

The Pirates of Pangaea:

An Accidental Alliance

by

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Author's Foreword

The Pirates of Pangaea. The phrase just sort of popped into my head one evening. I'm not even sure how original it is. I'm fairly sure I never heard anything like it before. Although while an Internet search showed I was not the only one to come up with the name, I found nothing like this so felt comfortable enough to proceed to figure out something to do with the name.

My first thought was that I wanted with to be a science fiction series, but how to get my pirates back two hundred million years in the past? More important; how to do it in a manner I could personally believe. Time travel? Yeah, okay, but frankly I already have a time travel series and if they could go back in time, why not return to the present. Other writers have postulated one-way time travel so that was only a slight problem, but I really did not care to envision Errol Flynn raiding other ships on the seas of Permian Pangaea. I felt it would involve a fully established civilization and frankly I found it as jarring as movies that pit cavemen against dinosaurs. It never happened and I wasn't about to write a story that said it did, or even could have.

Further research acquainted me with the work of Christopher R. Scotese of the Paleomap Project (www.scotese.com). Doctor Scotese has done some amazing work in the field of understanding plate tectonics and his site is a great demonstration of how the Earth has changed over the course of time. The animations on his site start back in the Precambrian Epoch some 750 Million Years ago and come forward to the present day. I spent a long time watching how the world develops and the land masses of Earth came to be as they are today. But those maps do not end in the present. Instead they go forward into the future until the next Pangaea – Pangaea Proxima – is formed. There is some debate as to just what that world will look like as the further one postulates tectonic plate movements into the future the

less certain those predictions become.

So I chose one of the several projections I found and built my world around that. Is this what the world will really look like in two hundred fifty million years? I don't know and I'm fairly certain no one really does, but this is one of the possible projections and it makes a fine world to write a story on.

Once I had that the rest just fell together. Hope you enjoy it.

Jonathan Feinstein
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Prologue

Rome is the Eternal City, Parker Holman mused as his flight came in low over Lake Erie, *but Cleveland is the eternally changing city*. He looked south from his window seat and spotted the city's signature New Terminal Tower. It had replaced a structure with a similar name seventy years earlier. Standing at over twenty-nine hundred feet from street level to the top of its spire, it had been the world's tallest building for nearly fifty years.

The Forest City, Park remembered Cleveland's traditional nickname. Looking out the plane's window there was not a lot of greenery to see in the downtown area, but beyond that the city still lived up to her name.

"We are on our final approach to Cleveland Hopkins International," a woman's voice could be heard throughout the long cabin. "Please fasten your seat belts and return your tray tables to the seat backs in front of you and put your seats into their full upright positions." Park, a veteran flier, had already done so, but he slipped the in-flight magazine back into the seat pocket in front of him. He had read the articles in it, and while he had considered taking the complementary publication with him for an article on asteroids and meteorites, he decided against it. There was nothing in the piece he did not already know.

Then the plane's pilot corrected their approach and all Park could see were the western suburbs of the great city rushing past beneath him in a gray-green blur. After another few minutes the blur resolved itself into the black pavement and white lines of the runway and with a slight bump, the plane touched down once, bounced a little and then touched down once again and this time stayed on the pavement as the powerful engines roared to slow them down still more.

To Park's annoyance, the plane seemed to take nearly as much time to find the gate as it had flying in from Boston. That was a bit of an exaggeration and he counseled himself to patience as the large jet taxied to its assigned gate. Time slowed still more as he waited for permission to leave his seat, but finally the flight attendant's voice returned to wish the passengers on their ways and Park jostled with his fellows

to retrieve his carry-on bag from the overhead compartment.

He was travelling lightly; just a change of clothing and a few mementos, an ultra-thin computer pad and a compass. He didn't need the compass, of course. He was not going anywhere such a device would be needed, but for reasons he could never explain, he had carried the old compass with him every time he left home. Nothing special in the way of compasses, in fact, it was the same device he had used decades earlier as a Boy Scout, but he felt a certain amount of comfort knowing it was in his bag.

If he was to be honest with himself, he wouldn't need the computer pad either. There would be no shortage of terminals and pads for him to use, but unlike the compass, this was a specially customized device and he had spent months configuring it to his desires. He would rather put up with the bother of lugging it around with him than have to start all over with unfamiliar equipment.

He had flown into Cleveland Hopkins a dozen times before and by now could navigate his way down the long concourse without paying attention to his surroundings. This lack of attention was shared by a woman with dark brown hair and who stood a few inches shorter than Park, had she been standing. She was walking as briskly as he was and on a converging course while trying to read a pamphlet, when they suddenly collided and tripped each other.

Both man and woman instinctively rolled as they dropped to the floor and ended up entangled in each other's arms. "Excuse me," the woman apologized instantly. "I should have been watching where I was going."

"No, I'm sure it was my fault," Park told her as they started to disentangle themselves. He stopped as he found himself looking deeply into her dark brown eyes. The woman was maybe a few years younger than he was, in her mid-thirties at the most, and she wore her deep brown hair medium-length in a style that made her face look almost heart-shaped. "I was distracted," he murmured. *I'm still distracted*, he thought whimsically.

The woman looked back at him. She saw an attractive man of medium height with sandy-brown hair and gray eyes. There was something about him that made her unwilling to leave his accidental embrace, but finally both drew a deep breath together and helped each other to their feet.

"Parker Holman," he introduced himself, wondering why he bothered. He wasn't going to have time for dinner dates any time soon. As he took half a step back he finally got a better view of the woman. She was dressed in a style currently thought of as corporate casual in shades of tan and green. It was a sensible and comfortable outfit that none-the-less conveyed a businesslike attitude far more so than the Hawaiian shirt and khakis Park was wearing. A glint of gold diverted his eyes to her neck where he spotted a small pendant bearing the Hebrew letters chet and yod which Park recognized as "Chai," the word for "Life."

"Iris Fain," she replied with a slight catch in her voice. "Pleased to meet you, Mister Holman."

"Park, Ms Fain," he automatically corrected her.

