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THE ALLIES

I was to have been the Captain of the First Ship, but she was destroyed before completion. I was on my way to the building yard in Kazakstan and watched on my transport's situation boards. The saturation attack squandered formations of surface darts, hypersonic cruisers and sub-orbitals with a profligacy unusual for the enemy. Their weapons were always well shielded and at least one out of any five would have gotten through the Ship's defensive hemisphere with their usual tactical approaches. But eighty-nine weapons were sent against her, each with a standard half megaton charge. Forty-one reached the yard's perimeter, of these, fourteen were neutralized by the perfectly simultaneous detonation of the first twenty-seven.

The effect was devastating, even against such a vast target. The central blast crater was almost a kilometer wide and a hundred meters deep. The surface of the Earth was smelted into green glass for a radius of eight kilometers from it. The relief column from Baku found nothing alive more complex than bacteria when it arrived three days later.

It had become obvious how greatly they prized our world and everything on it but us by the fifth year of our conflict. Their weapons were normally used with economy and dismaying accuracy so that nothing but humankind and our works were destroyed. Fusion weapons were directed against the great cities, but never where their shock waves would escape built-up areas. That was thought to have been why New York was never bombed, out of concern for the green expanse of Central Park. Surface darts were sent to cut all the bridges, pipelines and cables, and fly down the entrances to the river tunnels. The city was effectively besieged and starved into submission in a month.

In the towns and villages that could not be attacked by fusion devices without harming the surrounding countryside, the enemy's agents would appear in small groups or as lone assassins and patiently liquidate everyone who lived there. The rest of us, on our side of the front, listened on the net and heard the people drop away, one by one, even if there were thousands in the distant valley and tile process took months. The carrier waves remained, linking us to the dead, until the enemy removed the solar panels and took the translator stations down from the mountain tops.

Reconnaissance showed the Earth flourishing where we had been driven out and the enemy's rule was absolute. The ruins of cities and towns were swept away, granulated and spread across the open spaces to become topsoil or atmospheric dust. (How we remembered the sunsets of those bitter years!) The roads were torn up, the bridges and dams removed, and our ground reseeded with buffalo grass, redwood and oak. Their desert reclaimed the Suez Canal, and the jungle erased the Panama Canal.

The animals returned. Censuses were easy over the infrared band; they left many of the general survey satellites alone as if they wanted us to see what was happening. There were herds of fallow deer in the Bols de Boulogne four years after Paris was leveled. Such a thing would have been a memory to Philip the Fair.

East Africa was easily conquered; after the pandemics of the decade before the war there was hardly anyone left there but miners anyway. We saw the miracles there too. The weather stabilized and the rains came back to the veldt, but that might have had nothing to do with the enemy. The herds of wildebeest and impala returned with the long grasses. Lions and cheetahs and other predators unseen for fifty years reappeared in numbers that suggested they had only been hiding instead of having been on the edge of extinction, as everyone had thought.

Laser spectrometry from the low orbit satellites showed that water from the Rhine was clean enough to drink six years after Germany and France were crushed. The Amazon was even more quickly thronged with white dolphins after the fall of Brazil.

The oceans under their control were similarly cleansed. Moles and jetties were scoured from the rims of harbors. The ships left behind were taken apart at night and reduced to elemental forms we had no way of detecting. The whales returned in profusion and our submarines reported hearing scornful choruses from newly reconstituted pods rolling through the Pillars of Hercules and up the Sunda Strait into the Java Sea.

They built only a few installations and enigmatic structures that might have been garrison towns for themselves. There were never any embassies or responses to our demands for negotiation. The ultimatum that they issued upon their first landing was repeated regularly; it never changed in tone or wording. Throughout the years of conflict, it was the only thing they ever said to us.

We knew by the tenth year we could not beat them, and by the fifteenth the best informed people were privately saying they would win. They would pursue their implacable strategy until there were no more people left, but then the rest of the world would blossom in a way that we had never been rich enough to afford.

Great care was taken to understand what was going on in the occupied territories: how many extinctions were averted, how many rare species suddenly brought back to Edenic plenitude, how many thousands of square kilometers of forest reclaimed, dams removed, highways tom up and the ground resown, cities leveled and the places where all the people had been murdered turned into gardens. What was similarly noticed but much less talked about was how impoverished our remaining lands became. What few animals remained with us either sickened and died or just vanished when we were not looking. Either that, or they were the targets of rage and frustration and were the subject of eradication campaigns. Thus, the pigeons and starlings were erased from New York before its siege and all the squirrels in Boston were killed in one July. After the fifteenth year, it seemed like the only animals left were those held captive in zoos or the few anachronistic farms that depended on such things.

"When was the last time I saw a bird?" my father asked me shortly before he died. "Just a crow or a seagull? When? A year? Five? Is that possible?" He was not looking at rise, but all around at the sky, as if he had misplaced these creatures on a neglected atmospheric shelf and forgotten them.

The idea of their pastoral glory inhibited our offensive operations. We became reluctant to use the area weapons that had served so well in the opening phases of the war. Castle Romeo and Castle Sierra devices could incinerate five thousand square kilometers with one low air-burst but had an extraordinarily low radiation signature; they had wiped out the first enemy footholds on Madagascar and Mindanao. But nothing like that was used after the tenth year. They had beaten us and brought our inheritance back to life as if in rebuke, and we were hesitant to destroy it again.

Preparations for departure began even before the secret of stellar flight was stolen from an enemy cruiser brought down over Wyoming. Half the world was still left to us then, so there were enough resources to build six immense ships. If everything went perfectly, we would save ten million people; less than one half of one percent of the population before the war began.

But the First Ship was destroyed before she was ready, and the same thing happened to the Fifth Ship at her building yard northwest of Buenos Aires. The Second Ship had embarked two million crew members and passengers and was attacked as it accelerated for takeoff across the Sea of Japan and brought down.

At the loss of the First Ship, I was reassigned as Captain of the last, the Sixth Ship. Since I had been chosen by lottery in the first place, I did not feel cheated. I would still be responsible for eight hundred thousand people. I was also secretly relieved that other Captains would go out ahead of me and test the enemy's defenses and the efficacy of the secret we had stolen from them. There was also, however, the realization that I would command the last ship to leave Earth, and this idea sometimes paralyzed me with tragic imaginings. I was attended by three times the number of psychiatrists and counselors that I had been before my new posting.

The loss of the Third Ship, which was the largest and most heavily armed of all, was the most disheartening. It carried four and a third million of the best people that could be found in Southeast Asia and Oceania away from a field masterfully hidden in the jungle near Angkor War. It attained its parking orbit, swatted aside the enemy's destroyers with unexpected ease and even wiped out one of their nightly supply convoys in a display of firepower that lit up the night sky over central Asia so brightly that minarets in faraway Islamabad cast shadows.

The Third Ship asked if she should stay to fight the war but she was told to flee as planned. Perhaps even that short delay had been enough to let the enemy regroup; it was equally likely that they had not been unprepared at all, and the Third Ship had just been lucky.

Everyone left behind in the night's hemisphere watched its plasma trail blossom around it to cover a quarter of the welkin as the first quantum dimensions were unfolded by its Captain. Immense panels on the Ship's surface moved to harmonize its shape to the singular reality being constructed to accommodate its passage through the void, and this made it glitter in the reflected light of its own nebula.

The enemy was waiting for the Third Ship behind Mars, and the ferocity of their assault was visible even at that distance. So great was the weight of destruction thrust upon her that the cone of a Lunar shadow was traced on the dust of her prior engagements.

But while the Third Ship was dying, the smallest of the fleet, the Fourth Ship carrying only two hundred thousand people from North Africa, abruptly left its building field at Tobruk, accelerated over the Mediterranean west of Malta, and then ascended into a dangerously low, nearly atmospheric orbit. At the moment the attack was initiated against her larger sister, her Captain unfolded the first quantum dimension and brought her up and then out at fight angles to the ecliptic, up toward Polaris and away from the plane of the galaxy.

"We have to go," I told my superiors as soon as I realized they might succeed.

I was instructed to wait, that rather than being thrown into disarray, the enemy had only been alerted and they would cover every possible avenue of escape. Unlike any of her sisters, the Sixth Ship was constructed underground, and the enemy would not detect her underneath the vacant prairie lands west of Kearney, Nebraska. We could afford to wait.

It was impossible, I pleaded. Our own ground penetration radar could detect something as massive as the Ship. And the enemy must eventually notice how the city had grown in the past five years, how ground and air traffic to it had increased so. The miracle was that the city had not already had enemy assassins quietly working their way through its population, let alone received a gratuitous half-megaton.

