. "It's appropriate. What did you want, something from Savile Row?"

The noble who had been in charge was backing away behind the soldiers, who were slowly recovering their wits and moving forward warily. "He's not a god, he's an impostor!" the noble screamed. "Kill him!"

In a passing thought, Hunt wondered how he came to understand the words. But there were more pressing things to attend to just at the moment. One of the soldiers, a bearded giant with embellished breastplate and plumed helmet, who suggested something from popular depictions of the Trojan War, drew back his arm and hurled a spear. Hunt raised a protective arm reflexively; the spear stopped in midair less than a foot away, then burst into fragments that fell to the ground.

"VISAR, do we have to cut things that close?" Hunt asked

shakily.

"Sorry about that. I'm still experimenting with the dynamics of this place." Things that moved got longer, Hunt remembered.

"What kind of cowards are you?" the noble shouted. "That's

just a man. One man!"

A hail of spears and darts came; all were deflected or fell harmlessly. The giant, whom Hunt had mentally dubbed Agamemnon, advanced menacingly, drawing his sword. Reassured

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that God was indeed on his side, Hunt stepped forward with a new feeling of confidence to meet him.

"Die, puppet of pretenders!" Agamemnon cried, swinging.

"Not today, I think, thank you," Hunt said, and snapped his fingers. The sword turned into a vine of pink flowers, which coiled itself around Agamemnon's arm. Agamemnon stopped, staring at the flowers in confusion, then shook them off and stamped on them.

"Getting the hang of it now," VISAR said.

"Yes, well, do you think you could remove this chap to a safer distance?"

"No problem." An invisible force swept Agamemnon unceremoniously across the platform and over the edge. He hit the ground with a mighty, metallic crash and sat up, dazed and bewildered.

"The others are a bit too close for comfort, too," Hunt said. Agamemnon had just started to pick himself up when the rest of the soldiers who had been up on the platform cascaded down on top of him.

"How's that?"

"Not bad."

The bearded man below, who had spoken of himself in Hunt's mind as Shingen-Hu, was pointing up at him and calling out to the crowd. "Behold the angel that was foretold! See how the servants of treachery are powerless before him!"

"How do we know what they're saying?" Hunt asked VISAR. "You can't be translating. You're new here, as well."

"Your thought patterns are coupled to an Ent-wired neural system that includes a local speech center. It's the same as the reason why Ents can understand Jevlenese when they emerge."

Deprived of his soldiers, the noble was cringing back among the executioner and his minions for protection. Hunt turned the knives they were holding into cucumbers and their jerkins into coats of thick molasses, then collided them all together so that they fell, writhing and adhering helplessly. Starting to enjoy himself, he turned the chains of the three unfortunates tied to the stakes into garlands of butterflies, which dispersed and fluttered away.

"So these people would be able to understand me?" he asked VISAR

"They should."

"How much more can you give me in the way of background data?"

"Not a lot. I'm mainly manipulating physical data patterns. It needs processing through a nervous system to interpret what they mean."

"We need Nixie here, then."

She appeared beside Hunt, wearing a Greek chiton turned up and held by a girdle to form a short tunic falling to just above the knee; she was shod with laced buckskin. She looked like representations of Artemis, the virgin huntress. Hunt couldn't help smiling at VISAR's appalling choice. A murmur went up from the crowd.

"Another angel descends! My words shall be vindicated!" Shingen-Hu cried out. The crowd was impressed, clearly; but from what Hunt could see, not as much as he would have expected. Below the platform, the main body of soldiers had shown some initial confusion, but was steadying again as the occupants of the carriage came tumbling out.

"What can you make of this?" he murmured as Nixie took in the scene. "We've got gentry down there with the troops, and a chain gang over there. Good guys, bad guys, which are which?

What's going on?"

"The ones getting out from the carriage are priests from the city," Nixie said. "Their logo has a green crescent, the sign of Vandros. Eubeleus uses the same sign, so they must be his buddies here." She surveyed the results of Hunt's impromptu

handiwork. "It looks as if you got it right."

"I don't like the kind of party this was about to be." So saying, Hunt turned the weapons of the remaining soldiers below into a kitchen-garden variety and the chains of the prisoners into laurel leaves. The prisoners scattered them to the ground and lifted their hands, gaping down at themselves and at each other, wondering at their sudden freedom.

"See how the angels come as instruments of retribution and

justice!" Shingen-Hu bellowed.

But the priests, undeterred, raised their arms in unison and pointed up toward the platform, their eyes burning in a strange, penetrating fixation that Hunt found instantly unnerving, even at that distance. And then he realized that he was paralyzed. Bolts of fire flew up at him, but VISAR interceded and dissipated them into clouds of sparks. A shimmering curtain seemed to pass between Hunt and the priests, and he found his faculties unfrozen again.

"What the hell was that, VISAR?" he gasped inwardly.

"They got to you. More goes on in this place than is obvious."

"Well, we can match that act." Hunt turned and pointed a finger at one of the three piles of fagots heaped around the stakes—the intended victims had made themselves scarce. "Fire." The pile ignited into a spectacular blaze. A murmur went up from the crowd. Hunt turned back, folded his arms grandiosely, and gazed down at the priests with what he hoped was a look of lordly contempt.

It didn't faze them. "Pah! Is that the power of your superior gods?" one of them scoffed. "Apprentice angel!" He stepped forward, pointed at the second pile, and duplicated the act. The crowd cheered. Clearly they were rooting for the home team.

"Try this," Hunt invited, and materialized a white dove out

of nowhere, flying above the crowd.

"Puerile." The priest shot it down with a well-aimed digit of psychic flak. Hunt turned the third pile and its stake into a rosebush surmounted by an apple tree. The priests shredded the lot with an invisible blender. Hunt collapsed the carriage that they had just climbed out of into a heap of parts. They did the same to the platform that he was standing on, and only the speedy intervention of VISAR again saved him and Nixie from joining Agamemnon and his companions, who were still sorting themselves out on the ground.

"They are demons summoned by the false prophets," the dignitary who seemed to be in charge called to the soldiers. "Slay the heretics." The soldiers threw aside the horticultural assortment that they were holding and grabbed staffs and clubs

proffered by the crowd.

"VISAR, this isn't working," Hunt said in a worried voice.

"We need something more spectacular."

"I could take the whole world apart, but what would it leave you to achieve? You're supposed to be the expert on organic psychology."

"Bring in the technical consultant."

Porthik Eesyan appeared alongside Hunt and Nixie, who were standing before the wreckage of the platform and the burning wood. He looked like his Thurien self, but VISAR had arrayed him in ancient Egyptian fashion, with a close-fitting, skirted costume and high, rearward-projecting headpiece that suited the elongated Ganymean skull. Hunt assumed that he would have been following the events in the same way that Hunt himself had, before his abrupt debut onstage.

"Already the demons are in need of help," the head priest sneered.

"An interesting predicament," Eesyan observed to Hunt.

"Save the analysis till later. What do we do about it?"

"You're going about it the wrong way. Magic is normal here. What you're doing is impossible, but the people haven't realized it. To them it's just a question of degree, not really all that different: the *same kind* of thing that they're used to."

"What would you do, then?"

Eesyan addressed VISAR. "How absolute are the constraints imposed by breakdown of dimensional invariance with veloc-

ity?"

"The underlying dynamic of the substrate is optimized to preserve form," VISAR replied. "The algorithm uses a write-before-erase protocol to afford a redundancy check for accuracy."

"So a local violation is possible?"
"Sure. I can change the algorithm."

Then Hunt became aware of Danchekker's voice speaking inside his head, observing via a coupler on Jevlen and presumably being relayed for Hunt's benefit, courtesy of VISAR. "I, ah, believe I know just the thing. VISAR, look up your records of Earth for places like Blackpool and Coney Island, would you—you know the kinds of things I mean? I think we could use as elaborate a model as you can devise, with ample gadgetry and mechanisms. They don't have to do anything functional."

"You're sure about this?" VISAR sounded dubious.

"Just do as I suggest, please."

Hunt could have kicked himself as he realized what Danchekker was getting at. It was too obvious. "There isn't time to dream up a whole, new, internally consistent world of experience, VISAR," he said. "We'll just have to work with what we've got." With that, he extended an arm imperiously and

pointed toward the center of the village square.

Shouts of alarm went up from the middle of the crowd as a force began pushing people out of the way to create a clear area. The area grew and became a circle, its perimeter expanding relentlessly and sweeping more jostling, protesting bodies ahead like snow before a snowplow until it was fifty feet or more across. A light came on above to illuminate the whole square, and the cleared circle became at first hazy, then took on a deepening purple hue, until it was filled with what looked like writhing purple smoke. And out of the smoke came forth a

strange, jangling music of whistling organ notes, churning mechanically, while within the smoke, a procession of indistinct shapes flitted by, rising and falling in a strange, repetitive rhythm. The soldiers forgot about the prisoners and turned to stare. Even the priests seemed less sure of themselves and were glancing at each other apprehensively. The crowd drew back in

hushed trepidation.

Then, the smoke dispersed to unveil VISAR's creation. Rotating! And this time, Hunt conceded, even with his experience of the machine's abilities, VISAR had exceeded itself. It was the most magnificent carnival carousel that he had ever seen, with horses, cockerels, swans, and tigers, all moving up and down as they passed by and around under a great, brilliantly colored canopy decked with row after row of winking lights. And in the center of it all, an enormous steam Wurlitzer pounded and thrummed, flywheel spinning, slide valves popping, with shafts and belts connected to an incredible Rube Goldberg concoction of rocking cranks, syncopating levers, undulating cams, whirling gear trains, and nodding tappets, all acting out its cycle of interlocked motions with a complexity and ingenuity that astonished even Hunt.

A hushed murmur, mixing awe, reverence, and fear, swept through the crowd. The priests were standing transfixed. Some of the soldiers fell to their knees, bowing their heads to the ground, and here and there among the crowd others followed their example. Agamemnon, who had extricated himself again, straightened up slowly and stared wide-eyed. A strange, ululating, high-toned chant went up from among the prisoners.

The carousel began slowing, though the music continued. As the turntable made its final revolution before coming to rest, it brought two figures into view, seated on a pair of the animals—the only place VISAR could find to put them. Hunt's face split into an uncontrollable grin as he saw Danchekker stepping down from a brightly colored peacock, robed like a Roman senator, complete with crown of laurel leaves, but still, incongruously, wearing his gold-rimmed spectacles. Behind him, dismounting from a rhinoceros, was Gina, in sandals and the simple, flimsy, plain white shift of a slave girl, and, God alone—or in this case, VISAR—knew why, carrying a wine jar.

It wasn't a time for hesitation or timidity. Mustering all his composure and holding himself regally erect, Danchekker moved to the edge of the turntable and stood surveying the scene like a god descended from Olympus. Gina moved to stand

a pace behind, while in the background the music faded. "Well?" he demanded after the silence had endured for several seconds. "Can't you do any better than just stand there wearing those infuriating, cretinous expressions?"

Several more absolutely still, endless seconds dragged by.

Then, the Examiner himself dropped down onto one knee, threw up his arms, and cried out, "Hail, Father of the Gods! This day has the magic of Hyperia descended upon Waroth. Indeed hast the Master whom we reviled spoken truly!"

"Hail! Hail!" those in the crowd immediately in front of Danchekker echoed, and threw themselves down before them.

Others took up the cry.
"Hail, Father of Gods!"
"Lighter of the heavens!"
"Master of objects that spin!"

Danchekker stepped down to the ground, moved a pace forward, and waited for Gina to hop down behind. Then, clasping his robe where his lapels would normally be and followed by his slave, he strode majestically across the square while the crowd parted and adulating figures shouted out praises and prostrated themselves as he passed. By the time he came to where Hunt, Nixie, and Eesyan were standing, and turned to look back, the whole square was down on its knees, faces to the ground.

Across the square, the carousel started up again, and the music resumed. Danchekker looked on and gave a satisfied nod. "No, Dr. Hunt. I, I rather think, am the better judge of organic psychology," he said.

chapter fifty-six

"Generator complexes three and five are now up to full power and can be switched into the system," an aide reported from another part of Uttan. "Seven is being brought up to standby as a backup. Everything is on schedule."

From behind the supervisor's chair in the real JEVEX pri-

mary control center, Eubeleus returned a curt nod. "How does it look at this end?" he asked Iduane, who was standing a short distance away, checking reports and status indicators.

"Matching positive. We can initiate reintegration at any

time."

Eubeleus leaned back and surveyed the other consoles and operator positions around the floor. Everything was under control and orderly. Across the planet, the Thurien fools who thought they were in control of the Uttan system because JEVEX was shut down and isolated far away on Jevlen didn't even know they were standing right on top of it. They would very soon find out.

"And how are events inside?"

"The last time I contacted our Prophet, they were progressing well," Iduane answered. "They're rounding up all the heretics for the great auto-da-fé. They should be all fired up to do a fine job on Jevlen for us when they start coming out."

Eubeleus nodded again, distantly. None of it was real, of course. It was simply an elaborate software simulation that JEVEX had created to train and orient the software identities that it had devised to extend itself into the outside universe. But those identities became real when they overwrote the personalities of physical users coupled into the system. Such was JEVEX's method for externalizing its dimensions of existence—a solution which Eubeleus had no hesitation in acclaiming as a feat of genius. After all, wasn't he a manifestation of it?

"When the time comes for the Prophet to announce the Great Awakening, I would like to be in control of him myself," Eubeleus said. "It would be gratifying to participate in the culmination of the project—personally, as it were."

"As you wish," Iduane agreed.

Eubeleus stared at the console with a distant look, slipping into one of his rare reflective moods. "It's difficult to believe that we, ourselves, originated like that. I look for any hint of nostalgia every time I connect into one of them, but there really isn't any. I don't recall anything of what I was down there before my emergence. There must be—" His words were interrupted by a priority tone from the console. He nodded toward the video pickup. "Yes?"

One of the screens came to life to show the face of another of his aides, elsewhere in the complex. "My apologies. We have

a grade one coming in from Shiban PAC, on Jevlen."

"Very well." The image changed to show the face of Langerif. He looked worried. "What?" Eubeleus demanded.

