

Edelbach's Odyssey

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CHAPTER 1

The Roadblock

Albert Edelbach felt himself waking up after what seemed like only an hour or two since plopping into his creaky hotel bed, exhausted, after a day on the road.

Damn! not again, he thought, it's those 2:00 o'clock blues again...damned insomnia.

He squinted open his eyes, expecting to see the annoying, dust-encrusted popcorn ceiling of the cheap hotel where he always stayed. Instead, he saw a glimpse of what looked like a large circular window frame, directly above his bed. Inside the circle was a rapidly cycling set of geometrical shapes, almost fractal—grayscale only—no color. In the mere four-seconds he was awake, the circle's designs seemed to flash-change at least twenty times. He was completely focused on the changing images, but still, he sensed a presence in his peripheral vision to his right. It seemed like two or three bald heads hovering over him.

A flash of light had him sitting straight up. There above him, as always, was the popcorn ceiling, with the sun's rays piercing the dust-filled air of his room. He felt a mild headache made worse by the usual summertime buzzing racket of cicadas outside, engulfing the humid Illinois morning.

*Damn! That was **one** strange dream.*

Later, as Edelbach squinted his burning eyes and considered the grizzled and wrinkled face looking back at him from the mirror, he thought, *Who the hell is that old fart?* Even into his sixties he still hadn't gotten used to his own, older appearance. Sometimes—subconsciously—he still expected his formerly-tanned, lady-killer face to be smiling back at him, with that white, even-toothed, smile and that near-black, shock of hair, ready to be coiffed into a do that would fit the day's task. But, such confusion only happened in the early morning hours when the remnants of sleep still muddled his thinking.

The hair in the mirror was light gray to white sticking out in all directions and defying the wet comb he was trying to pull through it. Even though he was well past the old-fashioned age of retirement, Edelbach was still “pounding the pavement,” as he called it; still working a full time traveling sales job.

It wouldn't feel so bad if 'they' hadn't given us this rosy picture of 'retirement' all those years. So here I am, dragging my sorry butt all over the USNA from Fairbanks to Vancouver to Oaxaca selling crap, he thought. Even this expensive crap doesn't get me or the company enough money to fund retirement in this sub-depression we're in.

Edelbach's “they” would be the people in authority, the politicians, the teachers, even the brainwashed parents.

“They'll tell you anything they want in order to get what they themselves want,” he said aloud, his voice trailing off.

Well, I suppose it wasn't their fault. Our future looked pretty rosy after we won those two World Wars. The economy was booming, nothing could stop us. Then came stalemate in Korea, the Cold War, Viet Nam—first war we ever lost, Hippies, drugs, big corporations bribing their way to political power with “campaign contributions”, the world's wealth concentrated in the top 1% of the population. Mowing down thousands of demonstrators during the poor-people's revolt.

Edelbach was now dragging an old twentieth-century-style Gillette double-edged razor through his crop of lathered-up grey whickers.

Good thing they still sell these blades in Mexico. This is what my Dad used, and what he taught me to use. I don't care if those new micro-laser ones do shave better and last longer, as 'they' say.

His manner of shaving was one of many rituals to which Edelbach held fast, like his choice of his old 20th Century diesel-powered Mercedes sedan—Betsy—for transportation. Both were sort of handholds which seemed to preserve at least a small amount of stability in his chaotic world.

Later, he made his way down the creaking hotel stairs and out through the lobby. Beyond the curtain of dust motes floating in the morning light, he could dimly see the profile of the owner's daughter at the front desk.

"Bye, Albert, we'll see you next time."

"If there is a next time" he intoned. His customary answer.

"You stay off those Interstates and avoid trouble. The rural roads are safer."

"Who cares about safer," he lied with bravado, "What I need is faster."

The girl looked impressed as he strode confidently into the parking lot.

Edelbach unlocked the trunk of the Mercedes, peeked inside, nodded with satisfaction then locked it again—trying the trunk-handle one more time, just to make sure it was secure.

I definitely couldn't have someone making off with those samples. The government would hold me responsible for whatever city was destroyed.

Not that his line of civil ordinance was really capable of such destruction—that is, unless the gangsters knew exactly which components to put together in exactly the right order—but, with a little imagination they could make plenty of mischief with just the individual products. At best, he would lose his Federal clearance as one of a half-dozen or so sales reps who could legally deal civil ordinance in-country.

He started the old car's clattering engine, navigated around the abandoned hulks of cars in the hotel parking lot then accelerated out onto the county highway toward St. Louis. Actually, he *always* took the country roads and highways, mainly because it *did* avoid the marauding crews of gang members that were known to throw up roadblocks on the interstates.

I didn't have to worry about this crap when we still had our company plane.

He was an IFR rated pilot, multi-engine with ten thousand hours by the time the company had to close flight ops. It wasn't the cost of maintaining the aircraft but the cost of insurance that justified the decision. The gangs had taken to using stinger missiles on their competitors. The company's Beechcraft King Air was deemed to look too much like the preferred trafficker's ride and thereby a much more expensive risk.

Well, this country route takes longer, but even aside from the safety factor the scenery would justify the extra time.

As a person who until recent years lived his entire life in California's dry valleys, his eyes couldn't drink in enough of the sight of green Illinois woods scrolling by on either side of his car. To him a forest had always been something you paid admission to, like Yosemite or whatever. The trees on the edge of these roads were like giant sentinels guarding the mysterious, dark, vine-draped caverns that they and their cohorts created. Edelbach was delighted to find these stands of forest, stretching in almost

unbroken array, along the byways of the entire Eastern part of the country: Maryland, West Virginia, Pennsylvania, Ohio, Indiana, Illinois, Missouri and on and on. He had to catch himself from peering too long into the green depths and running off the road.

To Edelbach, those great guardians were like a message from Nature. They were here before this country existed and they would probably be here long after this insanity was gone. Through the Revolutionary War, the Civil War, two World Wars and the current civil chaos, they would not lose their dignity. Some of them might be chopped down to make room for more city or more highways, but Nature was saying that she would prevail and there would always be the woods and forests of North America.

As the Mercedes hummed forward, a glint in his peripheral vision attracted his attention back into the woods. Glimmering through the trees was an oval shape of pale blue-white light. It was pacing him, looking stationary behind the hurtling tree trunks.

Oh, it's the moon, he thought, forcing himself to check the road ahead. *The moon always looks like it's going along with you*. He remembered returning from the mountains with his parents with the moon behind the car, when he was a kid. "Hey look, the moon's chasing us," they would always tease.

But, when Edelbach returned his gaze to the road ahead, there was the moon, high in the western sky. The light in the forest was still pacing him. He felt a fleeting wave of fear.

"Gotta be a scientific explanation, probably ball-lightening or swamp gas," he murmured aloud, jerking himself back to reality.

The blue-white light faded and disappeared, and the greenery threaded on as he skirted Peoria, veering slightly off course for a while in order to find an unblocked underpass that would get him across the interstate without being noticed. Near the cities, the underpasses were crammed with the shanties of "dispossessors," people who lost homes or were evicted from rentals in the economic unravel of the mid-2000s.

Edelbach winced at the irony. The good citizens, the taxpaying, law-respecting citizens were huddled under freeway bridges while the drug gangs had moved into these poor people's abandoned homes. Of course, the gang members weren't paying taxes so, generally speaking, the cash poor cities didn't have the police resources to remove them. Year-by-year the gangs were able to recruit increasingly more members from these bases in suburbia. Many new recruits came from the dispossessors' own ranks, usually older teenagers who longed to be under a proper roof, especially in wintertime. The gang enclaves grew and kept growing—their coffers being filled with the puny contributions of small-change from people needing desperately to—at least momentarily—escape the reality of life.

Ever since the Federal Government's period of accelerated commitment to ever-growing entitlements, the many military interventions, the consolidation with Canada and Mexico, and the never-ending battle against the terrorism movement, the states and cities had been left to their own devices to battle their own domestic terrorist organizations—which were virtually what the drug gangs had become. That's where Edelbach came in.

Edelbach's trunk full of "fireworks," as he called them, known formally as civil ordinance, was what some of the larger cities like St. Louis were interested in. With the right kind of community support, a city could move against the enclaves, and Edelbach's products were the tools with which they could eradicate the criminal squatters while doing minimal damage to the structures. But even as dire as the national situation was, many communities would not support such tactics even if the courts were pragmatically looking the other way. The majority in those cities still viewed the gang members as somehow redeemable young people instead of the totalitarian, barbaric occupying-power that they had become.

I guess there always will be people who are filled with wishful-thinking about the basic 'goodness' of humanity, Edelbach mused. Such thinking usually blinds people to the danger that comes from permissive handling of criminality.

Edelbach viewed the gang "nation" as having gone so far in accumulating raw, primitive power that nothing short of domestic war could bring back a fully civilized country. The enclaves, from which the gang-bangers streamed on their daily thieving, drug dealing, murdering and extorting sorties, provided law-enforcement with the rationale for viewing the gangs as enemy soldiers instead of citizens who deserved the normal legal process. Hence the name of Edelbach's best-selling laser carbine: "The Miranda," meaning a shot from it was going to be the only warning the gang member got. This name was Edelbach's suggestion and the factory in Arizona readily adopted it as a name with which local authorities could relate. Edelbach chuckled at his own cleverness but then his smirk faded into a twinge of remorse.

I don't know how I ever became so callous. I guess the dark humor of the police locker room has been rubbing off on me.

For the cops it was a defensive behavior. Maybe for Edelbach it was the same: Laugh so you won't cry. He thought of the gang nation as being like a family dog that had contracted rabies.

It's headed toward your children as they play in the yard. You are holding your hunting rifle. You do what's necessary, dropping the dog. Your joy at saving your children is mixed with a terrible dread and sadness. The dog was like a family member as well. This is North America's situation right now; and England's, and Australia's and the EU and most of the rest of the world.

But Edelbach had the consolation of one positive outcome from his profession. His client cities had the lowest incidence of vigilantism on the continent. This was because the citizens could see that the government was addressing the problem. Ironically, those cities controlled by the "peace-at-any-cost-ers" were the least peaceful in North America. The gangs in those cities were bolder and the desperation of the citizens led to some ugly, random vigilante incidents, sometimes to innocent people—as often happens with vigilantism.

This chaos had all started with permissive laws then it flourished and grew with a lack of economic investment in law enforcement. The lack of economic commitment was not only caused by the decline in property taxes, stemming from the foreclosures, but also because of the wishful thinkers' refusal to support the necessary draconian measures to stop the growth-momentum of the gang nation. Edelbach couldn't imagine where this was all going. How could the police do anything to slow down this explosion of criminals when the authorities were already so vastly outnumbered? *It's a good thing the gangs don't know how vastly outnumbered, he*

thought, *they would be even more blatant. Why couldn't I just stay in my little glass office and write code for our control systems.*

As head of the engineering team that developed the Miranda, and a specialist in the embedded software that controlled its function, Edelbach had been recruited by management as the corporation's most technically knowledgeable person and the one most capable of representing the company on these monthly sales rounds. Deep in his subconscious he suspected his age was a factor in the decision to turn the engineering department over to his assistant.

He suddenly focused on the highway ahead, tapping the brake to ease off speed. It looked like there was an empty overpass up there on the right. Sure enough, the overpass was free of shanties, so he made a sharp, drifting turn and shot through to the other side of the Interstate.

It won't be long now, he thought, relaxing his grip on the wheel. Another 30 miles and I'll be close enough to St. Louis to be able to get back onto I-70 so I can get across the Mississippi. Then he could relax a bit, maybe go over to the Hill for some Italian. It would be good being back in a little piece of civilization again. But as civilized as St. Louis was—relatively speaking—the city was only a faint image of what it used to be. He remembered his first visit in the very early 2000s. He drove into town on 55 past the old red brick Anheuser-Busch brewery with its friendly sign: “Come Visit Us.” He had rounded another couple of curves and there it was. The Arch, with its sparkling, beautifully tapered steel curves vaulting impossibly high, seeming to float without any visible support.

He had followed the directional signs, parked and walked right up to the base of it, placed his palm on the cool, brushed stainless steel and gazed up at the intersection of the North and South sections, fully 65 stories directly above his head. He knew it was supposed to be very big, but still, it literally took his breath away.

*Someday if archaeologists ever come upon this, he thought, they'll say 'Something really important happened here.' And they would be right, because for us it **was** important: The Westward Expansion that opened up of the rest of the continent to our culture and our civilization. That was the dream, anyhow.*

He shook his head and frowned, thinking of the Arch as it now appeared: covered with gang graffiti. The graffiti went nearly to the top. Even the police had no idea how the gangs got in so quickly and were able to gain traction that high on both sections. The city might have posted stakeouts to catch them in the act, but the vandalism would only come back again and neither the local government nor the National Parks Service had the money to keep up with “cosmetic” issues: there were life and death matters to address.

So, in Edelbach's eyes, this beautiful and iconic mega-sculpture, that celebrated the expansion of civilization, had come to symbolize the expansion of anarchy.

He suddenly awoke from his reverie with a shock and a sick feeling in his stomach. Directly ahead was a roadblock.

CHAPTER 2

An Abduction

God, so close to St. Louis and on a county road to boot. Too damn late to do a U-turn, he thought, nearly standing on the brakes so he wouldn't plow right through the line of gangsters that stretched clear across the road.

The gangsters had some kind of overly large aluminum semi-trailer lying down across the road in back of them.

Holy crap, they all look about nine or ten years old. I don't see one adult or older teenager anyplace.

When the Mercedes had come to a complete stop he immediately jumped out of the car. If he waited until they surrounded it, he would have no escape route. The gang was all dressed in the same attire, a shiny gray uniform like a tight jumpsuit. The line started moving toward him and he gasped. These were some strange looking kids. Their heads were totally out of proportion to their bodies, similar to a toddler. The neck and cranium together had the outline of an old incandescent-type light bulb. They appeared to be wearing grayish skin makeup and huge almond shaped eye coverings.

Maybe I'm just the butt of some elaborate joke. But if this were a joke, the costumes and make up would have cost a fortune. Maybe that's it, some movie company is out here on location and they need to hold up traffic while they shoot a scene. It's got to be a science fiction piece about aliens attacking earth. There's a demand for that nowadays with so many people believing in that UFO crap.

Then he remembered the light in the woods.

Now they were surrounding him. The tops of their bald heads were at the level of his shoulder. Their skin appeared gray, but their heads did not reflect light the way a bald-headed person's would. He was now convinced that these were not costumes. The adrenaline was beginning to flow and his "fight-or-flight" reaction was kicking in, but his muscles were not responding, they just felt numb. Was it possible that somehow, these gray midgets had control over his nervous system? Otherwise, his knees would have buckled right there on the spot. Now he realized that the thing he thought was a semi-trailer must be some sort of sleek vehicle, the glowing oval in the woods.

One of the creatures offered him its right hand. Even though the idea repulsed him, he found his arm rising to join hands with the thing. Maybe that was a result of mind-control; maybe it was his curiosity. He thought of all the ridicule he had heaped on friends who had claimed to have seen UFOs: "What were you smoking that day,"

The appendage he grasped had three long fingers, no nails. He then noticed a shorter finger growing directly out of the middle of the palm. He figured it must serve the same purpose as our thumb, and later this was confirmed as he watched one of the things pick up a large acorn from the shoulder of the road and intensely study it

Edelbach's new partner seemed to say "Don't worry we are not going to harm you." Those words were more in the center of Edelbach's head than in his ears, sort of like when one is listening to music through headphones, though he did hear a quiet, buzzing murmur coming from its slit of a mouth. But there was no jaw motion as it formed these "words" and the mouth slit stayed open as if the creatures' spoken language didn't

include consonants formed by the lips. Above the mouth, about where one would expect, were two nostrils, also slits. Around on each side of the head, also where one might expect to find ears, was a hole with a lumpy protuberance that might have been a lid of some type to guard the opening.

"We must step away from your conveyance," the voice in his head said.

With that he, his partner and all the other gray things moved over to the opposite shoulder. His partner pointed his left hand at the "semi" which was already hovering about ten feet off the ground. He could now see that it was probably three times as large than an actual semi-trailer. In little more than five seconds, it rose silently to about 30 feet altitude then gracefully spanned the hundred yards or so to where the Mercedes was parked. Hovering, as solid as a rock, the craft produced an aperture in its bottom about 20 feet in diameter. Now the Mercedes started to rise, every bit as gracefully as the craft had done. In seconds, Edelbach was watching his faithful old "conveyance" disappear into the dark interior, as the aperture "healed" itself shut.

Oh God, I'll bet I'm next.

The large craft now settled down to about ten feet from the ground and a rectangular opening formed, disgorging a metallic staircase. The strange gang of creatures started methodically filing up the stairs.

"I knew it," Edelbach shouted out loud. "I'm next. Oh God, I'm next."

With that he decided to drop the creature's hand and launch into a full run, but his legs would not cooperate.

What the hell are these things? I can do what they want me to, but I can't do what I want to.

"Don't worry," the voice said. "We need your help, we will return you to this place when we have received your help."

The creature led him over to the staircase and gently guided him up the stairs. The county road was now empty. The staircase folded itself up, and before the opening was sealed, Edelbach could already see the ribbon of pavement getting narrower and narrower, until it disappeared into the green Illinois countryside.

When the staircase was aboard and stowed and the opening had sealed itself, Edelbach studied his surroundings very carefully.

There may come a time when I get a chance for escape, maybe some time when we're not flying at three or four thousand feet.