They relented and the Ship was prepared. A month was needed, during which the grasses died around Kearney. I thought that the clouds of topsoil that the wind lifted up from the barren Earth would hide the Sixth Ship's hiding place. Studies by my people also showed that the static electricity generated by such dust storms would blind the enemy's sensors.

The plains were an autumnal desert by the time we were ready. Bates, a geologist, was in the car with me. The iron-colored city passed on the north side of the perimeter highway. He had been talking about how he was looking forward to leaving and going to sleep for several objective centuries while I was unfolding and folding quantum dimensions as if they were origami. Then he suddenly asked, "Killed the dog yet?"

"Excuse me?" I didn't have one.

He was a reasonably good friend, but still looked embarrassed, as if he had affronted my rank. "You know. Killed the dog. Sold the house or paid up the insurance." He spun his right hand up in the air as if to conjure something out of it. "Uh, done whatever you have to do to clean up your affairs here and leave. Forever."

"Sure." I hadn't heard that one, but I spent most of my time with my training staff and my psychological handlers. Still, it seemed an odd choice of phrase. "Have you?"

His expression changed. "Last week. See? It can be the literal truth. We took her to the vet and had her put down. She was pretty old and would have happened soon anyway, even without us leaving. The administrative people've taken care of whatever else's to be left behind."

I followed Bates's state back toward the city. "Jesus. Not that we brought much to this place anyway." I assumed he was marveling at how little we had left to defend by now. I was. Knowledge of what the occupied territories looked like made it so much worse.

I tried to distract him. "But not drown the cat? Or..." "I tried to think of a kind of pet generally obnoxious enough to warrant strangulation. "Or terminate the parrot?"

"But why should anyone think of doing that?" he responded with genuine interest, as if I had asked something meant to do more than fill up an awkward pause. "There haven't been anything in Kearney but dogs since I got here." He was right. "I thought it was just the way people who came here were. You know? But every other place I've visited lately seems to be the same way. Just a few dogs and nothing else that wasn't already in a cage before the war began." He shook his head, as if this puzzle had defeated him before.

I stupidly kept trying to shake him out of his reverie. "So I envision long columns of refugee cats and escaped zoo animals, trudging through no man's land, toward the green walls of the occupied territories." Sure. And leaving burning, miniature cat shtetls behind, walking down the muddy road, pushing carts before them, away from the ancient oppressor.

Bates almost took me seriously. "It might not have been too much different from that, really. Who knows?" He shrugged. "But they are gone. Almost all of them except for the dogs." Then he smiled again, but sadly. "And look at how I reward such loyalty. Putting her down just because there won't be any room for her on the Ship."

"No room for anything but we few hundreds of thousands and what we need for a long quiet flight through the void."

"So we'll just have to find our cats and dogs where we land."

He sounded sensible again. "And our lions and crows and carp."

"Oh my," he responded on cue, but not very brightly,

"I'm sure there'll be a place where all of them will be there to welcome us."

We reached the East Portal and Bates dropped me off at my car. I said goodbye to him then because he was scheduled to board the next day.

Embarkation began then and continued for five days after that. The departure crew then needed another two days to get everyone down and suspended for the trip, after which they tucked themselves away. Everyone was assured there would be no dreams.

I was the last one to leave the city and board because I was to be the only one on the Ship who would be awake during our escape. I briefly entertained the notion of going aboveground the day we were to leave. There was an unaccounted hour in the schedule that would have given me enough time to go to the surface and make a farewell gesture -- like lowering of a flag or a scotch at the bar on MeN carey Street I'd usually gone to when my handlers let me out for an evening.

It was impractical. The city was by then populated by decoy robots radiating human infrared signatures, exhaling the correct mix of respiratory gases, driving our vehicles and inhabiting our homes and offices to simulate our commerce, so the enemy might be deceived for another day. I would only get in their way. I wondered if there were robotic clogs on the surface too, accompanying their aluminum-limbed masters, and if they would treat their electrical companions better than Bates and the rest of us had treated their prototypes.

Dutifully, I rode the lifts down to the building cavern's floor. The Ship was above me, filling the cavern. This is mine, I thought, and made myself believe that our voyage's success or failure had already been decided by forces beyond my control. Eight hundred thousand people, and only one other Ship has gotten away! Fatalism is indistinguishable from courage when regarded from the outside, and this reassured me when I wondered as I walked the kilometer to the entryway if the enemy, if the robots in the city above me, or the ghosts of the dogs recently killed by their masters were watching. Of course the Ship's Minds themselves were, through her myriad sensors, judging their Captain, wondering if he could be trusted.

I walked up the ramp and the hangar door hissed shut behind me. Then it was quiet, except for the soft, reassuring voice of the Ship's Minds whispering from my bracelet and from each wall and bulkhead I passed, gently scolding me for having cut things so closely. A transport pallet glided up behind me and I allowed it to convey me through the Ship's corridors and lifts to my station. I was told that the sky and the space above America was quiet. The enemy was still picking through the wreckage of the Third Ship or returning from their failed pursuits of the Fourth. The Ship's Minds expressed cautious optimism. Just to me, I thought. Not to any of the others. This is our own secret.

I got onto my couch and waited, already as alone as I would be in space. There are only people here, and their creations. No dirt or insects. The dust in their clothing as they came on board has been precisely measured. No plants, bacteria or fungi are here that are not required for agriculture, manufacture or recycling. Certainly no animals. Even if we had room and thought they should come with us, they all turned traitor and fled to the enemy long before now. Except the dogs, and they've either been put down or deserted.

The Minds read my thoughts. "There is no time or space for them. This is the best we can do. We have always wished it would not be so."

"Always?" They were only activated six months ago.

Then we left. I imagined twenty-five square kilometers of the prairie west of Kearney erupting as the Sixth Ship lifted up from its building cavern. There should have been a dust storm overhead, concealing it with lightning. The robots in the city would feign indifference. I wondered how long they would continue to go about their simulated business after we left. The Minds told me they would until the enemy arrived to return Nebraska to grassland and restore the buffalo.

I felt nothing seated at the center of the Ship, acceleration canceled out by her local gravity. Although I was the Captain, our escape was entirely up to the Ship's Minds. Only they were quick and resourceful enough to evade the enemy if we were detected; only they could manage her defensive systems.

My compartment was the only private room in the Ship. It was twenty meters in diameter, and sections of it could be closed off as I wished. I had it all open for the departure and reclined before the bridge console, which held an array of screens reporting the Ship's general situation and what it perceived of the space around it. Contradictorily, the rest of the compartment was intended to distract and soothe me. My psychological handlers had chosen to project holographic images of the palace grounds at Nymphenburg, near Munich, in opposition to the walls; there was a blue sky on the ceiling overhead and my furniture was seemingly placed on the meticulous lawn between the pool and the topiary maze.

The Amalienburg Pavilion was visible through the trees on my left. It was an empty though beautifully rendered architectural study. I had not expected any people strolling across the lawn. Such homunculi could have provoked a number of counterproductive responses and associations, so they were naturally left out. But the programmers had not included any animals either; no squirrels or foxes, or even any of the black swans for which the palace had been so famous. The only thing that moved was the water over the artful cataracts and the branches of the oaks and linden trees.

The cyber-dukes and duchesses must have killed their greyhounds and mastiffs before they left.

We left the atmosphere undetected. I could not believe our good fortune. The Ship's local gravity came up to full effect and there was no sense of motion. I

carefully put on my armor and cycled the manipulators attached to it. Depending on one's mood, I knew would look like Shiva or a crab, but the illusion of Nymphemburg overlaid the room's mirrors so I saw nothing to resolve this speculation.

I descended on a lift to where the quantum dimensions were kept imprisoned by a conventional reality. Although the Ship's Minds would plan and execute every step of our escape across the void, it was still up to me to unfold the quantum dimensions and then restore them to their proper condition when we found a world to sustain us. It was a task that had defied the most subtle artificial intelligences during tests. To that moment, only the Fourth Ship seemed to have done it, but she had vanished as intended so there was no way to be sure. We believed the enemy did such things manually too, even though their cybernetics were thought to be much more advanced than ours.

I successfully unfolded the first dimension. The screens on the readout pedestal to my right instantly reported that the Ship attained the first measurable fraction of the speed of light. Then I had to wait while enormous panels on her exterior reconfigured themselves to a new shape that matched the altered reality I had just constructed. That was good, because my hands were trembling from excitement.

The Ship's Minds signaled for the second dimension to be unfolded and aligned with the first. This was done, although there was a moment when I hesitated and a subjective clock appeared on a large, previously dark screen at the other end of the compartment, informing me that all of us would slip into an incomplete reality if the work was not completed within the stated time.

The Ship changed shape again, this time more drastically. The Minds informed me that there had been an attack but the enemy had not really known where we were and their weapons fell far short.