"News has just come in here that Grevetz has been assas-

sinated," Langerif said.

Eubeleus came around the chair and sat down, glaring at the screen. "When did it happen? Do you know who did it?"

"At his villa in the Cerberan, just over an hour ago. His man who runs the north side did it: the one they call Scirio."

"How?"

"They came down in a flier and wiped out him and a bunch of his people on the pad. Then they demolished virtually the entire place. There was no provocation or warning. It was a massacre."

"I always thought Scirio was reliable. What was it, another

of their family squabbles?"

"We're not sure. There's more. The hooker from the city, the one who was here at PAC—she was with them. We have the video record from the house surveillance system."

"She's the one who's been helping the Terrans," Iduane murmured. He had moved across from where he had been standing

and was watching from beside Eubeleus's chair.

Langerif nodded from the screen. "There has to be some kind of connection, but right at this moment we don't know what."

Eubeleus's frown deepened with suspicion. "What kind of

operations does this Scirio specialize in?" he asked.

"Protection and retaliation for a price. Since the Ganymeans took over, he's been getting big in the luxury black market, especially for high-paying headworlders. He runs a number of clubs as fronts in the city."

"Headworlders?" Eubeleus stared back at the screen fixedly. Then his expression slowly changed to one of alarm. "That means he has access to an i-channel to Uttan. Into JEVEX."

Langerif talked to somebody offscreen, then looked back.

"Yes. Several of them, apparently."

Eubeleus went through the sequence of events in his head. The Terran scientists from UNSA, Hunt and Danchekker, both of whom had played key roles in thwarting the Federation, had come to Jevlen ostensibly as part of a scientific mission, which had turned out to be an undercover assignment to investigate what was afflicting the Jevlenese. After a lot of secret work in PAC that Eubeleus's people had not been able to penetrate, the scientists had taken up with, of all people, an *Ichena* hoodlum. What could they be interested in? But Scirio had access into

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JEVEX. And—merely by coincidence?—no sooner had they talked to Scirio than he exterminated an awakener, who, it just so happened, had been due to liquidate all of the *Ichena*'s outsider management as soon as the takeover was completed.

Euebeleus jerked his head around sharply toward Iduane.

"Commence reintegration of JEVEX."

"Right now?"

"At once. As soon as you reach the requisite level, I want a complete check of all core functions. Scan for active i-space links from Jevlen and deactivate all of them." Eubeleus looked back at Langerif, on the screen. "Get a list of all of the establishments of Scirio's that have functioning couplers. Get men out to each of them and shut them down. All of them, do you understand? You'll find the girl and the missing Terrans at one of them. When you do, take them back to PAC. Under no circumstances are they to have any means of accessing JEVEX. And I expect no blundering from anyone there this time."

chapter fifty-seven

The carousel whirled merrily beneath bright lights in the village square, carrying its train of enraptured priests, dignitaries, and soldiers, including Agamemnon, who was planted astride a white horse with a red bridle. Elsewhere, crowds of villagers gaped in awe at a Newcomen pump and steam engine, complete with ten-foot-diameter toothed flywheel, an arrangement of revolving cages within revolving cages within a revolving cage, which spun multiple-core submarine cables, and a Budweiser beer-bottling machine. Shingen-Hu, the new deputy lord of Creation, cleansed and groomed courtesy of VISAR, and wearing fresh clothes, stood with Eesyan, arms folded on his chest, absorbing the wonders of the new Power and adjusting himself to the feeling of being its chosen agent. Thrax and the rest of the ex-heretics stood in a group to one side, listening reverently while the emissaries of the True Gods revealed the Word that they had been sent to deliver.

"Until we've sorted out what to do about it at the other end. we don't want anyone else rising up out of here on the currents," Hunt told the Examiner. The sphere that VISAR had created to represent the Entoverse symbolically, like a crystal ball, illustrated the point. It had a miniature representation of the local world inside, and around the outside, a lot of tiny red figures attached by threads coming out of their heads. "There are other beings out there, like you. And every time somebody from here arises, one of them is wiped out." Inside the crystal ball, a mini-Ent soared upward to the surface, vanished into one of the threads, and a moment later appeared at the other end, on the outside. The red figure that had been attached there fell over and turned black.

"An angel must be sacrificed to make room for each who arises to Hyperia?" the Examiner asked, looking troubled.

"If you want to put it that way, yes," Hunt said.

"In addition, there appear to be certain compatibility problems between Warothian mental configurations and human nervous systems, which frequently result in breakdown and make the transference a risky affair," Danchekker informed the Examiner. The Examiner nodded respectfully, not having mastered the intricacies of this new ecclesiastical language yet.

"Angels newly emerged into Hyperia are often troubled," Nixie supplied. A step behind the Examiner, the village head-

man followed it all humbly.

"Then what of the Great Awakening that has been foretold?" the Examiner asked. "If what thou sayest is true, then many angels shall fall, and great will be the woe among our multitudes due to join the Arisen."

"What Great Awakening is this?" Gina asked.
The Examiner seemed surprised. "The goddess knows not?" "She means, what was the version that was given to you?"

Hunt explained.

"Ethendor, who was the instrument of the fallen gods, prophesied a Great Awakening, when the stars shall shine again and currents return more numerous than ever before, and the people shall arise into Hyperia in their multitudes," the Examiner recited.

"The invasion," Hunt said, looking at the others. "It looks as if we were right. Eubeleus was all set to bring them out in

hordes."

"When is this supposed to happen?" Danchekker asked; then he added hastily, "According to what you were told."

"When the sun itself shines strong once more, and daylight returns to the lands of Waroth," the Examiner replied. "Thus was it spoken."

Hunt looked at Nixie, his face serious. "Who is this Ethen-

dor?"

"The high priest in Orenash, the main city in this part. Apparently he ordered the crackdown on Shingen-Hu and the rest that these guys were carrying out."

"Where is this place?"

"How far are we from Orenash?" Nixie asked the village headman.

"Half a day's ride by drodhz sled." The headman obviously thought that gods should have known; but he wasn't about to make an issue out of it.

"Then that's where it'll all happen," Hunt said. "We can leave the carnival here and be on our way. There mightn't be a

lot of time."

The Examiner was growing puzzled as he listened. "Thou must journey to Orenash? Then the dark masters whom Ethen-

dor serves are not yet truly fallen?"

Hunt shook his head. "Not yet, I'm afraid. We've still got some work to do. But at least this has given us a better idea of how to go about it." He looked at Danchekker and Gina. "I think the best thing would be-"

At that moment, the village headman suddenly pointed sky-

ward. "The stars! See, the stars are returning!"

Everyone looked up. "VISAR, cut the lights," Hunt said after a moment. The lamps on the posts that had appeared around the village square went out. Several bright stars were shining in the twilit sky. "Were those there when we arrived?" Hunt asked Nixie

"I'm not sure. I didn't notice," she confessed.

"Eesyan, did you . . ." Hunt's voice trailed away as the Wurlitzer music in the background ceased suddenly. He turned and looked across the square. The carousel had stopped, pitching the startled passengers on its revolving menagerie forward onto the necks of their mounts and, in some instances, off onto the floor. The steam engine, cable spinner, and bottling machine were all frozen in silent immobility. Already, people in the crowd were muttering discontentedly and giving each other puzzled looks. "What's going on?" Hunt demanded, jerking his head back around bemusedly.

"They were just props," Eesyan said, but in a puzzled, far-

away voice, as if still trying to work it out himself. "There was no internal motive source. VISAR was causing them to operate, externally."

"VISAR, what is the meaning of this?" Danchekker demanded.

Hunt waited, then looked at Danchekker uneasily. "VISAR?" he repeated. There was no response.

Gina shook her head in sudden alarm as the implication hit her. "We've lost the connection?" she said, turning her head toward Eesyan. "You mean we don't have VISAR to back us up anymore?"

"Worse than that," the Thurien told them somberly. "We

don't have a way back."

Mystified, Keshen, the Jevlenese engineer in the pay of the *Ichena*, frowned at the monitor displays and stabbed repeatedly at the panel controls in the communications room at the rear of the Gondola. "What is this? The connection's gone."

Scirio heard the commotion from the room outside, where he was sitting at a table, snatching a drink with Murray and several *Ichena*. Frowning, he got up and walked over. "What is it?" he asked through the doorway.

"The beam from Thurien has gone down. We've lost the connection to JEVEX, too." Keshen sat back and tossed up his

hands. "That's it. Zilch."

"There's nothing you can do?"

"What can I do? Somebody's cut the links. They're dead."

In the room behind, the others were on their feet. Scirio bit his lip, thinking furiously. He hadn't expected repercussions so quickly. Maybe Grevetz had had connections that even he hadn't known about. And they would need to be high-level connections for this to have happened. He had backed what had sounded like the winning side; now it was all a mess. Did the freaks from inside JEVEX that these Terrans had talked about own the whole city already?

Fendro, the club manager, who had been out in the reception office, burst into the far side of the club's main lounge through

the door from the front passage. "Boss! Boss! Where's Scirio?"

Scirio went back out to the lounge. "What?"

Fendro pointed excitedly back toward the front entrance. "Cops! There's cops outside like walking artillery. No messing.

I mean, they're coming in!" A series of solid concussions sounded from the front of the club to emphasize the point.

Another of the staff appeared from the back. "They've got

the yard covered. Ain't no way out that way."

"Shit," Scirio muttered. What had he stirred up now? "Okay, look, take a couple of guys, get back up front, and try to stall them there. Speedball, Beans, dig in here to cover Fendy when they pull back. We'll go on up the tower to move out the hearse. Split as soon as you get three beeps on the box. Blow this place to hold 'em if you have to."

Murray waved along the corridor in the direction of the

booths. "What about the guys dreaming in there?"

"You brought 'em here. They're your problem. If you want 'em out of here, get 'em up the tower. We're getting out."

On Thurien, in the Government Center in the principal city of Thurios, Calazar turned a bewildered face toward the others who had been following events in the village with him. In reality they were still coupled into VISAR at different locations, including Caldwell in Washington, and Level Torres aboard the Shapieron at Geerbaine, and not together in the same room as they perceived.

'VISAR, what's happening?" he demanded.

"The channel through the i-space link from Jevlen has been

cut. I don't have access to there, or to JEVEX."

"You mean you've lost them? Aren't they still there?" Caldwell had not completely followed the technical dialogue between the Thuriens and VISAR about autonomous personality transfers and temporary state suspension.

"They're all still there and functioning in the Entoverse," VISAR replied. "But I can't communicate with it to talk to

them or manipulate events anymore."

Caldwell looked confused. "But those were just . . . 'copies,' or whatever, weren't they? The original people are still in the

couplers, right?"

"Yes," VISAR said. "But the capacity of the one channel wasn't sufficient for me to continually update the original personae—inside the bodies that are in the couplers—in real time. So they were left in a suspended state. The transformed versions that I wrote into the Ent surrogates are the only ones functioning as coherent, conscious identities. In effect, they're there: inside the matrix on Uttan."

Caldwell was still uncertain. "But the bodies in the couplers

still contain the original personalities, surely. Won't they reani-

mate independently?"

"They'll reanimate, yes," VISAR said. "But without any knowledge of what happened to the surrogates in the Entoverse."

"Then we're okay-" Caldwell caught the looks on the

Thuriens' faces. "No? Why not?"

"I don't think you quite see our point, Gregg," Calazar said. "As far as we're concerned, ever since the transfers down into the Entoverse were made, the beings that VISAR created there are real, bona fide identities in their own right, as much as any other Ent. Whether or not they originated as psychical clones of other beings existing out here in the Exoverse is beside the point. They're stuck there, and we can't get them out."

"Okay, go knock 'em dead," VISAR's voice said. "You're on."

Hunt tensed with involuntary apprehension . . . And then the distant, dreamy feeling brought on when the mind was being flooded by sensations fed in from the machine left him suddenly. He opened his eyes, puzzled. "VISAR?" The booth was silent. He sat up in the recliner. The image of the three terrified figures chained to the stakes, the executioners advancing toward them with knives, and the ragged prophet shouting from below was still vivid in his mind. What had gone wrong?

The door opened and Murray appeared, gesturing frantically. Distant bangs reverberated through the building, like explosions, along with the sounds of running footsteps and more voices. "Move it! Everyone's getting out. We've got cops

coming in shooting."

"What the hell's it about?" Hunt gasped, jumping up.

"Who knows?"

"VISAR?" Hunt called one last time, just to be sure. Nothing.

'Forget it," Murray threw back over his shoulder as he

disappeared again. "You got cut off."

Hunt came out into the corridor. Nixie was there already, with Gina emerging from another booth and Murray hauling Danchekker from the door adjacent. Dreadnought and several other *Ichena* ran past, holding weapons. Keshen, the engineer, was hurrying through from the club with Scirio behind him, shouting orders.

"What's going on?" Gina asked. "Those three guys? What-"

"No time now," Murray interrupted. "We've got a war on here. Everyone back up the tower. We're getting out in the hearse"

As Nixie and Gina hurried away after Keshen, Danchekker glanced at his watch. A strange expression came over his face. He caught Hunt's sleeve just as Hunt was about to follow the others. "I'm not altogether certain that there's any point in worrying about those three unfortunates now," he said. "The episode to which I think you're referring would appear to be history."

"What are you talking about?" Hunt asked.

Danchekker tapped his watch. "We coupled into VISAR at

approximately 1420 hours, did we not?"

"That's right," Murray confirmed, catching the gist as he strove to move them along after the others. "Is that a problem?"

"How long were we in those booths?" Hunt asked.

"An hour, hour and a haif. Why? What's all the mystery? Let's move our asses outta here while we've still got 'em."

chapter fifty-eight

Slowly, it came to the Examiner, as he gazed up at the heavens, what the signs meant. Anger rose within him as he realized how he had been deceived. It was Ethendor who had prophesied that the stars would return to the skies. And no sooner had the stars begun returning than the powers of these strangers who claimed

to be emissaries of yet higher gods deserted them.