He looked around the interior of the craft, which was more or less a large open room. From the place where the stairs were stowed, a ramp led up into the center of the room. At one end of the room was a platform where three of the road-blockers were seated in front of what appeared to be, a floor-to-ceiling video display showing the sky ahead. Edelbach assumed that these three were the flight crew, although their work area contained nothing in the way of identifiable instrumentation.

Each of the flight deck crew was wearing a thin headband made from a black material. They seemed to be the only creatures on board wearing this. He noticed that the headbands were positioned several inches above their ear holes, so were apparently not a hearing device.

The entire ceiling of this large operations room was a skylight, maybe a seamless video display, through which patchy clouds could be seen zipping by. Facing the center of the cabin, along the two sidewalls,

various crew members were seated at metallic desks. They seemed to be busy fiddling with a variety of colored controls. If the three creatures forward were the flight crew then perhaps these were engaged in communications or documentation—or playing some kind of weird computer games, for all he knew.

Having noted a few possible escape routes, Edelbach now focused on his captors. Not only were they a short race, they were extraordinarily uniform in facial appearance. Their form-fitted jumpsuits appeared to have been knit from very fine metallic thread. The effect was like silken chain mail. The suit fit so snugly, it wouldn't tax credibility to claim that they were dipped in it while it was still molten.

What he had earlier believed to be tinted glasses, now on closer examination, seemed to be the actual cornea of their eyes. As short as the creatures were, the eyes were actually as large as the lenses of the classic aviator's sunglasses, except almond shaped, with the pointed part facing diagonally outwards and upwards. The eyes glistened even though there were no lids, leading Edelbach to speculate that the corneas were some sort of semi-permeable material that was lubricated from within. Rather than a pupil or other aperture perhaps the cornea protected an array of millions or billions of biological pixels, each with its own nano-focusing apparatus, sort of like putting a giant retina, right up front. Edelbach fancied himself good at reverse-engineering things.

"We are going to a more comfortable vessel," the voice in his head explained, pointing into the skylight. The Semi was overtaking a large black oval object that was silhouetted against what was now a navy-blue sky.

Edelbach glanced at the pilot's forward display and noted that the horizon was clearly curved. They had apparently risen to the brink of space in only a few short minutes. But he had noticed no detectable g-forces, acceleration or deceleration during the trip. It was as if the craft and every being in it were immune from normal physics.

The oval object now remained fixed overhead but grew larger and larger as they seemed to rise straight up toward it. Edelbach thought of the famous "tractor-beams" of science fiction, but from the kind of maneuvering required to align with the larger vessel, he was sure that the motive power and control were all coming from the Semi.

Through all of this jockeying, the flight crew sat with their hands relaxed upon the desktop in front of them and they were obviously not pushing pedals with their feet.

Either someone else on the ship is piloting, or these guys are controlling this thing through those headbands.

Presently, the dark oval filled the entire skylight and Edelbach could see the surface texture on the oval's charcoal gray exterior, along with a tiny bluish-white light, in the center of the great mass. Now he and his partner watched that light grow larger and larger as the crew busied themselves gathering up possessions.

Edelbach thought of how utterly alien these creatures were and yet how like human beings, gathering up their stuff before heading home from work. He felt a tiny twinge of compassion for them for the first time since his abduction.

Soon, the tiny light resolved to a rectangle and a few moments later it was now this rectangle that filled the entire skylight. There was a bluish-white flash in Edelbach's peripheral vision and he turned to see that the

source was the forward video display. When his eyes adjusted he could see that they seemed to be on a large lift, vertically passing by story after story of hallways filled with busy creatures like his shipmates. These hallways ended at the great bay through which the Semi now rose. Either the bay aperture had already sealed itself or these creatures were immune to the vacuum of space. Or maybe they were just enjoying some sort of immunity to normal physics, just as he and the crew of the Semi had done on the way up.

Edelbach estimated that they had passed by 20 or 30 stories before their craft came to a halt. There was a muffled clinking sound that could have been some sort of docking mechanism.

“Please wait a moment while the hangar is cycled with Earth atmosphere,” said the voice. Throughout the entire journey the creature had not let go of his hand.

Since he has utter control over my muscles, I wonder why he (or she) would need to physically hang on to me.

“Our observations indicated that this was a method of consolation with your kind—and I have no gender,” the voice said.

“Damn!” Edelbach blurted out loud, “Am I going to have no privacy at all while you hold me prisoner?”

The creature dropped its hand and looked clearly agitated, looking left and right, then at Edelbach then at its own three-fingered hands.

“Please accept my apologies,” the creature transmitted, while giving Edelbach direct eye contact. “It is possible for us to collect your thoughts at will, but from now on, we will only do so when you are physically speaking to us with your vocal organ.”

“Well let’s hope so,” Edelbach replied, “At least you won’t be charged with invasion of privacy, along with the abduction, kidnapping and false imprisonment charges that you are already liable for.”

“I hope that you will grow to understand the necessity of this action and eventually agree that it was the right thing to do under the circumstances,” said the voice.

The voice sounded neither male nor female. The nearest thing to describing it would be a whisper, or the sound of rushing air with consonants and vowels.

“Okay, you’ve got the engineer in me curious,” Edelbach said. “I’ll hang around long enough to have my curiosity sated, answer whatever questions you have, then we can part friends—or at least I hope that’s the way things are going to come down. By the way, my name is Albert.” Edelbach offered his right hand to the thing.

“Do you need consolation?” the voice asked.

Edelbach smiled for the first time since the ordeal began. “Surely you guys must have observed that we grasp hands and shake them up and down once or twice as a ritual of introduction?”

The creature was bobbing his head rapidly. “No,” He transmitted, “we missed that, but I appreciate your sarcasm. You have me laughing vigorously.” He extended his right appendage.

Edelbach took it and gently pumped it a couple of times. “You are supposed to tell me your name now,” He said.

“It would sound like ‘Korton-greppy3294,’” the creature transmitted, “but you can call me what you wish, Albert.”

“Well, the greppy part reminds me of a computer tool I used to use, called “grep.” I’ll call you “Grep.”

“Agreed,” Grep answered. “The hangar and hangar-level corridors have now been cycled. I can now take you to your assigned quarters.”

CHAPTER 3

Alien Technology Class

Edelbach suddenly felt very light. He then realized that the muscular and nervous constraints had been taken off. He was physically unrestrained— for the moment at least

Grep led the way down the metal stairs and out onto the hangar deck. The hangar deck was cavernous. It reminded him of the one he had seen during an open house on the USS Ronald Regan in San Diego, years ago. Only this one was easily a kilometer long and the *Semi* was the only craft moored there. Edelbach had a feeling that this was only one of many such decks aboard the Oval and that the toys were kept on some of the other ones. If every one of the 20 or 30 stories below them had the same dimensions, the *Black Oval's* carrying capacity would dwarf any ten of the largest vessels on Earth combined. Why the hell would aliens need such a mammoth weight lifter, he wondered.

He followed Grep across the hangar bay and toward an intersecting hallway almost identical to the ones he had seen on the levels below. But in this hallway, there were no space creatures. Like the hangar deck, the hallway was empty. Edelbach figured they had cleared this level for the alien. (The Earth alien, that is.)

Well, if their normal is weird to me, then my normal must be as weird to them. They probably don't want their crewmembers being freaked-out by something akin to a Bigfoot slogging down the passageway.

Judging by the degree of technology he was observing, on a superficial level, Edelbach suspected that the creatures viewed Earth as a pretty primitive place.

Edelbach attempted to telepath: “Grep, what did you mean, ‘we need your help’? I don’t see how I could add anything to the type of resources you already obviously have,”

No response. Good. He repeated it aloud.

“You have direct experiences with the Earth race, Albert, something our nanodrone surveillance machines cannot duplicate. We also noted that your thoughts regarding your people were impartial, though conflicted, a very rare trait among Earth people.”

“Impartial? I wouldn’t characterize myself that way at all; and what exactly is a nanodrone and how does this mind-reading and mind-controlling stuff work; and the anti-gravity propulsion, and how are we out in space right now and not floating around, and how did you find the Earth in the first place, since there are so many millions of stars just in this Galaxy?”

“I’m sure you have even more questions than that,” transmitted Grep. “Let us get comfortable and I will give you some insight into these things and even more.”

Grep led the way, still farther down the corridor, explaining that nanodrones were gnat-sized flying machines equipped with the highest definition 3-D video and sound recording equipment. Each had something akin to a GPS system and the fleet, which consisted of tens of millions of units, had the mission to seek out and record every cubic inch of human habitation on earth on an on-going basis. The data captured like this was all catalogued and retrievable by query whenever needed by scientists.

However, interpreting the data was another matter, without input from an Earth person.

“How many nanodrones do you lose to the fly-swatter?” asked Edelbach.

“A considerable number,” answered Grep, head-bobbing. “But the technology is easily reproduced.”

As Edelbach followed Grep, he noticed that his gait was a little bit reminiscent of a duck waddle with a slight jerk as each leg was thrust forward.

Even though the hallway had no visible lighting fixtures, it seemed to be filled with the same bluish-white light as the hangar bay. It was as if the walls and ceiling themselves were glowing ever so slightly and the combined effect provided a near daylight level of illumination.

“Here is your accommodation,” transmitted Grep.

With that, a door-like aperture formed, revealing some living room furniture beyond. The door was just the right height for a creature but looked to Edelbach like it was going to be fairly awkward for him to get through. Grep noticed his hesitation and went over to the wall, sliding back a small covering and adjusting something. The door aperture immediately grew to over six feet.

“The hatch will remember this setting,” sent Grep. He stood back and motioned Edelbach through the door first.

Edelbach walked in and audibly gasped. He was looking through an empty wall directly at the millions of stars and dust lanes of the Milky Way Galaxy.

Grep noticed his reaction. “We can adjust the transparency of the outer bulkhead if you find it disconcerting,” he sent.

“No, no. I was just surprised...shocked really...but in a good way. I’m sort of what we call ‘floored,’” Edelbach replied.

“If you are able to walk close to the wall and look downward, you will see your planet.”

Edelbach tenuously made his way over to the “edge” of the room, groping for something to hold onto, but then remembering that what appeared to be an open wall was probably as solid as the floor he was standing on—except perfectly transparent. He looked down and there was the cloud-banded blue Earth and over to the left a bit, the Earth’s moon. His knees were feeling weak again for the second time in 24 hours.

“You know, Grep, a wise human once said words to the effect that to the uninitiated, any sufficiently advanced technology appears to be divinity. This is all truly, magic.”

“You speak in metaphor, do you not” answered Grep. “Your referring to these things as technology is correct. There is no occult power involved. If you are not too fatigued, please be seated and I will explain things.”

Edelbach sat down on the couch, facing the panorama of stars. The couch was very spongy. No telling what material it was made from. He bounced his rear on it a couple of times.

“Do you find the furnishings to your liking?” sent Grep “We copied the design and function from our surveillance records.”

“It’s fine,” answered Edelbach. “And, no, I’m not too tired. But there’s one thing I have to know first.”

“Ask and I will try to answer,” sent Grep.

“This thing about putting words directly into my head, like, directly from your brain to my brain. To me that actually seems occult or maybe a spiritual thing. Are you gods or demi-gods or powered by some kind of spiritual essence?”

Grep was bobbing his head again. “No, very material, just as you are. Let me begin by saying we have had several million years to develop these technologies. From our observations, we know that your race has had only the last few thousand.

“Long ago our knowledge of physics was limited to the first stratum, just as yours is today. We see that your people are just beginning to suspect that there are layers below the ones which are detectable by normal physics. You call some of these layers dark matter and dark energy. We have learned to manipulate those and other layers as well. Even this ship’s drive-systems capitalize on this knowledge.

“Your people might consider the way I am communicating with you right now to be psychic power. Our parent-race thought the same at one time. A few individuals received inklings of thought from others but as we grew to understand the mechanism of thought transference, over the millennia we developed skill in manipulating it.”

“But how do you know English so well? Have you been watching and listening to our broadcasts?” asked Edelbach.

“No, that is not the way transference is done. I am addressing you in my own language, but my mind is sending you universal concepts, directly into the lowest level of your brain’s language-processing area. Recognizing those concepts, your brain assigns English words to each of them and then you experience it as speech. For me, it works the same way in reverse.”

“You mean I have the ability to transmit my thoughts as well?” asked Edelbach.

“Of course. Even primitive life in the Universe has this ability. Most entities lose it as they become more sophisticated, just as the Earth people have largely done.”

“You say ‘most,’ do you mean there have been lots of primitive animals in the Universe that have become civilized?”

“Let’s say they have become technologically astute. That does not automatically imply ‘civilized.’” Grep sent.

“I know what you mean,” said Edelbach, thinking of Earth’s present chaos, “civilization can be an elusive and even temporary thing.”

“We are aware of the Earth’s present troubles,” sent Grep “the road toward civilization can be sinuous. Some planets never achieve that goal. This is one reason we are here at this time.”

Edelbach arose from the sofa and strolled over to the view wall. The wall was more than five meters tall and was transparent from floor to ceiling. The ceiling was an open beam affair. The beams being metallic, were apparently supporting-struts for that part of the vessel. The floor was also constructed of that dull metallic substance used in the glowing walls and ceilings. Instead of glowing, though, Edelbach could feel the floor radiating a comfortable warm temperature.

“Would I be able to get a drink of water?” he asked.

“Of course,” sent Grep, as he motioned Edelbach toward what appeared to be a kitchen area.

They stopped in front of a long countertop of a transparent, sparkling green plastic or stone. There were veins and irregularities running through

this material, so he assumed it must be natural. Grep drew his hand across the countertop and a door opened from which he drew two cylinders made of the dull metallic substance. As soon as Grep set the cylinders, on the counter, Edelbach noticed that water appeared in both of them, rising in seconds from a quarter to three quarters and then completely full.

“More magic tricks, eh?” Edelbach chided.

“No, simply manipulating sub-strata wave physics to produce normal matter on demand. The emerald countertop was produced using the same technology.”

“Emerald?” blurted Edelbach, “Do you know how much money a hunk of emerald like that would fetch on Earth?”

“No, but based on its rarity on most planets, probably a fortune.”

“That’s right, but I guess since you guys can crank it out on demand and in that kind of quantity then it’s not worth much at all.”

“And now you are right,” sent Grep, “please join me in a drink of water.” He lifted his tumbler and took a brief sip through his mouth slit.

“You guys drink water too? I always thought people from another planet would be more, alien”

“This relates to our purpose for detaining you, Albert. We do have a purpose for our visits to Earth. But first I must reveal something to you without further delay. I, and the team members you have observed are androids created by the Parent Husbandry to do the work that might require an actual material presence at the point of contact. We are intended to be an analogy but not a copy of human-like races and thereby not terrifying or revolting to them but also not hominoid, therefore not threatening.” Grep, paused, waiting for Edelbach’s reaction.

Somehow, Edelbach had half-expected this. “I found you pretty revolting when we first met,” sent Edelbach.

The android’s head was bobbing furiously, now.

Smiling, Edelbach calculated that, absent the diaphragm to be tickled by the emotions and then go into spasms, this was the polite way for an android to communicate that a fellow creature’s humor had amused them. Sort of like the dog’s tail. Frequency of wag + velocity of wag = degree of amusement.

“Albert, your wit is a joy,” sent Grep. “Especially under circumstances that must be, at a minimum, disconcerting for you. In regard to my appearance: long ago, the Parent-race discovered that an android had to have a “non-hominid” and endearing appearance in order to effectively interact with living beings, or I should say, entirely living beings. Our brains are actually quasi-living tissue, derived from the structure of the Parent-beings’ brains, and made to live-on bioponically in our large crania.

“So they had larger brains than we humans?” asked Edelbach.

“No, not so much larger. Some of the cranial dimensions are to accommodate the bioponic support-equipment our brains require, but some of the extra size is to give us an endearing infantile appearance.”

“A bio-electronic brain...so, that’s why you drink water!” asserted Edelbach.

“Partially. Water is also needed by the nano fuel-cells within our systems to provide power and communications among our members and subsystems.”

“Nano fuel-cells! God, I love this stuff!! Tell me about the voltages, amperages, resistance, insulating medium, servo mechanisms—or are they hydraulic?”

Grep was again head-bobbing.

In Edelbach’s peripheral vision, something completely darkened the human-sized door aperture. Edelbach pivoted to see a very tall human being duck his head and enter the apartment.

Chapter 4

A History Lesson

Edelbach stood, mouth-agape. The man was tall, blond and clean-shaven. His face looked mature but not geriatric, more like late 40s early 50s. He had kind blue eyes and was wearing something that appeared to be a formal kind of pajama, cream colored with a very subtle gold brocade on the edges of the tunic. His shoes were the same cream color and appeared to be suede or something similar.

"I hope you won't be alarmed," the man sent. "I sensed Master Korton-greppy's laughter and I surmised that things were going well. Allow me to introduce myself. I am Director Steppingstone, of the Stratum One Civilization Review Board and a member of the Parent race."

Edelbach tenuously extended his hand.

"You grasp and pump two or three times" sent Grep.

Edelbach chuckled as he and Steppingstone performed the ancient Earth ritual.

"Excellent, 3294, I see you are already collecting cultural information," Steppingstone sent.

"What did you mean Master Korton-greppy?" asserted Edelbach, "He's an android."

"Irrelevant. 3294 is my dear friend, otherwise I would always call him 'Master.' To us this is an honorarium like your 'Doctor.' He is a pioneer android created in your year 25,052 BCE for a philanthropic mission to a failing planet beyond your constellation Monoceros. Master Korton-greppy is a wise and accomplished exoanthropologist. He has also been a loving and concerned mentor to this planet. Since his manufacture, he has continued to study, to serve his client-planets and to win membership on the Review Board."