"Iris, Park," she replied in return.

It was only as an afterthought that Park realized they were surrounded by hundreds of people all hurrying on their way down the concourse. He checked his watch and decided to throw his own schedule out the window. "May I buy you a cup of coffee, Iris?" he asked.

“That would be . . .,” she began, a soft smile on her face. Then her expression changed abruptly to one of mild sorrow, “I’m sorry, Park,” she told him. “I have pressing business elsewhere.”

Park wanted to ask for her number and immediately silenced himself. God alone knew when he might be able to call her. He sighed and nodded, “So do I, unfortunately.”

“I’d have loved to, though,” she assured him as they started walking down the concourse again.

They didn’t talk to each other all the way, but each occasionally stole a glance at the other. When they did so, a look of regret would flash across their eyes and then would be instantly hidden with a slight smile. Park was trying to find the right words to bid farewell to Iris when they both spotted a tall gray-haired man holding up a cardboard sign emblazoned with the block letters, “PVW.” There were three other men with similar signs nearby.

“Oh,” Iris noted almost clinically, “There’s my contact.”

“Really?” Park asked, suddenly hopeful once more. “Mine too.”

Iris turned to look at him, unable to hide a crooked smile. “That’s nice,” she blurted enthusiastically. “Really nice.”

“Parker!” the other man called out, “Miss Fain! Over here!” Park and Iris approached the older man. “I wasn’t aware you two knew each other.”

“We’re old friends,” Iris replied whimsically, “who just met. Are you Colonel Theoday?”

“Arnsley,” he replied, “or Arn. “This is not a military project and I retired five years ago. My students call me Doctor these days, but there is no need for formality.”

“It may not be military,” Park observed, “but I had the impression the military had its hand in it.”

“Not as much as we feared they might, Parker,” Arn replied. “Only ten percent of our volunteers are actively serving.”

“And how many are either in the reserves or retired like you are?” Park asked pointedly.

“Another twenty percent,” Arn admitted reluctantly, “but it was the only way to get sufficient funding and you know why Project Van Winkle is necessary.”

“I’m not completely convinced it’s necessary,” Park replied, “but it does seem like a reasonable precaution. Wait a minute, are you saying this is not just another extended drill?”

“Not this time, Parker,” Arn told him. “We have all five thousand of us coming in at once. We’ll be at full strength by this time tomorrow.”

“Why?” Park asked.

Arn looked around the lobby and shook his head. “Not here. There will be a briefing tomorrow night but if you want to know before that, you’ll get most of the information off the project computers. There’s a pad in each room.”

"I brought my own again," Park told him.

"You still don't trust the project equipment?" Arn looked amused.

"What's to trust or distrust?" Park shrugged. "I just happen to like the way my pad is set up. It would take days to get another the way I like it."

"Very well," Arn shook his head. "You never were one for following the pack, were you?"

"It's why I never bothered to enter the military after ROTC," Park told him. "I could see it would do no good for me or our country. There are other ways to serve."

"Yes," Arn agreed. It had been an old argument. "Why don't you two find seats on one of the buses just outside? They'll be leaving as they fill and the sooner you get to the base, the sooner you can get settled in."

The buses were fairly standard for their sort – land-liners than had been chartered to carry the five thousand men and women, in forty-man lots to a secret location somewhere to the east of Cleveland. "Have you known the colonel very long?" Iris asked Park as they found a pair of seats together on the second bus in the line.

"About twenty years," Park nodded. "He was one of the military teachers when I was in college and joined the ROTC there."

"How did you go through reserve officer training and then not actually serve in one of the armed forces?" she asked.

"I wasn't on scholarship," Park explained. "I originally enrolled because I wanted to, not for the scholarship money. It didn't work out. I stayed in the corps for the entire four years because I didn't want to think of myself as a quitter, but when I was finished I decided I was more cut out for graduate school than the Aerospace Force."

"Why didn't it work out?" Iris pressed.

"Most people will tell you that people are divided up into leaders and followers, alphas and betas," Park told her. "I'm neither. When it comes to a leadership structure, I'm more like the lone wolf who prefers to hunt on his own."

"An omega then," Iris concluded, nodding.

"So some might say," Park agreed. "I see that whole classification system as just a lazy man's way of peg boarding people. It's easier than to consider we are all individuals. I'm just a bit more individualistic than most, I guess."

"I think I could give you a run for your money," Iris chuckled as though to a private joke. "What is your specialty?"

"I don't have one," Park laughed. "Not really. I have degrees in Classics, Religion, Linguistics, Military History, of course, Chemistry and Biology and had I bothered to put the academic hours together, another five or six fields as well." When Iris looked impressed, Park chuckled and shrugged the matter off as inconsequential, "I like to think of myself as a professional dilettante. How about you?"

"I'd love to call myself that too," she laughed, "but all my training is in mechanical and civil engineering."

"Schools?" he pressed.

"MIT and Case Tech," she replied.

"So this is not your first trip to Cleveland either, then?" Park asked.

"Hardly," Iris chuckled. "I know the Mistake on the Lake like a dear old friend. If we had the time, I'd take you to some of my favorite off-campus dives."

"Sounds like fun," Park admitted. "It will be the project's cafeteria for us though, I'm afraid. Have you been out here before?"

"Not yet," Iris admitted, "I trained in the smaller facility in Vermont. Not that much training was required and it gave me a chance to visit family."

"So you're from Vermont originally?" Park asked.

"A Green Mountain girl born and bred," she told him proudly. "How about you? I have you pegged as growing up in a desert."

"Not hardly," Park laughed. "I grew up on Cape Cod, compared to some of our compatriots we're practically neighbors."

"Well, I always did prefer New England boys," she told him flirtingly.

It took nearly an hour to get to a small gatehouse behind which there was nothing to see except for a low, grass-covered hill, but as their bus drove around the hill a wide door came into view. The passengers disembarked and walked through the large doorway where they were quickly directed to their rooms.

The main hold-up was in waiting for the elevator. It was large for its breed and could accommodate fifty adults but it was slow to arrive and even slower to begin its long descent into the subterranean base of Project Van Winkle.