So the tricks and toys could not have been the works of higher gods at all. It had been an attempt by the lesser gods to deceive the people of Waroth into abandoning the Great Awakening that was their rightful destiny. For the legions of the faithful would destroy the followers of the false gods who were tarnishing Hyperia, and the false gods were afraid. It was all clear to him now. The events that had taken place here in the village of Rakashym had been permitted as a final test of the Examiner's faith before the Great Awakening. He would not fail.

He turned his eyes back toward the puppets that the false gods had thrown in his path to deflect him from his course. They looked clumsy and foolish now, exposed in their ineptness—"gods" who hadn't heard of the Great Awakening or of Ethendor, and who didn't know where Orenash was. Across the square the priests and soldiers, freed from the spell that had bewitched them, were coming back, while the villagers closed in behind them, surly and resentful.

"The power that we use flows into here through channels that—" the first to have arrived began in what sounded like the

beginnings of a plea.

"Silence!" The Examiner cut him off with a contemptuous wave. "Thou standest exposed in thy perfidy and helplessness."

The female who had appeared with him made an imploring gesture. "Look, you have to believe what these people say. I know. I am one of you, from Waroth. I emerged and have come back by the powers they control . . ."

The Examiner turned his back. "These are deceivers who stand exposed before us," he called to the crowd. "Indeed did

Ethendor speak truly."

The crowd responded:

"Deceivers!"

"Servants of evil!"

"Rakashym must be purged of its taint."

"Take them! Take them!"

The Examiner spoke to Agamemnon, who had appeared at the front of the soldiers and was waiting for orders. "Seize them and bind them. Rebuild the pyres—one for each of the false prophets who were captured, except those two." He pointed at Shingen-Hu and Thrax. "Rakashym shall have its fill of burnings." He indicated the two that he had singled out, and the five impostors sent by the lesser gods. "They shall return with us to Orenash, for the special festivities that Ethendor has prepared. It should be very entertaining."

The soldiers moved in to separate the two groups. As they began moving, Hunt trod on a piece of one of the runners from the disassembled coach. His foot skidded sideways as if he had stepped on a ball, throwing him off balance and causing him to

fall down painfully onto one knee.

"See he who calls himself a messenger from higher gods!" the Examiner called to the crowd, pointing. "Doesn't even a child know that shoe leather is repelled by mobilium?" The crowd laughed derisively.

Shingen-Hu stooped to help Hunt back to his feet. As he did so, he surreptitiously picked up a couple of slivers of the broken skids of mobilium metal and hid them in a fold of his robe.

From Thurien, Calazar was able to contact Parygol on Uttan through VISAR. But Parygol discovered then that his Thurien caretaker force was cut off from the rest of the planet, and that the facilities they occupied, which they had believed controlled both the planet's industrial complex and its links to a Jevlenbased JEVEX, were suddenly inoperative. Eubeleus had gained control of the system from elsewhere.

Porthik Eesvan, who was occupying a coupler still connected to VISAR and had "joined" Calazar and the others, confirmed their understanding of the situation. "Yes, that's the way it would work. There's another version of me still functioning in the Entoverse at this moment—and of all the others, of course.

It's a strange feeling to know it."

"And you don't have any idea what's been happening since you—the other one of you—was transferred in?" Caldwell checked.

"No. The updating was to have been effected when the surrogates were erased and the originals reactivated," Eesyan said. "But the disconnection happened too abruptly."

There was a long, brooding silence.

"They'll be in trouble there, without VISAR," Calazar said

quietly at last.

"I am aware of that," Eesyan replied. The edge to his voice was unusually sharp for a Thurien. "I happen to have a rather personal stake in the matter."

"My apologies," Calazar acknowledged.

Caldwell sat with his craggy jaw clamped in a downturned line, saying nothing. The knowledge that the original Hunt, and Danchekker, and the Marin woman, and the Jevlenese girl were intact and walking about somewhere on Jevlen was not comforting. As Calazar had said, the surrogates were now every bit as real. Caldwell didn't like the thought that was nagging at the edge of his awareness and which he knew he was refusing to face up to fully: the implication of their being somehow "expendable." He didn't like it at all.

Leyel Torres, the Shapieron's acting commander, looked from one to another of the faces. "We have to do something,"

he said simply.

"Without another link into JEVEX, I'm not at all sure there's much we can do," Calazar answered.

Torres fidgeted, clearly not satisfied. "How did Hunt manage

to get the link that we did have?" he asked.

"Through the Jevlenese criminal ring somehow," Eesyan replied.

"Could they do it again if we restored contact with them?"
"Only they know that. And they're loose in Shiban some-

where."

Torres thought for a moment. "VISAR, when you had the connection, did you know where Hunt was in Shiban?"

"Almost certainly the club that they found Baumer in," VISAR answered. "ZORAC has located it on the city plan

from its communications routing codes."

Torres stared hard at the floor, then looked up suddenly with a resolved air. "There is something that we can do," he said. "Excuse me, gentlemen. VISAR, disconnect." And at once he was back in one of the neurocouplers that had been installed aboard the Shapieron. He got up, left the room, and walked through into the ship's command deck. The crew, who were on standby, stirred at their stations.

"ZORAC, report the ship's status," he called.

"Flight ready, as instructed."

"Prepare for immediate takeoff."

"Aye, aye, sir!"

Inside the Planetary Administration Center in Shiban, Garuth had been brought to the communications room next to what had recently been his own office suite. One of the main screens of a bank standing in the center of the floor showed Eubeleus's control center deep beneath the surface of Uttan. Eubeleus had gained control of JEVEX, which was now operational and directing the i-space link carrying the channel into PAC; the Thurien occupying force had been fooled with a dummy system and was now isolated.

"I wanted you to be here to witness the futility of your fool's errand on Jevlen, and the first stage of our final triumph," Langerif gloated from the center of his entourage of officers. "Our reports are that the fervor we've been building up among the followers of the Axis has served its purpose well. There are thousands of them out there in couplers right now, eagerly waiting for JEVEX's promised restoration. And tens, hundreds of thousands more will follow as soon as it becomes known that

the promise has been fulfilled. By tonight we will have taken

Shiban. By tomorrow, Jevlen."

Garuth remained grimly silent but shifted his attention as Eubeleus himself moved into view on the screen. "A very different state of affairs from your last encounter with Jevlenese," Eubeleus said. "This time you're not dealing with the fools who tried to set up the Federation. Did you really believe that you could pit yourselves against manifestations of an intelligence that by its very nature is destined to supplant you?" He paused, seemingly having expected more of a reaction. "I believe you are aware of the method that JEVEX had devised to project itself into the outside universe, of which those like myself are privileged to be the prototypes."

Garuth said nothing.

On Uttan, an aide approached and stopped a short distance back, making signs to attract Eubeleus's attention. Eubeleus turned away and raised his chin inquiringly. The aide moved a step forward. "Iduane is in communication with the Prophet

now. All is ready in the city."

Eubeleus nodded and looked back at the screen showing Garuth. "Never mind. You'll see for yourself soon enough," he said. Leaving the aide with the rest of those by the screen, he turned away and crossed the floor to the door leading to the coupler bank. In the passageway beyond, he met Iduane coming the other way.

"All's ready," Iduane said. "The Prophet is waiting."

"Take over in the control center," Eubeleus said, and continued on toward the booths.

Iduane entered the control center. As he passed beneath the overhead gallery surrounding the floor, he saw consternation breaking out around the screen still open to Jevlen, and quick-

ened his pace.

"What's happening?" he demanded as he joined the group. He saw that another screen had come to life beside the one showing Langerif and Garuth at PAC. It was an outside view of the Thurien spaceport at Geerbaine. He recognized it at once by the sleek, unmistakable, half-mile-high tower of the Shapieron, with its distinctive, swept tail fins, on the pad that it had occupied throughout the period of the Ganymean presence. But now it was moving, sliding upward slowly at first but picking up speed even as he watched.

"What's happening?" he demanded, hurrying across and

joining the group.

One of the aides gestured needlessly. "The Shapieron, on

Jevlen. It's taking off!"

On the screen showing PAC, Langerif was shaking his head, baffled. "The news just came in this second from Geerbaine. There was no warning, nothing. It's just taken off."

"What does it mean?"

"We don't know."

Iduane turned his head to the aide. "Go to the booths, quickly. Get the leader back here. Don't let him couple into the

system yet." The aide nodded and left at a run.

On the screen from Geerbaine, the view had changed to another showing the starship's immense shape slowing down again to hang as a black silhouette, looking like some fantastic bird hovering above the Shiban skyline, with the city seemingly shrunken by perspective in the background below. Keeping its nose pointing upward, the ship began moving slowly sideways, over the city.

Bearing sacred implements and emblems of the Green Crescent, the multitude filled the forecourt of the temple of Vandros and spilled out through the gates opening into the grounds from the city. In the sky, stars had begun reappearing; Nieru had brightened. The day of the Great Awakening was at hand. On the stone terrace below the temple steps, the first batch of trembling victims had been led before the stakes, gibbets, blocks, and altars. The executioners had made ready, waiting for the daylight to return and the word to be given.

Above, on a terrace at the top of the steps, flanked by his retinue of priests and seers, Ethendor stood with his arms extended expectantly... and grew more perplexed. Only moments before, the Voice had spoken in his mind again, promising that the time was imminent and that a Great Spirit would speak to Ethendor, confirming his place as the chosen prophet. But not only had the Great Spirit failed to appear; now Ethendor wasn't getting any responses from the Voice, either.

"What ails the gods thus?" the Arch-Seer murmured, moving up closer behind him. "The current which thou drew still flows,

but it has waned to a flicker."

"I know not," Ethendor replied. "Have the Examiner and his

train returned yet to the city?"

Another of the priests conferred with a lesser priest, who turned to a messenger hovering behind an archway. "They are still awaited at the gates, O Holy One," the priest relayed back.

No doubt that was it, Ethendor thought to himself. The gods would wait until all the dignitaries and the full complement of heretics for the atonement were present.

"We must await them," Ethendor said. "Lead the people in more prayers and devotions. I shall return when the Voice speaks to me again." With that, he went back into the temple.

Eubeleus appeared at the side door of the control center with the aide who had gone to fetch him. He hurried over and took in the view from Geerbaine of the *Shapieron* drifting slowly over Shiban. "What are they doing in that ship?" he demanded, turning his eyes to Garuth, who was still standing with Langerif on the other screen.

In the PAC communications room, even with the hopelessness that had gripped him only moments before, Garuth felt a surge of exhilaration at the sight of his ship in motion and the message it brought that others were still doing something—although as to what it might be, he was as mystified as anyone else. He looked back to where Eubeleus was glaring out of the screen from Uttan. "You'll see for yourself, soon enough," he replied.

Ganymeans had double thumbs on each hand. Behind his back, Garuth crossed all four of them.

chapter fifty-nine

Smoke and dust poured into the corridor from the doorway leading through to the club's main lounge. It sounded as if the place was being demolished. Forgetting about what might have happened to the hour or more of lost time, Hunt and Danchekker hurried with Murray back to the rear exit that the others had taken, which was the one by which they had entered on their way from the tower elevator. Fendro, the club manager, caught up with them as they began crossing the gallery up the stairs outside.

As the four of them approached the opening into the hall where the elevators were situated, they saw Gina and Nixie with

Keshen, the engineer, hanging back around a corner. Shouting and the sounds of shots came from ahead. Hunt drew to a halt and peered past into the hall. One of the elevator doors was open, with several *Ichena* inside, exchanging fire with some police who were taking cover in a corridor opening in from the far side. One of the *Ichena* had fallen and was preventing the door from closing. To try crossing the open floor was out of the question.

Fendro yelled something at Murray and went back along the gallery, gesturing. "He says there's another elevator that way," Murray told the others. "Service shaft or something. Come on." He waved Nixie and Gina on ahead, then followed with Danchekker and Keshen. Hunt waited a few seconds longer to check the situation in the hall. Somebody inside the elevator showed himself long enough to heave the body out onto the floor, was hit himself and hauled back inside by one of the others, and then the door closed. Hunt turned and ran after Keshen's retreating figure.

The rest of the group was waiting for him outside an elevator in a narrow side passage. The car arrived just as he did, and they all crowded in. Fendro spoke an order in Jevlenese, and they began ascending. Danchekker was flushed and panting, Hunt could see as he leaned against the rear wall of the car to get his own breath back. Gina was charged up with adrenaline and ready for anything. Murray was wearing a resigned, why-is-life-always-doing-something-like-this-to-me? look. Nixie seemed

unperturbed and to be taking things calmly.

"It looks like maybe Scirio miscalculated," Murray said. "I

guess his pals are a bit more upset than he thought."

"He was backing what looked like the winning side. I think he's upset," Hunt replied.

"I take it that our communication with VISAR is once again terminated for the foreseeable future," Danchekker managed

between puffs and wheezes. "Most unfortunate."

"Is there any chance we could get back in there when things cool down?" Hunt asked Murray. Murray translated to Keshen. Keshen answered, then Fendro added something else and waved a hand, shaking his head.

"It doesn't sound as if there's a lot of point," Murray said. "Seems like the hardware back there isn't much use for any-

thing except growing petunias in."

Gina looked perplexedly at Hunt and Danchekker. "I'm not sure I understand what's happened," she said. "Are there other

versions of us still in the Entoverse-still functioning? Or did they disappear when the connection was cut? Or did we ever get there at all? I'm confused."

"I'm not sure I understand it either," Hunt told her.

Fendro muttered something that sounded fatalistic and turned his eyes momentarily upward.

"What was that?" Hunt asked.

"He says, all it needs now is for the hearse not to start," Murray answered. "Wouldn't that just make the day, huh? And you know something? With Jev mechanics in charge, that might not be so funny."

The elevator halted with a jolt, throwing everybody off balance. Fendro jabbered something, and the control computer

replied. Something was wrong.

"The power's cut," Murray said. "Either somebody hit the switch, or something downstairs got wrecked." They felt the car

beginning to descend again . . .

... but only to align itself with the next door down. An emergency brake locked it in position, and the door opened. Fendro led them at a run to some stairs, throwing back disjointed words over his shoulder and sounding to Hunt as if he were on the verge of panic. "Three more levels," Murray supplied. "Scirio won't wait." Danchekker leaned against the doorframe at the bottom of the first flight, closed his eyes for a second and drew a long breath, then launched himself up at a gangling lope. Hunt stayed behind him, ready to help if needed.