"Wow," said Edelbach. "I have to confess, I thought of the android crew as little servants or mechanical slaves. I'm really sorry."

"Don't trouble yourself, Albert," sent Grep. "You were acting from the context of your own experience and I would have mentioned it if it were important."

"Important? Your mind and your name are probably iconic in your civilization. Again, I am truly sorry."

"And again, Albert, please forget it."

Edelbach cracked a sly smile, "Can I still call you 'Grep'?"

As Steppingstone laughed and Grep began bobbing his head, Edelbach himself enjoyed a therapeutic belly laugh, for the first time in many months.

Later as the three were seated on the couch, admiring the view of Earth's neighborhood, Edelbach mused, "Grep, was saying that you guys have some higher purpose for visiting Earth. Too bad the kind of chaos I deal with doesn't contribute to some higher purpose..."

"That chaos is very relevant, Albert," sent Steppingstone, "we have been concerned with the direction human society has been going for the past half century, since the proliferation of fission and fusion weapons."

"I have to ask why a society like your own, that has infinite material wealth at the touch of a button, would be concerned with a jerkwater planet like ours—and our puny weapons."

“Those weapons are not considered puny if a civilization is still in chaos but is close to developing faster-than-light space travel. In that case they are a potential threat to nearby planets. Aside from that, we have a moral stake in affairs on Earth.”

“What’s a moral stake? A stake usually involves money.”

“This involves the purpose previously mentioned by Master Kortongreppy, the purpose for our visit to Earth,” sent Steppingstone, as he rose from the couch, approached the window-wall and made a quick, sweeping gesture with two fingers of his right hand. The wall immediately assumed the configuration of a gigantic window onto the surface of a planet very much like Earth. It was as if the wall were merely a gigantic opening in the side of the ship. The view was 3-Dimensional with no video artifacts whatsoever. Edelbach assumed that this was the quality of video record produced by the nanodrones.

Stepping stone began narrating, “Several million years ago the Earth, after having been cultivated for hundreds of millions of years by layering on one ecology after another, was deemed ready for human life.”

“Wait a minute,” interjected Edelbach, “was deemed ready’ by whom?”

“By the Husbandry, the family of androids and Parent Beings of which we are members.”

The android added, “When the ecology was adequate for human beings then a colony was dropped in from another part of the Galaxy.”

“Dropped in?” said Edelbach incredulously, “You make it sound like a walk in the park on a spring day.”

Steppingstone laughed.

“I’m sorry,” answered Grep, “What you translated as ‘dropped’ is a navigational term we use for landing a craft such as this. In fact, this very craft was one of the fleet that made the transfer.”

“You guys are saying that this vessel existed a few million years ago and my ancestors—the ancestors of every person on Earth—might have walked these decks?”

“They did walk some of the decks,” sent Grep, “Most of the lower decks were outfitted with a natural environment resembling the one from which they came.” In the holographic panorama on the bulkhead, looking like a scene from Noah’s Ark, primitive humans were being led out of the *Black Oval* by Parent Beings dressed exactly like the primitives.

Grep continued, “Being at the level of development of Early Stone Age, we could not have contact with them or the mission would be jeopardized.”

“Mission? What exactly was this mission?”

“To spread humanity and other races of intelligent beings to as many inhabitable planets as we could locate. To watch each planted race, develop, and to learn lessons from the manner in which it overcame adversity in order to arrive at civilization. To learn from its music, its art its social skills and of course its failures. And finally, when socially evolved to the proper point, to introduce it to its brother worlds across the Universe.”

“So, you are gods, after all,” said Edelbach, “I mean, what you are doing, we call ‘playing God,’ at any rate.”

“As we have come to understand it, what you conceive as God, is the initiator of the Universe,” answered Steppingstone, the intelligence that created all levels of matter and energy and was the author of the template

from which all life is drawn. This God is the absolute source of all we know, and by theory, is the master of this and every other universe.

“We are not God we are merely the Husbandry. Those millions of years ago, we developed the technology to create physical wealth, ‘at the touch of a button’ as you put it. From that point on, we wanted for nothing. We had no unfulfilled needs. But instead of being happy with infinite wealth, we began to feel, as a race, an empty hollowness. We began to be convicted of a need to use our wealth for the good of other beings, not just for our own consumption. Cherishing and nurturing that with which you’ve been blessed merely honors God, it does not usurp God’s prerogative.”

“Because we had developed the ability to manipulate the matter-frequency of our ships, the speed of light was no longer relevant. This allowed us to transfer from one side of the Galaxy to the other instantaneously, using a combination of tuning quantum-gravity and quantum-entanglement and tapping into dark energy. As a result of this navigational ability, within a few thousand years we had discovered intelligent races on the planets of many stars.

“We soon learned that there is a propensity, within matter, for life to develop and a propensity for intelligent races to follow the basic hominid form that you and I exhibit.”

“And God said, let us make man in our image,” whispered Edelbach.

“What is that, a quotation from your literature?” asked Grep.

“It’s from one of our ‘Holy’ books,” answered Edelbach. “The one used by the Jews and Christians of the Earth. I never gave it much credence, even though my family was Jewish.”

“Curious,” offered Steppingstone, “that theological concept evolved on many worlds, and could very well be the reason that God built this propensity into matter. We don’t know. God’s ways are beyond us, but don’t rule out the possibility that truth can come to someone directly out of the ether, much like the short-range telepathy that we employ. There is an intangible stratum that we know only from occasionally detecting certain effects. We call it the Truth Wave. You might call it spirit. Maybe it was this ‘spirit’ that inspired the writer of your holy book to record the statement about God’s image.”

“Well, maybe some of it is inspired by the Truth Wave” said Edelbach. “But most of it was inspired by some human being’s desire to control other people. The God described in there gets angry, orders kings to go exterminate nearby nations down to the last child and domestic animal. He’s all too human. I think that book is more a matter of humans making God in their own image.”

“Long ago, the Parent-race too, had individuals who purported to speak for God by creating holy books,” sent Grep. “But now we do not need books to support our belief. The more we delve into the multitudinous strata of physics, the more the concept of God, or a supreme intelligence, becomes inescapable.”

Steppingstone tele-pathed something that Edelbach’s mind interpreted as “Amen.”

“If your planet doesn’t have holy books how do people know what God wants them to do,” asked Edelbach.

“The more we realize the magnitude of God the less we dare presuming to speak for God. We believe it is up to each being to live its life

with the assumption that there is an ultimate accounting for all life-choices. Experience has shown that those who endeavor to follow the Truth Wave, or spirit, usually make good choices. This was the case when the Husbandry decided to use its wealth and power to help other beings.” Steppingstone paused. “But Albert, even though we are millennia ahead of Earth in technology, we are just as ignorant about what happens after death. Such is the humility of Truth.”

“Easy for you to say,” quipped Edelbach, “you guys live ten thousand years. That defrays facing up to the consequences of living on the dark side of the Force—if there is some kind of reckoning after death.”

“Oh, you refer to the Star Wars Saga,” sent Steppingstone, “I’m familiar with it’ but, the Truth Wave has no ‘dark side.’ One either synchronizes with it and enjoys its elevating effect or one does not and continues to labor under his own power.

“So, what do you Husbandry Beings reap out of all this sowing?” asked Edelbach.

“As I said before, knowledge of art, music, culture, social methods. Further, Utopian lessons, Dystopian lessons and, most of all, filling the empty part of us that I mentioned.”

“I’m not sure I follow the logic,” commented Edelbach. “On Earth, our science of Anthropology walks a fine line between observation and meddling. The observer’s very presence, among the subjects being studied, can taint study results. In more than one case, the subjects made up fanciful stories because it seemed to please the scientist. How do you beings know that your contact with your subject-races hasn’t planted the seeds for some ultimate harm?”

“You judge rightly,” said Steppingstone. “We must be exacting in our care to remain in the background when we gather up a starter colony for transport to a new world. We use the nervous constraints that you experienced along with closely similar hominids to lead them aboard.

“As I mentioned before, when aboard-ship they are restricted to decks that are configured like a small corner of their home world, including the same food sources and an artificial day and night holographically projected upon a skydome that reaches 200 meters in height, nearly half the maximum thickness of this vessel.”

“What kind of stupid race would be fooled by such a ‘holideck’ arrangement for their living accommodations?” queried Edelbach.

“No race at the stage of advancement your planet has achieved would ever be the subject for colonizing. One can only do this with very primitive races that still have the flexibility to be adapted to a new physical environment. When an ideal race is found, starter groups may be gathered and taken to as many as scores of planets in this fashion.”

“You mean that human beings could be living on a bunch of other planets right now?”

“You have cousins on hundreds of other worlds. They were migrated there in one great wave around 1.3 million years ago, at the same time Earth was seeded,” continued Steppingstone, “Each of the subject planets has been seeded with the exact same mix of flora and fauna and then left to the vagaries of natural selection and pure chance, to develop into...whatever. The Husbandry is very careful to place each experiment so

distant from the others that communications, physically and electronically is impossible.”

“That is, unless your lab rats develop the same quantum gravitational-entanglement travel technology,” challenged Edelbach.

Steppingstone frowned. “We do have methods of observation that are non-intrusive such as the nanodrones that Master Korton-greppy mentioned to you. We won’t allow a socially backward planet to develop it.”

“How the hell do you stop a world from developing whatever the hell they want to?” squeaked Edelbach. His voice always failed like that when he was severely agitated and wanted to sound powerful and masculine.

“Pardon me, I’m feeling a need for water,” sent Grep. “May I get you another cylinder, Albert. or you Yaushr?”

Very diplomatic, thought Edelbach, Grep could see things were getting a bit heated. This little android is pretty amazing.

“Yes, please Master Korton-greppy, let’s all three refresh ourselves then go to the mess hall. When was the last time you ate, Albert?”

“I don’t know. Sometime yesterday. I left the hotel in a hurry to get an early start and didn’t have breakfast. I was dreaming about The Hill in St. Louis just before you guys picked me up.”

“What is the Hill?” sent Grep.

“The Italian-American neighborhood in St. Louis, Missouri. It’s kind of a tourist trap like Fisherman’s Wharf in San Francisco, California. Some mediocre overpriced restaurants, but a few of them...excellent. My favorite is La Calabria. They know me there and always have my favorite, *Ossobuco*, available when I come.”

“Let’s tell the computer chef and see what it can come up with.” smiled Steppingstone, ducking under the aperture and leading the way into the hallway. As if on cue, the hallway began filling with hundreds of individuals, both Parent and Android, all apparently headed to dinner.

What Edelbach had heard had his head spinning. He should have been ecstatic to have been given the privilege of learning about these mysteries, and yet he couldn’t help but feel a measure of grief. What had died was the myth of the people of Earth as reigning supreme in the Universe, as conquerors warping forth into the final frontier, expanding the edges of the Federation. Instead, was the growing image of humanity as a race of kept goldfish.

CHAPTER 5

A Dinner Under the Dome

The sound of chatter and clinking dishes coming from a great archway up ahead hinted “dining room.” The trio turned into the archway and moved out under a tremendous stained-glass dome. It wasn’t nearly as high as the St. Louis Arch, but it must have taken up nearly the entire vertical dimension of the vessel. The stained glass and crystal elements were framed in gold coming, and the themes woven amongst the sections were anthropomorphic, or roughly so. Depicted were domestic scenes, agricultural scenes and what might have been industrial scenes. There were definitely cows and horses, dogs and cats, along with more exotic, unfamiliar animals.

One entire side of the great room was the same transparent bulkhead material used in Edelbach’s accommodations, but with an even more impressive view of the local galaxy and the Earth-Luna juxtaposition—except, this “window” was 30 or 40 stories high. From the foyer and the chef’s line there was a climbing trail leading up a tree-covered mountain that had the dining room floor spread out before it. Several babbling brooks cut the hill vertically and there were charming wooden and stone bridges, where the winding trail crossed them. At each crossing, there was a pad containing a picnic table and lounge chairs. The view back down the mountain was of the entire dining room, with the firmament beyond it.

Across the great floor of the dining room were hundreds of tables occupied with a dizzying variety of human-like creatures, with varying sizes and skin coloring—including subtle shades of pastel blue and green. It was difficult for Edelbach to distinguish males from females; they all wore the same pajama-like uniforms and sported roughly the same hair length. None of these people were grotesque or sprouting horns or bizarre facial-folds—as a lifetime Trekkie (like Edelbach) would expect.

It’s almost like the “racial” variety we have on Earth, thought Edelbach, but multiplied by evolutionary threads on hundreds of planets.

When they arrived at the chef’s line, Steppingstone explained to the computer exactly what Edelbach had earlier wished for. There was a slight pause and a hatch opened in the counter, from which a tray arose. On the tray was the La Calabria *Ossobuco* dinner complete with the customary Fettuccini Alfredo on the side, both presented on La Calabria’s red and green trimmed china.

Edelbach gasped for the second time that day. “Now come on, tell me that wasn’t magic. That is just spooky.”

“Just science, Albert,” said the android. “We’ll tell you the trick when we get to our table.”

Even Grep was given a tray of food by the computer chef. Grep’s food was definitely not identifiable and cut up pretty small to accommodate his slit of a mouth; but, Edelbach assumed that the living brain tissue inside Grep’s head would need nutrients, just like a normal human brain would. Steppingstone had what looked like a halibut or swordfish steak with an asparagus-looking vegetable topped with what might pass as hollandaise.

Once they had their trays, Steppingstone led the trio up the winding path, over three bridges then over to a beautifully finished rosewood table positioned under the spreading branches of a mango tree. Edelbach knew

his rosewood because he had been lusting for a guitar made from it. He would have had it long ago, but pure rosewood guitars were expensive. He assumed that the Husbandry had just waived the wand of science and created the material on demand.

Seated at the table, facing outer space, Edelbach had a feeling of Deja vu. "It's like I've been here before," He thought. Then he remembered being in Clifton's Cafeteria in L.A. years and years ago. To a four-year-old, that cafeteria was nearly as beautiful and seemed equally large as the vessel's dining room, with its various mezzanines, balconies surrounded by tropical plants. The crystal stained glass ceiling of the vessel was eerily familiar as well; and then he remembered The San Francisco Sheraton Palace Hotel's gorgeous dining room that he had seen when he was a college student.

"Was this whole scene especially built for me?" posited Edelbach.

"Oh no, only the food tray," Answered Steppingstone, smirking. "The other things you see are indeed partially gathered from Earth culture—because we find them appealing. This is part of the package of positive rewards we enjoy as a result of the Husbandry's work. But there are also cultural influences from many other planets as well in this dining room."

"As I noticed; but how does all this work?" queried Edelbach, indicating the food, "Especially the *Ossobuco*."

"I explained to the computer your description of the Hill in the city of St. Louis and the name of both the restaurant and the dish. The computer merely examined the archive of nanodrone recordings for that restaurant and watched La Calabria's chef prepare the dish. The computer said to apologize because it had to synthesize the *Ossobuco* from some generic pieces of veal it had in the freezer."

"You could've fooled me," laughed Edelbach. "It tastes just like the real thing... So, are you telling me that you have video of everyplace on Earth captured by these nanodrones and stored in the ship's computer?"

"Actually, everyplace on many worlds," answered Steppingstone. "At a depth of greater than one million years—enough to capture the entire history of one of our transport epochs."

"Then, I have to ask again," Edelbach interjected, testily, "why the hell do you need me? You've got more data than contained in the sixth expansion of the Word Wide Web."

Steppingstone was unsmiling, "What the hell good is raw data without relative knowledge, Albert. You were an engineer; you should remember that fact. And why the hell did you call our charges 'lab-rats', you rude geek?"

The android was head-bobbing because of Edelbach's shocked expression, "Albert, Director Steppingstone is our Prime Scholar of Earth Languages. I don't know if you are more shocked by the epithet or by Yaushr's command of colloquial American English."

"Both," answered Edelbach. "And once again I have to apologize. I denigrated your entire life's work with the stupid metaphor about lab-rats; so please accept my apology," After a pause, "Oh, by the way, people who are geeks are usually proud of it, so you need to use a more offensive epithet, like 'bastard.'"

Steppingstone's stern face bloomed into a big Nordic-looking smile. "Apology accepted."

"The rude part was good, though," Added Edelbach.

The rosewood table temporarily erupted into good-natured guffaws and bobs, then all that was heard for the rest of the meal was the quiet roar of thousands of human and alien conversations and dishes tinkling under the dome—mixed with the sound of the babbling brooks, and with their own munching.

CHAPTER 6

An Overnight Flight

After their meal, the trio strolled along a cantilevered walkway hanging out from a quarter-mile-long stretch of transparent bulkhead. The sight of the Milky Way, the Earth and Moon and even some of the larger nebulae continued to awe and inspire Edelbach. He wondered if this could ever become mundane to him.

"After this nice walk, maybe you will be able to get some sleep," speculated Steppingstone.

"Sleep? Now wait a second, Grep promised me that you would take me and my car back to where you picked me up. I can't be spending the night. I have calls to make, tomorrow."

"And we will indeed return your vehicle and you, just as we promised," said Grep. "But we are not finished with your education and your mission."

"I wasn't aware I had a mission. Now, listen: I have a job that I'm lucky to have in this economy. If I spend the night on this behemoth I'm likely to lose it."

"Albert, you are an engineer, a persuasive sales person, one who has knowledge of Earth's mores and culture," the android sent.

"Plus, you have a wisdom commensurate with your chronological age," offered Steppingstone. "In short, that's a pretty good résumé-to put it in the current Earth vernacular. We would like to hire you as a consultant."