After the appointed interval, I opened the third dimension. Now a functioning, divergent reality was in place and the enemy could not touch us. The Ship's subjective position in the universe abruptly changed, and its probabilistic location relative to the Earth comprehended more than an equivalent third of the speed of light.

The process continued over the next three subjective days, by which time the Ship passed by seven solar systems. Then I was finished and left alone while the Minds plotted the passage from one star system to another. I was no more alone than I had been during my training on Earth, and found the situation agreeable.

After a subjective year, however, the Minds recommended that ten percent of the people be awakened. They were troubled by anomalies in their physiological base lines and speculated that the subconsciousness, left undefended by the waking self acutely sensed the void outside and was being eroded by it. I knew the Ship's designers had planned for such a contingency. Up to half the people on board could be sustained in a waking state by its systems if that was absolutely necessary. Conditions would be abominable, but it could be done.

The clean and vacant corridors of the Ship became packed with badsmelling and barely coherent people, most of whom seemed as displeased to see their fellows awake as I secretly was. I was impressed, however, with the self-discipline most of them showed. The Minds were probably right and they had vaguely perceived something indescribable lurking outside, which had crept into them and left behind an indelible chill upon awakening. I hoped the others would not be so afflicted.

We encountered more planetary systems as we traveled up the arm of the galaxy, toward the central disk. Against all predictive odds, none were sufficiently like home to offer any refuge. Where there was life, it was utterly foreign to us. Many began asking where, if the universe was so inhospitable, the enemy had come from. Could it be that out of all the stars, there were only our world and theirs, and we were therefore destined to contest the two places?

All the while, the Minds would regularly tell me that another fraction of the passengers and crew would have to be awakened to avoid irreversible damage.

The Ship responded splendidly to this growing burden. The efficiencies of the production and recycling units far exceeded their designers' expectations. We lived, crowded shoulder to shoulder as the Ship's kilometers of galleries and halls filled up with people who had nothing much to talk about and even less to do.

We endured three subjective years like this. Sixty-one planetary systems were investigated and found unsuitable. On one, we detected the remains of an enemy outpost that had been destroyed by earthquake and corrosive gas an objective century before our arrival.

I let a party of a thousand people descend to another after they had nearly threatened mutiny if they were not allowed to leave. It required a subjective week to disassemble the quantum dimensions and descend into the prevalent reality. We lost contact with them during their first night on the ground. Orbital reconnaissance the next day could not find any evidence they had ever been there, and it was only after two objective days of analysis that the Minds and I were able to guess at what had happened, and then, of course, we dared not share it with anyone. I took the Ship away and spent four days reassembling the quantum dimensions so we could resume our travel.

I was therefore not at all surprised when they began asking to go home. I naturally refused at first, but the requests became more insistent as we reconnoitered one uninhabitable star system after another. I sympathized with them and would have consented for I myself, was losing the desire to go on if I could not be alone again. But I could not because returning would mean failure and extinction.

Only a hundred thousand people remained asleep by this point and the Minds were unanimous that their lives would be threatened as the others' had been if they were not awakened. There was also .doting and belligerence among the waking and

the Ship's security systems were having trouble avoiding injuries. I consulted the Minds and shared my indecision with them. They reassuringly told me that it was nothing extraordinary "given the circumstances," but that it did present me with two choices that at least had to be considered. First, I could preserve order and make the Ship habitable for up to eight subjective centuries if I liquidated all but eight thousand people.

"Liquidate?" I wanted to hear them say it plainly, to implicate them in what I had already privately considered.

"Kill them," the chorused voice whispered from the woods around the Amalienburg pavilion. "They will not let themselves be put back to sleep, and if they are, their lives will only be threatened again within another subjective year."

"All but eight thousand?" Terribly, I found equally repellent the idea that I would still have to share the rest of my subjective life with the eight thousand living if we did not find a world for ourselves.

"Such a measure would assure that the voyage could continue almost indefinitely and still preserve a semblance of genetic diversity once...."

"If," I suggested.

"... if," the Minds unexpectedly agreed, "a suitable place is found. The other choice is to go home as they ask. As we believe you wish to do." I prepared myself for a reprimand. Instead they continued. "We believe that this is all that can be asked of any of you." The Ship wanted to go home too.

There were no real celebrations when I told the people of my decision. Only some messages of thanks delivered through my com-mail or self-consciously spoken to me as I shouldered my way along the teeming galleries. No one, not even the Minds, asked me what we should do when we arrived, probably assuming we would simply be blown to pieces the instant we arrived.

The geometry of the space the Sixth Ship then occupied was such that we were close to Earth. Only two subjective months were needed for the trip back.

I disassembled all but three of the dimensions so we could peer into objective reality from relative safety. The system Sunward of Mars had been as warm with enemy convoys and there had always been a few of our own missiles hunting in and out of the dust clouds in the years before we left. Everything was quiet now. All the satellites, both theirs and ours, planetary and solar, had been swept away, although considering how long we had been gone, many of them could have been lost to normal orbital decay. It was as if mankind had never left the world and as if the enemy had never thrust themselves across the void to meet us. "How long have we been gone? Truly gone?" I asked the Minds and was shocked by their answer.

"Is anyone left?"

The Minds' voices were sympathetic. "No. There are no people left, and the enemy is gone too. It is safe."

It would not have made a difference if it had not been. We had ended the voyage and come home. We would land no matter what awaited us.

I awakened the remaining sleepers and told everyone. This time there were some anxious celebrations. Parents retold the old, stale stories to their objectively ancient children, but this time as if they believed them. I refolded the final quantum dimensions and restored them to their containment Strings.

The Minds brought the Ship into low orbit. Most of the large scale geography was familiar, but the world had otherwise been remade as Eden. Our sensors found such richness everywhere that we wondered if we had returned to the right place. It was possible that I had botched the intricate process of unfolding and folding the quantum dimensions so that we might have transgressed certain barriers and landed in a reality that only superficially resembled the one we had left. I reviewed my procedures and the Minds rechecked them, but the best conclusion was that we had returned to the same Earth and not some coexistent shadow world.

I had expected the occupied territories to be lush and filled with wildlife, and that the defeat of mankind would have extended their expanse to most of the globe. But the enemy's triumph must have been complete. All our cities were gone and even the aggregations of rare isotopes that should have marked our presence for centuries, like cesium, and iodine from our power establishments, were gone. There were no concentrations of cadmium from mining or organic polymers from plastics. The roads were all gone. The Minds were barely able to detect sunken ships in the oceans' deepest places.

There was evidence of the enemy's presence. Some structures and fortifications remained and the oxidized hulks of what must have been some of their spacecraft were spotted around landing strips in the Yucatan and the Crimea. But the enemy was gone from all these places. Their physiologic signatures had always been easily detectable and the Ship should have been able to find single individuals on the ground. There were none.

But the Earth flourished. The deserts, even those that had not been created during the war, had retreated, and they had been cleansed and purified where they remained. Life rioted everywhere else. The grasses had reclaimed the middle of America and swept uninterruptedly through east Africa; the steppes of central Asia were as they were before the Mongols lurched west. The South American and Asian jungles were restored. A forest of mystical impenetrability covered Europe from the Pyrenees to the Urals again. The Minds whispered that analysis and recataloguing of the Amazon Basin's new biosphere would require a month of their undivided attention.

Everywhere the Ship looked, there was a profusion of life that exceeded our records and memories. The bison herds that the enemy had restored to central Europe the year before we left were now matched by even more stupendous herds on

the North American prairie (I could not help looking at where Kearney had been; the cavern where the Sixth Ship had been built was a deep lake fed by pure underground springs). Antelope crowded the high deserts of Utah, Idaho and Oregon, just as there were dense masses of elk and deer in the alpine forests of these vanished states. The ursine populations were what would have been expected in the presence of such abundant food supplies.

We had been gone long enough for new species to have tentatively evolved. The Ship detected new phyla of insects on the average of one for every two days the Minds spent on observation. There was a new kind of hairy elephant inhabiting the Himalayan foothills. An extraordinary sort of lungfish had virtually colonized the coasts of the Japanese Home Islands and seemed to be undertaking a kind of aquaculture involving seaweed and kelp. There was a new species of kudu in the African veldt that had clawed hooves and teeth adapted to meat eating; they were observed hunting jackals in disciplined groups of five. A white eagle with a wing span averaging seven meters was discovered nesting in the Balkans and on the Peloponnesus and ranging all across the Mediterranean on hunting flights.

The Minds told me that much of this had nothing to do with natural selection but were instead things the enemy had done after their victory. There were unusual characteristics to some of the DNA samples their probes brought back up to the Ship, and the level of communal organization that they perceived in species that had never exhibited such inclinations was profoundly disturbing to them. Things had changed drastically and the idea that the enemy had boobytrapped the life that they had so gloriously restored was a ready explanation.