A door at the top of the third flight brought them into the bare, gray entrance hall with scratched walls. Ahead of them, the outer door onto the landing platform was open, and through it they could see the psychedelic hearse turning in preparation for takeoff, with an Ichena scrambling in through the doorway and two more close behind him. As the group from the stairs came out into the open, Keshen ran ahead, waving his arms and pointing back at the others, apparently trying to get Scirio to hold off for a few more seconds.

But Scirio's voice shouted from inside as Keshen reached the door, and the craft began to move. Keshen tried to jump, but Dreadnought appeared in the doorway and kicked him away. As Keshen picked himself up, the door slammed and the hearse accelerated away off the edge of the platform. Hunt and the others came to a confused halt as they watched it bank into a turning climb. Hunt's ability to think deserted him. He stood, staring helplessly, while Fendro ran in front, shouting and wav-

ing his arms.

Then Nixie called out and pointed in a direction off to one side. A group of dark-colored, streamlined shapes was swooping down and spreading out to close from different directions around the still-rising hearse.

"Shiban PD fliers," Murray yelled. "Looks like our friend

might be up shit creek."

The hearse had seen them, too, and banked away evasively. Panels opened in its side to reveal small ball turrets, each mounting a pair of stub weapon muzzles—similar, Hunt guessed, to the one concealed in the personal flier that had made the attack on Grevetz's. Two of the police craft opened fire, but without visible effect. What looked like a streamer of yellow light flashed back from one of the hearse's turrets, but was deflected by a shimmering patch of violet that appeared briefly in front of the police flier. The hearse twisted around to double back into a dive that carried it close by the upper part of the tower. Another of the police fliers fired, hit the building, and debris showered down onto the platform where Hunt and the others were still watching, mesmerized.

"Get under cover," Hunt shouted, snapping out of it and waving at the others. They ran back toward the entranceway, Fendro leading. At the far end of the hall inside, the first yellow-uniformed figure was just emerging cautiously from the

stairwell door.

Fendro turned as Keshen reached him. "It's no good.

They're here," he said bleakly.

Above, the hearse was hit by two bursts at once as it pulled into another turn. It exploded in a blaze of orange light and black smoke, and the remnants cascaded down over the city.

On the command deck of the Shapieron, Leyel Torres stood with a group of crew officers, taking in the view being picked up by the ship's sternward-looking cameras, showing the upper spires and roofs of the city sliding by below. A holographic floor projection showed an image of the ship hovering above a cutaway representation of the levels and buildings beneath, as retrieved from ZORAC's stored plans of the city. The flashing symbol showing inside the zone beneath the ship centered on a maze of alleyways and side streets at the base of a complex of interconnected buildings that merged into a step-tapered tower. The tower rose at the confluence of several of the wide traffic

corridors in a part of the city covered by a high outer canopy.

"The club's located down in there," ZORAC said. "Probe three is registering high police-band activity centered in that area." A couple of the Shapieron's probes, hovering some distance above and freed from the curtain of jamming that the Jevlenese had thrown around Geerbaine, were picking up stray communications traffic above the city.

"And we're sure that the canopy is of lightweight construction over this section?" one of the officers checked. "There

won't be any people up there?"

"That's what the plans show," Torres confirmed. He cast an eye quickly around the company. "We have to give it a try."

"Message exchanges between police fliers and HQ," ZORAC

reported. "It sounds as if they're attacking something."

"How far can we reconfigure the external stress field?"

Torres asked.

"Sufficient to arrest major falls below and redirect beyond city limits," ZORAC replied. "There might be some local peripheral fallout." The Shapieron's drive created a zone of distorted space-time around the ship. ZORAC was saying that it could shape that external field into a force zone that would project objects clear of the vicinity.

Torres looked at the other officers. "The decision is mine. totally," he said. "ZORAC, execute the plan as specified. We're

going in."

"Geronimo!" ZORAC responded.

"What?"

"It's the expression that Terran paratroopers used on going into action, back in the days when they fought wars," ZORAC explained. "It seemed appropriate."

'Just fly the ship, please."

"Yessir."

Inside PAC, Langerif stared bemusedly at the scene being relayed from outside, as the huge shape of the starship hovering over the city started descending. The voice of the chief who was in charge at Geerbaine came excitedly over the audio. "I don't know what it's doing . . . It seems to be going down again. It can't be! It's going to land on top." On the view, a part of the city canopy immediately below the Shapieron was pulled up and fragmented into pieces which flew upward and out of sight. The voice became frenzied. "No, it isn't slowing down! What is it doing? I don't believe this. It's going straight down through!"

"What is happening there?" Eubeleus screeched on the screen from Uttan.

"I think that the intelligence destined to supplant us may have written us off a little too soon," Garuth said as he watched. He managed to make it sound satisfyingly mysterious. In truth, he hadn't the faintest idea.

They came to a halt, defeated. There was nowhere to go, nothing more to be tried.

And then Hunt realized that Gina was staring up past him and pointing incredulously. He turned and saw that a section of the imitation sky almost above their heads had gone dark and was bulging inward. Seconds later it broke into huge sections of canopy and supporting structure coming asunder, parting sideways unnaturally instead of falling, and then disappearing upward as if snatched away by a giant suction cleaner. At the same time a voice boomed like thunder across the city in Jevlenese. Hunt's head snapped around toward Murray.

Murray was bewildered. "It's telling people to get under

cover. I don't-Jesus Christ!"

Hunt looked back. Silhouetted against the pale green outside, an immense shape consisting of a distorted cruciform fastened to a huge, streamlined tower that shrank away into the sky under the acute foreshortening of the perspective was coming down through the hole in the canopy. A roar of rushing air filled their ears, and minor debris scattered down and bounced off the face of the building above as the canopy above continued to buckle and tear.

"Goddamn spaceship!" Murray yelled hoarsely. "Spaceship

coming down through the fuckin' roof!"

"That's the Shapieron!" Gina shouted dazedly. "Vic, it's the Ganymeans!"

The starship came down through the circling police fliers like a battleship scattering minnows, filling the volume above the

city's rooftops.

"My God!" Danchekker exclaimed, staring up as the cathedral-like space between the four curving, swept fins enlarged second by second right above their heads. The retractable rearmost section of the main body, which contained the entry locks, was already sliding downward.

A bullhorn voice rang out, not as loud as before, and in English this time. "That's them, luckier than we hoped. Okay,

Vic, we see you. Get everyone over. I'm opening a door." Never had Hunt been more glad to hear the voice of a computer.

Murray velled something at Fendro, who came out of his funk and pressed a button inside a coverplate by the entrance. The doors closed, cutting off the police who had started moving forward across the hall inside. Hunt was already urging the

others back across the landing platform.

The Shapieron could not maneuver close enough to the building to lower its rear section onto the platform, but was hanging overhead with the opened entrance just past the edge and a short distance below. Gina came to the rail and looked down into what appeared to be a bottomless void between the stern section of the ship, hanging in space, and the lower part of the tower, which was overhung, back beneath the platform. Inside the opened lock, Ganymean figures were gesturing frantically.

"It's okay," ZORAC's voice encouraged. "You're in a

shaped field. I'll steer you in."

Hunt urged her up onto the guardrail. Consciously she wanted to do it, but some deep-rooted, primeval survival instinct held her back. She shook her head weakly. "I'm not sure I can."

Nixie climbed nimbly up on the far side of her, paused for a split second, and then launched herself forward. All the experiences and instincts of a lifetime's conditioning told Gina that Nixie shouldn't make it; but unseen forces guided her, and she landed lightly inside the Shapieron.

Gina swallowed and glanced at Hunt.

He nodded, "Go on!"

Forcing all other thoughts from her mind, she pitched off the rail-oblivious to the shove in her back that sent her moving.

Danchekker climbed up shakily. "If we ever manage to return after this escapade, I'll greet Ms. Mulling with flowers," he muttered to Hunt, and jumped.

As Keshen moved to follow, Fendro looked back and

shouted in dismay. "We'll never make it!"

Hunt turned his head. The door from the building was open again, and police were rushing out onto the platform. "Go!" he velled, and pushed Keshen off. But Fendro was right: there were still three of them to go, and some of the police were already leveling weapons.

And then one of the Shapieron's probes came swooping downward with a roaring, swishing sound, flattening out to race over the platform at head height, straight at the doorway like a fighter on a strafing run. The police scattered amid shouts of terror, some throwing themselves out of the way, others retreating back into the doorway. At the last moment the probe broke and peeled upward, grazing within a few feet of the face

of the tower, and began turning for another run.

Murray and Fendro had clambered up onto the rail, and both disappeared together as Hunt looked back. Hunt glanced behind one last time, then hurled himself over after them. For an instant he seemed to hang in midair above the abyss, and then, without his really registering what had taken place, hands were steadying him inside the *Shapieron*.

"All aboard," ZORAC's voice said from somewhere. "Anybody want to change their mind? No? Then let's get out of here. Next stop, orbit. Calazar and Caldwell are through in the com-

mand deck via VISAR, waiting to talk to you."

Hunt accepted a set of communicator accessories from one of the Ganymeans and attached them to his neck, ear, and forehead as they walked. "Who's running the ship?" he asked as they approached one of the internal transit tubes.

"Leyel Torres, at your service," a voice said in his ear.

"Quite a stunt," Hunt complimented. "Pity about the hole in the roof."

"I assume their insurance will cover it."

"What's the score otherwise?"

"Well, it seems that you've gone and doubled all our problems—literally. The versions of you that we've just extricated from that mess were only half the story. Now we have to worry about the other half."

chapter sixty

Shingen-Hu refused to let himself be demoralized again. The higher gods had told him that he was to be their chosen instrument, and he had seen their power. Therefore the sudden cessation of the demonstration was a sign to him. It meant something. They had placed their emissaries in his charge, he had decided as the procession wound its way through the hills

surrounding Rakashym, and left them stripped of their protection. All the time, the emissaries had remained quiet and subdued, obviously leaving Shingen-Hu to work the interpretation out for himself. It could only mean that the gods were entrusting to him the task of saving them. It was a test of his faith and worthiness.

Having satisfied himself of that much, he maneuvered himself into one of the corners of the cart below the two guards who were riding up front, and out of their line of vision. Then, under cover of the other bodies packed around him, he slipped from his robe one of the pieces of mobilium from the dignitaries' carriage that he had picked up and concealed when they were back in the village square. He laid the sliver along one of his fingers and, concentrating his powers, slowly passed his finger through one of the links of the chain shackling his hands. The mobilium following behind his finger repelled the material, preventing it from rejoining behind, and the chain fell apart. He nudged Thrax, indicated what he had done, and passed him the other piece of mobilium. Thrax loosened his own chains, then worked his way across to the far side of the cart. By the time the cart had covered another mile, they had freed all five of the captives whom the gods had entrusted to them.

The train rounded a sharp bend at a point where the trail began descending, and there Shingen-Hu saw the opportunity that the gods had prepared for him. On one side, a steep gully rose into the rocks above the trail, its course littered with many loose and precarious boulders. On the other side, just past the bend where the gully spilled out onto the trail, there was a deep gorge with a stream at the bottom, and across it a cliff of crumbling, red-brown gritstone, its face patchy and veined with

crystal of various colors.

Shingen-Hu waited until the cart carrying the prisoners had passed the gully, at which point the supply wagon and main body of the escorting soldiers following behind were obscured momentarily by the bend. Straightening up suddenly, he pointed at the gully with the extended fingers of both hands, singling out a large boulder that had acted as a dam and accumulated a mound of smaller debris fallen from higher up. The rock moved. Shingen-Hu sent a bolt of focused power, which he felt augmented by Thrax, concentrating beside him, and moments later a miniature avalanche came rumbling and tumbling down the gorge, sealing off the trail behind.

Ahead, the cart that the dignitaries were traveling in—com-

mandeered from the villagers to replace the carriage—had come to a stop on a narrow stretch where the trail passed between two rock walls. As the occupants came spilling out in consternation, they blocked the way of the soldiers from the front, who were trying to get back. Shingen-Hu marveled at how perfectly the gods had prepared the moment.

Casting his powers forward, he materialized a curtain of thick, black smoke to add to their confusion. Now the train was blocked both to the rear and to the fore, and the way open for

escape lay off to the side, across the gorge.

Again combining his power with Thrax's, he walked out on a jutting rock that the gods had provided. There he paused until he felt a current surging, gathered his effort, and then stepped forth confidently to feel himself carried across to a narrow ledge near the cliff base, a short distance above the water. Thrax moved onto the jutting rock, marshaling the emissaries. Shingen-Hu could see that, just as he had expected, they were giving Thrax no assistance, but were acting like helpless novices to let him meet his test on his own merits.

"Walk forward over the bridge," he called, beckoning for

them to follow.

"What bloody bridge?" the emissary who was called Hunt shouted back.

"The bridge that faith shall build for ye. Trust my word, and

my power shall carry thee safe."

Hunt shrugged and stepped off the rock, and Shingen-Hu felt a wave of exhilaration as he bore the emissary over. Next came the redheaded female, followed by the ring-eyed Father of Gods, who had arrived in the spinning temple of beasts. By that time the ledge was crowded, and Thrax was left on the other side with the short-skirted female and the long-headed giant.

"Now we must climb," Shingen-Hu exhorted. His power would never lift five of them to the top. The test would be to get them there, he was certain. What was to happen after that would then be revealed. So saying, he began moving smoothly and surely up the face, making use of frictite veins to afford a grip where there was no convenient hold, and avoiding the protrusions of green anchorite and black catchstone, as any voungster would know how to do.

But he had barely ascended halfway when a cry from below halted him. "What in God's name is this confounded stuff? I

can't move."

Shingen-Hu leaned outward and peered back down. The

Father of Gods was stuck to a knob of anchorite and gesticulating frantically. Hunt began traversing toward him but became entangled with a growth of clingweed hanging from a crevice, while the redheaded female below them was scrabbling futilely at a block of lubrite, which contained grains of mobilium and was unclimbable. They were acting like children to try him. Shingen-Hu realized. The test was not over yet.