"What?" Edelbach squeaked. "That's ludicrous, I can't imagine that I have any true value to you guys. You know everything, and if you don't, all you have to do is check the nanodrone-archives."

"As I mentioned before, raw data is useless without perspective and experience. On top of that, you do have wisdom, Albert, and you do have and an ability to judge impartially."

"I suppose you know that because you spied on me via nanodrone, Yaushr."

"Partially."

"You bastard! Don't you realize that we Earth people treasure our privacy and that a violation of that is a violation to our person, just as surely as a physical assault would be?"

"I guess we need to learn that," quietly answered Steppingstone, staring into space.

"Well, consider that lesson my first deliverable under our contract, how much am I going to get paid?"

Steppingstone's meek expression immediately morphed into that big Nordic smile.

"I would suggest something portable and easily convertible to any Earth currency," he said excitedly "How about 24 Karat gold bars?"

Edelbach gulped, "Uh, that wouldn't be very portable would it?—Because of the weight? But hey, a Swiss Bank named Credit Suisse puts out small ingots of a few ounces or so. Would that be counterfeiting if you copied those?"

"Not if we make ours out of truly 24 Karat gold and a perfect weight to match the Credit Suisse counterpart. These bars are not a national

currency, are they? Isn't the purpose just a certification of purity and weight?" asked Steppingstone.

"I guess. Can you verify that, when you look into the nanodrone archives to see how they're cast?"

"Surely. Would ten ounces per day be a sufficient compensation for an interstellar consultant?" asked Steppingstone.

Another gulp. "Uh, that would be more than sufficient," he whispered—mentally calculating, *Let's see, \$2,000 per ounce times 10 ounces times maybe two weeks on this tub... That's \$280,000! I'll stick that right into my retirement account.*

"I would like to welcome you as a crew member," sent Grep.

"Thank you. By the way, on what vessel do I have the privilege of serving?"

"The intergalactic-class carrier *Utopia*, Grep sent.

"May I too, welcome you Counselor?" added Steppingstone. "By the way, the honorarium, 'Counselor' is officially the one that goes with your job-description, as one of three *de jure* envoys representing Planet Earth's interests in the Husbandry High Council."

"Who are the other two?" asked Edelbach.

"We, of course," answered Steppingstone, gesturing toward the Master.

"Councilor, I suggest you get some sleep," sent Grep. "I know you have had a highly stressful day. We are very sorry to have had to put you through this, but in the end, we feel that you will agree that it was the proper decision."

Grep and Steppingstone walked Edelbach to his cabin. The bedroom was fitted with a greater than king-sized bed and the typical floor to ceiling video display facing out on to space. Grep showed Edelbach how to dial the bulkhead to opaque and back to transparent. He also showed him how to access nanodrone archives and even planet-side satellite broadcasts. It didn't take much fiddling to dial the wall to CNN. Edelbach fell asleep watching the morning broadcast from down in Atlanta.

When he awoke, someone had placed a breakfast tray on his nightstand containing a tumbler of orange juice and some strange-looking but delicious little pastries. He wanted to watch some more news as he enjoyed breakfast, but all he was getting on the wall was static. Well, then he would enjoy the outside view, so he slid the control from opaque to transparent.

"What the hell..." he gasped, looking at an entirely different scene from the day before. Instead of the familiar spiral dust lanes of the Milky Way, he was looking at great fluffy columns of thick dust clouds embedded with blue stars. Nearby, was a yellow sun-like star and over to the extreme left was a near twin to the Earth's blue-marble configuration, except with three smaller moons in what looked like, widely varying orbital diameters.

Looking downward, he saw, zipping out of bay doors along the length of the *Utopia*, scout vehicles of many different designs. Some looked like the *Semi*, others were saucer shaped; some were cylindrical, like a water heater. Edelbach guessed that they were headed for the blue planet and that each design was built for a specific exploration job, probably perfected over thousands of years.

"Good morning, Albert," piped Steppingstone, sticking his head around the corner into Edelbach's bedroom. "I hope you had a nice trip."

"I didn't even know I was on a trip, where the hell are we?"

"Near the edge of what you call M-31, the Andromeda Galaxy."

"No way! That must be three hundred thousand light years from Earth. No way. Overnight? No way, Yaushr."

"Yes way," Steppingstone laughed, again showing off his command of the vernacular, "And it's actually 2.5 million light years. I think Master Korton-greppy explained to you that our drive technology uses quantum gravity and quantum entanglement tapping dark energy as motive power. DE is not subject to general relativity; it's instantaneous: it also penetrates into other strata, but we can talk about that later. So being immune to the effects of relativity—here we are," he added, blithely.

"Holy crap!" exclaimed Edelbach. "So, it really is true. Well then, what's the purpose of this little house-call?"

"A field trip, you might say."

"Where are the students?"

"You're it, Albert."

"Me?" He was squeaking again. "You brought a ship bigger than all the aircraft carriers on Earth combined, more than two million light years across intergalactic space to teach some cranky old washed-up engineer some kind of lesson?"

"Yep, it's a lesson that's important to your mission, and your mission is supremely important to your fellow human beings on Earth."

"Well, if this is important to all 7.5 billion people on earth then how can I resist the inevitable," he said, incredulously. At the same time, he was thinking, *if you're willing to pay me \$20,000 per day, how can I resist the inevitable?*

Grep's ever-so-subtle head-bobbing indicated that he picked up the sarcasm. Edelbach decided to ignore Grep's eavesdropping and not raise an issue. Grep was seeming more human all the time.

"Good, then it's settled," exclaimed Steppingstone. "I'll have the JX-02 scout, Hermes readied for a quick tour of Arangelles one of our Utopian client planets, but first, 3294, we should clear out of here, so the Councilor can get a quick sonic."

A "sonic", as Steppingstone had demonstrated the night before, was a sonic shower. Instead of water, the user was showered with threads of warm air all vibrating at different ultra-sonic frequencies. What was mollifying to human skin, leaving the user completely refreshed, was absolutely deadly to germs and other living micro-organisms. In addition to providing a soothing effect, the threads also changed the static charge of contaminants and a large static generator vent in the ceiling of the shower, acting as a magnet, literally sucked away that which would get washed down the drain in a normal shower.

Stepping out of the sonic, Edelbach liked the idea that he could immediately get dressed without having to dry-off. He was tying the last of his shoes when he stopped cold.

"My Gillette double-edges," he gasped. His shaving kit was in his bag, in the Mercedes, in the Semi, in the hangar bay, probably somewhere a half mile away.

I must have a good five-o'clock shadow going by now, he thought, reaching up to stroke his beard. Instead of stubble his face felt utterly smooth.

I'll be damned, he thought. *The sonic is programmed to take off excess masculine facial hair. It's a good thing I'm not Orthodox or Hassidic, I'd be very pissed-off.*

CHAPTER 7

A Quick Trip Around a World

Edelbach had been right about the toys. As Steppingstone led the way out onto the floor of a hangar bay, several stories below where the *Semi* was moored, Edelbach was stunned at the sight of scout and shuttle vehicles lined up in multiple rows extending at least 300 meters down the length of the bay. This perspective caused the last column of vehicles to actually *look* like toys. Edelbach noted the same degree of variety in the vehicles on deck as he had noticed in those craft leaving the *Utopia*, earlier that morning.

Surrounding the various “flying-objects” were crews of people and androids doing what looked like pre-flight checks. A few saucer-like craft were powered up and faintly glowing pink, with what looked like a plasma discharge.

With a rumble that sent vibrations through Edelbach’s feet, the great bay door began to roll up exposing the vacuum of space. His immediate reaction was to grab Steppingstone’s shoulder in order to steady himself.

“Oh, don’t be concerned, Albert. There is a force field that goes on as soon as the bay door is activated. That ensures that normal cabin pressure is maintained.”

Steppingstone led the group, which included two android pilots, to their assigned craft. It was a saucer-shaped model about 20 meters in diameter and featuring what looked like an observation dome on top.

Your classic UFO, thought Edelbach, mildly amused. *Three days ago, I thought UFO’s were wishful bullshit and now I’m crewing one in another galaxy. Only in America*, he thought, smiling at his own witticism. He checked Grep. *No head-bobbing. He must be living up to his promise not to snoop.*

Now that the bay door was fully rolled up, a few of the other craft, plasma halos dimly flashing and making a slight humming sound, rose up and slowly floated across the expanse of the bay, and then out the great opening. Once clear of the doors, they “floored it” and disappeared down toward the planet in a matter of seconds.

“Our craft checks out,” sent Grep. “Let’s all go aboard.”

The craft, which rested on three wheel-less landing pods, made an opening in its bottom from which a metal staircase extended. The landing pods must have been nearly 3 meters tall because Steppingstone didn’t need to duck as he approached the staircase and began to climb. The pilots followed Steppingstone then Grep motioned for Edelbach to go next.

The interior was much more spacious than that of the *Semi*. *I guess if you take a 60 foot yacht, spin it 360 degrees and add more height, you just about have it*, thought Edelbach. *This thing is a lot bigger than it looks.*

The group followed their pilots up a winding staircase to the observation dome. The dome actually functioned like the bridge of a maritime vessel. The pilots sat at a raised console in the very center of the dome. By standing they could see over the heads of any crewmembers that might be on the bridge.

When the pilots began donning their black headbands, Edelbach knew the journey was about to begin. No one ran for his seat and there was no “Fasten Seat Belt” sign. Grep and Yaushr casually milled around the bridge as the motive system, somewhere below, began making a low hum, gradually ramping up to a higher pitch.

Edelbach was standing at a position at the edge of the dome, looking over the satin-metallic expanse of the craft's upper hull when, very faintly, the plasma discharges began to dance along the surface. At that, the craft rose about 10 meters above the hangar bay deck. Edelbach felt nothing. His view out the dome might as well have been a video: there was no sensation of movement. The pilots were standing at their console. The craft began slowly floating over the rows of other craft, toward the big opening. When clear of the mother ship, the pilots, like their predecessors, gave it the gas.

Again, there was no sensation of acceleration, but the disk of the planet zoomed to fill their peripheral vision within seconds. The pilots parked the craft in a hover probably at, Edelbach guessed, the six-zero-hundred or 20,000-meter level.

"Councilor," summoned Steppingstone. "Why don't the three of us go down to the lower observation lounge for the rest of the trip."

The lounge definitely lived up to its name, "lounge." It was very luxurious, with leather-like stuffed chairs, oil paintings on the wall along with full color holograms of flower arrangements and sculpture. The walls were painted a faint green. There was a well-equipped galley complete with computer chef, and a sapphire counter. The floor was made completely of the transparent bulkhead material used on the mother ship. Again, Edelbach found it disconcerting to step out onto space and walk on the invisible floor.

"What did you think of the trip down?" sent Grep.

"I'd like to say it was an exciting ride," answered Edelbach. "But with no sensation of movement, and no g-forces, it kinda takes the fun out of it. It's pretty exciting from an intellectual standpoint though, I have to admit."

"We understand," said Steppingstone, smiling. He put a finger to his temple. "Let's show the Councilor some more extreme maneuvers," he said aloud. "Invert."

The scene below spun around until they were looking at the rim of Andromeda. The craft had done a complete inversion, again with no sensation of movement.

"So, instead of gravity being your ancient enemy, you guys have harnessed it and have turned it into your slave."

"I guess so, at least when it comes to flying," answered Steppingstone. "We still lose people to falls and we still enjoy flying traditional air-supported craft on a hobby basis—and, yes the hobbyists do crash and get killed sometimes. Well, actually, there are situations when a craft such as these crashes too"

That's comforting, thought Edelbach, then aloud, "But largely you are masters over physical laws, aren't you?"

"I suppose," admitted Steppingstone.

"How long did it take you to develop this technology," asked Edelbach. "We've been going 1.3 million years, according to you, and we can't even do this stuff in theory, let alone practice."

"Well the Husbandry was probably in existence for a billion years when Earth was seeded. But, I personally come from a race of humans that is only about twice the age of the Earth races. I was welcomed as a 'Parent' just before we seeded Earth. Our planet enjoys this technology, but we did not create it. It was entrusted to us when the time was right."

Steppingstone touched his temples again and the craft returned to its former attitude.

So Yaushr is over a million years-old, thought Edelbach. And back on Earth it's such a rapid cycle of birth and death. Death is always present, always staring us in the face. It doesn't seem fair.

The planet below their feet was like Earth, with alternating areas of water and land, and yet both of those areas were more evenly distributed, yielding no overly large oceans or continents. This created something rather like an expansive web-work with the oceans probably providing a transportation network surrounding the continents. Either a lucky coincidence or they had learned to manipulate tectonic plates.

"Descend by half," commanded Steppingstone.

The scene zoomed to double its previous aspect. Edelbach could clearly see great cargo ships plying the straits between continents, as he expected.

"There is still a great deal of commerce conducted by traditional shipping," said Steppingstone. "Even though they have graviton-wave technology—when it comes to non-luxury, non-emergency cargo—the floating ship is the most economical answer. They are all robotic, of course. No human crew.

Suddenly, a half-dozen objects appeared in the space below their feet. It was a colorful armada of saucer-like vessels with gaudy logos and various types of text painted on them.

"Our welcoming party," sent Grep.

"So, this is a client planet?" asked Edelbach. "Is it a Parent planet?"

"Yes it is. Just like your own; in fact, it was seeded in the same great wave in which the Earth was. A little more than a million years ago."

"How did they develop anti-gravity drives already while we're still having to ride on top of a big-old continuous explosion to get into space?"

"Yes, Earth's space technology is pretty primitive, by comparison, isn't it? Well, first of all, we don't refer to it as 'anti-gravity.' Pro-gravity would be more like it. You said it yourself, Albert, we took our ancient enemy, gravity, and tamed it, for our own purposes."

"So, the Husbandry gave the planet, uh..."

"Arangelle," offered Steppingstone.

"Yeah, Arangelle. You gave them the graviton wave drive?"

"Yes. When a client world reaches a sufficient state of Utopia, we share certain technologies with them. If a client world is within any degree of Dystopia we do not do so. Access to wave drive means they would now be in 'our back yard'—to use your vernacular—for better or for worse. You can imagine the chaos that that would cause. We now have a case of that going on in Andromeda right now, stemming from some incorrect choices in the past."

"I don't get the criteria for selection," mumbled Edelbach. "What the hell is Utopia anyhow? On Earth, 'utopia' is just a vague general term kicked around by dreamers like Plato, and others. Really, nothing more than the author's personal idea of the perfect world."

"True, but if you conceive of a perfect world and millions upon millions all subscribe to that conception, then you have the beginnings of a true Utopia."

"So, does the Husbandry seed such a concept on some worlds and not others?"

“Not at all,” Steppingstone hastened to offer. “We physically prepare the planet over tens of millions of years, to bring the ecology up to a ‘terra-form’ as you would say. Once the planet is there, we seed it with humans from an early stone-age planet. From that point, they are on their own.

“As a race, the Husbandry is fascinated with the differences that have historically developed, in not only physical evolution but also social and religious changes over time. Some planets develop into a Utopia where a government prevails that is peaceful collaborative, non-racial, non-religious, non-economic and sustained by mutual agreement of all the citizenry.

“Others devolve into a maelstrom of tribal bickering and shifting power orchestrated by charismatic despots. This is usually all accelerated by a catalyst of religious fanaticism and an obsolete currency-based economic system. Not to say that there are no races, no religions nor any business corporations in the Utopian planets, it is just that racial, religious and business considerations are given lower priority than that given to the planet’s welfare. The thought of killing another human being to settle who sits in city hall is anathema to them, even ludicrous. Which individual occupies the seats of power is of no consequence to them because the true power is in the hands of the entire populace and they all rule by mutual consent.

“So, the secret of the Utopias is mutual agreement,” continued Steppingstone, “Those planets have learned that the need for written laws and police eventually gravitates against Utopia. Without deep individual personal commitment to a template of global welfare, police forces often ultimately breed only bloody rebellion, followed by a tyranny of the mob. But with an all-inclusive Utopian agreement and commitment to a template of global welfare, laws and police become obsolete.”

“My head is spinning; my ears are burning. The Dystopia you’re talking about is the Earth, right?”

“No, Albert, not yet, but she is definitely headed in that direction, not just ecologically but moreover, socially. You can destroy the planet, we’ll just eventually terra-form another. But what about destroying a million years of physical and social evolution? That would be the tragedy.”

“Why does your definition of Utopia sound so much like communism or even anarchism?” asked Edelbach.

“Both of those were an attempt to force a system of beliefs upon others,” answered Grep, “with all the force necessary, by the way. Utopia is to voluntarily accept a beautiful vision of a peaceful, happy, and productive world, and then to voluntarily modify one’s own behavior so as to do nothing that would counteract that Utopian vision.

“For example,” the android continued, “I won’t steal something because my Utopian dream conceives of a society completely free of theft. I won’t lie because my dream is a society where I can completely trust the words of others. For me to lie would be to make a tiny contribution to Dystopia. My own lie would make the whole planet less like the one I dream of living on.”

“I don’t know,” mused Edelbach. “It all sounds nice but also terribly naive. Wouldn’t the bad people take advantage of such a system in order to promote their own gain, and how in the hell do you get from where Earth is right now to where this planet is?”

“Well, let’s just see,” said Steppingstone.

The ship's public-address system delivered an audible, cryptic set of words. Steppingstone translated, "It said, 'Welcome to Arangelle, Benefactors. Allow us to accompany you to our capital.'"

Touching his right temple, Steppingstone commanded, "Array behind the welcoming party and follow them down."