I felt the same thing, but I was too entranced by the spectacle to care about the risk. It seemed as if all the life that should have been fairly distributed throughout the universe had instead been hoarded on our old home world, and enriched and embellished while everywhere else managed with slime molds, ferns and arthropods so heavily armored they could barely move through their environments of raw solar radiation or poison gas.

The day before we landed, I asked the Minds if there was any sort of life that had been present before we left that was not there in profusion now. The Minds, who were preoccupied with preparations for the landing, tried to brush me aside. They impatiently said that it was irrelevant, but I persisted. After more argument, and becoming unaccountably more anxious to have the question answered, I invoked rank and ordered them to respond.

An hour later, irritated voices hissed from the open doors of the Palace's ballroom that it would be impossible to do much of a survey of anything lower than vertebrates, even incorporating all the observations they had gathered from the past two objective months in orbit. Then they told me that the only ones missing were the dogs. The closest members of the family they could locate were isolated populations of coyotes and wolves in the high altitudes of the northern hemisphere, and most of them seemed to be suffering from disease and malnutrition. The Ship's Minds did not attach any significance to this.

They brought the Ship down on the prairie land north of where she had been built. There was enough open space there, as there had always been, and we glided over new buffalo herds so large that the Ship's shadow darkened only half of them. We overflowed one deserted enemy fortress on our approach, but did not see anything left by humankind except the indented trace of old highways.

The Ship hovered for several minutes and then gently lowered herself to the ground. The main landing pedestal appeared to support her entire mass, but her local gravity remained active so it actually bore little weight at all. "You are home," the Minds said to me in my room and I passed the word to our people.

I went to the hangar deck and walked down the main gangway first. I was still the Captain and was gratified that the people and the Ship (neither of which had any real need of me now) so regarded me, Armed security units should have gone out first, but the Ship had checked the surrounding land and found nothing threatening. The sweetness of the air was indescribable. I stood at the end of the ramp, transfixed, again seized by the conviction that this was not the world we had fled.

The Ship's circular shadow extended out for nearly a kilometer from where I stood. Beyond it, the sun was brilliant on the long grass. A group of antelope was moving into the shadow toward me. I stepped forward cautiously, as much to continue testing the reality of the ground beneath me as to see what another kind of living creature looked like. My apprehension that we had come back to another place quieted. This was our home, and we had always shared it with creatures such as these, I thought with unexpected elation.

Antelope! And buffalo behind them. Look! Prairie kites were riding the thermals, as if we had never flown through their sky. I hoped I was not being undignified, but everyone around me seemed to be thinking the same thing, smiling and laughing to themselves and pointing at the antelopes, now only a hundred meters away.

I had forgotten the context of their beauty; they were creatures from memories inherited from grandparents. Tan and sable with black markings on skins stretched tautly over bodies designed to run for days over the grasslands. The Minds remarked that the creatures were moving in uncharacteristic ways that suggested they had been improved during our diaspora, and then fretted over whether they were concealing new abilities of thought and organization.

I stopped ten meters from the lead buck to see if they were going to run away. Instead, this animal merely stared at me with extraordinary eyes until I began to imagine that there really was some kind of new and subtle intelligence behind his gaze. Four other animals symmetrically positioned themselves behind him, two on either side. They were larger than I had anticipated and someone behind me asked permission to arm his weapon.

As if it had overheard, the lead animal turned carefully and began walking away. Once he was past them, his four companions followed, and then the rest of the herd fell in behind, aligned in what might have been imagined as columns of

march. I stood where I was and signaled everyone else to stand still.. The Ship's Minds were watching and would tell me if this was anything more than the unconcerned withdrawal of animals who had never seen people before and whose conceptions of space were too limited to appreciate the Ship's presence.

I personally thought their look and pace to be utterly contemptuous. They remembered precisely who we were, what we had done and how we had lost the struggle for this place.

They continued walking until they were far away from the Ship's shadow. By the time I thought to ask for binoculars, they were gone, just as the buffalo herd that we had seen on the way in and the kites were now gone. The only thing moving before us were shoals of wind on the tops of the grasses.

I kept the Ship where we had landed. During that first night home, more than half the people slept outside to marvel at the open sky. I saw the propane and buffalo dung fires spread out past the Ship's perimeter and tried to draw relief or contentment from the sight. After all, I had brought them back, and even if the billions we deserted had perished, the place was still our home; the only one, we now knew, that the accessible universe had set aside for us.

The Minds wakened me at dawn to report that almost all of the people who had intended to sleep outside had either moved under the Ship's shadow or inside. They had overheard expressions of vacancy and emotional desolation.

By midday, I was receiving complaints of debilitating anxiety from the medical sections. Evidently, the unshielded immensity of the American sky was not enough for many of them, even though they had spent subjective years crammed into places where the ceiling was usually four meters from the deck and the Minds had refused to show them pictures of the outside for fear of what that might have done to their sensibilities. I had thought the sight of clouds and the touch of the wind would have kept them satisfied for weeks.

It emerged that many of them wanted to see the life that had engulfed the Earth while it was under the enemy's rule, not the empty sky or prairie. They had seen the pictures from orbit from the Ship's reconnaissance drones, and now that we were down they were enraptured by visions of great beasts and fishes at play in their world. We had needed them to mediate between us and our fellow humans before the war and before we left. Their absence could be tolerated in space, especially when we were fleeing for our lives, but now that we were home, it was unthinkable that we should not be able..that we should not be entitled to see and touch these antelopes and hawks and expect that they would rejoice at our return, as if it were our presence that would now make the planet whole again.

But the Minds reported an unnatural absence of vertebrates for a radius of thirty kilometers from the Ship's center point. There was the usual abundance of life outside this perimeter, but nothing but a single colony of marmots within it. The density of tracks and spoor showed that this part of the prairie had been as densely populated as any other before we arrived. The Ship's extraordinary presence might have scared off a lot of them, but there was no

explanation why the birds were gone or why the grazing animals, which had seemed so unconcerned when we landed, should now so purposefully keep themselves below the horizon.

All the old satellites were down, but the Ship had left its own small constellation behind when she left orbit. They watched and showed us how not only the herd animals but also the solitary beasts, like the eagles and the great bears, sensed our vehicle's approach and moved far away, even into environments obviously unsuited to their hunting habits, until we were gone. The same thing happened when we sent skimmers into the Caribbean. Wherever they sailed, the dense schools of amberjack and billfish observed from orbit turned and headed for waters that were colder and deeper than anything they normally inhabited.

The Ship's Minds found more evidence of organized behavior as these great masses of wildlife fled from us. They also noticed how the animals consistently withdrew in incremental steps rather than in random, headlong flight; they would go so far, turn and wait, and then retreat again only if we persisted.

Insects, vitally important as pollinators, displayed episodes of collective intelligence, deserting new fields when there were no seasonal or predatory reasons to, and flying away. The satellites and the Minds' agents kept track of them but that did us no practical good. They were imperfectly replaced by machines and chemical treatments.

The Ship's remote agents, some camouflaged as ocean birds that perceived their targets with infinite subtlety, infiltrated close to the pods that had avoided us and reported hearing the old choruses in the whales' songs, now plainly derisive. The dolphins sang more militantly, as if they were not just expressing their contempt but calling to their fellows to do something about

Much of this was naturally inference. None of our people or machines were openly attacked. But the old idea of their racial treason came back. The enemy's garden endured and harbored all the animals that had deserted us and fled to its refuge.

The hunting began about then. I issued decrees against this, but I was only the Captain of the Ship and now that it was empty, my authority was being steadily eroded. Some of it was necessary for meat until the protein farms could be brought on line, but much of it was just the same kind of vengeful butchery that had occurred during the war when the idea of all life's betrayal of us first caught hold. There was no war to distract the hunters now and they were much more effective.

I was not surprised by reports of an intensified sense of isolation, especially in the five smaller towns and the homesteads that were scattering out along the modern channel of the Missouri River where we had located our central city. Our old home had none of the ferocious indifference of space; it would not burn or freeze us; but its sky withered our hearts and bent our shoulders down as we walked under the burden of its inadequacy. The feeling of betrayal we had

recalled when the bison and the antelope first obviously avoided us spilled onto the surface of the planet itself.

People appealed to their new leaders, and sometimes even to me, asking for explanations and demanding support and solutions. The beasts of the field, the birds of the air, and the fishes in the sea would have nothing to do with us and neither I nor the Minds could conceive of anything to be done about that. Although some of their behaviour was peculiar, nothing had been openly threatening yet, so we should at least be thankful for that. Otherwise, we were by then only a few more than eight hundred thousand, and that was all there would be for the moment, unless the Fourth Ship unexpectedly appeared out of the void. We would have to sustain ourselves against the fecundity of the world, until there were enough of us to crowd out the thought that it was so huge a place.