Meanwhile, priests and soldiers were appearing from the confusion on the other side of the gorge. "Thrax, thou must cross over now and assist," Shingen-Hu called down. From his stance above he helped Thrax across the gorge, then turned and

resumed climbing.

But as he reached the top, Thrax's voice came up from below. "'Tis beyond all hope, Master. They are as fish stranded in

Shingen-Hu looked back across the gorge. The soldiers had reached the jutting rock and were dragging back the female and the long-headed one who had been left. "Then save thyself, Thrax," he called back down. "Nothing can be gained by thy sacrifice."

Thrax joined him at the top of the cliff minutes later. By that time the long-headed one and the short-skirted female had been led away, and soldiers had descended to the stream and were wading across. On the trail above the soldiers, the priests had assembled around the Examiner and were directing a paralyzing influence across at the three emissaries stranded below. Shingen-Hu looked on dejectedly. He had failed.

Movement higher up above caught his eye. A flock of vultures was circling above the trail, right over the spot where the priests were gathered. Raising his arm, he pointed at them, his eyes glinting malevolently. Seized by a sudden compulsion, the birds voided their contents upon the priests from on high.

Shingen-Hu and Thrax turned and walked sadly away.

In the Shapieron, orbiting high over Jevlen, Eesyan was explaining over the connection from Thurien what would be in-

volved in restoring VISAR's connection to JEVEX.

"The line out from the club connected into the regular Jevlenese planetary communications net," he said from one of the large screens overlooking the command deck. "The activation codes that were fed in triggered an i-link termination node somewhere, which was programmed with the operating parameters to access JEVEX. To restore the connection we need to do two things: first, find an entry point into the planetary net that bypasses the normal security checks; and second, input the same activation codes to it that Keshen entered from the club."

"So that would trigger the same i-space terminal to connect to Uttan," Hunt said. He was standing with Danchekker and Keshen beside the Ganymeans, Leyel Torres and Rodgar Jassilane. "We wouldn't need to know where the node is located or what it is, or exactly how it functions?"

"That's right," Keshen confirmed.

"But I thought all the links were shut down," Jassilane said.

"Isn't that what disconnected you in the first place?"

"Yes," Eesyan agreed. "Apart from one that they've probably got open to their people inside PAC—but that would be inaccessible to us, anyway. But in order to stage his invasion from Uttan, Eubeleus will have to open JEVEX to access from Jevlen-based trunk nodes again. What we're saying is that when he does, VISAR will have been routed through to one of them."

Jassilane looked inquiringly at Keshen.

The Jevlenese nodded. "If we can get back into the net," he confirmed.

Gina watched with Nixie, Fendro, and Murray, over on one side. There was nothing she could contribute, and tossing in questions that could just as well be answered later would only delay things. Nixie, Fendro, and Murray were still too awed at the interior of the starship to have much thought about any-

thing else, anyway.

"And I think there's a way we might be able to do it," Keshen said. He looked around quickly. "Through one of the redirector satellites that were left functioning. There are about thirty of them. They're part of the regular net, unmanned, and a long way out." The others were listening intently. He spread his hands and went on. "If we could get to one of them and find a way inside it, I think I could break into one of the primary circuits. That would bypass the protection. The network itself would take care of finding a route to wherever the access code indicates. We don't have to know where it points."

"Do you know the codes?" Eesyan asked. He sounded dubi-

ous, as if he found the thought unlikely.

Keshen looked surprised. "But I assumed VISAR had the codes," he replied. "VISAR was connected when I entered them at the club. Isn't it true?"

"They were stored in local memory," VISAR said. "They got

lost when I was cut off."

Eubeleus paced agitatedly to and fro across the floor of the main control center deep beneath the surface of Uttan. The latest report from Jevlen was that the Shapieron had lifted out from the planet and was riding in orbit. It was the Shapieron that had slipped in close under the planet's defensive guard during the Pseudowar and intercepted a communications beam to let VISAR into JEVEX. All his instincts told him that the Terrans were going to try the same thing again. He should have felt completely confident, he knew, for this time he had foreseen their plan; but he found himself unable to shake off an oppressive nervousness, which he traced back to the knowledge that Hunt and Danchekker were involved. It meant that anything could happen: especially something that nobody else had thought of.

"How close to completion is the final integration sequence?" he asked the operators clustered around the supervisory con-

sole.

"It's practically complete now," Iduane answered.

"Good. Run a double check on all communications input channels. I want to be absolutely sure that no illicit accesses are being tried anywhere. Assign it a class-one priority."

"Understood."

"What is the *Shapieron* doing?" Eubeleus asked another operator, who was monitoring the tracking data being relayed via PAC from the Jevlenese surveillance system.

"Still holding LJO. No new developments."

Eubeleus stopped, stared at the screen showing Langerif and his officers in the PAC communications room, then turned away and started pacing again. "I don't like it," he muttered. "I don't trust that ship."

"It's not doing anything," Iduane pointed out. "And what can it do? Our surveillance will be following it from Jevlen every

inch of the way, wherever it goes."

"It's not safe so long as it's anywhere in the vicinity of Jevlen," Eubeleus said. "I'm not proceeding further until we get rid of it."

"Get rid of it?" Iduane looked perplexed. "How? Jevlen

doesn't have any strategic defenses."

"There must be some way of—" Eubeleus stopped and looked over at the screen showing Langerif again. "Wait. We've still got their illustrious commander, haven't we?" he said, moving back across. "The leader who brought them back

after all those years. They wouldn't want anything to happen to him, now, would they?" He nodded, satisfied. "And you've got some others there that we can use as hostages, isn't that right? Who are they?"

"Two scientists, who work with Hunt and Danchekker," Langerif replied. "Also the Terran who was in charge of secu-

rity here."

Eubeleus looked gratified. "Perfect! Get a laser link to whoever is in command of the *Shapieron* and have those three brought up to where you are, right away. We'll have that ship out of harm's way within an hour." He looked across at Iduane. "Suspend all further action concerning the Awakening for the time being," he ordered.

Iduane nodded but didn't look happy about it. "What about the Prophet? He's still there with all the people, waiting for you

to take over."

Eubeleus waved a hand impatiently. "Oh . . . go back and tell them to sing a few more hymns or something," he replied.

Duncan and Sandy were sitting together among the group of security guards, Ganymeans, and other captives inside PAC.

"How's that for a bummer?" Duncan said. "We come all this way, to a new city and a totally different culture, and we end up like this."

"We never even got to see the town," Sandy agreed dismally. Duncan looked idly around at the others sitting around the room, not saying much, waiting. "What do you like to do when you get to go out?" he asked.

"Go out? What's that? I work for Chris Danchekker, remember? A vacation is eating lunch that didn't come out of a paper

bag."

"Guys like that ought to get married," Duncan said.

"Maybe he did, years ago, and forgot all about it. I've seen

him show up at the lab in odd shoes."

"How about San Francisco?" Duncan said. "Ever get out that way? Fisherman's Wharf, Enrico's Coffee House? Do you know, I reckon that if they handed this city over to the people who run Chinatown in S.F., they'd have the place up and running in a month without ever needing JEVEX."

Sandy stretched and thought about it. "I think I'll take the south," she said. "New Orleans, some places out along Texas.

Maybe I'm just cut out for the slow, lazy life."

"Tell you what," Duncan said. "When we get back after this,

we'll go off on a tour and see all of it. Thinking back, I'd say I've spent too much of my time shut up in labs, too. Vic's always saying, Why change your job? It's just more of the same. Change your life. What do you think? Does that sound good?"

Sandy looked at him sideways. "Are your intentions strictly

honorable, Mr. Watt?"

"Absolutely not." "It's a deal."

Some police came into the room and started talking to the ones who had been standing guard. The newcomers seemed excited, with a lot of waving and gesticulating. The captives watched and waited with mixed reactions. While it was going on. Del Cullen moved over to where Sandy and Duncan were sitting. "Looks like the war's not over yet," he murmured.

"Why? What's happening?" Duncan asked.

"I only caught pieces of it, but it sounds like something's just come down through the roof of the city. I think one of them said it was the Shapieron."

Sandy looked aghast. "You mean it crashed?"

"Hell, no. It took off again . . . But there's still something

going on out there. The others are up to something."

Then the police who had entered came over and pointed to the three of them. The guards motioned for them to get up and follow. In the background, Koberg and Lebansky started objecting, but held back when other guards lowered their weapons threateningly. Cullen shrugged. "I guess we don't have a lot of choice," he said. The prisoners left, accompanied by the escort that had been sent for them.

They were taken up to the communications room, where Garuth was standing with Langerif and a group of other Jevlenese in front of a screen showing Eubeleus. On another screen they saw Hunt, Danchekker, and a mixed group of others in brightly lit surroundings of display consoles and control stations, which Duncan guessed to be the inside of the Shapieron.

"It's them!" he exclaimed. "They got out! They're—"

"Quiet!" Langerif snapped.

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On the other screen, Eubeleus was speaking. "We do indeed have all of them as you can see for yourselves. I'm not in a mood to make long speeches. The implications are too obvious to require spelling out. My instructions are that-"

"Don't listen," Garuth broke in. "Do whatever-"

"Remove him," Langerif ordered. Two armed guards ushered Garuth away, out of range of the screen.

Eubeleus resumed. "You will take your ship away from Jevlen immediately at maximum speed, and out of Athena's planetary system completely. The Thuriens will project a toroid to remove it from this region." He raised a hand, seeing the protest start to form on Torres's face. "There is nothing to negotiate. You will commence at once."

Sandy was ebullient at seeing that the others were safe, and for the moment she wasn't worried about what would happen next. Gina, standing in the forefront of the group behind Torres, was looking especially crestfallen. "Don't worry, Gina," Sandy called, as if she could direct the words only at her. "Things will work out. Maybe it's all just happening in our heads." A private joke. Gina caught it and smiled back.

"Glad you made it, chief," Duncan called out from beside Sandy. Hunt acknowledged with a nod and a faint grin.

Eubeleus paled with anger. "Take them all away!" he shouted. "They've served their purpose. The Ganymeans know we have them." He looked back at the view of Torres. "Don't let their frivolity mislead you, Captain. Take your ship outward immediately. Otherwise, I don't have to tell you what will become of your precious friends there."

Torres could only nod numbly. But behind him, Danchekker's face had taken on the enraptured expression of somebody who had just seen a light, as if he had only just realized some-

thing that should have been obvious long before.

chapter sixty-one

Eubeleus's face vanished from the screen on the Shapieron's command deck. Calazar and Eesyan were left on another, staring gloomily from their capital on Thurien, and Caldwell, in Washington, was still showing on the one adjacent. But Danchekker was already hopping about in the center of the floor, gesticulating excitedly first one way, then another, at the Terrans and Ganymeans around him.

"She just said it! Sandy just said it, on the screen there! In

their heads!" He pointed wildly at Keshen, who pulled back in

alarm. "He's still got them!"

Hunt raised a restraining hand. "Chris, calm down, stop dancing about like that, and say whatever the hell it is you're

trying to say."

Danchekker regained most of his composure, but was still unable to prevent his finger jabbing repeatedly in Keshen's direction. "The activation codes! Don't you see? He entered them into the touchpanel in the club! He still has them, subconsciously, inside his head. VISAR can get them out again!"

Hunt stared for a full five seconds. "Is that right?" The question was mechanical. He already knew enough to have

little doubt of the answer.

"Yes . . . with Keshen's permission, naturally," VISAR said. "Of course," Calazar whispered numbly. It was so unheard of that no Thurien would have thought of it-or a Thurienoriented computer.

Hunt looked at Keshen. "Is it okay with you?"

Keshen shrugged, still taken aback at having suddenly become the center of things. "Well, I guess so . . . Sure."

Hunt turned to Torres. But the Ganymean was shaking his head. "But is there any point? The Jevlenese will be watching our every move. If we so much as take the ship anywhere near a redirector satellite . . ." He made a helpless gesture and left the sentence unfinished.

A silence fell, broken by the humming and pulsating of dis-

tant machinery buried in the ship.

Then Caldwell said, "Maybe there is a point. If the Jevlenese are going to have all their attention fixed on the Shapieron, that might make it an ideal decoy while something else tries for the satellite—one of the ship's probes, maybe. Some of those probes are fitted with i-space gear and can talk to VISAR. If Keshen says he can get into the planetary net from the satellite, you'd just have to bridge a connection across. How many guys would it take to do it?'

Everyone looked at Torres and the Ganymean crew officers.

They were the only ones who could answer that.

"It's got a chance," Rodgar Jassilane said at length. "When the stress field breaks down under main-drive acceleration, the entire external electromagnetic environment of the ship is disrupted. If a probe were ejected at the right moment, it might well get away undetected against the background . . . and there's nothing else we can try."

"Who'd need to go?" Hunt snapped. "Keshen for a start, I assume." He turned back to the Jevlenese engineer. "Will you do it?"

Keshen swallowed hard, but nodded.

"I'll go with him," Jassilane offered promptly. "That's all. You won't get more than two of us into one of the i-fitted probes, anyway."

There wasn't time for any more finesse. Eubeleus was probably wondering already why the ship wasn't accelerating. Hunt looked at Torres and indicated Keshen with a jerk of his head.

"Let's do it. Get him to a coupler, quick."

Torres confirmed the order with a brief wave to one of the Ganymeans. "ZORAC, prepare a sounding probe for launch." He waved to two more of the ship's officers. "Have two EV suits made ready at the access lock, one Terran model, one Ganymean."

Keshen was already being speeded through a doorway out from the command deck to the couplers. The other Ganymeans

saluted and hurried away.

Chained again, and with guards keeping them constantly covered at spearpoint, the prisoners sat morosely in the bumping, sliding cart as it approached the outskirts of Orenash. It was amazing, Hunt thought. Now that he was adjusting to the crazy dynamics of the place, he could see the change between north-south and east-west lengths every time the cart rounded an approximately right-angle bend. The scientist in him, even in a predicament that made anything else seem pointless, noted it as a detectable alteration in the cart's length-breadth proportions. No wonder the people here had never made anything beyond a few primitive tools. And the mountains discernible off to the left in the twilight were noticeably closer than they had been when the procession came out onto the plain, although the route was surely more or less parallel to them.