Edelbach realized that the hand-to-the-temple routine was for his benefit, so that he would know when the Director was communicating telepathically.

With that message, the saucer-craft all spread out in a long line, looking like a string of pearls and began slowly descending.

"Follow the queue," commanded Steppingstone, and the pilots complied.

Judging by the angle of descent, Edelbach estimated that they were headed for a great harbor he could see on the planet's terminator. In the morning light over there, he could already make out the fuzzy image of lights streaming out from the harbor in a radiating pattern. *Traffic*, he thought.

Sure enough, they continued along the line, directly into the rising 'sun' until a few great marble buildings, skyscrapers actually, could be resolved near the harbor. In the background was a towering, snow-capped mountain range. Edelbach could tell the planet's star was ascending from the horizon at approximately ninety degrees, meaning either the city was in the tropics, or they had come precisely on one of the equinoxes. As they grew near, the snowy peaks turned pink in the morning sun.

Their descent continued, slowly, majestically, like a royal procession, a complete contrast to the normal zipping and darting mode of flight that these craft were capable of.

The capitol consisted of several beautiful marble towers separated by blocks and blocks of green park-like areas. The *Hermes's* line of descent pointed to a wide green field outlined by a crowd of people carrying flagstuffs with colorful streamers. *Hermes's* escorts arranged themselves in a hexagonal formation with her in the center, then they all performed one last coordinated move, settling onto the grass as if one object.

The people surrounding the landing site broke into a round of cheering and flag waving as a lone man strode through the line of saucer-craft and up to the *Hermes*. The man was a clone of Steppingstone except his loosely fitting togs were similar to gold brocade and edged with a shining red metallic thread.

"This is Master Willingifter, the Husbandry's Ambassador to Arangelle," said Steppingstone.

When the Ambassador reached the bottom of the *Hermes's* boarding stairs, Steppingstone announced: "Warmest Greetings, Ambassador. May I present Councilor Albert Edelbach of Earth? He has joined the crew of the *Utopia* to aid in the consideration of his planet for potential acceptance into the Husbandry."

"Welcome, my son." said the Ambassador in a very warm voice. "You are the first person I have seen from Earth since we on the *Utopia* placed your ancestors there more than a million years ago. It feels almost like a reunion to me."

"As it did to me," commented Steppingstone. "How are you, old friend? What news do you hear from our governors on Zoë-lien?"

“All the news is about the conference coming up on the *Utopia* in 300 hours,” answered Willingifter, “so you should update *me*.”

Steppingstone smiled but did not directly address the question: “What a wonderful reception on such short notice, Ambassador. How did you organize it so quickly and get these lovely people to brave the morning chill on our behalf?”

“Oh, the flight controllers called me as soon as the *Utopia* broke out of graviton-wave. My assistant notified her family and each of them notified someone else and within an hour, all these wonderful people came out to welcome you.”

Edelbach surveyed the vast ring of humanity surrounding the hexagon formation of ships. They were colorfully dressed in the same pajama-like outfits that Steppingstone and Willingifter wore, but with each having unique fabrics, prints and brocades. They were now chatting and casually waving their flags. Little children and dogs were beginning to venture out into the center of the circle, chasing each other and cavorting on the grass.

“I have a wave-car ordered so that we can take you on a tour of the Arangellian capital zone,” announced the Ambassador, excitedly.

Just as he finished that statement, Edelbach saw a silver streak at the tree line on the edge of the great lawn. The streak slowed down and pointed itself across the lawn in their direction.

“Here we are!” exclaimed the Ambassador, as something analogous to a sleek 1915 open touring car, floated up and settled onto the grass before the *Hermes*. The vehicle was basically a large convertible station wagon with a windshield that started at the apex of the front end and swept back, ending over the driver in one swoop. The configuration of this front “glass” was apparently designed to direct oncoming air completely over the passengers in order to provide the protection of a roof but without obstructing their view.

Grep led the way on board selecting a seat in back of the driver on the port side of the car.

Pretty funny, mused Edelbach. *You come clear across intergalactic space, to another galaxy, and find that people drive on the correct side of the road.* He had some Japanese and British friends he would love to kid about that.

Steppingstone motioned for Edelbach to follow. “Albert, I have a small appliance here that will help you avoid confusing the mix of linguistic and telepathic chit-chat that you will probably be exposed to today.” He dropped a tiny bean-shaped, chromium contrivance into Edelbach’s palm. “Just place that in one of your ear canals and it will handle any necessary language or telepathic translations plus provide a little traffic-control so conversations don’t collide with each other”

Edelbach shrugged and placed the capsule in his right ear canal; it immediately conformed to the diameter of the canal, gently wedging itself in place. After Edelbach seated himself in back of Grep, the Director and the pilots from the *Hermes* found seats on the starboard side. Finally, the Ambassador took a place up front, next to the driver.

The seats were the most comfortable and truly ergonomic that Edelbach had ever experienced. They were made of some kind of soft leather. The carpets were a substance close to lamb’s wool in density and in softness. As he was thinking that, all three androids were activating seat controls that raised their seats enough to allow them to see over the sides of

the vehicle. This control must have been a standard feature on all conveyances in the Husbandry planets.

A low hum indicated that the driver had started the motive power unit. It must have been a tiny version of the technology that powered the flying machines that Edelbach had already ridden on. As the frequency of the hum increased, the car rose to just a few centimeters above ground level and jumped forward to approximately 120 kph in one or two seconds. As they hit this cruise speed, there was only the faintest wind noise. A fragrance, reminiscent of plumeria and other tropical flowers, lilted on the damp morning air.

They crossed the airfield in seconds and the driver pointed the cruiser down a long grass lane of about 100 meters in width. There were other vehicles going along on their side, the *right side*, of the lane and still more flashing by in the opposite direction. "This is the freeway?" blurted Edelbach in astonishment.

"Yes, indeed," answered Steppingstone. "Since their surface shuttles never touch the ground, there is no need for pavement. They just need to assure that no rocks or other obstructions are allowed to remain in the flow of traffic, so they have sensors to alert the highway crew as soon as that happens.

"Seems a bit chaotic," observed Edelbach. "There's not even a center divide. Do they have many wrecks?"

"Apparently never," answered the Ambassador. "All vehicles on the highway are talking to each other at all times. Our vehicle's memory, for example has a dynamically updated picture of all the other vehicles on the highway and where each is going. Were there to be an imminent collision, both vehicles involved would communicate and take mutual action to avoid it.

"Sounds logical," admitted Edelbach. "We probably have sufficiently advanced technology on Earth right now to have such a system, but the legislators would never in a million years vote the money to fund it. By the way, how did Arangelle fund this system?"

"The Councilor refers to money, Master Ambassador," sent Grep.

"Oh, that," chuckled the Ambassador. "These projects are done without what you call money—they have to be, since the only money on Arangelle is in the history museums. No, these projects are completed by volunteer labor and materials."

"How in the world do you coordinate the participants and donors," asked Edelbach.

"Well, Earth has had something called the Internet for nearly a hundred years now has it not? Arangelle has something similar but with much more depth. This little welcoming party today is a tiny prototype for how it works. Once a project, like highway improvement is announced, they have to turn people away. Generally, what you have left are people who have experience and expertise at highway construction—with the exception of a small percentage of internships that are offered with any new project that comes up. This gives an opportunity for interested young people to learn the trade."

"It's still amazing that you have that many unemployed to fill an employment call that quickly," commented Edelbach.

"Oh, no one is unemployed on Arangelle. By choice, everyone gets pleasure out of being on a project. Doing so is a source of pride and

completing the project is a cause for celebration and a sense of accomplishment. After the celebration, the search usually begins again for the next project.”

“What about the materials?” queried Edelbach. “What do the suppliers get out of donating materials.”

“The same thing the laborers get out of volunteering themselves: satisfaction, pride of accomplishment.”

“But who pays for the supplies?” asked Edelbach.

“No one. Gathering or creating the supplies is a project in itself. Distribution of the supplies, once gathered, is also a project.”

“So, no Money?”

“No money,” answered the Ambassador.

“If I hadn’t seen it, I wouldn’t have believed it.”

“That’s the idea of this visit,” laughed Steppingstone.

“Here’s another example of Arangellian economics up ahead” said the Ambassador. “Driver, please stop at the regional market.”

The driver gradually decreased speed and pulled off the speed lanes onto an apron. Here was the biggest assemblage of people Edelbach had seen since arriving on Arangelle. They were mostly dressed in the colorful loose-fitting attire worn by those in today’s welcoming ceremony. There were young, old and in between. Most were strolling between rows of stalls, which were overflowing with merchandise. There were fruits and vegetables along with grains and clothing. There were household furnishings, garden tools and even frivolous items and children’s toys. Edelbach admired a set of the formal pajamas in a light green damask-like material.

“Hello friend,” greeted the storekeeper. “I can tell by your attire that you are a visitor from far away. This outfit would be perfect for you to wear while visiting here.”

The man scanned a laser pencil across Edelbach’s body, first vertically then horizontally at the waist.

“It looks like this one is too small for you, but I have your size here someplace—oh here it is. You can try it on if you like.”

The man indicated a draped area at the back of his stand as he handed Edelbach the folded garment.

“Oh, I wouldn’t want to keep my friends waiting,” said Edelbach.

“Please do try it on,” said the Ambassador. “I’m dying to see how you look in it, Councilor.”

So, a few minutes later Edelbach emerged looking very dignified and very Arangellian.

The shopkeeper stood with hands on hips, nodding. “You do look splendid sir; would you like to keep it? I can put your old clothes in a container sack for you. Please keep the suit with our compliments. It’s a great pleasure serving a distinguished guest to our world.”

Edelbach remembered not to mention money: “Thank you so much for your service, storekeeper you have been most helpful,” he intoned.

“Councilor, I think I see a future for you in the Department of State. For someone totally new to Utopian society, that was most diplomatic. You said the most appropriate thing,” complemented the Ambassador. “There’s only one thing wrong.”

“What’s that?” Edelbach asked, a little defensively.

“Those brown leather lace-up shoes,” the Ambassador answered laughing. “Here’s a good-looking pair of green slip-ons the storekeeper handed me while you were in the dressing tent.” Edelbach tried one on. It was a perfect fit. He crammed his old leather shoes into the sack.

After walking the aisles of the regional market for a while and making a few “purchases” of fruit to enjoy on their journey, the group boarded the shuttle and was off down the highway lanes again.

“The thought just occurred to me,” mused Edelbach, “why does Arangelle have this grassy freeway network when they have that ability to transport from one place to another almost instantaneously, using their saucers?”

Steppingstone smiled, “It’s like your old railroad advertising phrase ‘take the scenic route.’ This craft could just as well be skimming at tree-top level or at 3,000 meters—but only at ground level—do you get the true beauty and ambience of the journey.”

Presently the driver slowed the shuttle. There appeared to be a large line of pedestrians on the apron ahead.

“Oh, this is a troop of Young Explorers,” said the Ambassador. “Driver, pull over.”

“They shouldn’t be hiking along the apron of the highway lanes, should they?” asked Edelbach. “Couldn’t they cause a wreck?”

“Oh, do you mean by distracting the attention of the drivers? Well, no, since all the vehicles are under network control as I mentioned earlier. I don’t suppose there’s any harm.”

The driver slowly went past the entire column, parking the shuttle about 30 meters ahead of the vanguard. The troops were boys and girls, ranging from perhaps 8 years old to a maximum of 12. They were dressed in practical forest green shorts and loose-fitting open-necked shirts festooned with unit patches and awards. The vanguard carried large lances decorated with the colors of the troop.

Edelbach was amazed at how much the assemblage resembled his own Boy Scout troop back on Earth, except in his day, the Scouts were all boys. *It must be in our genes, this propensity to band together against the elements*, he thought.

The group dismounted from the shuttle and waited for the Explorers to reach them. One of the older youngsters came forward.

“Good day, Parents,” the boy said, smiling. “We are YE Troop 22nd Capital, heading for our annual trek to Mount Taniltop. I am Kortson, company commander.”

“Good day, Explorers,” Steppingstone said. “How is it you take your column out onto the highway apron, today?” he asked.

“Our normal route takes us through these woods,” motioned Kortson. “but we had a pack of wolves trailing us and making dangerous advances on our rear. After shooting a few of them with mild electroshock darts they basically gave up. But I thought that until we cleared their territory, this route along the highway would be safer.”

“Excellent decision,” complemented the Ambassador.

“Why do they allow children to take on a dangerous trip like this without adult supervision?” asked Edelbach. “This situation could have resulted in a real tragedy.”

“As you can see, the youth are trained for just about any contingency,” answered the Ambassador. “The Utopian planets have recaptured a balance between the human presence and that of the wilderness. Part of the purpose of the Young Explorer movement is to teach boys and girls to co-exist with the environment. Your own aboriginal and native peoples on Earth were an excellent example of reaching such a balance. On the Utopias, industry is no longer using inordinate amounts of land, so it is possible to recapture a world like that.”

“As a Boy Scout, I always thought of it as ‘us against the wilderness,’” said Edelbach. “Looks like these kids think of themselves as just a part of the wilderness.”

“How many of you boys were afraid when the wolves attacked?” the Ambassador shouted.

A few hands went up near the rear of the column.

“How many would be afraid the next time this happens?” he added.

One little hand went up in the rear, followed by good-natured laughter from the troops.

The Ambassador invited the boys to partake of the fruit that the group had picked up at the regional market. When the boys had taken what they wanted, the group re-boarded the shuttle, bid farewell to the Explorers and were soon zipping down the grassy lanes again.

“Why is it that the Utopias have less need for industrial land?” asked Edelbach.

“Part of it is technology,” answered Steppingstone. “We gradually introduce more of the Husbandry’s technical knowledge, which, as you have seen on board the Utopia, allows us to create physical necessities with machines that have a very small footprint. The other part is a decentralization movement that gradually takes the growing and manufacturing of goods out of the hands of large centralized companies and brings them down to a smaller neighborhood. That regional marketplace you experienced today is the result of this decentralization.”

“Sounds like it would also take away political and financial power from the big centralized companies and spread it around to the masses.” said Edelbach.

Grep’s head was bobbing.

“I recognize your allusion to Communism,” said Grep. “But believe me, the decentralization movement takes place slowly, simply because it is a more humane method of production. The method is adopted gradually and voluntarily because people see it as being better. Communism was conceived and executed as a war against Capitalism. It was imposed by force and like all things imposed by force, was doomed to ultimate failure.

“Utopia is powered by sharing which in turn is powered by the intergalactic version of Earth’s Internet. I have a skill, such as cabinet making. People in need visit me. If I have what they’ve been wishing for, I share it with them. I have the joy of seeing my creation going to a good home. If my work is superb, then I have the pleasure of some fame. Those that supply me take the same pleasure in my enjoyment of their products, including the farmers who supply my food.”

“How much do the telepathic abilities help or hinder this whole process?” questioned Edelbach.

“The introduction of those skills is another story,” answered Steppingstone. “I believe that telepathy helps the sharing way to grow, in

that it eliminates chicanery and the fear of chicanery. Parties are more relaxed and less defensive coming into a supplier-consumer transaction. On Arangelles, the development of telepathic abilities was a long process spanning hundreds of years. The development of the sharing way was a parallel process spanning that same period of time.”

“So, it’s a chicken or egg situation,” observed Edelbach.

“I’m sorry, I’m not familiar with...”

“Oh, sorry. It’s an old English saying: ‘Which came first, the chicken or the egg?’”

“Ah, a good way to express a causal conundrum.” chuckled Steppingstone. “We have observed this long process on several Utopias. Always we introduced telepathy around the time they were moving away from a materialistic orientation toward a more humanitarian and spiritual one. Perhaps it would be a good experiment to allow the sharing propensity to unfold without the addition of telepathy. That might help to shed some light on the ‘chicken or egg’ question.”

“Is this movement away from materialism a natural phase that all planets go through?” asked Edelbach.

“Not really. There are some that fail to develop even with the introduction of telepathy and quantum matter replication. Instead of making the replicators available to the people, the leaders confiscate them and control output in order to keep prices high. Since the cost of goods goes to zero, the leaders make even more profit for the sale of their goods. This gives them even more financial and political power, so the situation on the planet becomes even worse than before. This is our definition of Dystopia. It is basically the opposite of our concept of Utopia.”

Sure sounds like Earth, thought Edelbach.

The wave-car began to slow.

“We are approaching the turnaround at the base of Mount Taniltop,” announced the driver.

CHAPTER 8

A Turn Through the Countryside

At the turnaround, the ambassador asked the driver to stop the wave-car, announcing, “You folks probably haven’t noticed how much altitude we’ve gained since leaving the capital, the climb is so gradual. But the Taniltop Turnaround offers one of the best panoramic views on Arangelle.

The whole party exited the vehicle and went over to some picnic tables, which were positioned right on the edge of the overlook. Grep and the *Hermes*’s pilots retrieved the fruit and other food items picked up at the regional market and set up a little snack-buffet on one of the tables.

Spread out before them was, indeed, a spectacular sweeping view of probably more than 200 kilometers, stretching 180 degrees, from one side of the turnaround to the other.

“Directly ahead, on the Northern horizon, is the Capital,” said the ambassador, “Over there to the left you can see the edge of the Transverse Sea sparkling on the Western horizon.”