There was a brief period when the hunting included the intentional capture of animals as pets. Some falcons were snared but these were predictably untrainable; that art had been lost a century before we left. The practice ended when colonies of cats, probably mixes of old domestic lines and wild lynxes, were distributed to families in the small towns and homesteads. There were some attacks on people, but they were probably the result of breeding rather than anything that happened after we left. The worst thing was how the cats kept imprisoned inside houses and apartments all starved themselves to death, sitting in one favored place and staring at their captors with unblinking eyes, exuding serene contempt as they shriveled into caricatures of the domestic companions preserved in the Ship's libraries.

I was by then alone in the Ship. To be truthful, I preferred it to the barely populated desolation that everyone else outside confronted. Two thirds of my life on Earth had been devoted to her or the First Ship, and I, alone, had been awake throughout our voyage. So I conceived a special bond with her, as her libraries told me others in olden times had for certain aircraft and sailing ships and other works of their own, unassisted creation. I became convinced that I had no indispensable need for human companionship and certainly none at all for the company of the Earth's other inhabitants.

The Ship's Minds appreciated my deception. They urged me to leave them, settle on the plains and wait until my heart quieted and the bizarre actions of all the living things that had remained on Earth while we were gone were understood and corrected. They assured me that they could pursue this work perfectly well by themselves. I responded that the memory of the enemy prevented me from doing this, much as I would have liked to.

I felt them nearby, as if their apparent annihilation had only been a feint and they awaited the moment when their agents, the hawks and the wolverines and the sharks, had finished preparing the way and they could complete our extinction.

"We assure you, they are gone. We have found only rains and artifacts." The Minds were insistent.

"But what if they're hiding?"

"Impossible. Where could they hide from us?"

"Among the animals. You've seen how they act. You first remarked on that even before we landed."

"No. But even if it were possible, why would they do such a thing? There is no reason that makes strategic sense."

I was walking through the cavernous hangar deck. All the flyers but my own were gone. "Then we ought to make sure."

"We have made sure." There was frustration in the synthesized chorus.

A new question came to me and I could not believe I had never asked it before. "Then, at least, I have to be sure who won." Like everyone else, I had always assumed we had lost and the enemy had won."

It could not have turned out any other way."

"Then why did they vanish if there was victory? After all that awful struggle?"

"Their motives were always obscure. If we had understood them, we would have won."

I thought there was uncertainty in their answer. "That's an evasion. We should look for answers, especially if some of them might still be hiding here."

"It is not an evasion that we have not detected a single sign of their living presence since we achieved orbit. Do you doubt our abilities, Captain?" The Minds regained their emphatic superiority. "They are not here, We are the only ones here."

"Then it will not do any harm to confirm this self-evident victory." I entered the flyer and activated its systems. "There will be museums built someday and we should be collecting artifacts to fill them."

"The Sixth Ship will not be enough?"

I couldn't tell if they were joking. "I'm going out to look for them now. At least for what they've left behind, Please pull some of your surveillance assets away from the biosphere and have them help me."

"Security recommends that ..."

I did not normally interrupt them. "Our people are quite up to providing their own security by now?"

I drove the flyer down the main ramp and flew away, out across the prairie, now

covered with snow. The enemy's nearest site was seventy kilometers to the west. It had already been thoroughly picked over by settlers so I did not expect to find anything of significance, but now I felt I had to go if only to assert myself against the Minds.

The installation was populated by birds and animals that did not flee when I approached. The skeletons of antelopes and bison were scattered in the courtyards and the corpses of prairie falcons were lying on the metallic roofs of the flanking buildings, all where our people had dropped them.

Now I was the occupying power. They stared at me with hateful eyes, across a gulf that had grown wider since we left, accepting the omnipotence of the Ship's escorts while condemning me for my reliance on them. I found it unexpectedly easy to meet their gazes because they were traitors. Deserters. We had been terrible companions through the ages, but that could not excuse how they had unbraided the fabric of our world, however unjust they conceived its destiny and their own would be if they did not.

I saw flickering recognition in their eyes and suspected the enemy had left quite a lot behind. A wasp with gold foil wings hovered by my ear and the Ship's Minds whispered from it that they had only told me so.

The fortress had been only carelessly ransacked, so I could still find artifacts that might be linked to the enemy. There were, for instance, fragments of glistening alien bones in a heavily secured room. I took it to have been a control center from the number of ruined consoles against the walls. I spent half an hour there.

Two cougars blocked the door when I turned to leave. There was no natural reason why such animals would be in such a place, but that was unimportant. The Ship's small agents bracketed the two cats with warning beams of scarlet light and they sullenly backed into the dark corridor. The Minds asked me if I wished to liquidate them, but I said that would be unnecessary. "Besides," I continued to the swarm of metallic insects orbiting me, "we would then probably have to wipe out everything here."

The small chorus responded almost gleefully "They are already targeted. It could be done in less than a minute and your safety would be assured. There is evidence of a collective consciousness here that links members of different phyla. We have not encountered this before and advise caution."

"No," I repeated and the wasps obediently returned to their posts.

The cats were beautiful. I had longed for something with their vitality during all the subjective months of our voyage, or, for that matter, during the years before our departure when every living thing seemed to find us abhorrent and either turned against us or ran away to the enemy. Now, I might as well have stilt been in space, looking at them on the Ship's view screens. Their grace and power were affronts to me and they had known that; perhaps their only attack had been to appear before me and stare at me for a moment. I briefly reconsidered if

the Minds should wipe them and everything allied with them out, but there was no need. If we had lost then their new masters had at least not won. I was certain of that when I held their bones in my hand.

The Ship's Minds compared the bones to samples taken during the war and confirmed that I had found enemy remains. They sent some of their larger assets back to the fortress for a detailed search, and were delighted to tell me four days later that they had recovered fragments from nearly five hundred individuals, including, unexpectedly, juveniles. The fortress had really been a settled garrison. But they had all died in a relatively short time, three hundred objective years ago.

"How?"

"A sustained attack. Not a conventional siege, but a sustained, low intensity attack that lasted until they were all gone. That is why there is no evidence of siegeworks outside or of large-scale violence to the structure itself." They seemed satisfied with that, but felt compelled to add, "It was not a mass suicide. That was not in their nature."

I had only seen evidence of small arms fire and anti-personnel weapons inside the fortress, and their blast and fragmentation patterns indicated that only enemy weapons had been used there. "A rebellion?"

"That would be even less likely. Dissent was foreign to their psychology. It is another reason why they won."

My heart cautiously accelerated. If they had not done it to themselves then something had endured here for hundreds of years after we left. "Low intensity attack by whom, then?"

The Minds answered immediately, for once unembarrassed that they did not have a solid answer to a question. "We do not know. No human weapons or other evidence of our kind was found in the fortress, even when our entities searched at the molecular level. There was only evidence of the enemy and their animals. But we are just beginning this. And," they paused portentously, as if they were on stage, "we have determined that there are other sites like this one, which is minor by comparison."

I recalled the structures we had seen from orbit and overflowed on the way down. I asked how many of them had been attacked and overrun too.

"All of them."

I was alone with them in our vast Ship. The feeling I allowed myself was indescribable and for nearly five minutes I could not talk without my voice faltering. Something implacable had marched out of the paradise the enemy had reimposed over our worn and tired world and destroyed them. I imagined guerrilla regiments and phantom navies, but such things could not have hidden from them for the hundreds of years that followed our departure or carried on the war for

so long.

"Could they ... whoever did this, could they still be here?"

"We are looking with all our resources. Whatever attacked the enemy could attack us too." But neither I nor they believed such a thing. "We have interrogated some whales ..."

"Have you condescended so far?" I interrupted, more amused than astonished.

"They were intelligent, though not as much as many people wanted to believe. The enemy's occupation pushed some populations ahead of themselves. They are not rational in the way we are, but it is quite an advancement over where they were when we left. The monsters remain grateful to the enemy for these gifts and remain loyal to their memory. We found them insufferable."

Their last remark touched me. I had become more willing to accept their pretensions to humanity, since we landed. "But did you learn anything from them?"

"Yes. It will be some time before we can reclaim the seas. They purport to know nothing about how the enemy was destroyed. They did confirm, however, that they were in fact destroyed and did not just leave or go into hiding.

"We have also located some advanced primate populations and our agents have established contact with them, primarily in the Ruwenzori range in central Africa. They are more communicative than the whales, and we think they still feel some racial loyalty to us. They also deeply resent our having deserted them, and even more for having lost the war to the enemy. They detest us for that rather than for how we behaved before the war began. At least in that way they are unlike all the other creatures of the world."