Beside him, Gina was pressed close, fighting to keep her emotions under control. He reached across her lap to squeeze her arm reassuringly. One of the guards growled something

threatening. Hunt drew back.

"Well, here it is," she said. "The world of Earth's mythology, only real, just like we said. But who'd have thought we'd end up in it?" She drew a long, shaky breath, and the brave face she had been struggling to maintain broke down. "Look, I'm not

very good at this. I don't know what they've got lined up at the end of this ride, but—"

"Save it," Hunt said. "As you said, it's a mythology become real. Miracles can happen."

"What miracles?"

"Who knows?"

"You know what a fluke it was for us to get that connection. What chance is there of anything else, anywhere in Shiban? If it got cut off, it must mean either that the club was taken over, or Eubeleus shut down all the links. What else can any of them"—she shook her head, unable in her fear and confusion to sort out the philosophical niceties—"us, whoever those people still out there are . . . What can they do? Do you know?"

"Not exactly," Hunt confessed.

"See!" Possibly from the workings of some inner defense mechanism, Gina became almost belligerent. "You don't know. But the *you* out there is every bit the same person, isn't it? And up to the point where we got detached, he knew as much as you did. So why should he have any better ideas? And the same goes for the rest of us."

Hunt didn't have an answer. He could only look away.

They were coming into the city of Orenash. The architecture was massively imposing, and foreboding. Ahead, trumpets sounded as the leading body of soldiers passed through a large gate set between two square towers in a high wall. Crowds were milling around the vehicles, shouting praises to the priests and

jeering at the captives.

It was an odd feeling, trying to project how he would feel about himself, Hunt found. To the originals of themselves that they had been derived from, they were just knots of computer code. He wondered how much those originals out there would really care. Right now, he didn't feel at all like a piece of computer code, and he cared very much. But how much of that was likely to impress itself on other beings in another universe, whatever their superficial resemblances and theoretically coincident identities? They didn't have the same stake in the outcome of all this.

It was not a very reassuring line of thought to find himself being drawn along.

"Data update from Jevlen," an operator sang out suddenly. Eubeleus swung to face him from the middle of the floor, his haste betraying a tenseness that he had been striving not to

show. "The Shapieron is accelerating out of free-fall now. Readings indicate profile consistent with maximum ramp up to interstellar speed."

It took Eubeleus a moment or two to register the fact fully. Then, gradually, the realization percolated through that his gamble had paid off. He let his tension dissipate slowly, savoring the feeling of relief flowing over him to take its place.

He had expected some delay, despite the harshness of his ultimatum, for there were bound to be deliberations between those aboard the vessel and whoever else they were in contact with. Their final submission, expressed in the form of the ship's departure, would come only as a last resort. His worry had been that they would call what they thought to be a bluff and so force his hand, thereby necessitating what would have been a regrettably ugly note on which to begin the new regime. But now the danger was past.

"Our congratulations," one of the others offered. "This is exactly the kind of unswerving will that the plan needs."

Eubeleus dismissed the remark offhandedly, as if the fact should have been sufficiently obvious not to need voicing. "So much for their last, desperate attempt, which as you see, turns out to have been a mere distraction," he said. "And now, back to our main task. Is JEVEX running now?"

"Fully functional, Excellency," the familiar voice of JEVEX responded. Reassured looks passed between the others around

the control center.

"Before we open the links to Jevlen, I want a final check that we are not registering any attempts at irregular access, either via the i-links, or through the conventional Jevlenese planetary system," Eubeleus said. "I want the system fully secure on all counts."

"Commencing core reintegration prior to connection to

Jevlen," JEVEX confirmed.

"Breakdown of Shapieron's stress field is beginning," the first operator called out. "Ship is decoupling from normal space ... Delta index is fading ... Last readings give acceleration as undiminished."

At last Eubeleus felt safe, and he permitted a smile of triumph to play around the corners of his mouth for an instant. "It is time to proceed," he announced. He turned to one of the aides. "I shall guide the Prophet personally, as intended. You watch here until Iduane returns." He allowed his gaze to drift slowly over the company. "When we see each other again, Shiban will be ours." Applause greeted his words. Eubeleus turned and left the room.

Meanwhile, in the blackness of space twenty thousand miles above the surface of Jevlen, a tiny speck that the tracking sensors had missed in the disturbance from the starship's departure emerged unseen from the electromagnetic upheaval and disappeared into the starry background.

"Probe away, on course, and checking positive," ZORAC

reported.

"Well, that's it," Hunt said in the center of the Shapieron's command deck as the screens showing the external views being picked up by the ship's scanners blanked out. The vessel was now out of touch with the universe electromagnetically, its sole means of communication being by VISAR, using i-space.

"It's out of our hands," Danchekker agreed. "There's nothing more we can do now but play out our role as decoys." He thought for a moment and sighed. "It's not an especially gratifying role to find oneself reduced to, considering what's at stake. In the situations you've landed us in before, we have generally been able to contribute something more positive."

Hunt was about to reply, but checked himself and looked at Danchekker oddly. "Well, that's not exactly true, is it, Chris?"

"What do you mean?"

"It isn't out of our hands—not exactly. A lot depends on what those surrogates who are still down in the Entoverse have managed to pull off. And they're every bit as much 'us' as you and me, aren't they-if what Calazar and the others are saying is correct?" He frowned and rubbed his chin, finding the thought as bemusing as the look on Danchekker's face indicated that Danchekker himself did. "It's a peculiar situation, when you finally get a moment to think about it, isn't it?"

A messenger forced his way through the crowds packed into the grounds of the temple of Vandros and went up to the chambers inside. He spoke to one of the priests, who went to the door that led out to the main steps from where the ceremonies were being led, and beckoned Ethendor over.

"Word from the main gates," the priest informed him. "The Examiner and his caravan are entering the city now. They are bringing more heretics-faces unknown, who claimed to have

come from the gods."

"Ah, so the celebrations shall be complete," Ethendor said, nodding. He understood it all now.

"This is why the people were told to be patient?" the priest

queried.

"The plan unfolds in its perfection," Ethendor assured him. Then the Voice came again into Ethendor's mind. "The time will come very soon now, Prophet chosen by the gods. Are you prepared to receive the Great Spirit?"

"The last of our enemies are being brought before us to face atonement, and Waroth has been cleansed of its stain," Ethen-

dor replied. "All is prepared."

"You have done well. All that was promised shall be yours

in Hyperia."

"I shall rule over vast multitudes? My word shall move armies and my wishes shall be law? Kings shall tremble at my displeasure?" Ethendor's inner voice shook, and his eyes blazed with the vision. "I shall scatter mine enemies mercilessly before me as dust to the winds, and be mighty as the gods themselves?"

"Thus was our contract."

"Humbly, I accept."

The satellite was in the form of a stepped octagonal prism, cluttered with protrusions and antennae. Using manual guidance, Rodgar Jassilane moved the probe gradually in until it was hanging a few yards from the rear access port, approaching from the outward direction to avoid interrupting any signal beams directed at the planet. "Arrived and docked," he announced. The i-space equipment that the probe was carrying gave them a link to VISAR on Thurien. He glanced across at Keshen, also suited up and squeezed awkwardly into the cramped space. "Okay?"

Keshen nodded behind his facepiece.

"Open hatch," Jassilane instructed the onboard computer.

With a few expert pushes and tugs, Jassilane propelled himself out of the opening and turned on his checkline to collect the tool pack from a stowage compartment that had opened alongside the hatch. Inside, Keshen seemed to be having more difficulty in moving and was extricating himself clumsily.

"Not too much experience in zero-g, eh?" Jassilane remarked, leaning in and unhooking a buckle of Keshen's pack

harness from a projecting hinge of the hatch cover.

"I've never been off-planet before," Keshen told him. For a second the Ganymean froze, not knowing what to say.

"You kind of, er . . . left it a long time before saying so," he managed finally.

"Nobody asked me before. I didn't want to sound like I was

chickening out."

Jassilane thought about it. "Did Hunt, the Terran scientist, get you into this?" he inquired.

"That's right. How did you know?"

"Oh . . . I just had a feeling," Jassilane said as he attached the

probe by a tether.

While Jassilane burned open the hatch into the satellite with a plasma torch, Keshen unreeled the cable that would provide a connection for VISAR from the link hardware inside the probe. They entered the satellite, and Keshen located a maintenance and test console, which he used to find the boxes containing the buffer terminals for the output circuits into the planetary communications net. Jassilane set up a terminal back to the probe's onboard computer, which ZORAC had loaded with Jevlenese interconnection protocols and reference data, as well as the activation codes that VISAR had retrieved from Keshen's memory.

"You seem to know what you're doing," Jassilane remarked, hoping that his relief didn't show in the translation coming

back through VISAR.

"You see? Not all Jevs are meatheads."

"What did you do before?"

Keshen checked the connectors against the set of Jevlenese standard patterns that Jassilane had collected from the Shapieron's stores. "Operations supervision—part of the JEVEX remote-input system. When JEVEX was shut down, some people approached me to set up a few connections into the residual core system that was left running—without asking questions about what they wanted them for."

Jassilane searched through what he knew of the motivations behind the strange things that humans did. "Out of revenge?" he guessed. "To get even with the authorities? Or was it to assert your identification with an ideological principle that you

saw as being violated?"

"No. For the money."

They found a connector combination that matched. Jassilane began fitting it together, while Keshen used the console to isolate one of the satellite's primary downlink beams. The neat thing about the way they were doing it, he thought as he worked, was that JEVEX could check all it wanted to for somebody trying to break into it; it wouldn't find anything. VISAR would be connected, via the satellite, to one of the surface nodes—wherever it was located—that Eubeleus himself had ordered to be shut down, and which wouldn't activate again until JEVEX itself opened its channels to Jevlen for the invasion. It was a bit like dressing the robbers up as the security guards, and waiting for the bank to call them in.

The pervasion of the Voice seemed to fade, and Ethendor felt another presence taking form in his mind, somehow colder and more remote, aloof and dominating. "Does the Prophet hear?"

Ethendor looked upward in reverence. "Is this the Great

Spirit who comes at last to this unworthy servant?"

"It is. I see and hear through you, and shall be your soul. Go forward now to the people and proclaim to them that the moment that was promised is at hand. Now will the sun shine, and when the day returns, the currents shall come down to you again."

Visions of Hyperia came to Ethendor. Moving slowly in a semitrance, he raised his arms high and advanced to the edge of the platform at the top of the steps, while the priests who had been performing the devotions parted to let him pass. An expectant hush swept over the crowd below. The priests on either side and slightly to the rear of him assumed attitudes of prayer and waited.

"The time is upon us!" Ethendor's voice thundered across the silent throng. "All of our patience, our sufferings, our labors against the unbelievers, and our unwavering faith will be rewarded. The Great Spirit from beyond has come into me, and now I proclaim to you that the Awakening is to begin." He stretched his arms high and threw back his head. "Let the sun shine again and the days return upon Waroth! And then shall the currents descend that shall carry the multitudes to Hyperia!"

In the gloom, the entire mass of the crowd lightened as

thousands of faces turned upward simultaneously.

And in the sky above, the sun began to brighten.

chapter sixty-two

A mighty roar of cheers, shouts, songs, and praises swept over the crowd as the twilight turned to day and the city stood revealed in its full extent and color. To Hunt's eyes it was a strange mixture of classical colonnades, spires and minarets of a vaguely Eastern flavor, and massive, terraced pyramids that looked Aztec, with materials varying from polished white, like marble, to crude dwellings of brown and muddy yellow. There were arches framing many of the smaller side alleys, and high bridges that could have been aqueducts. The dress of the people was a mixture of ancient and medieval, consisting in some places of long robes and skirted tunics, in others of hooded jerkins and coarse coats. More riders formed up on either side of the train, and the cavalcade wound its way through the packed streets toward a high structure on a rocky hill, surrounded by an inner wall.

"What does this mean?" Nixie asked Hunt. "The daylight

returning. What has happened outside?"

"JEVEX is operational again," Hunt told her soberly.

She looked at him with an uncertain expression. "Is there anything they can do, now, outside? Will it still be possible for VISAR to reconnect?"

Gina was watching with a tense look. Hunt said nothing.

"JEVEX will be checking for access attempts," Eesyan said expressionlessly.

Nixie looked up, and a strange, distant expression came over

her face. After several seconds it became grave.

Hunt stared at her. "What is it? Nixie, can you hear me?"

"The sky is dense with currents. There must be thousands waiting, coupled into the system in Shiban."

Hunt looked up at the sky. It looked normal. "I don't see

anything," he said.

"You wouldn't."

They passed through a gate in the inner wall to a wide space

that was as packed as the streets outside. Before them was the mount, its base hidden among elaborately ornamented buildings and statues. Above, its mass was carved into a pyramid with high, wide steps taking up most of the side facing the gate, and higher up, a summit of vertical walls topped by a dome surrounded by smaller spires. At the top of the steps was a terrace, upon which a group of figures in high headdresses and white and red robes stood arrayed about a central one in gold, standing with his arms extended. A larger terrace near the base of the steps had been prepared with stakes and other gruesome devices of execution, while below, scores of bruised and tattered shapes stood herded forlornly behind a line of stern-faced soldiers.

The carts drew up in a cleared area before the soldiers. The Examiner and his retinue climbed importantly out ahead, while the guards disembarked the last batch of victims. Hunt tried to tell himself that this wasn't really what it seemed: He was in another realm, outside this whole insane world that he thought he was seeing. He would still be there, after whatever was to happen had happened . . . But it didn't do a lot of good. From where he was viewing the situation, the intellectualizing wasn't convincing.

Through the eyes of Ethendor, Eubeleus gazed out upon the scene and saw that his triumph was complete. For a moment longer he stood, posing high above the crowd, his robes of gold throwing back the sunlight. Then he advanced slowly to the edge of the platform at the top of the steps, extended his arms wide, and turned grandly to take in first one side of the temple

court, then the other.

"Citizens of Orenash, people of Waroth . . ."

Quiet fell upon the crowd and spread across the sea of faces like oil calming turbulent waters. All became still.

Below, Hunt and the others stood and exchanged final, re-

signed looks.