Edelbach noticed how clear and unpolluted the air was; all the way to the horizon in all directions, with the exception of a few puffy, white cumulus clouds, adding to the beauty—but not threatening bad weather. Other than the quiet murmur of a few audible conversations there was utter silence. All three of Arangelle’s moons, in crescent phase, almost evenly spaced, faint pastel blue in color, were arrayed, step-by-step, against the dome of the morning sky. Far away, stretching left and right from the capital and toward their vantage point, were wooded areas, winding between cultivated fields. The whole expanse was punctuated by far-flung clusters of sparkling white garden-pyramids, reminiscent of the old artists’ conceptions of Babylonian Ziggurats. Visible, surrounding some of the ziggurats in the foreground were athletic fields and open areas paved with the same sparkling white stone.

“Each of the clusters of pyramids are towns,” explained the ambassador. “The single-story buildings in each cluster are schools and local factories. The white paved areas are town-squares and communal areas for socializing and project collaboration.”

“How does the planetary diameter and population of Arangelle compare to Earth?” asked Edelbach.

“The diameter of Arangelle is slightly larger than Earth but it’s mass is roughly the same, that’s why you don’t feel any gravity discrepancy. The planet’s population is fixed at one billion.”

“Fixed?” Edelbach blurted, “How does that work; how do you control how many children people have, especially when people live thousands of years? Those kids we met along the way, for instance. It sounds like someone must have had to die for each of them to have been born.”

The ambassador politely chuckled, “No Councilor, the inhabitants of each of our client worlds have their own peculiar life-expectancy based on their unique evolution and their development of medical technology. Introducing radical changes to life-expectancy has been found to throw a dangerous cultural imbalance into the mix. Average life-expectancy on Arangelle is less than two hundred years.”

“Is that all, only two centuries? And how do they decide who gets to have children?”

“No one ‘gets to’ have children,” the ambassador answered calmly, “Children are conceived in-vitro and gestated bioponically. They are placed with specially-trained and licensed parents to be reared in a single-family home with their parents and siblings. No birth, on planets this advanced, is random. Well, actually, the combination of egg and sperm is random, but both of those are carefully chosen from a pool of carefully vetted contributing cells.”

“Ugh, it sounds like *Brave New World*,” snapped Edelbach.

Steppingstone, visibly twitched, “Don’t knock it if you haven’t tried it, Albert. Once again, I have to remind you, everything done on Arangelle is a plebiscite; there are no laws commanding this method of procreation, only a long-developed agreement by the planet’s citizens to handle it in this manner.”

Edelbach reddened, “Damn, that’s the rude geek coming out again, Yaushr, I apologize.”

Willingifter laughed. “I sense that there is already a little history between you two. Don’t worry about it Councilor, we’re used to some culture-shock when we introduce strangers to the ways of the Husbandry.”

“Right, don’t worry about it Albert,” agreed Steppingstone.

Grep sat, head-bobbing—obviously enjoying the whole interchange.

The little gear-head, thought Edelbach, with more fondness than pique. I won’t broach the subject, but I’ll bet not having to give birth has some far-ranging effects on female anatomy, and career decisions. Maybe that’s why it was a little difficult to distinguish male from female in the Utopia’s dining room.

“I have arranged a tour for you in one of our typical country towns, Councilor,” said the ambassador, “but first, let’s enjoy our food—and the view, for a while longer.”



As the wave-car settled gently onto the polished quartz-like paving of Oliandrina Village’s town-plaza, a solitary figure approached the vehicle. She was of slight build and dressed in a cyan-blue tunic with matching loose-fitting trousers—along the same lines as Edelbach’s new ensemble.

“Welcome, Benefactors” she said “I am Delima Tonston, Oliandrina Village’s Town Manager. I hope Ambassador Willingifter has told you we were asked to keep your visit secret. Normally, we would have a huge turnout to welcome guests as distinguished as yourselves.”

“Oh, I’m so sorry, I failed to do that,” answered the ambassador. “Councilor, I merely wanted your impression of Oliandrina to be candid and not planned—a normal working-day, not a celebration.”

“Oh, no problem, Ambassador,” said Edelbach, “I can certainly see the wisdom in that, judging by the reception we got when landing at the Capital.”

“Good then,” answered Tonston. By the time she was introduced around the group, Edelbach had noticed that, rather than hand-shaking, the custom was a bow of the head, a sort of slow nod, down to the breast and then back to making eye contact with the other person. He followed suit when it was his turn, and noticed Steppingstone giving him an approving look, with raised eyebrows and a subtle smile.

“Please follow me,” said Tonston, “Our first stop will be the community project-wall, straight forward to the end of the square.”

Edelbach could see the wall; rather low, translucent white quartz, stretching the entire width of the square. Each person seemed to be reading things on the wall and then touching the wall, before boarding one of a long queue of waiting wave-cars and being whisked away to somewhere.

When they reached the wall itself, Tonston explained, “Today’s projects needing team-members are posted electronically on the wall. Volunteering, is simply a matter of touching a finger to the listing. If the listing goes green in color it shows that the database has shown the volunteer’s skill set and experience are a good match for the project-at-hand. If the color goes magenta, it means that, although not fully qualified, by touching again the volunteer is accepting the project as an apprentice-intern. If the color goes red, there is a poor match and the volunteer needs to select a different project.”

“Whoa,” said Edelbach, “How does the computer’s opinion hold up on the actual job-site?” Is anyone ever rejected by the project-leader, like fired on the spot.”

Tonston laughed. “Not that I’m aware of, but I’m sure in the early days it must have happened—until the autodidactic routines had continually modified the selection algorithms, over time.”

“You mean AI?”

Steppingstone laughed, “Yep, exactly, Councilor.”

“How about the red-color, has anyone ever stood there all-day, punching things, finally giving up and leaving?” asked Edelbach, with a sly smile. Even Grep was head-bobbing as the whole group shared a laugh at the silly image.

From the project-wall, the group was taken into the nearest ziggurat. Gigantic, crystal sliding doors, 15 meters high, opened onto an interior lobby that was a city park, in itself, complete with children’s play area and a communal area in the center with retail and meeting facilities around the edges. The lobby, which had balconies with hanging plants, going up probably 50 stories, mirrored the ascending stair-step configuration of the exterior. It was almost hypnotic to Edelbach looking up into the diminishing coil of balconies.

In the center of the lobby was a gang of transparent lift-tubes, running to the top of the structure with cantilevered crystal access bridges, projecting out from various balconies. The lift cars could be seen flying up and down the tubes stopping at an occasional access bridge and discharging passengers. The ziggurat’s interior echoed with the soft strains of a string quintet seated in the central plaza and what seemed to be a contented buzz of conversation and children’s shouts.

“I’m not a music critic, but that group sounds very professional,” observed Edelbach.

Tonston was puzzled, “I’m sorry I’m not familiar...”

“He means highly accomplished musicians who get paid money for performing,” offered Steppingstone.

“Oh no, Councilor. These are residents of the pyramid, taking their turn to perform. Tomorrow it will be another group in the morning and a dramatic performance-in-the round in the evening.”

“Unlike Earth, Councilor,” said Steppingstone, “There is no entertainment industry on Arangelle. That too, is a volunteer effort. The Arangellians entertain each other.”

“Well, if this quintet is any indication, they do a hell of a good job at it,” admitted Edelbach. “Are there single-family homes in the rural towns, or does everyone live in these pyramids?”

“Everyone, including myself,” said Tonston. “We place a very high premium on open space and freedom of movement, so we agreed centuries ago to use the pyramids as our sole type of dwelling. But these pyramid dwelling units are very spacious, spanning from their open garden-veranda on the exterior to their veranda-balcony overlooking the lobby on the interior.”



Back on the *Hermes*, in the Capital, Edelbach sat downstairs, in the lounge during “lift-off” and watched the emerald expanse of Arangelle, with its crystal-white cities and towns, get ever smaller. Cargo ships still plied back and forth on the Transverse Sea. Silver streaks of wave-cars still moved up and down the grassway to and from Taniltop.

I'm not even out of the atmosphere yet and I'm already feeling homesick for this place. Too bad I couldn't live my retirement years here, but it's 2.5 million light-years away, in another galaxy. It might as well be another Universe.

CHAPTER 9

Comparison by Catastrophe

As Edelbach sat in the lounge of the *Hermes*, watching the face of Arangelle shrink smaller and smaller, his mind kept going back to those gold ingots and what they could buy him back on Earth. Retirement for one thing. But his conversation with Ambassador Willingifter echoed in his ears:

“No money?”

“No money.”

“If I hadn’t seen it I wouldn’t have believed it”

Arangelle, and its three little companions like pretty marbles, were now visible against the sparkling dust columns near the edge of Andromeda.

Getting rid of a money-economy seems to be the basis for Arangelle’s acceptance by the Husbandry as a Utopia, with a capital U. I wonder how in the Universe they ever got to that point?

Edelbach’s day-dreaming was interrupted by Steppingstone’s voice in his head,

“Penny for your thoughts. Isn’t that what you say?”

“Why pay a penny when you can get my thoughts for free?”

“Oh, please Councilor, haven’t we honored your request for ‘privacy’ since you first requested it back on *Utopia*?”

“Largely.”

“What do you mean, ‘largely’?”

“Never mind,” Edelbach answered, not wanting to get Grep into trouble, “I mean, yes, you have, and I appreciate it.”

“But you *did* seem engrossed in thought...”

“I was thinking of Arangelle; how perfect their society seems to be. I know every place has its downsides, but I didn’t see any. Maybe if we could have stayed longer...”

“I’m sorry we didn’t have time, Councilor. You’re on a crash-course, we have less than 300 hours now before your expertise will be required at the review conference. We have another planet, Plorton, to tour.”

“Back in the Milky Way?”

“No, nearby. Well, only 50 light years.”

“So...no overnight-trip, this time?”

“Oh, no, practically instantaneous. We’ll leave after dinner”



After another dinner, under the dome, Edelbach followed Steppingstone and Grep to an elevator which zipped them up 60 stories higher, to the very top of the vessel, to what Grep called “the command deck.”

They walked out of the lift capsule into a large room, 10 meters high, with a clear dome overhead. The dome was apparently made of large slabs of the transparent bulkhead material, set within a grid of thin, opaque beams. The grid lines weren’t symmetrically spaced, but not random either.

“The placement of these grid-lines reminds me of our *Art Nouveau* movement back in the early 20th Century, sort of ‘deliberately organic,’” Edelbach said.

“Sage observation,” answered Steppingstone, “You’ve hit upon the very design philosophy of the whole fleet. We all spend most of our lives on these vessels. We try to keep the technology and hard-engineering in the background. This view-dome, for instance, could have been one solid bubble of transparent titanium-bismuth alloy, but that would have left the crew feeling rather exposed and vulnerable. The grid was meant to humanize things without significantly diminishing the view.”

Titanium, thought Edelbach. *That makes sense.* The placement of the command deck reminded Edelbach of a conning tower on a submarine, with the bulk of *Utopia*’s upper hull stretching out in all directions except forward, as if they were on the back of a ridiculously huge, black whale. From the lift platform, the command deck descended in terrace-like levels, going completely down and around the bow of the vessel. Everyone on every level, including our trio on the lift platform, had an unobstructed view forward.

Reminds me of the front of a B-29, only aircraft-carrier sized thought Edelbach. *This sure beats the hell out of all the old TV space-operas with their chintzy, forward video-displays.*

Below Edelbach and his two hosts, down on the next terrace, overlooking all levels below it, was a pair of leather-like chairs occupied by an android and a young woman.

“Captain and XO, I’ll bet,” said Edelbach.

“Right again,” answered Steppingstone, “Come down with me; I’ll introduce you.”

As the trio stepped down onto the command terrace, both human and android stood, respectfully. “Welcome aboard Councilor,” sent the android, “I am Profia-girka 1191, allow me to introduce my Executive Officer, Lieutenant Lyrre Nykyrris”

“An honor, Master,” Edelbach responded, performing the slow, formal nod of introduction to the Captain and the young XO. “I am Albert Edelbach from Earth.”

“Your reputation precedes you Councilor. I got a full report of your successful mission to Arangelle from my Chief Ensign, Yular-greppy 2120. He was one of your pilots on the *Hermes* crew.” An android down on the next terrace looked up from his console and nodded to Edelbach. Edelbach gave him a little wave, then felt ridiculous, being flooded with the feeling that waving was inappropriate under these formal circumstances. *Maybe inappropriate under any circumstances in this culture. Oh well, at least Grep is controlling his head from bobbing. I’m sure the little gear-head thinks it’s hilarious.*

“Please be seated,” sent the XO, motioning to some padded benches against the low, back-wall of the terrace, “we are finishing up our pre-leap check-list, and will be ready to depart in a few minutes. Director Steppingstone wanted you to be able to experience the process this time, Councilor.”

Edelbach was glad he still had the little chrome translator capsule in his ear. It was hard to imagine what all of this cross-talk from the dozen or so human and android flight engineers—tweaking, checking, and re-checking—would have done to the language-processing center of his tired, old brain.

Soon, the melee of activity and noise started to diminish as engineer after engineer sat up and folded his or her hands on their respective consoles. When 1191 barked the order to leap, and Nykyrris slid three fingers down the face of a touch-screen on her console, Edelbach laughed out loud: his language-processing center had interpreted the command as, “Engage!” His blurted laugh was cut short by a gasp. Before them appeared the planet Plorton, whose great magenta sun revealed a few patchwork-clad continents, surrounded by murky brown oceans. There was a single moon, with apparent size and distance similar to Earth’s moon.

Grep pointed out two neighboring planets, close enough to *Utopia’s* position to be resolved as tiny globes, each of which had necklaces of pin-point moons.

Edelbach was filled with the same sense of wonder and surprise he had felt as a 12-year-old, after buying a cheap astronomical telescope from a fellow boy scout. He had known nothing about astronomy but had been thinking of going for the astronomy merit badge. Taking his new purchase out into a dry, cloudless desert night, he had pointed it at the brightest star he could see, had turned the focus knob and had gasped, as the planet Jupiter appeared with its five jewel-like Galilean moons, also strung out like little beads.

The *Utopia* began nosing down toward the planet.

“Are we landing?” Edelbach asked.

“No, merely setting up the correct trajectory to achieve a wide stationary, geosynchronous orbit,” answered Grep.

“50 light-years in milliseconds and no concept of movement,” exclaimed Edelbach, “holy crap!”

This time the android’s head *was* clearly bobbing.

“A walk in the park on a spring day,” kidded Steppingstone, laughing. “Actually, we didn’t move—per se. With distance as short as this, we simply adjust the quantum metadata of the entire ship, and its contents, to define a new “place” of existence. Then we tell the equipment to switch definitions. We believe some time elapses, but even our technology can’t measure such tiny time-slices.”

“But going from one galaxy to another is a different matter, I assume,” said Edelbach.

“Oh yes, and a slightly different use of the technology. We can measure that kind of distance-duration in hours or even minutes, depending on how far.”

“So, we did move. Sort of. Right?”

“You are ‘sort of’ right,” chided Grep, with a single bob.

His equivalent of a wink, I suppose thought Edelbach, smiling.

Grep continued, “Judging by your work as an engineer—I’m sure you know: in quantum-mechanics, nothing is absolute.”

A deep gong-sound from the ship’s PA interrupted their tête-à-tête. An announcement followed the alarm, “In-coming craft at 240-minus-45, 20-megameters out, hostile intention confirmed.”

Edelbach saw the familiar red spark of a laser canon down at 240 degrees out and 45 degrees down—exactly where the PA had said to look—followed by a shudder under his feet. Apparently, the hostiles’ aim was true.

“Damage?” barked the captain.

“Minor crater in the hull,” answered Nykyrris, checking her touch-screen.

“Leap 180, same orbit,” barked 1191.

“Ready!” shouted someone from the engineering terrace.

Nykyrris, did the three-finger drag, and the planet visibly jumped from the port side of the bridge to the starboard as daylight, down planet-side, turned to dark.

“That will give us a little breathing room, until they figure out what we’ve done,” offered Steppingstone.

“What the hell?” squeaked Edelbach, “It’s like they knew we were coming and were ready for us.”

“They did, and they were,” answered the Director, “Let’s assume that’s their answer to our ultimatum.”

“What ultimatum? You guys don’t seem like the type to deliver ultimatums. What are you talking about?”

“We’ll have to talk about it later,” snapped Steppingstone.

“Deploy nanodrones.” barked 1191.

When the order was confirmed, the captain commanded, “Deploy relay satellite then leap 1 light year, zero plus 90.”

The bow window went dark, Plorton’s magenta star, still in the same position toward the port side became a dot of magenta, although the biggest dot, amongst sprinkled-thousands of stars of other colors.

“Stand down; as you were” ordered the captain, “Lyrra, Yaushr, 3294, Albert; my ready-room.”

The soft, carpeted surface of the bridge opened, revealing a stairway. The captain led the way down, the others followed.

The ready-room was similar to the lounge on the *Hermes* except the floor was carpeted and the bulkhead transparent, more like Edelbach’s “stateroom,” many decks below. The captain made a sweeping gesture and the bulkhead became a display-screen, showing a close-up of Plorton, still in darkness, with a thin crescent of morning, forming on the Eastern edge,

“From the relay-satellite you left behind?” asked Edelbach, who was tempted to question how images were being transmitted instantaneously across a light-year’s distance, but thought better of it, *Enough quantum-mechanics for one day*. Instead he asked, “Aren’t they going to spot it and laser-vape it?”

“Unlikely. It’s the size of an orange and stealth-faceted,” answered 1191, “Let’s look at some relayed nanodrone data.”