"Just how far down are we going?" Iris asked after the first minute.

"The base is actually inside an old abandoned salt mine about three thousand feet down or more," Park told her. "Well I say it's an old salt mine, but from what Arn told me last time I was here, the mine was just a start. We excavated in every direction once the elevator shaft was cut."

"Wasn't there a mine shaft here already?" Iris asked.

"The salt wasn't mined by hand or physical equipment," Park explained. "The Morton company sunk pipes down here and sent tons of water down to dissolve the salt and carry it back up to the surface. There the water was evaporated out of the brine and the resulting salt was purified and processed for its various uses. What the builders actually found down here were seams and chambers filled with somewhat salty water. They might have been better off building elsewhere for all the headstart the old mine gave

them, but I was not part of the project ten years ago when they were doing that. Ah! We've hit bottom at last."

The base might have been built in an old mine, but the halls the people in the elevator found were all brightly lit, clean and dry. Aside from the lack of windows, there was no sign, in fact, that they were even underground and could have been in any large office building.

"This way," a short woman with light red hair directed them toward several tables. "Last names beginning with A to E table on; F to K at the second table and so forth."

"Ah, they've given me my usual room," Park noted as he stepped away from the second table with an information packet. Then he asked Iris, "Where will you be staying?"

"Room 506," she replied. "Where's that?"

"Well, it seems we're still neighbors," Park remarked delightedly.

"You couldn't have arranged adjoining rooms," Iris told him.

"Hardly," he laughed. "None of these temporary quarters has doors directly between them. You are, however, conveniently across the hall from me and only one door down. Direction there, to the communal bathrooms, cafeterias and all and in the briefing packet, but I'll show you the way and then give you the two-bit tour as well."

The base of Project Van Winkle was transforming from a nearly deserted, albeit well-furnished, hole in the ground into a bustling miniature city with more bus-loads arriving almost constantly. To avoid the in-coming confusion, Park and Iris ate in the cafeteria quickly before going off to a makeshift theatre room to watch a film. The feature was three years old and had not been very well received at the time, but the cartoons that came before and after were worth the time. Finally they ended up in one of the fifty lounges where they met some of the other members of the project.

Everyone there knew more or less what they had signed up for, but it was not until the next evening that they got the specifics. "Ladies, gentlemen," Arn Theoday called for attention, "Welcome at last to Project Van Winkle. You have already been briefed about our purpose but our grant from NATO requires me to tell you once more. Please bear with me.

"Eight years ago, July of 2089, a large near-earth object or NEO was discovered and named Asteroid 2089JL43. As you may recall, the asteroid came very close to earth and actually passed through the upper atmosphere. Its close proximity to Earth combined with another near miss with the Moon put 2089JL43 into a new orbit, one which will bring it perilously close to striking the Earth in just two weeks.

"Further, I doubt any of us are unacquainted with the current political situation in the world," Arn went on. "Even before the discovery of 2089JL43 there had been increasing tensions between the nations of NATO, Russia, China and the so-called Arab Axis and, of course, all their allies. These tensions have brought our world closer to a nuclear war than the new agencies would have you believe. I can tell you with certainty that the United States' nuclear arsenal has been fully armed and ready to deploy five times in the last decade and has been on stand-by for most of the rest of that time."

There was a collective gasp from around the large auditorium. Only about half of the volunteers had come from the United States, the rest had been culled from the best the other NATO nations had to

offer. Everyone had known there were tensions in the world and small wars had broken out here and there for most of the Twenty-first Century, but to think nuclear arms had been seriously close to deployment was more than any wanted to believe.”

“At the moment our best guess is that there is a fifty/fifty chance of a direct strike by 2089JL43,” Arn told them. “As bad as that sounds, most scientists believe it will miss and that the resulting change in orbit will send it out of harm’s way. Because of its size, a direct impact is expected to destroy civilization as we know it and possibly cause mass extinctions comparable to a similar impact at the end of the Cretaceous Epoch.”

“What’s the good news?” Park asked from his seat near the back of the hall. Iris snorted as she tried to stifle a laugh, but in the rest of the hall many of the people were chuckling openly.

Arn scowled a moment before flashing everyone a strained grin. “The good news is that the experts tell us that fifty-fifty is a long shot and that they are constantly revising their estimates as the asteroid comes closer. Officially we had a sixty percent chance of a strike yesterday and most expert feel that the chance of a strike will drop to nil within the next week and a half. It will be a bright object streaking across the sky and a few loose pebbles may cause some fireworks, but they’re pretty sure we’re safe this time.

“Even so,” Arn continued, “We have been assembled in case someone is wrong. Project Van Winkle was conceived over ten years ago for the purpose of safely protecting sufficient experts in a wide variety of fields so that if the worst should happen our technology and civilization can be rebuilt.”

“From only five thousand people?” Iris asked skeptically, her voice floating though the large hall.

“Fifteen thousand would have been preferable, but we have not had the time to find that many,” Arn explained, holes showing in his patience. “According to the projections I have read forty-five hundred is the minimal number we will need.”

“What?” another woman closer to the front of the hall asked challengingly. “To repopulate the Earth?” She sounded indignant at the suggestion. Park and Iris craned their necks to see who had spoken.

“I recognize her,” Iris whispered to Park. “Veronica Sheetz. She’s an excellent engineer. We were at MIT together. The only way Arn will get her to repopulate the earth will be if he can figure out parthenogenesis.”

“Not really Arn’s specialty,” Park told her. Then what she had said sunk in. “Oh, she’s more likely to have a girlfriend? I doubt she’s the only one.”

Arn, however was already answering the question, “We do not expect to be the only humans left in the world and there is a safety buffer for those of us unable or without the inclination to reproduce even if that is the case. People, we’re getting off the subject. The asteroid is not considered sufficiently dangerous to have gathered you all here. The state of international politics is.