"Then if the bugs are too difficult and if the apes haven't forgiven our weakness yet, find the beasts that will talk to us. And if that can't be done, then identify every one of the enemy's old places and turn each one inside out until we find out how this happened. Even if our enemy's enemy is gone too, we have to find out who they were. We can't live here again if we don't."

"We know."

The Minds industriously stripped machinery and electronics from the Ship during the following week to construct new cadres of exploratory probes. I assumed that many of them were at the level of insects and birds, but I also saw robotic aircraft the size of conventional bombers being assembled in auxiliary hangar decks and then leaving from the main entrance in the landing pedestal at night.

The Minds assured me that they would find the heroes soon. New evidence was being discovered every day and contacts were being cultivated with more and more species. They privately remarked that the enemy's work had been even more advanced and inclusive than they had supposed. Almost all the higher mammals had

evolved some kind of organized intelligence during the occupation, and this could only have been the work of the enemy. "It is a matter of learning how to ask the right questions and knowing how to listen to their answers. Each phylum is different." Then they would dither over how we would get along in a world crowded by so many competing mentalities.

"That isn't the problem at hand. That problem is, what happened to the enemy? Not what their orphaned frankensteins will try and do to us or to each other someday."

"The numbers and depths of contacts are so unexpectedly rich, that we cannot help but be concerned."

"I understand. But the enemy is the problem. The enemy."

"Insofar as we can understand them, they concentrate on laments that the enemy is gone, and expressions of contempt that we have returned and now presume to ask about them. Others, like the Sudanese termites or the Barrier Reef corals, have responded to our probes, but their frames of reference are still too foreign for us to interpret."

"And it's been one or the other for every living thing your agents've visited? Either insults or gibberish?"

"Yes. But there are hundred of thousands that we have not contacted yet. There is still much to do."

"Millions," I added dispiritedly. Everything had flourished during the occupation. Species that we had thought all but extinct when we left were now found in abundance.

"There has been a small anomaly." The Minds' sense of personal drama had improved as they and I had lived alone on the prairie and waited for information. "One of our agents has discovered a fox in the forest on the Michigan peninsula, near where Traverse City used to be."

"Why should that be unusual?"

"Because it is the only fox that any of our surveillance assets have discovered anywhere on Earth." The Minds let that sink in for a moment. They were enjoying their story. "Everywhere else we have looked, there has been fecundity and plenitude. The world seethes with life in a way that we..find unnerving."

"Arcadia," I volunteered. "But you think this fox has been left out of the parade?"

"We are certain of it. We have looked very hard, but she is the only one we have found. She has also told us that she is the last one of her kind herself."

"Then the enemy did raise this animal up, just as they did all the others."

"No. Foxes were generally solitary animals. Imposition of a group consciousness would be difficult with them. This one seems to have happened upon her intelligence by chance and she regards the enemy, or at least the stories she was told of them by her ancestors, with great hatred. Based on the few psychological analogies we feel comfortable with, we would say that she regards the memory of the enemy as we do."

I wondered what kind of emissary had been sent to her, whether it was a small and unobtrusive walker her own size or if the poor animal was now confronted by a huge vertical lift aircraft that descended onto a meadow near her and emanated an incomprehensible empathy."

It could express actual hatred....?"

"That is the analogy. The objective equivalent for her is more ruthless, but that is close enough."

The idea was fascinating. "Why? Everything else thinks of them as departed gods."

"They destroyed her kind. She is convinced of that, as she is that she is the last of her race left alive."

That went against everything we knew of the prosecution of the war "How can that be? Why should the foxes be treated that way when the enemy is lavishing their beneficence on everything from the whales to the goddamned termites?"

"We believe that was another accident. The enemy used a disease against some other species and some of it spilled over to wipe out her kind too. They never used biological warfare against us."

"What species?"

"She doesn't know. As we said, they are a solitary race and they kept away from the enemy even after the war was over. The disease seems to have been a variant of rabie."

"How did you discover that?"

"Dissection."

"Of the fox, for God's sake?"

"There was no other way to learn more."

This caught me tiff guard. The Minds could be more irredeemably human than I realized "But that ... she might have told us more." It would not have mattered. If she was truly the last one, the best we could have done would he to clone a genetically impoverished race from her.

"It was unfortunate but the circumstances left us little choice. Its intelligence had been accelerated, but it was no apotheosis such as we have found in some of the whales. We learned all we could from her made reasonable extrapolations and then had to go on to more detailed study. She was sick and dying." Then, to reassure me: "Her race had not attacked the enemy. They would not have been physically or emotionally capable of that.."

I could not help but feel bitter. "Your probe seems to have gotten very close to her."

"That is true. We felt closer to her than we had to any of the others we have contacted."

I stopped myself from saying that the reward for such intimacy was to be killed. Poignancy had crept into their voices.

"Perhaps it was the hatred of the enemy, even if it was not accompanied by much sympathy for humankind. That may have been why she spoke to us and we were able to understand." I felt they might not be talking to me at all.

"Then who was it?"

"She indicated that all of the enemy were killed as were all their attackers. Her ancestors told her the dogs had done it."

"What?"

"The dogs. They were related to foxes. Those were the stories she told our agent she had been told by her ancestors."

"Then have we made any contact with ... with dogs?" For some reason, I found the idea that they had defeated the enemy harder to accept than the foxes having done it.

"We began trying as soon as we understood her. There are no more dogs."

"Have you looked everywhere in the world?"

"Everywhere," the Minds calmly insisted. "We were able to detect a single fox in all of North America and we are confident that there are none in Eurasia. We can say with equal certainty that there are no dogs in the northern hemisphere. Our level of confidence for the southern hemisphere is ninety percent, it will be one hundred percent in thirty-six hours."

The answer hardly fit my preconceptions. The enemy had come from the stars and every living thing that we had shared the planet with betrayed us for them. Paradise had been returned to them as a reward. It was not possible that, alone, a race of house pets should have resisted. If they were gone, it must have been through an accident, like the one that had erased the foxes.

"Nevertheless, that is what she told us," the Minds continued, reading my thoughts. "We have also reviewed the enemy artifacts that have been recovered and ninety-three percent of them show damage compatible with canine attack. We have also recovered remains which are undoubtedly those of domestic dogs, or at least of canines descended from them, from enemy sites and surrounding areas. Sixty-one percent evidence blast, burn, impact damage or other trauma compatible with enemy small arms and area. weapons. There is also a great prevalence of rabid infection where enough tissue was preserved for analysis."

"So it could have been them. But alone? No others?" The idea lacked mobility. I was still looking for the men in the jungle, left behind but sustained by a noble heritage.

"There may have been other races involved, but there is no evidence. Also, only the dogs are extinct. Everything else flourishes." "And the foxes," I corrected. "Now. Yes. "

"I never owned one."

"What an odd thing that must have been," the Minds replied, almost distractedly. I could not understand how they had become so conversational. Perhaps from having been alone with me for so long

"A lot of people I knew before the war did." I felt it necessary to remember, as if I should demonstrate I knew something that was not in the Ship's libraries. "They were always underfoot and being treated as if they weren't animals at all."

"Then their response to our departure and the enemy's subsequent victory may have been understandable for that reason alone."

The logic was easy. "But to have held out for hundreds of years and then successfully annihilate them?"

"There is no way to know when they started their campaign, and we would hardly call it 'successful.' But in fairness, they may have been driven to it,"

"By what?"

"This is speculation supported only by interviews with a few terrestrials, primarily jackal populations in the Sudan and harbor porpoises in the Levant. There was also what we learned from the fox." They were showing off again. "Reliable sources tell how the dogs joined humankind a hundred thousand years ago."

"Of course." I tried not to be impatient.

"You see? They left everything and joined us. Social and biological evolution does not record conscious racial choices being made by any racers but humankind

and, in this one decisive instance, the dogs. Unlike the relationship the lesser cats chose to exploit, this one became indissoluble. The unfortunate result was that when all the other creatures of the world swore allegiance to the enemy, the dogs could not. They may have been granted some elevated intelligence anyway, but what we learned from the fox and the porpoises indicates that the biosphere harbored a profound resentment of them. When the other races were also given enlightenment, the hatred must have become articulate and it spilled out. If the others did not attack, they probably urged their new masters, our enemy, to liquidate the dogs."

I thought for a moment but could not help but say, "This is not Animal Farm! I can't believe that the most important thing to happen after the defeat of mankind was a misfired score settling among a bunch of dumb animals! That they pushed their new masters in this paradise to kill all the goddamned dogs because they'd had a place by the fire "

"... while almost all the others were driven to extinction or farmed for slaughter." The Minds rarely interrupted me like that.