The screen obeyed and began pumping 3D video/audio to the screen, slowly fading from one ‘drone to another. The five stood rigidly staring at sights and sounds from Plorton’s surface: vast, empty areas with plant-life left a charred stubble, crowded cities with vehicles pumping exhaust into the air, active battle scenes between cyber-enhanced human soldiers, domestic scenes with residents sitting in front of wall-size 3D video screens, some watching fiery political speeches, some violent, bloody dramatic content. There were scenes of large gangs of vandals, defacing once-beautiful public monuments and beating bystanders who objected. One ‘drone documented a rocket lift-off along with its audio from a public-address system, “And we have successful initiation of the 17th Mission to the Moon...”

Steppingstone asked, “Can we try a telescopic view from the Satellite, Captain?”

“Satellite view, zoom 80%,” ordered the Captain.

“Hold right there,” asked Steppingstone.

The rocket’s fiery plume could be seen on the edge of the darkened planet.

“The trajectory is indeed headed for the moon,” offered Nykyrris, consulting a data-band on her wrist.

“Can we direct the view towards their moon,” Steppingstone asked.

Plorton’s cratered and scared, natural satellite filled the view-wall.

Spacecraft could be seen zipping to and from the moon’s gravity-locked far side.

Edelbach noticing that there was no evidence of rocket exhaust or attitude-adjustment bursts from any of the accelerating vehicles, asked, “How could this be only the 17th trip to the moon, when there is so much traffic going back and forth on what looks like a constant basis?”

“The planetary powers, a small elite, keep everything from the populace. They are using the graviton-wave technology we gave them for some hidden agenda, but as you can see, they still have a combustion-propulsion space program as a cover-up.”

“The general populace doesn’t know about the Husbandry?”

“Sadly, and infuriatingly not. They were ready about 200 years ago, utopian thinking existed in approximately 35% of the populace. But unbeknown to us, these elite powers had other ideas. Those ideas involved throwing up monopolistic gate-ways through which all goods and services flowed, with ever-increasing predatory pricing for access. We brought the planetary leadership aboard, gave them the Husbandry’s history, eventually gave them some advanced technologies, including pro-gravity vehicular and quantum replication technology. We came back 50 years later, expecting to find things much as you observed on Arangelle. Instead we found that the Elite had locked away much of our technology in vaults. Any of the populace who had gained even a clue of our existence, as a result of our visits, were ridiculed publicly, called insane or eccentric.

“This must have been the case you mentioned to me, that first day on the *Utopia*,” said Edelbach, “where the planetary powers kept matter replication to themselves; kept a monopoly on production.”

“Correct. They also let their aerospace programs and their motor vehicle industries continue using polluting, combustion engines without telling them about gravity manipulation technologies, keeping these technologies secret for all but the Elite class. For the Elite to have given the public these technologies would have destroyed their fossil-fuel monopolies, made their product worthless.”

“And they let their astronauts risk their lives—riding to their moon on top of continuous explosions—not knowing that they were just being used to perpetuate an elaborate charade,” observed Edelbach.

The deep gong-alert sounded. “Captain to the bridge.” announced the PA, “Thirty hostiles parked at 45-even, 10-megameters out.”

“Looks like some of that traffic was headed our way,” said the XO, over her shoulder, as she bounded up the stairs.

Up on the command deck, before he was even seated, Profia-girka 1191 commanded “Disintegrate the hostiles and leap 20, 240 plus 90”

Edelbach looked at what would be the horizon, zero declination, and an angle of 45 degrees starboard from the bow. There was a bright but pinpoint flash.

“Targets destroyed, ready to leap,” came from one of the terraces, below.

Thirty warships destroyed at once, on a single command. My God, that was overkill. what about all the crew?

Edelbach’s head was spinning, not since Grep had taken his hand and paralyzed him, down in Illinois, had he felt such a sense of alarm and foreboding. The Husbandry’s relationship to client-planets seemed to have a “dark side,” after all.

CHAPTER 10

Worrisome Implications

After the 20-light-year leap, the captain once more called for “stand-down.”

“The speed with which they caught up with us after the 1 light-year leap, is troubling,” sent the XO.

“More than troubling...ominous,” observed Steppingstone, “and the speed at which they’ve improved upon the limited technology we gave them, combined with their dishonesty towards us, makes the whole situation a lot worse than we thought.”

Edelbach had gone over to the starboard side of the terrace, about 10 meters from the command consoles, and was standing at a railing, staring blankly into space. He wasn’t under any kind of nervous restraint, but he still felt numb.

Grep’s soft “voice,” in the middle of his head, woke him from his near-trance, “I think I understand how you’re feeling, Albert.”

“How could you, you’re a machine,” Edelbach shot back, bitterly.

“I won’t take offense at the racial slur because I do indeed empathize with you. What are emotions and feelings, Albert? They are brain chemistry; and my brain, and those of my brethren are grown from human tissue.”

“Okay, mea culpa,” Edelbach answered, morosely, “so tell me, without cheating—what’s bugging me.”

“Alright, ‘without cheating,’ the extermination of the attacking fleet. I could see it in your face”

“Yeah, that’s it. Why the overkill? What about the crew of those 30 ships? They never knew what hit ‘em.”

“Their initial attack on us, while we were in orbit and then their pursuing us out a full light-year with a fleet of 30 vessels and then activating the weapons were all acts of war, Albert. A set of protocols for this trip to Plorton was decided by the Board on Zoë-lien, before we ever left for Earth. In such a case it was decided that a devastating response would be the best chance of nipping aggression in the bud and bringing the Plorton Elite back to the negotiating table.”

“Let’s just hope the ‘devastating response’ doesn’t fill them with a resolve for revenge, instead. They obviously didn’t like your ‘ultimatum,’ whatever that was...”

“It was truth. Simply, truth. The Husbandry no longer in the background. A forced-full disclosure of our existence and those benefits the Elite had so wrongly withheld from the planet’s populace. They had promised a gradual disclosure and a gradual release of those initial, beneficial technological gifts. A half-century later, they had not even begun. The ultimatum was, ‘When we return again, if the gradual-disclosure hasn’t taken place, a forced-disclosure will.’”

Steppingstone approached the pair at the rail.

“We can see your concern, Albert. Has 3294 given you any insight into what just happened?”

“I guess so. Maybe my reaction was a bit knee-jerk. A few weeks ago, it wouldn’t have phased me, but just before you guys came along, I started having these feelings of remorse for being a weapons dealer...”

Grep put his right appendage on Edelbach's shoulder, "Remember when our scout craft was pacing you from the woods? I heard your thoughts about the rabid dog attacking your children...the quandary, the elation mixed with remorse..."

"Eavesdropping."

"Regardless. I was amazed how that analogy applied to the work of the Husbandry at times. Now I ask you to consider it, in your work as Councilor. We need you to understand that the Husbandry's mission is mostly peaceful and altruistic but when things go seriously awry, we have to be prepared to be ruthless in eliminating any dangerous aggression by one planet against its peaceful neighbors."

Steppingstone put each of his hands on the shoulders of Grep and Edelbach, "Why don't we go have some Italian food and then a good night's sleep," he sent, "I had the computer-chef print out La Calabria's entire menu. The chef is prepared to replicate whatever we choose tonight, including the full wine list."

"I feel like a little wine," Edelbach acquiesced.

"I thought so," laughed Steppingstone.



Edelbach awoke to find himself sitting up in bed, "Arangelle!" he shouted, "The Capital! Gone!" He was drenched in sweat, trembling. Was he dreaming? He could remember no dream. Just the knowledge—somehow—that 30-light-years away Arangelle's beautiful, crystal-white capital city was no more. He sprang out of bed and went running down the companion way. Then the thought struck him; he had no idea where to find anyone. *Where does anyone live on this ship, I don't know. I've just followed them around I should have paid better attention.* Just when he was feeling utter panic, an android came around the corner from a side corridor.

"Excuse me, can you please tell me how to get to Director Steppingstone's quarters? It's an emergency."

"I will message him," answered the android"

After a pause, the android sent, "He says meet him at the lift doors in your wing, he will be down immediately."

When the elevator doors opened, there was Steppingstone in his sleeping togs, "What's the matter, Albert? 8280 said it was an emergency."

"Arangelle, The Capital has been attacked, wiped out!"

"What are you talking about? You were probably dreaming. It's understandable—you were traumatized yesterday by..."

"No, it wasn't a dream. I awoke, sitting straight up in bed with that knowledge. It's not a dream its true."

Steppingstone touched his temple, "Communications room, are there any alerts regarding Planet Arangelle?" then to Edelbach, "Nothing. Everything is quiet in the entire Husbandry Domain."

When Steppingstone had accompanied Edelbach back to his stateroom, they sat in the living area, chatting for a while, when the ship's emergency gong sounded with the announcement, "Planet Arangelle attacked by a fleet of vessels, nuclear device detonated over the planet's capital, Review Board to the conference room. military personnel to Bays 11 and 12, Captain to the bridge

As the two had jogged back to the lift, Edelbach asked, “How did I know that? There was no dream, there were no voices. I just awoke with knowledge.”

“I would say the Truth Wave.”

“How does that work?”

“Who knows? Its works are so rare. It’s like the wind, one can’t see it but we can occasionally observe its effects.”

As they entered the lift and began the ascent Edelbach asked, “Is it God? is it spirit?”

“Why speculate? Speculation is unscientific, also prideful. We believe the best path is to admit we do not have all knowledge. There is obviously some higher intelligence involved. There are many instances like yours over the course of our history.”

Then Edelbach suddenly recalled a friend who reported a similar experience back on Earth, “After having been awakened in the middle of the night with knowledge that a friend with whom he hadn’t had contact in many years was in severe trouble, my friend found his number and called him. His old -friend told him that he had just learned that he had terminal cancer. Could both of us have experienced telepathy?”

“No, it doesn’t work over long distance. There has to be some intervening agency in a case like yours.”

“What agency?”

“Why speculate?”

“My friend speculated and was convinced it was God, but somehow, I wasn’t as convinced...but Arangelle, how could they be anyone’s enemy?”

“Here we are,” Steppingstone opened the aperture to the conference room. It was still empty. “The others will be along immediately, we haven’t had a crisis like this in several millennia.”

The room was narrow but very long. A table, of what appeared to be black obsidian, ran the entire length, with more than a dozen chairs facing each other. At the end of the room was the expected transparent bulkhead set to the view of outer space.

“Take any chair, Albert,” sent Steppingstone, “I’ll chair the meeting from this end.

Edelbach sat down randomly, but still at the near-end of the table, a habit he developed in school to avoid being accused of being “teacher’s pet.” *It didn’t work though, he thought, I was usually called that anyway—just because I was interested in learning and usually caught-up with the assignments.*

Soon the room began filling up with a mix of humans and androids, the androids looking perfectly groomed and uniformed—as always—and the humans understandably looking like they had just been aroused from a deep sleep with very little time for grooming or selecting appropriate attire.

When everyone was seated, Steppingstone introduced Edelbach to those assembled, whom Edelbach had counted as twenty “persons” including the five androids.

For Edelbach’s benefit the obsidian table displayed the name of each councilor in glowing letters, in English. *I’ll be damned, it’s even in Helvetica font,* he thought.

Steppingstone opened: “We’ve all heard the announcement over the PA, let’s review the dark-band data coming in from our relay satellites posted near Arangelle.” He gestured the bulkhead to the 3D-display mode. “Scan randomly,” he commanded the screen.

Video clips of four-seconds duration flashed by: a ragged, disbursting nuclear cloud over The Capital; a view toward space showing a fleet of dozens of craft similar to the one that had fired on the orbiting *Utopia*; swarms of shuttle-type fighter craft, randomly strafing ziggurats with laser canons.

“How do we know they are from Plorton?” question an Android named, Oloris-enka 707.

“How many other technologically-advanced races are on this arm of Andromeda?” asked Steppingstone, “And out of those, how many have been proven—as of yesterday—to be aggressors?”

Nods, around the table.

“But how could Plorton have developed greater-than-C speed in the century or so since we gave them graviton-management technology,” asked a human, labeled “Councilor Momentius.”

“The fact that they were able to reach Arangelle in less than a day, is a fact that speaks for itself,” answered Steppingstone, “at that rate, intergalactic capability will be achieved in a frighteningly short time.”

“Obviously, our first priority is handling the attack on Arangelle with all dispatch, we should speak about handling Plorton itself later,” sent Momentius.

“The gong sounded, followed by the PA, “Leap to Arangelle completed. Fighter-shuttle pilots man your craft.”

The captain had taken the craft the 20 light-years to Arangelle while the conference room bulkhead had been set to 3D-display mode. None of the conferees had even noticed.

“Filter display to tactical clips only,” Steppingstone ordered the screen.

Clip after clip, showed *Utopia’s* fighter-shuttle fleet popping into view near squadrons of Plortonian fighters and vaporizing them as a unit with a beam-flash of nearly invisible, pale green.

Like picking off ducks in a row, thought Edelbach, it’s like they take aim before they’re visible then fire immediately. The Plortonian pilots don’t even have time to react.

The next series of clips were gunsight-views from the bridge of the *Utopia* as Captain Profia-girka and the XO picked off each of the large carrier ships, one at a time.

Steppingstone touched his temple, “Carrier ships are destroyed, the captain has ordered fighter-shuttles to clean up all stragglers and return to *Utopia* for the leap to Plorton.”

Edelbach was stunned. *One-sided combat like this almost makes you feel sorry for the enemy, even if they are evil.*

The screen now showed spurts of fighter-shuttle squadrons arriving and filling the hangar bays, below. *Now I see why they keep so many decks of “toys” on hand. It’s not just for friendly visits of state to Utopian planets,* thought Edelbach.

“All craft aboard, except fighter-shuttle 397,” barked the PA, “holding leap during nanodrone data analysis.”

“Nanodrone data to screen,” ordered Steppingstone, “fighter-shuttle 397 apropos.”

The clip showed 397 “pop” into view in the center of a Plortonian squadron of fighter-shuttles then begin a turn-table maneuver strafing in a circular pattern. Before it could complete the circle a Plortonian reacted and vaporized the *Utopia’s* little craft.

“Who was the pilot?” shot Steppingstone, “Yular-greppy 2120? Are you sure?”

“I am sure,” volunteered Grep, “He’s a sibling of mine, from the Greppy laboratory. His favorite fighter craft was 397. Tell Captain Profia-girka to go ahead with the leap.”

CHAPTER 11

The Plorton Solution

Edelbach was stunned, his little friend from the trip to Arangelle—vaporized! He approached Grep. “I’m so sorry, my friend, I remember how tough it was when my brother died.”

“Thank you, Albert. But death is not final for my kind. Every android on board was backed up to Zoë-lien, just yesterday. All my sibling has lost is everything that has happened since. We will download his memory-store into another body when we are finished with the Plorton problem. We will simply have him immerse himself in nanodrone data in order to catch up.”

“I’ll be damned,” said Edelbach, scratching his head, “I’m beginning to see the advantage of taking androids into potential battle situations.”

“Not just battle situations,” added Steppingstone, “Their longevity and redundancy guarantee a continual, uninterrupted accumulation of wisdom.”

“Ultra-AI?” asked Edelbach.

“No, *wisdom*,” sent Steppingstone, “Intelligence, without wisdom is merely mechanical-reaction to a set of internal instructions—even if the cyberentity itself created those instructions.”

“As in our Earthly concept of AI?”

“Correct. We could program those fighter-shuttles to be autonomous and autodidactic and to be up to 90% effective at handling new tactical challenges, but an android or a human, with sufficient experience—and that added feature of wisdom— will be 99.9 or sometimes even 100% effective. But, where wisdom is especially helpful is in dealing with human beings.”

“Like me,” said Edelbach, with a single head-bob toward Grep.

Steppingstone gestured the bulkhead transparent, and there—probably 1 light-year out—was Plorton’s magenta sun.

“The meeting is in recess until further notice,” sent Steppingstone. “Albert, 3294: follow me.”

On the lift to the command deck, Steppingstone explained, “The immediate task, according to our Plorton protocol, is to deal with that base on the far side of Plorton’s moon. That’s where the graviton-wave craft seem to be sequestered.”

“Judging by what happened to Yular-greppy, I imagine surprise and quick action are critical,” observed Edelbach.

“Exactly,” sent Grep. “We will need one small fighter-shuttle to make a quick reconnaissance fly-by on the backside of their moon.”

“How quick?”

“We’ll pop-out in the moon’s vicinity and slow the craft down to near-light-speed. If they even detect the craft at all it will be so far away, by the time they react, we will have popped-back.”

“Are you volunteering for this, Master Korton-greppy?” Steppingstone asked.

“Of course,” the android answered.

Edelbach blurted, “Does that thing have a back-seat? I sure would like to go along.”

Steppingstone laughed, “Yes, but no, Albert. We can’t be sending a visiting envoy into a battle situation.”

“What’s the risk? You yourself said the odds were 99.9% or better in Grep’s favor. I’m an experienced combat pilot, the Syria engagement in

2033; after that I logged thousands of hours in non-commercial craft. I might even be of some use.”

“I have no objection, Yaushr,” sent the android.

“Alright, let’s talk to the captain,” sent Steppingstone as the lift deposited them on the command deck.



The bridge carpet opened and Captain Profia-girka and Lieutenant Nykyrris came up the steps.

“Very well,” began the captain, “we have discussed your plan, and both agree on the fly-by. We appreciate your both volunteering as well.”

Steppingstone answered, “I believe it is imperative, Captain, not just for tactical reasons, but for documentation before the Intergalactic Board of Review—if worse should come to worst.”

Edelbach wondered what “worst” would be. He decided to shelve it. His mind was on donning one of those black headbands.