“That one of the other four great powers and their allies will try to use the confusion caused by the approaching asteroid to launch a conflict with the goal of increasing their power and influence. Since all four alliances have nuclear weapons, it is feared that conflict may well involve their use,” Arn concluded.

“Arn,” Park called from the back, he and Iris walked forward through the hall as he continued.

“What are the real chances of that happening.”

“It’s not about dropping the bomb, Park,” Arn told him tiredly, “but about making the other sides think you will. It’s an International game of chicken. The first one to blink loses.”

“It would be better if everyone blinks together,” Park replied, “and then goes and puts their silly, dangerous toys away.”

“Yes that would be better,” Arn agreed reluctantly, “and it is likely that’s precisely what will happen again. Our job, however, is to wait until they do just that or else until the consequences of their stupidity have passed.”

“How long will we have to stay down here?” a man near the front asked. “The radiation from a nuclear war would last a very long time. How do we know we have enough food and water and air?”

“That is the least of our worries,” Arn assured him. “Project Van Winkle was so named because we will be stored here in stasis until the danger has passed and will then be released.”

“Stasis?” the man argued. “Do you mean cryogenic suspension?”

“No. Cryogenesis doesn’t work as well as we once hoped,” Arn replied.

“I’ll say!” another man cut in. “It’s certain death.”

“Actually, test subjects had a sixty percent survival rate,” Arn told him, “but obviously that was not good enough even for government work.” Finally Arn managed to get a chuckle out of the crowd. “Instead there has been a break-through in temporal physics in the last year, leading to something we are calling a stasis chamber.”

“Did you get the name for that out of a comic book?” Veronica Sheetz asked, unimpressed.

“As a matter of fact, we did,” Arn nodded, “but all you need to know is from the moment we close the door to the moment it opens not so much as a nanosecond will have passed.”

“Really?” Park asked curiously. “How does that work?”

“It’s something to do with magnetic fields and certain kinds of energy,” Arn replied evasively. He took a deep breath and continued, “Well to tell the truth I didn’t understand the explanation, but the fact is it works. I’ve already tried it for myself and I can assure you all that you won’t even have a chance to dream. You see the door close and you see it open and that’s it.”

“You say we have a very small chance of a direct strike by 2089JL43,” someone in the middle of the hall pointed out, “and then there’s a small chance of a nuclear war. Let’s say the worst happens and both occur, how will we know it is safe to come out?”

“That will be taken care of automatically by our base computer,” Arn told him. “Our computers are in constant touch with an array of satellites, microwave relays and landlines that connect us with the outside world. In the remote chance that the base loses contact with all of those, it will continue to monitor the external environment and wake us up when conditions outside have become survivable once

more.”

The questions continued on for another hour but they were mostly variations on those already asked and after a few minutes, Park signaled to Iris they might as well leave the meeting. “We’ll be told when to report to the stasis room through our terminals,” he told her. “Most likely tonight if my guess is right. Why don’t we go dancing?”

“Do we have a dance room?” Iris asked, sounding surprise.

“Well there’s no one in the hall between our rooms right now,” Park laughed.

“You’re silly,” she laughed, “I like that.”

Nine hours later a gentle but persistent pinging sound filled Park’s room. He automatically reached to hit the snooze button but abruptly stopped when Iris laughed. “Silly, it’s your terminal,” she told him. She wrapped a sheet modestly around her as she sat up in bed and leaned over to read the screen.

“We’ve been summoned,” she told him. “According to this, everyone in our section is to have a last meal and report to the stasis chamber.”

“Now why should we need to eat before stasis?” Park wondered as he started getting dressed.

“We don’t need to,” Iris replied, picking her clothes up from a nearby chair, “but it’s nice to know we won’t come out of stasis ravenous for our next meal, isn’t it?” She stepped toward the door, still garbed only in Park’s sheet. “I’m just going to slip into my room and put on something fresh. I’ll meet you in a few minutes.”

Park grunted his acknowledgement and continued dressing. Once that was done he packed his computer pad into his small bag with his one change of clothing and left the room.

“Do we need to take our bags?” Iris asked as she met him in the hall. Others were already headed past them on their way to the cafeteria.

“That’s up to you,” Park shrugged. “I have a few things in here I’d like to keep, and they should keep just fine with me in stasis.” Iris nodded and retrieved her things as well.

After breakfast the nurse who helped their section into the stasis booths told him, “There’s really no need to hold those bags. They would have been fine for two weeks in your rooms.”

“Will they inhibit the stasis process in anyway?” Park asked pointedly.

“Well, no,” the nurse replied uncertainly. “I was told nothing can interfere with the process.”

“Then we’ll keep these with us, if you don’t mind,” Park replied with his usual smile.

“But you’ll be crowded in the tube with those bags,” she protested.

“We won’t be there long enough to notice,” Park laughed this time.

The nurse shrugged and helped Iris into the clear electro-plastic tube of her stasis chamber. Park

blew Iris a kiss just as the lid swung down and Iris was frozen with the beginning of a smile on her lips.

Next Park stepped into the tube, remembered an old cartoon and as the lid closed down, he shouted, “To Infinity a...”

Part 1 Wakey, Wakey, Eggs n’ Bakey!

One

“...nd beyond!” Park finished as the lid of his tube swung gently open. “Hey! Who turned out the lights?”

There was no light in the room, but it was filled with the sounds of forty-nine other people coming out of stasis. Most of the sounds were of mild astonishment but a nearby voice asked, “What are you complaining about now, Park?”

Park recognized the voice of Peter Spechny. He and Iris had met him on the first night after their arrival at Van Winkle Base. He was a tall man with long light brown hair and a tendency to lean forward as you spoke to him. As Park recalled, Peter was a computer programmer from New Jersey and had been mildly interested in Park’s customized computer pad.

“You like it in the dark, Pete?” Park snapped back. “Why are the lights turned off?”

“Cost saving, I’ll bet,” Pete countered. “Why leave them on if we’re in stasis and can’t see them anyway?”

“They were supposed to come back on immediately on our release,” Park pointed out. “It was in the briefing packet, you know.”