And then a low, pulsating, throbbing sound came intermittently through the silence: a whisper, rising and falling about the threshold of hearing as it was carried on the breeze coming over the city. Hunt's head jerked around sharply as the murmur grew louder and more distinct. High above, Ethendor looked up, frowning. Inside the high priest's mind, Eubeleus, non-plussed, momentarily lost direction. This wasn't right at all.

The sound intensified, coming closer: a steady droning now, punctuated by the rhythmic thwacking of solid matter beating

air. Disbelief flooded into Hunt's face. There was only one thing he knew that made a sound like that. He stared in the direction that it was coming from, hardly daring to let his hopes rise . . . And then he heard the cries of terror from the crowds beyond the wall, outside in the city.

The inhabitants of Waroth had never seen a 1960s vintage, Boeing Vertol CH-47 Chinook, twin tandem-rotor, turbine-driven, troop-transport and supply helicopter. As it came in low over the temple wall, shrieks and wails went up from all sides. Some of the people threw themselves down on the ground; others were rushing this way and that, gibbering in panic. The dignitaries and soldiers who had come from Rakashym stood transfixed, not knowing what to make of this sudden reappearance of the power they had seen manifested before.

Danchekker, who had been managing to sustain an astonishing calm throughout, gave an approving nod. "Ah, yes. And about time, too," he said. "It would appear that our alter egos have finally managed to get themselves organized. I'm pleased

to see that we're not losing our touch, Vic."

Beside Hunt, Gina was sobbing tears of relief. "I never thought it would be possible to fall in love with a computer," she choked.

Hunt found himself so drained suddenly that he was unable to manage the grin that he tried to force, and none of the flippant words that came into his head would form. He brought a hand up to his mouth and discovered that he was shaking. "Did you enjoy your vacation, VISAR?" was all he could mutter finally.

"Bit of a technical hitch out here," the familiar voice replied in his head. "It's all under control now. I presume the details

can wait until later."

Above them, Ethendor was coming down the temple steps almost at a run, his face writhing in fury and incomprehension. Some of the other priests were trailing after him, while the rest remained gripped by fear and consternation on the platform above.

The Chinook swung around to hover broadside-on to the temple above the cringing throng. Its large side door was open, and framed in the opening stood the figures of Shingen-Hu and Thrax, gazing down lordlike and majestically, borne from the gods.

It had been a test, the Examiner saw. He would not fail. "Hail to the Chosen One, indeed true messenger of the highest

gods!" he exalted, going down onto both knees this time. Around him the other dignitaries and soldiers who had come

from Rakashym took up the cry and followed suit.

Ethendor stormed out onto the terrace below the steps, flung back his robe and aimed his arms up at Shingen-Hu. Moving reflexively in self-defense, Shingen-Hu pointed back, and all the power that had been focused within him by the intensity of the moment went into the bolt that flashed downward before Ethendor could concentrate his will. The figure of the high priest went rigid and became incandescent. From below, Hunt and his companions watched in horrified fascination.

And then, a very peculiar thing happened.

The shock of psychic energy that annihilated the mind that had been Ethendor propagated back along the current perfusing it and out through the attached neural coupler into the brain of Eubeleus. And since the system controlling the coupler was now under the direction not of JEVEX but VISAR, VISAR saw the configuration of mental constructs that formed the person of Eubeleus beginning to dislocate and come apart.

VISAR's basic programming gave it a nature that sought to protect and preserve life. There was nothing it could do to save Ethendor, for what had been Ethendor was gone; and the milliseconds that it had to consider what could be done about Eubeleus gave little opportunity for innovation or profound reflections on possible consequences. It used the tools that it had. And the only way it knew to preserve a human personality was to inject it, while it was still functioning as a coherent whole, into an artificial Ent-being—which VISAR promptly wrote into the Entoverse. For the same reasons why the surrogates of Hunt and the others looked to them as their human forms looked in the Exoverse, the Eubeleus surrogate looked like Eubeleus.

Who found himself suddenly at the foot of the temple steps, clad in a Roman toga, standing beside the smoldering heap that moments before had been Ethendor, and staring at a twin-rotor

helicopter hovering over the petrified crowd.

He stood gaping down at himself and from side to side, confused and bewildered, while the priests who had followed Ethendor down the steps backed away, terrified . . . And then his mouth fell open as he recognized for the first time the group of figures who were standing a short distance below.

"No," he protested, shaking his head. "This can't be! How

could vou be here?"

"Hello, Eubeleus!" Hunt called back cheerfully. "We seem to have this habit of showing up in the oddest places, don't we?" He managed to look nonchalant, but inside he was as mystified as to how Eubeleus came to be there as Eubeleus himself seemed to be.

"JEVEX, what is the meaning of this?" Eubeleus demanded

savagely.

"Sorry, but the system is no longer operating under that management," came the reply. "This is your new, friendly, integrated computer service, VISAR, brought to you at no charge all the way from Thurien. Have a nice day."

"That is not possible!"

"What else can I tell you?"

Eubeleus came to the edge of the terrace and screamed down at the soldiers. "Kill them! I command you, kill every one of them!" The soldiers' weapons turned into party squeakers and candy canes. Around where Eubeleus was standing, the pyres, gibbets, and instruments of torture became a garden swing set, seesaw, and slide; some lawn ornaments, a Christmas tree, and a beach umbrella.

"Just not one of your days, is it, Eubeleus?" Hunt observed.

"You forget—here, I command powers!" Eubeleus snarled, leveling a finger at Hunt. A ray of pale yellow light shot out of his fingertip; but after traveling about three feet it stopped in a blob, which spun itself tauntingly into a disk, became a custard pie, and flew back into Eubeleus's face. VISAR freed and cleaned up all the captives, and then proceeded to turn the helmets of the soldiers into assorted hats and bonnets and their armor into corsets and negligees, and painted red noses and clown faces on the priests.

"VISAR, what in hell's happening?" Hunt asked. "How did

he get here?"

"He was coupled into the cheerleader who got fried. There's just a vegetable left in the coupler on Uttan. What else could I do?"

In the temple forecourt, the Chinook landed, and Shingen-Hu descended to the ground, accompanied by his acolyte, while crowd, soldiers, and dignitaries alike prostrated themselves.

Hunt looked at the others. "I think this place has got itself a reliable chief executive now. Why don't we get out now, before things get complicated, and let him start running things his own way from the beginning?"

"Your originals think so, too," VISAR said. "They can't

wait to find out what happened."

"My own feelings also," Eesyan agreed. "In fact, since my original is already in a coupler on Thurien, I can be the first, right now." He looked around the group. "This has been a strange experience. I look forward to meeting you all again under more familiar conditions, when we can no doubt discuss the philosophical issues. Until then . . ." He left it unfinished. The details of his body faded, leaving just his shape outlined in featureless white; it persisted for a moment, and then was gone.

Aboard the Shapieron, Hunt and the rest of the party were already on their way to the couplers located just off the command deck. When they were nearly there, Gina stopped Hunt

and turned to him with a puzzled expression.

"Vic, how is this supposed to work? There are two copies of each of us that have diverged and been leading independent existences for the last several hours. Does one of them get . . . 'selected' somehow, and the other one erased, like what happened to me before? If so, who chooses? I don't think I like it."

Hunt didn't know. He hadn't given it a thought. On reflection, he didn't like it, either. How did he know that he would be the lucky one? But then, again, wouldn't the other "him," down in the Entoverse, have an equally valid reason for feeling the same way? So they put the question to VISAR.

"Why should you have to select either?" was VISAR's reply. Hunt didn't understand. To him it still seemed a good question. "You say Eesyan's already back on Thurien?" he said.

"Right."

"So what did he do?"

"When I erased his surrogate in the Entoverse, I simply transferred its accumulated impressions into his original, physical self. It's his brain, and now it contains his memories. Where's the problem?"

Hunt glanced at Gina and shook his head, frowning. "You mean you just strung them together inside his head, serially? He remembers both sets of experiences equally vividly?" he said to

VISAR. "Yes"

"But they were both happening at the same time," Gina said. "So what?"

Hunt and Gina looked at each other. VISAR was right. Evidently it was another Terran hang-up that Thuriens could

live with and not worry about. It really didn't matter, did it? They had already gotten used to some far stranger things.

"So what?" Hunt repeated.

Gina nodded and smiled at the impossibility of ever coming fully to terms with it all. "So what?"

They continued on into the corridor where the couplers were located

In the forecourt of the Temple of Vandros, Hunt and his remaining companions prepared to depart in style, as emissaries from the gods would be expected to do. At the door of the Chinook, he paused to exchange a few parting words with Shingen-Hu.

"No more arisings until we've figured out on the outside how to handle it," Hunt said. "We'll be in touch, that's a promise. In the meantime, make them believe that we haven't abandoned

them, and keep the faith."

"It shall be as the new gods command," Shingen-Hu assured him.

"And we don't want sacrifices, killings, atonements, cleansings, or any more of that kind of thing. Try being nice to people for a change. Help them get what they want. You'd be amazed at the results."

"The commandments will be obeyed."

Remembering what had happened to the Jevlenese, Hunt waved at the machine, waiting with the others already aboard, its rotors idling. "This and the other miracles will cease. They don't belong here. The people will have to learn to develop their own ways of solving their problems and catering to their needs, in ways that are natural to this place. In that way, they will develop also."

"We shall await the Word."

"And that's about it." Hunt extended a hand. Shingen-Hu looked at it, hesitated, and then returned the gesture. They shook firmly. Then Hunt climbed up and turned from the door for a last view. As the note of the turbines rose, Eubeleus ran forward from the knot of priests and notables standing ahead of the awestruck crowd.

"What's this?" he screeched. "You're not leaving me here?

You can't!"

"There isn't a lot of choice," Hunt called back. "You don't seem to have grasped the point yet, Eubeleus, old chap. We have intact minds out there to return into. You don't."

And of course, Eubeleus hadn't. He still thought that this was a software illusion manufactured by JEVEX, and had no idea how he had come to be part of it.

"Don't worry too much about it for now," Hunt shouted as the Chinook began to rise. "You should have plenty of time to

figure it out."

And as the crowd watched in silent reverence, the machine climbed away to hang over the city, its rotors flashing in the sunshine as a testament to the new, unimagined powers that had visited Waroth. The form froze into a white outline that persisted for a second longer . . . And then it was gone.

chapter sixty-three

The Shapieron was back on its pad at Geerbaine. The edges of the hole that it had torn through the city roof had been trimmed back to remove the immediate hazard from the looser debris, but no real work had commenced on repairing the damage yet. No doubt the Jevlenese would get around to it eventually.

There were no crowds or any public ceremony. Garuth and a small party from PAC drove out from the city—the tubes weren't running that day-to see off the group who were returning to Earth and to make their farewells, most of which were personal rather than functions of any office. Not many of the Jevlenese at large were aware that the scientists who were leaving had had much connection with recent events, anyway. All they knew was that the ballyhoo about JEVEX returning two weeks previously had fizzled out, and after all the hype about Eubeleus's migration to Uttan, not a lot seemed to be happening there. (Actually, a lot of Thurien vessels had been arriving at Uttan, but that wasn't general knowledge yet.) Besides that, the hotheads who had seized PAC with the collusion of some elements of the Shiban police had changed their tune suddenly and surrendered; the Ganymeans were back again but this time they were more committed to setting up a native Jevlenese administration instead of trying to run things directly

themselves; and nobody could get a headworld trip for any

price anymore.

Leyel Torres and a deputation of crew officers from the Shapieron were waiting at the spaceport to add their own farewells. The groups met in the main departure lounge, watched curiously by onlookers going about regular business and others assembling to travel back on the same ship—which again would be the Vishnu. The Thuriens were still being as casual as ever about taking anyone who wanted to go, and-especially after the latest complications—steering clear of any involvement in human politics. If any Terran or Jevlenese faction, sect, authority, government, party, union, church—or whatever other form of organization humans insisted on banding themselves together into to interfere with each others' lives—had a problem with it, they could settle it among themselves by their own incomprehensible methods.

"It should work out a lot better this time round," Hunt said to Garuth. "Although after the way you spent twenty years getting your ship back before you showed up at Jupiter, I don't

have to tell you anything about perseverance."

"Now that we know where the problem was coming from, I think it will change a lot of things," Garuth replied. "The new system will give the whole population a common goal and a symbol to unite them." His face twisted into the peculiar Ganymean form of a grin, and he looked at Danchekker. "But no pyramids or temples, crescents or spirals, eh, Professor?"

"I think the human race has had more than its fill of that kind

of thing," Danchekker agreed.

Garuth was referring to the new planetary computer system that would be built from scratch, on Jevlen, where JEVEX was supposed to have been, by the Jevlenese themselves. In the meantime, they would have to learn to meet their own needs through their own initiative, as the more enterprising among them had already shown an amazing propensity for doing. As they grew, the system would grow with them. It wouldn't come as a ready-made gift this time. The Thuriens themselves had insisted on its being that way.

"It should keep you two busy enough for a while," Hunt said, turning to Shilohin and Keshen, both of whom would be involved with the project. "But don't try and plan everything too far ahead. That's how things end up inflexible—the one thing that's sure to happen is the one you never thought of."

"Nobody planned the Entoverse, or this one," Shilohin said.

"We'll let it plan itself as it goes," Keshen agreed. He grinned. "And I know not to take on any sidelines this time."

"Watch where you're flying that ship, the next time you take it up," Hunt told Torres and Jassilane. "Tell that computer of yours to try not to bump into any cities. It does tend to upset the inhabitants, and the police take a dim view of it."

"I don't exactly remember that they were about to give you the citizen-of-the-year award at the time," ZORAC chipped in, reverting momentarily from translation mode to its own voice.

Del Cullen shook hands with Hunt warmly and gave him a hearty thump on the shoulder. A contingent of Terran police and security advisers had arrived from Earth with the *Vishnu* to help Garuth's Jevlenese administration establish some machinery for protecting the basic rights that governments were supposed to be for. Cullen would be working with them initially to adjust their thinking to the needs of the local society, instead of the other way around.

"Three months, they tell us," he said. "So say hi to the States for us until then. And when we get there, it'll be the wildest time of R and R since they came home from World War Two. Right,

guys?"