Grep led the way through the Utopia’s maze of corridors and hangar levels to a pilots’ ready-room, where he gave Edelbach a thin space suit made of the same silken, metallic “chain mail” as Grep’s unchanging attire. The flight-boots and helmet automatically tightened up, conforming perfectly to his feet and head. *Shades of ‘Back to the Future’*, he thought, grinning.

Outside the ready-room, the hangar deck had the typical collection of shuttle-craft lined-up, fading to near-infinity out near the huge hangar doors.

“Our craft will be 720, my personal favorite,” sent Grep gesturing toward a sleek, pointed cylinder resembling a dart.

With its tandem bubble-canopy on top, the fighter-shuttle reminded Edelbach of a TF-104 trainer, but without wings or tail. Like all the graviton-wave craft, it had no wheels, but rather, sat on three pods.

A staircase appeared from the bottom of the craft. As the two climbed up to the cockpit, Edelbach asked, “Why the aerodynamics in a spacecraft? It seems like it could just as well be cube-shaped.”

“For going slow, within planetary-atmospheres: less than C, ‘the scenic-route,’ as Yaushr mentioned,” sent Grep, with a bob.

When they were seated in the pilot and com-officer positions, Grep tossed the coveted black headband over his shoulder to Edelbach, “This is read-only for now; no command ability,” he sent.

“Fair enough, skipper,” said Edelbach. *I like the fact that he said, “for now.” Awesome.*

The bay doors began rolling up, plasma curtains danced along the fuselage, like miniature aurorae, then Edelbach felt—rather than heard—Grep’s command to hover, then the command to launch. There was no slow, careful, mid-air “taxi” out to the bay opening. He felt Grep’s command to “floor it” immediately, and the view changed from the interior of the hangar bay to star-studded space, like a flash-cut in an old movie.

“We are at 0.9C right now,” sent Grep, “we will leap and pop-out at the same speed, approximately 144 Megameters from the surface, for our fly-by.”

Edelbach did a quick mental calculation, *Let’s see, that’s 144,000 kilometers divided by 1.6. About 90,000 miles. Not “buzzing” them, by any means.*

When they popped-out, there was Plorton's moon, zooming by. It was so far away it didn't even fill their peripheral vision. There definitely appeared to be a whole city below, straddling the satellite's terminator half in blackness half in the pinkish light of Plorton's sun. From the dark-side of the city, just before he felt Grep's command to pop-back, Edelbach saw a green flash.

"That was close," sent Grep, "that reaction-time was totally unexpected."

"More evidence that they strategized this whole scenario, when they should have been starting 'gradual-disclosure,' for their citizens, eh?"

"Precisely. That one bit of data is more important than anything we have gained from the scan."

The *Utopia* popped into view up ahead.

"I don't see how the scan produced much anyway, we zipped by in seconds and were over 100,000 clicks away from the surface,"

"The data will be fully sufficient," sent Grep, "down to the molecular structure and the content of the buildings—and how many military personnel there are."

"Holy shit!" exclaimed Edelbach.

"Your headband is now read-write," sent Grep, "Slowly bring us up to the open bay doors on the starboard side."

"Oh, no! I'm not ready for this," squeaked Edelbach.

"Yes, you are. Feel it—as you perceived me to do."

Edelbach deliberately wiped his mind of verbiage and focused on the action of slowly moving the craft toward *Utopia*. She responded, like a gentle mare, moving forward.

"Faster, Albert" sent Grep, "You are approaching from port, the bay-door is starboard."

Edelbach "thought" the craft faster and, in his mind, he laid out a wide arc around *Utopia*'s stern to the starboard side. Arriving opposite the door, he mentally "put on some rudder" and yawed the craft, aligning it with the bay-door. *Stop*. His compliant craft obeyed, with her nose pointed directly "on final."

"Excellent," sent Grep. "Excellent. Better than any other student-pilot I have ever encountered."

"Maybe it's some of that experiential 'wisdom' Yaushr was talking about," laughed Edelbach.

"Decidedly. I'll take her in, Albert," Grep sent, as he slowly drifted the craft over row upon row of fighter-shuttles back to the empty space from which they had started their sortie.



Back in the ready-room, as Edelbach changed from his safety-suit to his envoy's attire, he was still giddy, "Back in the service, we'd go to the officer's club and 'tie one on' after a mission like that."

"Some other time, I promise," sent Grep, head bobbing, "we have a report to deliver to the Council."

Grep lead the way again, through the bowels of *Utopia*, back to the conference room. When they entered, Steppingstone already had the 3D video from their fly-by going on the bulkhead, zoomed-in and slowed-down. "The Council is still in session," he sent, "congratulations on a successful pass."

The screen first showed the visual data in normal spectrum. The installation looked like any large airbase with many hangars with adjoining maintenance and administration buildings. There were surface vehicles moving between buildings and a few graviton-wave craft zipped in and out of the hangars, heading between the moon and Plorton. At the end of the pass, the green laser flash was visible—less than a second before Grep and Edelbach popped-back.

“Obviously, they missed,” sent Steppingstone, “but the reaction-time is troubling.”

“I thought so, as well,” sent Grep.

The next re-play must have been x-ray or even “graviton-ray” data: below the visible moonbase was a warren of tunnels and hidden hangars—a whole city—many stories deep, including manufacturing, living and recreational areas.

“The data show over a hundred mid-sized carriers below-surface, containing hundreds of fighter-shuttles in each,” sent Steppingstone as he consulted a holographic touch-screen suspended in front of him.

“The Plorton protocols didn’t even anticipate such a large facility,” sent the android, Oloris-enka 707, “It appears that we need to cut off the serpent’s head immediately.”

“Agreed,” said a human, labeled, “Councilor Xyfyrtreen,” who added, “But, aside from the moral implications, we need to contemplate next-steps. With reaction time, *that* automated and that quick, we could have a swarm of fighter-shuttles on us before we could pop-back.”

“Wait a minute,” said Edelbach, “what moral considerations? Surely you aren’t talking about vamping what amounts to an entire city, including support personnel and, possibly even dependents.”

“The protocols would allow it,” sent Steppingstone, “as a last resort.”

“We are at that point,” sent Oloris-enka, “What prohibits these barbarians from re-visiting Arangelle with more devastation, while we debate and vacillate?”

“I call for a vote,” asserted Councilor Momentius.

“Very well, let’s vote,” sent Steppingstone, “cyan is yes.”

Two buttons appeared in the obsidian in front of each councilor, one cyan and one yellow. Each councilor covered their buttons with one hand and selected a color with the other. Edelbach abstained. The entire bulkhead turned cyan.

“Meeting adjourned,” sent Steppingstone, “Councilor Edelbach and Master Kortongreppy, follow me.”



On the bridge, the captain greeted them with a curt, “No need to update us, we followed the entire meeting from here,” as he waved-off a large mid-air holographic display, “Let’s retire to the ready-room for a second to discuss tactics.” The floor aperture opened and the five descended.

“You saw the reaction time from the flyby,” began Steppingstone, “the action against the base will have to be an instantaneous in-and-out.”

“Agreed,” said the captain, “the depth of the facility will require massive power to penetrate. We will need to leap out 100 YL, tap dark-energy and charge our cannon-capacitors to full capacity.”

“That will take two days,” objected Steppingstone, “what happens to Arangelle, in the meantime?”

“Carrier *Valiant* is already on post near Arangelle, to make sure any further incursions are put down.”

“I don’t know if a full burst of all ten capacitors will do the job,” offered the XO.

“It might if we combine all the emerald rods from all 15 laser-cannons into one bundle then route all ten capacitor-discharges through the bundle simultaneously.”

“It might,” conceded the XO, “We’ll have 24 hours to do that, while the capacitors charge to capacity.”

Back on the bridge, the captain started the pre-leap procedure, while the XO, Grep, Edelbach and Steppingstone went down to the engineering deck to get the rod-bundling and capacitor-charging tasks started.

As they walked, the PA’s gong sounded, followed by “Leap completed, stand down battle stations.”

CHAPTER 12

A Hornet's Nest Destroyed

Edelbach stood with his three shipmates on a ledge overlooking the already furious activity on the engineering deck, approximately 20 meters below them. The room was nowhere near the size of the hangar decks, but still, to Edelbach, it seemed to rival the scope of an old dirigible hanger he once toured in California. At the far end, was the same optically perfect, transparent wall of titanium alloy that was deployed on the command deck. Immediately below, was a totally mysterious assemblage of crystal towers, each about 10 meters in diameter, its height nearly reaching the observation deck and connected to the others by a tangle of telephone pole-sized silvery conduits. The towers were emanating a very low hum, more like a vibration felt in the pit of the stomach and, coming from each of the towers, there were various colored-flashes of light, seemingly in a random sequence.

I'm gonna guess this is the motive power for this tub, he thought.

Beyond the towers, toward the transparent bow of the ship, Edelbach noticed the 15 emerald laser rods, each at least a meter in diameter, arrayed horizontally across the floor along with the familiar accoutrements of brackets and high voltage power cables leading away to nearly ceiling-high black drums the size of the propulsion towers, standing against the starboard and port bulkheads, five on each side.

"The cylinders against the bulkheads are the capacitors," explained the XO. "Usually we tap them one at a time, one per shot. When we move to the next capacitor, the one just used immediately begins charging again."

"So, by the time all ten are fired, number one is ready, I assume," said Edelbach.

"Well, we've never seen action like that—but for redundancy and to cope with the unexpected—it was purposely over-engineered."

"Lucky for us that it was," offered Steppingstone. "It's going to require every bit of that over-engineering to handle this huge bit of the 'unexpected.'"

Edelbach would have chuckled at Steppingstone's wit, but he thought of the grim purpose to which the proposed modifications would be put.

Later, down on the floor, everyone, including Director Steppingstone, grabbed tools and helped the engineers begin freeing each of the big rods of emerald from its mounts and cabling. Edelbach wondered what kind of huge wench would be needed to lift the tons of precious stone in each rod and move it over to the scaffolding which was just being completed on *Utopia's* centerline. No sooner had that thought flashed through his mind than someone yelled, "Clear the area of Rod One," and Rod One rose gracefully, seemingly of its own accord and floated into position on the scaffolding.

Oh yeah, I had forgotten about how they had floated Old Betsy off the highway and up into The Semi, thought Edelbach—as he continued freeing up one cable after another on Rod Two.

Barely twelve hours later, there stood the scaffolding with all 15 emerald rods bundled together and a swarm of crewmembers working swiftly to reconnect cabling.

“After we clear off of the scaffold,” said the XO, “the fine-tuning will begin. The rods have to be tweaked to ensure that they are all absolutely parallel. The accuracy has to be within fractions of a nanometer.”

“We should leave that to the experts,” sent Grep. “I suggest we return to the bridge and brief the captain.”



“It looks good,” sent the captain, zooming in the 3D video on his ready-room bulkhead to better see the detail on the rod-bundle. “Another 12 hours of packing the capacitors and we can make ready for deployment.”

“We’ve never taxed the capacitors to that degree,” sent the XO, taking off the scarf she had used to bundle up her hair during the maintenance work. “But, I suppose if they perform up to specs, it shouldn’t be a problem.”

“It’s not standard-procedure, but they should take it,” answered the captain. “We are only going to 70% of maximum rating. It is slightly risky and somewhat unknown territory, but this extreme situation fully justifies the risk, in my opinion.”

“I agree,” sent Steppingstone. “We have 12 hours downtime, let’s all get some rest so that we can be combat-ready when the time comes.”



Edelbach couldn’t sleep. He lay on his bed scanning nanodrone data from Arangelle, browsing the millions of petabytes of video available, using the verbal query-commands that Steppingstone had taught him.

He started with some historical footage, eventually moving forward in time to his own brief interlude on the planet. At the end, he watched the Plortonian attack on Arangelle’s capital. With his view set on the perspective of Taniltop’s peak, Edelbach witnessed the white-flash, then the mushroom cloud of a nuclear explosion. The explosion left little but shards of the crystal-white buildings. He was glad to hear that Ambassador Willingifter was thought to have been in the countryside at the time of the attack, since the blast-area seemed to be limited to the center of the capital city. The only danger to the ziggurats would be from down-wind fallout. Yawning, Edelbach waved the bulkhead transparent again, but before Arangelle faded from view, he could see hordes of wave-cars and trucks headed toward the capital from all directions.

Volunteers, he thought.

Edelbach wondered what Plorton’s motivation would be for destroying the capital of a completely peaceful planet. And how about the timing—why attack at the very point in time that the Husbandry was expected to arrive to check-up on them? Was it to intimidate the Husbandry, to show them that Plorton had developed weapons as powerful as that ancient race? Or was it in revenge for the fleet of 30 ships *Utopia* had vaporized? Edelbach doubted that. Even though *Utopia* was capable of spanning the 50-light-year gulf in less than a second, Plorton’s leaps were much slower.

The bastards must have been on the way when we originally popped out next to Plorton, thought Edelbach. *Pure jealousy; maybe even a desire to keep Arangelle’s money-free culture from spreading.*



At Zero 600 hours, Edelbach was already on the lift to the command deck when the PA gong sounded, followed by, “Leap calculations plotted and entered. Executive officers to the command deck.”

As he exited the lift, he could see the captain, the XO and Steppingstone viewing a holographic touch screen hanging in the air in front of the captain’s chair. They hadn’t waited for the announcement either.

“The calculations look sufficient,” sent the captain, “we have included Plorton’s revolution speed around its sun, the moon’s orbital speed and even their sun’s orbital speed around the galaxy. Our locus is calculated down to the nanometer. The data are now being updated dynamically every nanosecond.”

“When we pop-out, how long do we have to aim and fire?” asked Steppingstone.

“Not long enough to do it manually,” answered Nykyrris, as she tapped a data-field on the display. “We should pop-out directly above the moonbase, the discharge will be instantaneous. 70% capacitor-charge should be more than sufficient to vaporize the facility fully to the bottom level of the tunnel network.

Locked and loaded, thought Edelbach.

“Command deck execute leap on my command,” sent the captain. Everyone on deck who had a breath, seemed to be holding it.

“Leap!” commanded Profia-girka.

The forward display window flashed and then displayed Plorton’s moon shrinking at an alarming rate.

“What happened,” gasped Edelbach, “We’re going backward.”

“Photonic propulsion,” explained the XO, “Not very efficient but still, the discharge was enough to make it discernable.”

“Telescopic view up,” ordered the captain, and a close-up of the moon filled the huge forward window. Where the base had been before, was now a crater which was rapidly filling with the moon’s interior magma, turning the crater into a bowl of yellow lava.

“Successful nullification of moonbase,” announced the captain. “Leap 50 YL, 360-90.”

Plorton and its moon disappeared from the forward display and were replaced by star-filled space.

“What now?” asked Edelbach.

“Report to Zoë-Lien and await an answer,” answered the captain, “Along with watching the nanodrone-data to assess response.”

“What kind of response do you expect?”

“Frankly, we don’t know. This is rather uncharted territory for us, believe it or not,” answered Steppingstone, “it’s so anomalous for a civilization to quite thoroughly reject our mentorship and friendly offers of technology.”

The captain swiped the three fingers of his right appendage across his holographic display, sending a vocal message over the ship’s PA, “Council members report to the conference room, meeting resumed.”

The voice was a rich baritone: calm, devoid of emotion but somehow very commanding. Edelbach wondered if the captain had designed it himself or was it the common “wave-file” for all captain-announcements on all Inter-galactic Class carriers.



When all council members, including the captain and XO were again seated at the obsidian table, and Steppingstone had taken his place at the head, he began. “The captain has opened a substratum conduit back to Zoë-Lien and—ten minutes ago—our report and all nanodrone and telescopic observations of post-attack activity on Plorton were uploaded.”

“There is an approximate fifteen-minute transmit time between galaxies,” sent the captain. “I suggest we have a period of mourning for the fallen foe. Please bow your heads. We will resume when everyone is finished.”

Looking at the entire table with heads bowed, the non-android members showing solemn, pained-expressions and squinted eyes, Edelbach felt himself very much an outsider. He assumed that being forced to exterminate other beings was anathema to the Husbandry; a catastrophe for them, and—patently—evidence of a failure in their own societal mission. He too bowed his head and thought of the poor people on the moon base, while sneaking a peek every few minutes, until he saw a few others raise their heads and stare blankly through the outer bulkhead at deep space.

When all had ceased meditating, Steppingstone resumed. “What are some of the outcomes you anticipate, or hope for?”

“I would hope they capitulate...sue for peace,” sent the XO.

Edelbach’s translator-bud presented the sound of agreeing murmurs, around the table.

Steppingstone waved the bulkhead to 3D-display mode. The council began watching random nanodrone-feeds from Plorton’s surface. There seemed to be tremendous activity in the military sector: troop movements, antiquated artillery and armored vehicles being assembled, flights of winged, jet-propelled military aircraft.

“How can they be preparing for battle when the base we destroyed was obviously a secret from the populace?” asked Edelbach.

“Replay Plorton data from interim between laser-refit leap and moonbase attack,” Steppingstone commanded.

He slowed the stream of images on the zoomed-view of Plorton’s rocket-propelled moon mission. Shortly after Utopia’s leap, anti-gravity craft appeared from behind Plorton’s moon and destroyed the rocket.

“What the holy hell!” shouted Edelbach, “That moon mission was probably viewed on TV by every person on the planet! They killed their own guys, in full view of everyone.”

The data-stream on the room’s bulkhead was instantaneously replaced by a 3D window onto a huge assembly room, filled with a multitude of humans, humanoids and androids. The connection to Zoë-Lien had been established.

CHAPTER 13

A Planet’s Fate in the Balance