“Park, is that you?” Iris asked from his other side. There were other worried voices in the room and Park understood he would have to say or do something reassuring.

“Who else?” he laughed confidently. “I think Congress must have cut our funding. Hey, folks! I’m going to get up and make my way to the door. Stay in your units until I find the light switch, okay?”

Most of the others made sounds of agreement, but Pete demanded, “Why you, Park?”

“It was my idea,” Park told him, “so I get the honor of stubbing my toes if someone’s been in here moving the furniture since we went to sleep.”

Park made his way across the room and with only a bit of fumbling found the door and the light switch next to it. “Okay, everyone. Shield your eyes!” he paused a moment, then flipped the switch and nothing happened. “Now I know Congress cut our funding,” he remarked sourly.

“Try opening the door,” someone suggested.

Park tried the handle and reported, “It seems to be stuck. I could use a few hands. Maybe we can push it open.”

It took another ten minutes, but finally they got the heavy door open enough to slip through. “There are some lights on down the corridor,” Iris reported, having been the first to step out of the room. “The air is cold and smells a bit funny though. I think it’s a little stale.”

Park took a sniff. “It won’t kill us,” he decided. “Let’s go see if we can find out what’s going on. I’ll just go back for my bag.”

“I have it,” Iris assured him and handed him the small pack in the gloomy second-hand light of the hallway. “Why should that door have been stuck?” she went on to wonder. “It was aluminum bronze. Not all that susceptible to corrosion.”

“The hinges probably need oiling,” someone remarked as they started walking toward the lit section of hallway. Along the way they tried the doors to what had been their assigned rooms finding them all stuck to one degree or other. Some could be opened with difficulty, but others may have been welded shut for all their efforts could produce.

There was only one light to illuminate the end of the corridor and the door that blocked it, but the door did not seem to be stuck and, in fact opened quite easily to reveal a brightly lit hallway on the other side. Save for the lights and fresher smelling air, it was nearly identical to the one they had just left, with fifty small bedrooms and a somewhat larger one with stasis chambers inside.

“Should we let them out, do you think?” one of the women, Tina Linea, asked Park. Tina was tall with wavy blonde hair and blue eyes that made her look like a character from a beer bottle, but Park recalled from their earlier meeting that she was actually an accomplished Navy pilot.

“Everything seems to be working just fine in here,” Park decided. “Let’s let them sleep for now. Fifty of us are enough to figure out what happened. We can wake up the others once we have our bearings.” He expected an argument over that, but to his surprised everyone just nodded and followed him out of

the room.

There was a stairway and an elevator at the end of this corridor and Park knew beyond that were another two sections of living quarters and stasis rooms. The elevator did not seem to be working. He was not surprised, so he led everyone up two flights of stairs to the cafeteria level. On arriving they found another fifty men and women sitting quietly at the tables nearest the kitchen while others were in the kitchen, apparently looking for something to eat.

Arn was standing on the floor between the tables talking in firm authoritative tones, but broke off when he saw Park and the people from his section entering the cavernous hall. "Ah, Parker!" Arn called out. "Good. Is anyone else up, do you know?"

"Not that we saw," Park replied, "but we haven't been exploring yet. At least some of the stasis chambers are still working. I was planning to check out Central Ops to see if I could figure out what's going on. Speaking of going on, how long have your lot been awake? I still feel like I just ate, but you look like you're getting ready to fix breakfast."

Arn took Park aside from the others and Iris chose to follow them. "Had to make sure they had something to do. People panic when you don't give them proper direction."

"Really?" Park shrugged. "I wouldn't know. I've never really tried being a leader. Some folks follow me, some don't, but no one from my sections seems to be in a panic just yet."

Iris cut in before Arn could debate the point. "What about all the other sections?" she asked. "There are one hundred of them, you know. We seem to have gotten free because the power went out in ours, but we were nearly trapped behind a stuck door. What if there are others who really are stuck down there?"

"We still need to get to Central Ops," Park insisted.

"You're both right," Arn decided. "Park, you and I will take a crew up to the center of operations and I'll assign others to check out the rest of the storage sections."

"Storage?" Iris asked archly.

"It's as good a word as any," Arn shrugged. "Do you want to organize that?"

"I'd rather have Iris with us in Ops," Park told him. "Depending on what we find, we may need a top notch engineer on hand."

"How do you know I'm top notch?" Iris countered.

"You're here," Park chuckled

Arn chose a woman by the name of Patricia Zinco to join them. The black-haired woman with almost white skin had been in his section and Park thought he remembered seeing her sitting near Arn during the briefing. Well, if Arn wanted to bring his partner of choice that did not bother Park in the least. Park had chosen Iris for her known abilities. That they had hit it off the night before stasis had nothing to do with his choice.

While others went off to check the stasis rooms, Arn led Park and the two women up three more

levels toward the operations room, However at the top of the third landing they got the shock of their lives.

One wall was missing and the cold outside air was spilling into the stairwell. “Well that explains the cold air,” Park noted. The air may have been cold, but there was a clean scent of grass in it. It was still very dark outside and looking west they could see a just past full moon setting on the horizon. “Moon over Ohio – very picturesque.”

“That’s not right,” Iris told them.

“What do you mean,” Arn asked.

“Aren’t we supposed to be three thousand feet below ground level?” Iris asked pointedly. “How long would it take for erosion to cut us free like this?”

“Haven’t the slightest,” Park admitted, “but I suspect we’re going to find out eventually.”

“Better not tell the others about this, just yet,” Arn advised them.

“Do you think you can keep this a secret?” Iris asked. “We must be thousands of years out of our time.”

“Longer than that, I think,” Park told them. “Maybe even a few million, though it’s hard to believe the base would have remained even this intact for that long.”

“Our walls were under stasis too,” Arn admitted.

“Really?” Park asked. “Why?”

“To protect the base from the ravages of time, of course,” Arn told him. “That meteor strike might have hit us directly, but we would still have survived.”

“Then how are we even out of stasis now?” Park asked.