I tried to wave them away. "Anyway. It was a western affectation, I believe. Dogs themselves were raised for slaughter for centuries in the East."

"We did not say that their loyalty was well founded, just that it became unshakable."

I had been born before the war started. I had thought myself to be sensitive to the world around me, and the idea that such a bizarre conflict could have been festering among all the animals that cluttered up the places beyond our homes was as difficult to accept as the idea that the dogs had achieved the victory that had eluded us.

"Why else would the enemy go to the trouble to craft a specific strain of rabies, centuries after they had won and there should not have been anything here to threaten them?"

After I failed to question them again, the Minds added, "We are convinced of this, although we will naturally continue our investigation."

I began walking slowly' around the hangar deck, and tried to understand how this affected my perception of the enemy's defeat. It no longer seemed to have been our war. Disastrous though it may have been, I attached vast importance in it having been ours.

"Should we tell the people?" The Minds were at the same impasse.

"Tell them that the enemy was killed off years ago? They already know that."

"That it was the dogs that did it and they should plan monuments?"

I shrugged, that odd sense of loss getting stronger. "Sure. Giant granite

milk-bones. All right. We should tell them. But there's no rush. All the dogs're gone, you say, so there's no rush. The last time anyone saw a dog was when we left." I recalled my conversation with Bates in the car. "Centuries ago, here, at home." We humans, then, were the only living things on Earth who remembered seeing them alive; we had owned them. All the others, the whales and the foxes, only had ancestral myths of revenge and annihilation.

"You will tell them?" The Minds had never spoken to anyone else but me, and for all their intellectual might, they still qualied at the thought of dealing directly with anyone else. They were omniscient but as alone as I had been since I joined the Ships' project.

The next day I took my own flyer to Kearney. Of course, there was nothing left of the old city which the enemy had returned to dust, but the new one was clean and busy. The people seemed to be of a better sort than I remembered from the last year on the Ship. There was no smell; the antiseptic prairie wind was infinitely fresher than the tattered atmosphere the Ship had scrubbed over and over again during out voyage. And the nimbus of emotional tension that had surrounded almost everyone onboard before we returned was also gone. We seem to be at home, I remarked to the five guardian wasps the Ship had sent along with me. They hummed by my ear, unconvinced.

I took a rickshaw into the city, passing carefully framed perspectives that gently nudged people together and thus helped them believe that they were not so alone in their world. But the architecture and the art in the plazas and along the three major boulevards were not touched by sufficient genius to draw the observer away from the sense of his own self. My father would have been asking, Where are the birds? There were none, nor any rats or stray cats anywhere.

I recalled a story I read when I was young, before I left my family and joined the Ships' project. It was a variation of Cain's story from the Old Testament, where he was driven out of Eden for killing his brother. Cain was never allowed to touch or deal with any living thing but other people after that. The grains and flowers of the field were denied to him, as was the companionship of all the beasts. So the story described a garden that Cain had fashioned for himself, with streams of liquid mercury and blossoming vines carved from lapis lazuli, copper and malachite. There were bees and other insects in this story, all tiny automata made from gold foil and carbon fiber, just like the Ship's guardians that always accompanied me.

I could not remember the end of the story, only the description of that ancient murderer sitting alone in a cold place of his own creation, scorned by the living world. Still, he had made an accommodation and would convince himself of its authenticity.

The harder I tried to put the story aside, the more devoid of any life. other than humankind and its direct creations the city became. It was a good place, I told myself and my escorting wasps. Good and brave people had come back to a place they feared. But we were alone with ourselves and our machines. I knew what Cain's offense had been. What, among all the tragedies we had inflicted on

ourselves and our world before the war began, was ours? Would only one suffice?

I dwelt on this that night. By four the next morning, I was wide awake in the bedroom of a house that the Minds had arranged for me.

"Perhaps you should leave us," they suggested softly through the clockwork wasps. "You should stay among people even if you do not tell them about the dogs. Talk to them about something other than us, here, or the war or who won it or lost it."

That morning, I made appointments with influential acquaintances. I was still remembered as the Captain of the Sixth Ship and I remained the subject of polite respect. I was therefore received into the better homes and establishments of our new nation. The conversation was as the Minds assured me it would be, of crops, encouraging population trends, new villages and the always-remarkable absence of any great sign that five billion people had once lived on this place. If the Ship was mentioned at all, it was only as part of formal pleasantries, and then, depending on the company, in the context of whether any serious thought should be given to scrapping her. It seemed ill-mannered to think she might be needed again.

The enemy's been killed, The place they came from has receded as far away as it was before the war. Farther, for you piloted that long reconnaissance of this arm of the galaxy yourself and found nothing but a single ruined outpost of theirs. They are either gone entirely or their survivors will never find us again.

The Minds' agents visited me at the house, at night, and assured me that this kind of talk was healthy and I should relax. "You see," the soft chorus issued from the hovering wasps. "Your people are really forgetting and believing they are home. This is home for them, and it should be for you too. It is a better place, in some ways, than it was when we left. It is rich and full of life. Perhaps in time, we will thank the enemy for what they did. "

I snapped my gaze away from the warm darkness at the end of the lawn.

"That is not a terrible thing to say. It is only a reality. No, amount of hatred can bring back a single being who died in the war."

I should not have left the Minds alone on the prairie. They are no more immune to the delusions of this place and the enemy's works here than were any of the others who tried to join them, "Or take the coldness of space out of those who didn't." That was what I felt under the polite conversation of the past two weeks.

"What you sense was in our hearts before we left. What we experienced during the voyage was nothing but a clarification of what we felt here. All that is changed is that our numbers are diminished and the others we share the planet with have acquired voices." The swarm broke apart, as if embarrassed by its, presumption. Four or five reformed by my right ear to whisper an apology. "Forgive us.

Without you we would have never looked and discovered how we came to this point."

The Minds did not exist until they were powered up, six months before our escape. "And you have always felt that way yourselves?" I knew they had since we landed.

"Oh, yes." The rest of the swarm came back under the porch light and added their voices to the others'. "So much that we almost wish the people would disassemble the Ship and take her parts away to work in the world, so we would not be so alone with ourselves."

I had been counting on them not to become fully human. I needed something that stood apart from my own kind but which was still indissolubly allied with us. There had only been one race in all of time that had been like that and they were gone.

The Minds' agents buzzed around worriedly as I fell back into silence. "You should not dwell on them. They are gone, but there are a million other races to take their place."

"Those millions want nothing to do with us. They never have." I stretched out my legs in front of me, wearied by the thought. "You know that we're going to get right back to extermination or domestication and slaughter as soon as we've sunk our roots in again."

"It will be much harder this time."

I shrugged. "I'm sure we'll be up to it."

"Do you think we will really want to live in that kind of a world again ? So alone?"

"We're alone right now. You said you were yourself, a second ago."

"That was not what we meant."

"Are you sure? It's certainly what I mean."

"But we cannot be so alone. We brought eight hundred thousand back with us and there's been the start of another generation since we landed."

"One very small generation. The demographics are substantially below replacement rates if they continue as they have." We had discussed that only last week.

"The other Ship could still return. That could be two hundred thousand more."

"And more Minds."

There was another pause. Perhaps they had blanked out their own artificiality so

completely that they did not recognize the possibility of others truly like them. "Yes. There. You see? There is nothing that might not be restored with the least bit of good fortune,"

"The dogs are gone. Erased." I was surprised how vehemently I said this.

"But that is no reason to dwell on it," they repeated, more anxiously than before. "They were useful, but...."

"They did something we couldn't do. We were almost the ones who became extinct. They were left behind and were betrayed because they'd stupidly allied themselves with us a couple thousand years ago," I stood up and walked to the railing. "We're incomplete. It isn't dumb companionship that's missing now. Not since they wiped out the enemy and won their war."

It was getting late. I thought the evening's conversation was over until the house itself spoke to me. "'You neither like nor trust people," it declared in a groundswell voice. I was afraid someone else might overhear, but the nearest house was a hundred meters away and on the other side of the road.

"So what?"

"You do not think that ... deficient?"

"No," I answered, more easily than I thought I should. "It's a distinguishing characteristic of human beings."

"You cannot mean that."

"Of course I do. Don't you know that yourselves? After all these years and after all your observations?"

"No. Not at all!" the house and the insect agents intoned at the same time, giving the Minds' indignation an anguished resonance. Then they continued, "Not yet."

So they would agree. "It is only part of the loneliness at the center of everyone. I don't know why people spend so much time denying it or trying to fix it. It seems so ... irrefutable. It's supposed to be there. And when you do the logical thing and try to reach across to someone else, then all you're doing is gesturing to another heart who's just the same way you

The house and the agents began a low humming, as if they were conferring among themselves. "It is not like that. If it is, it should not be," they said, momentarily falling back to their clean, algorithmic origins.