"Right," Koberg and Lebansky agreed heartily from behind

Sandy Holmes and Duncan Watt were standing with the group from PAC, not the ones who were due to leave. They would be staying on for at least three months, getting the UNSA labs at PAC organized as a permanent facility and initiating some of the kind of work for which the group had come to Jevlen officially to begin with. Hunt also suspected that they had plenty of R and R plans of their own, involving a lot of Shiban nightlife. Erwin Reutheneger would have been proud.

"Regards to Gregg and everyone back at the firm," Duncan told Hunt. "Tell him he's been warming that chair at Goddard for too long. It's time we saw more of him out here in the field."

"Maybe I can get him on the flight back with the Vishnu," Hunt said. "It would save us a lot of frenzy and all-night meetings when we get back after this, if I know anything about

Gregg."

Danchekker, who had been saying something to Sandy, turned with an intrigued look on his face as he caught the conversation. "Yes, what a possibility . . . And, er, might there be a chance, perhaps, of persuading Ms. Mulling to go with him, do you think?"

Sandy moved over to Hunt. "Well, Vic, Gregg did warn me that none of the expeditions he sends you off on ever work out the way anyone thinks. He said that this time he told you the only thing left for you to bring back was a universe. And you did!"

"He should have known better by now," Hunt said.

"Do you think I could get a chance to go down into the Entoverse later?"

"Maybe. It depends what the Thuriens come up with and how they decide to handle it. I'd say there's a pretty good

"I didn't exactly think Gregg was exaggerating, but I never

dreamed of anything like that.

"Watch what you dream about," Gina said, standing beside Hunt. "These days it's getting difficult to tell the difference."

"And you be careful with VISAR on the way back," Sandy told her. "Remember what happened last time."

"Not just me, as I recall," Gina replied.

"Just as well you did," Hunt said to both of them. "I'll drink to curiosity every time. Remember, objectivity is what you make it."

The others who were boarding the Thurien surface lander had by now disappeared along the ramp, with the exception of Murray and Nixie. Murray had decided it was time to take his chances and straighten things out back home, and Nixie would get her chance to see Earth. But although they would no doubt stay in touch, their former association was over. With her unique psychology and abilities, Nixie would spend time working with Danchekker and others at Goddard, and after that would go to Thurien to assist Eesyan and his scientists with their further researches on the Entoverse.

Murray and Nixie disappeared into the ramp, and after a final round of waves and farewells, Hunt, Danchekker, and Gina turned and followed them. Soon afterward, the smooth, golden ovoid ascended from the surface of Jevlen and docked with the twenty-mile-long Thurien starship, hanging in orbit. Less than an hour later, the Vishnu was accelerating out of the

star Athena's planetary system.

And of the Entoverse itself?

The Thurien position all along had been that it had to be kept running—which nobody else really objected to once the Thurien viewpoint was explained. For all anyone outside knew, many of the Ents might want to stay there, and nobody was

going to disagree with their right do so.

But what of the many who wished to leave, which was another of the principles that the Thuriens had defended vigorously? Obviously they couldn't be permitted to take over the persons of any more Jevlenese, or anyone else who might be coupled into the system for whatever reason in times to come. And, as Danchekker had pointed out, that was just as well in any case, since there were evidently compatibility problems between Ent minds and human nervous systems, which he was beginning to suspect had caused most of the aberrant behavior exhibited by "possessed" individuals all through recorded history.

But then, why should any future emergent Ents be limited to unsuitable human hosts at all? The Ganymeans had always excelled as genetic engineers. Eesyan had suggested that maybe they could create a purpose-devised organism that would be an ideal vehicle for Ents wishing to transfer to the Exoverse—in effect, what VISAR had improvised in the form of its Ent-being surrogates, but working the other way around. Even more bizarre, perhaps, one day a regular traffic of visitors and immigrants going in both directions would develop out of it, and be thought as natural as holidaying in Australia or one of the

lunar resorts.

In any case, the Thuriens had already commenced an intensive program of research into the matter, and whatever the precise form of the final answer, there seemed every chance that the Ents would come to put their unique abilities and nature to good use, and take their place in the Omniverse, alongside Terrans, Jevlenese, and Ganymeans.

epilogue

"Hello, Nick. Still mixing drinks behind bars in starships?" "Say! Hi, there! It's a living, I guess. So how was Jevlen?" Hunt bunched his mouth for an instant. "Different, anyhow."

"It sounds like there was a bit of excitement there since the last time. But maybe you wouldn't have gotten to see too much of it. You're a scientist, right?"

"You remembered."

Nick inclined his head to indicate the group over at the table by the wall, where Hunt had come from. "What'll it be? Same as before?"

"Please."

"I'll bring them over."
"Thanks."

Hunt turned away from the few still clustered around the mess-area bar in the Terran section of the ship at that late hour, and crossed back to rejoin the others. Bob, the schoolteacher from Florida, had been recalled with his flock by an embarrassed Board of Governors under pressure from concerned State officials and panicking parents.

"Hell, how was anybody supposed to know they'd pick this time to have a revolution?" he was saying to the others as Hunt

sat down.

"Were the kids worried?" Gina asked him.

"The kids? Not on your life. They never had such a good time. And when that Ganymean spaceship came through the roof of the city, they thought that was the greatest thing ever. But the media back home made it sound like a galactic war breaking out. We've got a lawsuit from some irate parents who think their darlings were attacked by space monsters."

Alan and Keith, the two marketing executives from Disney World, were also on their way back. Their preliminary survey of possibilities on Jevlen had revealed some potential; but more exciting was the revolutionary Jevlenese approach to getting away from it all that they had learned about, which could

transform the whole industry back home.

"Did you know, that was really the whole of the Jevs' problem," Keith told the company. "That computer they had could manufacture totally illusory worlds inside your head, so convincing that nobody could tell the difference. But it got to be an addiction, everywhere, which was why the place was in such a mess. That was why the Ganymeans had to switch it off."

"Really?" Danchekker said, sipping his fruit juice.

"Yes, truly. But imagine what it would do if they can figure

out how to get the bugs out of it."

Al took up the theme, looking at Nixie. They were all wearing Thurien translator disks, so VISAR was able to translate for her. "Suppose you could live in a world where anything's possible, just by wanting it to be. You can make magic things happen. How would that be for a vacation? I mean, we're not talking about something that you look at on a screen, or that's being faked somehow. This is real."

Nixie made a play of looking befuddled. "I think I'd have a hard time imagining anything like that," she replied. "I guess I'd have to think about it." She glanced at Murray. He shrugged and nodded in a way that said it was as good an

answer as any.

"How about you? What are you going to Earth for?" Keith asked her. He waved a hand to indicate Hunt, Danchekker, and Gina, whom he knew from their talk on the trip out to have been engaged on a scientific mission. "You're working with them now, right?"

"That's right," Nixie said. "I'm going back to help the Thur-

iens with some of their research."

Al looked impressed. "Say, that's interesting. What did you do back on Jevlen, exactly?"

Nixie looked at Murray perplexedly.

"Er, free enterprise in a small-business environment," Murray said. "We both did. The Thuriens are interested in ways of encouraging Jevlenese private initiative."

"Oh, you're economists," Al said. "Yeah . . . right," Murray agreed.

Nick appeared with a tray from the bar and began setting

down drinks and collecting empties.

"So, how did the look at Ganymean science work out, Professor?" Bob asked Danchekker. "Did it turn up anything interesting?"

"Yes, I think you could say that," Danchekker replied.

"I remember on the way out, you said something about a crazy kind of Jevlenese animal, something like a bat, except it can pass on what it learns. What was it, an 'ag,' 'ank' . . . something?"

"Anquiloc," Gina supplied.

"That's right. Did you come across anything more like that?"

"Ah, yes, well, we already knew that it exemplified a whole class of creatures that possess an ability to encode acquired knowledge genetically."

"Right," Bob said, sipping his drink and nodding for Dan-

chekker to continue.

That was all the encouragement that Danchekker needed. He

shifted to take in Al and Keith, who were also listening, and settled himself more comfortably. "What's remarkable is the genetic mechanism—no more. I've always maintained that the popularized dictum of the noninheritability of acquired characteristics is unfortunate, because it tends to close people's minds to considering how we really function. Of course the information that we accumulate over generations is passed on to our offspring. But Nature accomplishes it in two ways: through genetic encoding, and through externally coded learning. The only difference as we progress up the evolutionary tree is in the relative ratio between the two. This brings up an interesting question concerning the inorganic, computer-derived intelligences, such as . . .

To one side, Hunt moved his chair back surreptitiously and gave Gina a resigned look. She smiled and moved closer so that they could talk more between themselves. "He's enjoying himself," she murmured. "And they're interested. He's earned it. Besides, I've got a feeling we'll be hearing it all again."

"But I already have," Hunt replied in a strained whisper.

"Well, think about your own plans," she said. "What's next when you get back? Any idea yet?"

"Oh, I'm sure it won't take Gregg very long to come up with something." He looked at her and rested his elbow on the backrest of her chair. "How about you? Back to Seattle?"

"I'm not sure yet. I've got plenty enough to do, that's for

sure."

"You never got very far on the book you were talking about," Hunt remarked. "Remember, you were going to find out who were really the Jevlenese agents, and get the story

straight for once."

"That seems tame now. As we said, everyone's doing it. And look at all those other things that I put a lot of effort into. Do people really care what the true story is?" She sipped her drink and thought for a moment. "Anyhow, I've got a much more interesting story now, that nobody else is doing: where the world of Earth's mythology came from, and where it's actually still real, right now, today. So maybe I'll be spending a lot more time in Washington. After all, that's where all my sources will be. How do you reckon Gregg would feel about letting me have some UNSA help on that?" She eyed him coquettishly, conveying that her real question had more to do with how he felt about it.

Hunt sat back and regarded the enticing lines of her face and her sweep of raven hair contemplatively. The familiarity of the

company and the surroundings from what seemed a long time ago evoked recollections; a reawakening of feelings which the pressure of events had forced into the background ever since they arrived on Jevlen. Now that they had left it, the influence that the planet and its circumstances had been exerting upon all of them unconsciously was gone also. He felt relaxed for the first time in weeks, and with nothing calling for immediate attention or pressing upon his mind for once, the memories of easier times and the associations that came with them flowed back like a mellow glow. The impish look on Gina's face was the same as he had seen that night when they'd had dinner in Washington. He got the feeling, suddenly, that she had recognized the same thing awhile back and had been waiting for him to catch up.

He raised his glass, caught her eye over the top of it, and

grinned. She smiled back enigmatically.

"Have you got used to it yet?" he asked. "The feeling of having two independent sets of memories, but knowing that they were both happening at the same time?"

"There's been a lot of new things to have to get used to," she said distantly. "All kinds of things coming back that I seem to

remember . . .

"Funny, isn't it?"

"How life sometimes gets swamped by other events?"

"All those things that should have happened but somehow never did." Hunt glanced back at the others for a second, wondering what the best way would be of extricating themselves without being too obvious. As he looked back and was about to say something more, Gina sipped her drink and pulled a face suddenly. "Oh, I wanted vodka and lime. This is gin. I

wonder if I can get him to change it."

"Here, let me. I—" But before Hunt could do anything, she stood up and disappeared back toward the bar with her glass. Hunt watched as she threaded between the late-nighters, thinking it odd because he remembered her tasting it earlier. His puzzlement grew when she slipped onto an empty stool, and he saw Nick gesture down at her drink and ask her something; she nodded to indicate that everything was fine. Then she raised the glass and took a sip from it. Then, after a few seconds, her eyes wandered across to look back at Hunt.

Slow, slow, he told himself, and looked at the rest of the group again. Danchekker was expostulating on inheritance mechanisms, and all of the others were engrossed except Nixie, who was looking at Hunt in a knowing kind of way with a smile on her lips. She winked at him and nodded, indicating the others with a toss of her head in a way that said she would take care of it. Hunt rose and sauntered over to join Gina at the bar.

She waited, looking at him curiously. There wasn't much

need for spelling things out.

"I'd hate to tear you away from VISAR . . . I mean, seeing as you had such an interesting time on the way out," he said, looking at his drink and swirling it around in the glass.

"Oh, that was just a Disney World attraction," she said. "I

think I've had about enough of that for a long time."

Hunt lifted the glass and emptied it. "Was I really in that fantasy you mentioned once?" he asked.

"I told you, you'd have to tell me yours for me to tell you

mine," she answered.

They looked at each other questioningly. Her eyes were laughing. He set down the glass and took hers from her fingers. She stood up, and they began walking toward the door.

"You know, it's a pity Sandy isn't on board," Hunt said lightly. "Then we could really have found out, couldn't we?"

Gina slapped him playfully on the arm. "Are all the English that romantic?"

"Oh no," he assured her. "One has to work at it."

They laughed, entwined their fingers together, and left the lounge, heading for the corridor that led to the cabin suites.

By that time, the *Vishnu* had passed beyond the orbit of Athena's outermost planet and was approaching the i-space entry port being projected from Thurien. After transfer, it would emerge back into normal space somewhere beyond Pluto, twenty hours' flight time from Earth.

about the author

James P. Hogan was born in London in 1941 and educated at the Cardinal Vaughan Grammar School, Kensington. He studied general engineering at the Royal Aircraft Establishment, Farnborough, subsequently specializing in electronics and digital systems. In mid-1977, he moved from England to the United States to become a Senior Sales Training Consultant, concentrating on the applications of minicomputers in science and research for DEC. At the end of 1979, Hogan opted to write fulltime, and he now lives in Ireland.





WHEN WORLDS COLLIDE

Human society on Jevlen was falling apart and it looked as if JEVEX, the immense supercomputer that managed all Jevlenese affairs. was at the heart of the matter. Except that the problems didn't stop when JEVEX was shut down. People were changing—or being changed It was almost as if the Jevlenese were being

Meanwhile, in a very different universe, where magic worked and nothing physical was predictable, holy men caught glimpses of another place, a place where the shape of objects remained unchanged by motion, and cause led directly and logically to effect. And the best part was that when the heart was pure, the mind was focused, and circumstances were right, some lucky souls could actually make the transition to that other universe. If only they all could...

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