“It was modular and not perfect,” Arn explained. “Each section had its own stasis all controlled by the central computer. And then the entire installation had a stasis field around that. The outer one was programmed to fail for a micro-second every few minutes. I forget how many, it was a matter of harmonics, but that’s how the central computer could keep track of external time and conditions.”

“Why wasn’t that a part of the briefing?” Park demanded softly.

“That was strictly need-to-know,” Arn explained.

“Need-to-know?” Park snapped. “Who the heck was anyone in there about to tell? What good would it have done them?”

“I had my orders,” Arn replied stiffly.

“Orders?” Park asked. “I thought you were supposed to be retired.” When Arn did not volunteer any further information, Park looked out through the large hole in the stairwell wall and continued, “Well, from the looks of things here, I think we can safely assume you’re off active duty.”

“As commander of this installation,” Arn countered, “one could argue that point.”

“Most of us are not military, Arn,” Park told him, schooling his voice to patience, “and this base is not supposed to be a military establishment.”

“I know that, Park,” Arn admitted, “but by the time we figure out what’s going on, you may wish it were.”

“I doubt that,” Park shrugged. “Well, let’s go see if there even is still a Central Ops.”

Arn led the way deep into the installation until they reached a dimly lit room with several rows of video panels surrounding a console large enough for several people to sit at. “Lights!” Arn commanded in a tone only slightly more emphatic than his normal speaking voice. When nothing in the room changed, he tried again louder, “Lights!”

“I think someone forgot to pay the electric company,” Iris commented dryly, adding. “What we have here are running off emergency power. Why didn’t all the stasis units turn off when the main computer went down?”

“If they’re still working,” Arn replied, “the central computer is probably not down, just in sleep mode. Had it gone down completely all the stasis tubes would, indeed, have been turned off.”

“Then you think it is in standby?” Iris asked.

“Something like that,” Arn shrugged.

“I’ll see what I can do,” Iris promised, “but if you have any computer experts unfrozen downstairs, you ought to send them up here.” Then she thought of something, “Patty? Do you know anything about this?”

“I’m a biologist,” Patty replied. “I can use my pad but that’s about it.”

“There’s probably a wake-up command sequence,” Park offered. “These big systems usually have something like that. Arn, as project leader you ought to know what it is.”

“I was assured that everything we would need would be in the manuals,” Arn told him.

“I don’t see any books in here,” Park noticed.

“It’s probably in the long-term databanks,” Iris remarked, “Which we can’t get at with the machines in stand-by mode. Good planning.” She let her hand drop to one of the keyboards. A small white light immediately came on in each of the monitors.”

“You seem to have done something,” Park observed.

“I probably should have thought of that,” Iris laughed at herself. “It was just waiting for someone to use a keyboard. A moment later several of the screens lit up, including one directly in front of her, requesting a user name and password. “Well, Arn?” she asked.

“I’m not really sure,” Arn confessed.

“Who had the access keys to this rig?” Iris asked. Arn had no answer so she tried typing in the username, “root” and the password, “password.”

There was a small pause and then the screen lit up with a floral display inside of which they could read the words, “Administrator account name and password accepted. Set up users?”

“Little too easy for the likes of me,” Iris sighed. “I’ll set up accounts for the four of us, shall I? Who gets what sort of access?”

“For now, give Park and me full access to all data,” Arn decided. “Park, I invited you to the project with the idea of making you a team leader in mind.”

“I’m not sure how good a team leader I am,” Park admitted. “I don’t tend to rely on others to do work for me. If I see something that needs doing, I usually just get it done.”

“You never impressed me as a follower type,” Arn remarked.

“I’m not,” Park replied. “I don’t really care to follow anyone. But I also don’t feel the need to lead either. However, our survival could depend on all of us working as a team, so I’ll do what I can. On the other hand, it’s possible that even now there are people coming to find us.

“I wouldn’t hold my breath waiting,” Arn told him.

“And what sort of access will Patty and I get?” Iris asked.

“Is there a standard user template?” Arn asked.

“There is, although we can create new templates,” Iris pointed out, “but it might be something to let our IT people handle. Since I now have access, we can run a diagnostic over the whole base and see if we can figure out why power is out and where.”

“Do that,” Arn instructed.

Iris tapped the typed and waited. Finally she tapped a few more and all the monitors lit up with a large series of dark and light rectangles. Iris studied it for a bit and then typed in a final command and the blocks rearranged themselves slightly. “There,” she reported. “There are ten chambers affected and all are in the southwest section of the base. I suspect there was either an earth tremor, or something like that, that cut the power along that side of the base. In any case I recommend we have our people search those sections pronto in case anyone is trapped in their stasis room.”

Two

The searching teams found four more rooms filled with recently released members of Project Van Winkle, bringing the total of awake team members to three hundred. For the time being, Arn decided that was sufficient. They could wake up the others when they had a better idea of what had happened.

Arn's plan to keep the condition of the area surrounding Van Winkle Base a secret did not last an hour after he had formulated it. It turned out there were several other holes in the walls and as the sun rose that morning, nearly everyone got a good look at the river and expanse of golden-silver grass that extended as far as the eye could see.

"Any idea where those two rivers came from?" Arn asked Park later that morning as they stood looking around outside the base. Van Winkle Base, from the outside, appeared to be a low, grass-covered hill near the confluence of two rivers. On top of that hill stood the rusty stump of what had once been the elevator shaft. Had the shaft still be under stasis it would have been three thousand feet tall. Instead, it only stuck up one hundred feet or so above the crest of the hill. There were a few scrubby green trees along the rivers, but otherwise most of the vegetation they saw was the same golden grass.

"That one," Park pointed, "appears to be from the northeast and that looks to come from due east."

"Thank you so much," Arn replied snidely.

"I'm more concerned on where the river is going beyond the confluence," Park told him.

"Somewhere to the southwest," Arn told him in a deadpan manner, giving Park a taste of his own humor.

"I imagine so," Park chuckled, taking the joke better than Arn had, "but whether this is a river we knew in the past all depends on how long we've been catching zeas in there. The earth is a living system and the longer you give her, the more changes there are going to be. One of those rivers could, I suppose, be the Ohio having meandered this way while we were under stasis. It may not be directly related to any river system we ever heard of, of course."