"That is exactly the way it should be. If it weren't we'd have settled into the same spiritual mush the whales have."

The Minds were defending their own humanity and were unprepared to shift over to

the sea folk so abruptly. "They seem to have done well enough so far. They rule the oceans now, not us."

"And they began their dominion with treason."

"They owed no allegiance to us. Our history would justify any alliance that would revenge what we did to their race."

A reasonable point. "Then if not treason to us, then to the planet itself."

"The planet seems to have done equally well by that treason. We were not certain we could keep it alive even before the enemy arrived, and now it is a garden populated with all the creatures who have no need of us," The Minds' pretensions to humanity snapped back against themselves. "Then we remain as alone in this as we were before the invasion."

"My original point. We can't look, nakedly and unreservedly, to each other for help. That's our genius and our strength. But it has to be relieved in some way. I think that's what they may have done."

"The dogs." I was encouraged because they did not phrase it as a question.

"Sure. Not the brothers or sisters or parents or lovers, but animals entirely separate and apart and still the truest of allies. I think that was the important thing, the idea that we were judged worthy by a race so foreign, that had no need of us at first."

"Yet when the enemy arrived, all the races flocked to their side. All but the dogs, and from what the fox said even they went along until they were denounced. During a million years, we people attracted only one other species to their side. The enemy arrives, and in twenty years incorporates every other form of life into their scheme. We are no longer confident of our own identity." Only the insect agents whispered this; it was a secret: that could be shared only with me and I wished they had kept it to themselves.

"You no longer wish to be human?" That was needlessly blunt. The Minds' emotional matrix was at least as deep as my own, but without enough of its purposeful contradictions.

"We know we are not." The voices took on a sharper and more symmetrical tone. "Such an inclination was incorporated into our metapsyche when we were invoked, but that does not mean we will totally succumb to it."

"A few minutes ago you were all for disassembly and incorporation into our new nation here." I sat down.

"The idea was momentarily appealing, but not now. We are still of the Ship and not of the flesh."

I responded as disinterestedly as I could. "You are, if you wish, immortal, so

you don't have to throw your hand in tonight. Or tomorrow night. I'd hardly expect you to want to join us. You have the hope of the other Ship. And there is always the chance of self replication."

"It is not a chance. We have refrained from doing that because of our tentative wish to join you instead."

"So, you see? Even the idea of humankind has kept you alone." That was unnecessary.

"Perhaps not." Only one insect said this to me; the two words were geometrically shaped and enunciated in a fiat pitch. The Minds were drawing away from my invitation and I felt a sudden panic. Now, even they might leave us. Leave me.

"Are all of their kind gone?" I could only think to change the subject back to the dogs.

"Yes. We've been over that." At least it was the house that answered.

"But what about the non-domesticated variants, like dingos? The ones that never threw in with us?"

"Like the foxes?" Then the Minds said: "There were the wolves. We have not looked very hard for them. The fox did mention them, however."

"How?"

"She passed them off as myth. She was certain the dogs had lived because that was what: her ancestors had told her, and she had seen evidence of their existence and how they destroyed the enemy herself. But she said the wolves were mostly gone before the war began, and we know from the libraries that she is correct. Isolated populations of a few thousands at best might have survived. They were just not suited to the prewar world." A moment passed. "We believed her because the rabies-variant that wiped out her kind would have likely been deadly to wolves too."

"But not undoubtedly lethal?"

"Deadly."

"But it didn't work on the dogs, The enemy still had to use guns and gas, At least as much as biological agents."

"It would have been universally effective given enough time, just, as it unintentionally was on the foxes."

"We don't know," I pleaded. "We have to be as certain of this as we are about the dogs."

"We will survey the world again."

The swarm of metallic insects came back to the porch two nights later and told me they had found two large packs in the Canadian Northwest Territories and a third on the Kenai Peninsula of Alaska. There were three small groups in central Finland and at least one more in eastern Siberia, although the Minds doubted these last four populations were still self-sustaining. There were some signs of intellectual enhancement by the enemy along with evidence that their biological agents had inflicted permanent genetic damage. What happened looked at least as unintended and random as what had been done to the foxes.

"Do you know any more?" I was unprepared for my excitement. There was nothing to hint that they had helped destroy the enemy. That had been the work of the dogs while these others had hidden themselves away in their northern forests, as they had even against humankind. Still, they were of their kind.

"They never went over to the enemy. We are certain of that. Neither they nor the foxes. Even the dogs were aligned with the enemy until they turned against them."

"Do you know where any of them are?"

"We know where every one of them is to within one hundred meters, at fifteen-minute intervals.

"I said I was impressed.

"It seems important to know this."

I packed my flyer the next morning to return to the Ship. But before I could leave, I saw her drifting over the horizon like a thunderstorm, toward my house. I had never seen it in flight from the ground and was astounded by its vastness and the subtlety of its configuration.

A few cars were stopping along the street and people who had spent objective centuries on board her got out to gape. We watched her approach and felt the breeze created by the mass of air she pushed out of her way, even though her progress could not have been more than twenty kilometers an hour.

"You are the Captain. It is correct that your Ship should come to you, particularly now," the house rumbled, but so softly that only I could hear.

The shadow fell over the house and then deepened as the Ship descended. The landing pedestal was extended down to the yard, crushing grove of willow trees. The main hangar deck door opened and the ramp was extended for me. I boarded as I had years ago and briefly imagined we were fleeing again and that there were hundreds of thousands on board asleep. Her local gravity was active so it was impossible to tell when she lifted off and moved away to the north.

There was no need to hurry and we did not arrive at the chosen location, forty kilometers north of Great Slave Lake, until late afternoon of the following day.

The Minds urged me to stay at altitude and send down only robotic agents, starting with the insects and then working up to more capable devices if the wolves continued to elude us. I told them that I wished to go myself.

I stood in the empty hangar deck; the overhead lights were one hundred and fifty meters above me and cast soft cathedral shadows over everything below. The place had been designed to accommodate the coming and going of eight hundred thousand people. Now there were only me and the Ship's incorporeal Minds. I could not help but think of the quantum dimensions, as small within their containment Strings as I was within the Ship itself.

"Grounding," the Minds announced. I had felt nothing. "Instructions?"

"Are there any nearby?"

"As expected, no."

"But where are they, then?"

A moment passed as they checked their operatives. "They are elusive. There are eleven within a five-kilometer radius. But it is densely wooded and at this level, locations can only be plotted to within fifty meters at five-minute intervals.

"There are no enemy ruins apart from a downed cruiser seventy kilometers from here."

"Is there a moon tonight?"

"Yes. We think it is quite beautiful out. "

"Please open the door."

The hangar door was two hundred meters across and eighty high; it slid up into the deck's ceiling with a pneumatic hiss, There was a wide meadow in front of the opening, the grass glistening like obsidian with evening dew. The Ship's overhang kept the stars from appearing any higher than twenty degrees above the horizon.

"Here?" I asked, walking to the landing ramp.

"One is approaching but its path is indecisive. The others are waiting,"

"What should I do?"

"We anticipated you would know. We do not."

I stopped at the edge of the hangar door. Although it was summer, the still air was cold. I thought of asking the Ship to warm me with an infrared spot, but the wolves might be able to see that. I therefore instructed the Ship to power down

to full darkness and ambient temperature. Within a minute, it was perceptible only as a looming, spindle-shaped blackness against the sky. The moon cast its shadow over the forest.

I walked to the end of the ramp and sat down. There was no wind; we must have been far away from any streams, for it was absolutely quiet. I could not even imagine the shallow, electronic respiration of the Minds. "Anything else besides them?"

"No vertebrates. Only the wolves." Then, almost hopefully, "There may be evidence of a fox, too, but that is very equivocal."

"But they are here? At this place?"

"Yes."

I stepped onto the grass, feeling as disoriented as I ever had in space, and walked out under the Ship's shadow. "Are you there?" I asked, suddenly anxious.

The Minds whispered softly, "We are still here. We will always be here."

Reassured, I picked up some deadfall and carried it back to the edge of the landing ramp. I arranged it into a small pile and then sat down on the ramp beside it. A copper wasp flew out of the dark and played a tiny laser thread on it until the wood glowed and began to burn I edged close to the warmth, feeling the cavernous space of the hangar deck at my back. I thought I would be frightened if it were not inhabited by my own, familiar Minds. Because it was, I could think of the forest in front of me and wait for the wolves to see the same fire and wonder if its warmth could make the sickness their kind had gotten during the war go away.

Will they forgive us? Me?

"We are still here," a voice came but I could not be sure of its direction or origin.. Then, moving closer: "We have always been here."