"How could that be?" Arn asked.

"I just said," Park reminded him. "Earth is a living system. Those rivers aren't as amazing as the fact that three thousand feet of bedrock has been washed away from on top of us, possibly by those rivers or by some other action"

"It takes more than a few centuries to erode a half mile of bedrock," Arn noted.

"That's why I knew it had been at least a million years," Park nodded. "Probably two or maybe even more. That's what Iris and her team are trying to find out. We're going to have to send out scouts to figure out where we are and what is all around us."

“We should still be in Ohio,” Arn replied.

“Yeah?” Park countered, “but is Ohio still there? For all we know the human race has been out-evolved by the cockroaches. We need to send out as many teams as we can spare and get the lay of the land for a thousand miles or more around us.”

“I can’t afford to let you tie up more than a dozen,” Arn told him. “The rest are needed to help wake up and let the others know what’s happened.”

“We don’t even know what’s happened ourselves,” Park reminded him. “How soon do you want to bring us up to full strength?”

“Over the next two weeks, I should think,” Arn decided. “It took almost a week to get us all in our stasis tubes. I can’t imagine it will be a faster process on this side of the journey. And we don’t appear to need to rush.”

“You don’t know that,” Park told him. “There could be a thriving metropolis just over the next horizon. Did the powers that be... or were, I suppose, see fit to grant us some all-terrain vehicles?”

“We should have some in deep storage,” Arn admitted. “Also a few boats and a helicopter.”

“Helicopter?” Park mused. “Now that’s more the ticket.”

“We can’t afford to waste fuel,” Arn warned him. “It’s going to be a while before we can produce sufficient alcohol for unlimited travel.”

“We absolutely need to know if we have neighbors,” Park insisted. “We’ve already had enough surprises.”

“Very well,” Arn shrugged. “Pick a team and start assembling the chopper. It will be all crated up. Did you hear about the empty sections?”

“There were four of them, right?” Park asked. “Were they ones where the power was out?”

“No, they were still fully functional,” Arn replied, “or would have been had there been anyone inside.”

“Someone saw fit to let them out then,” Park decided. “Do we know who was in them?”

“Not yet,” Arn admitted, “but it isn’t a top priority for me either. I’m more concerned with the current situation than in speculation as to why some of my team isn’t here.”

“No, I suppose we’ll have plenty of time to wonder about that too,” Park told him. “In the meantime we need to know where those rivers come from and even more important where they are going. Once we’ve scouted out a wide perimeter, I’ll want to explore the river to our south. If there’s a civilization left it ought to have settlements along the rivers.”

“You think there’s intelligent life out there?” Arn asked.

“Could be. Intelligent life adapts its environment to suit it, though,” Park mused, “and I don’t see any signs of that from here. On the other hand, we could be in the middle of a nature preserve. We need to

erect an antenna, a network of them, really, and see if we can pick up any external radio signals.”

“Would an evolved species continue to use radio?” Arn wondered.

“We do,” Park replied. “It’s a place to start and we’ll need the antenna to stay in contact with our scouts, don’t you think?”

“I suppose we will,” Arn nodded, “I’ll put a team on that right away.”

Iris poked her head out the hole in the stairwell and told them, “I think I’ve managed to answer some of our questions, at least. It’s all in Central Ops.”

A few minutes later, Iris played the record she and her team had found in the central computer for Arn and Park. A middle-aged man appeared in one of the screens. They all recognized him as the President of the United States, although as the camera panned back they also recognized the British and Canadian Prime Ministers and the President of France. There were still others wherever this recording had been made but they did not appear on camera.

“To Colonel Arnsley Theoday and his team at Project Van Winkle,” the president began stiffly. “It appears there has been a change of plans. When you reported for duty, it was expected the asteroid known as 2089JL43 would move past Earth harmlessly and that the various tensions within the international community would ease off.

“I am happy to announce that 2089JL43 has indeed missed our world and is now moving off into interplanetary space where we are assured it will never threaten Earthly interests again,” the president continued. “Further we are once again at peace and valuable and meaningful dialogue has been once more established across the globe.

“However,” the president continued.

“There’s always a ‘but’ isn’t there?” Park commented sourly.

“Shh!” Iris hushed him.

The president continued, “by international agreement it has been established that our need for Project Van Winkle has not yet passed. In this post-modern age, crises often come on us without a moment’s notice and while we may seem to live in peace with our neighbors, it is feared this could change at any time. Therefore, we are choosing to activate Clause 43 in the agreements you and your entire team signed and are extending Project Van Winkle indefinitely. Know that the world thanks you and your team for your sacrifice. You will all be remembered in our hearts.” The image abruptly cut out.

“Remembered my Aunt Fanny,” Arn growled. “They completely forgot about us!”

“Sort of like the old fairy tale,” Iris remarked.

“Sleeping Beauty?” Park chuckled. “You fit the part.”

“Thank you, but I always had the notion Beauty was half my age,” Iris laughed. “No. I mean about the little boy who was given the power to move forward in time along his own lifeline. Since he wanted to be a bit older so he could do what he wanted, he moved forward to his teenage years. But in high school he had to do what the teachers told him, so he moved a little further forward again. But College was hard

work so he moved forward again. Working for a living was still worse, but he figured with a promotion or two... and so on. He finally stopped when he discovered he was an old man with grandchildren and just a few years left to live, because he finally realized that he had wasted most of his life, the good and the bad, and had better just enjoy the life he had before it was gone entirely.

"It seems to me, they decided to put us away for a future need that never arrived," Iris went on. "And as you said, Arn, they completely forgot about us."

"How secret was this project?" Park asked suddenly.

"Somewhere above Top Secret," Arn replied. "Van Winkle held several security classifications, so not only it was Top Secret, but only a few people outside the team were even aware there was a secret to be kept in the first place."

"That's it, then," Park noted, "We were so secret the odds are no one told their successors we even existed. Any idea of how long ago that message was recorded?" he asked Iris.

"According to the computer," she replied with a smirk, "Eight years, two months and a few days."

"What?" Park and Arn asked together.

"The computer has been in stasis most of the time too, remember," Iris pointed out, "and that's the really bad news. If my estimate is anywhere near accurate, that message was sent to us about two hundred and fifty million years ago give or take a dozen million."

Park whistled at that estimate. Arn looked dazed. "That's a very long time," Arn finally managed to say. "Did you learn anything about the missing team members?"

"Just a log note a few seconds after this saying they were released and returned to their lives," Iris told him. "Park, you don't look as shocked as Arn."

"One or two million," Park remarked, "or two hundred fifty million. It's just a matter of degree, I guess. Either way we're so far out of our time, the concept hasn't got a lot of meaning for me. The good news is the pompous ass we just saw on the screen is not only dead, but likely his molecules have been filtered through countless animals and plants by now. I think we can all take comfort in that."

"What, that he lives on among us?" Arn countered sharply.

"More like that he does not live on... among us," Park laughed.

Arn scowled. He had been doing a lot of that since this morning. "Two hundred fifty million years. Will there be any humans left out there, do you think?"

"It isn't very likely," Park told him. "The descendants of humanity, perhaps, but very few species have survived that long. Horseshoe crabs are about the only ones that come to mind, although I imagine there may be others. I think we had better be prepared to encounter weirdness. Hmm, sounds like fun."

"You're weird," Arn accused.

"Then so am I," Iris told him. "I think it sounds like fun too. Park, I insist on being part of your team. I can't wait to see this new world of ours."

“It’s not ours yet,” Park reminded her. “We just got here, remember? But I’m still anxious to see what’s out there for us.”

Three

It took three days to find the crates for Van Winkle Base’s helicopter, during which time, Velvet Blair, the only technological expert who was among the first awake, managed to dredge up a complete base inventory and where everything was stored. It came as a surprise to Arn that the base had been stocked with not one, but two of the choppers as well as enough spare parts to keep them going for years, as well as a complete machine shop where still more parts and tools could be produced.

“We also appear to have a small jet in storage,” Arn admitted to Park.

“We’re going to need a runway before we bother unpacking that,” Park admitted. “Do we have anything to build one with?”

“We have concrete and enough of the ingredients of hot-mix asphalt,” Arn informed him. “We also have the machinery to mix and handle it all with. There’s enough concrete to build a small town, although only enough asphalt for a runway. “So we’ll have concrete streets if we don’t decide to make do with packed dirt for now. I have a general idea how to make cement and I’m assured the computer has the actual formula stored away.”

“What about fuel?” Park pressed.

“Maybe enough to last a year,” Arn admitted, “although it’s in stasis too so it is not aging. We’ll have to be careful to not waste it until we can produce some more. The ATVs run on ethanol, but the jets run on what jets have for a century or more. Well, for a century not counting the time we were in stasis. The helicopters have their own fuel supplies too, but if we can’t find a source of petroleum, they’ll only be of finite use too. I think it is safe to assume our ancestors bled the world petroleum resources dry.”

“True, but in two hundred and fifty million years, the world has had time to produce more petroleum, assuming the conditions were right,” Park replied. “Hmm. Don’t we have any solar powered vehicles?”

“The boats are mostly solar powered,” Arn replied, “and so are the ATVs. They’re hybrid just like we’re used to, but of course come nightfall, you aren’t going to have more than half an hour to find a place to stop unless you have something in the tank. Fortunately ethanol is not a problem.”

“For morale purposes, that’s probably a good thing,” Park chuckled. “We may want to start aging our moonshine though.”

“We won’t be making moonshine, Park,” Arn told him.

“No?” Park asked. “Then it will be the first time a man had a still when he didn’t try to keep a bit to drink. Better to find someone in the group who knows how to do it safely and then have him start putting some down to age. If you don’t, someone will anyway. And if you’ve never tried it, you can take my word that distilled spirits are not at all better for being fresh.”

“Well, maybe,” Arn shrugged. “What have you been up to the last few days?”

“Besides overseeing the construction of that flying tinker toy, you mean?” Park shot back. “I’ve been working with Iris to try to figure out just where we are in the world.”

“Ohio,” Arn replied. “We’ve been through this.”

“Ohio, oh sure,” Park nodded, “but at what latitude? The continents can drift all over the place in two hundred and fifty million years.”

“So what latitude are we at?” Arn asked.

“I’m still working that out,” Park admitted. “We don’t have a telescope unpacked and Velvet won’t allow me to use the computer for that sort of thing yet.”

“You could devise a simple quadrant and take a sighting of Polaris,” Arn suggested.

“Can I?” Park asked. “I’m not sure which star Polaris is. Everything has moved around. Polaris is no longer the pole star and in fact I don’t think the North Pole is pointed at any bright star in particular. I have an educated guess where Polaris is and even where the pole points to, but so far I just have my eyes to judge by. I can’t tell by how much, but we are further south than we were. My estimate is somewhere around where Florida was, by latitude, anyway.”

“What about by longitude?” Arn asked.

“That all depends on where Greenwich, England is these days,” Park replied. “Longitude is an arbitrary measurement anyway. We may as well declare ourselves to be at zero degrees and measure every place else based on our own position. Two hundred and fifty million years is a tough number to grasp. The dinosaurs had only been dead for sixty-five million years in our time.”

“How sure are you that it really has been that long?” Arn asked.

“It’s an estimate,” Park admitted. “Iris tells me that our computer lost contact with the atomic clock roughly after one million years, but since then the computer’s internal clock has moved ever so slightly every time it came out of stasis to check on the outside world. So it gained one second per year until we woke up. If you take the number of seconds recorded and multiply by years, the resulting number is fairly easy to arrive at. When are you going to admit it to the rest of the team?”

Arn had been putting off that decision since they had seen the moon through the hole in the stairwell wall. It was common knowledge they were well out of their time, but not by how much. “I’ll break it at

tonight's meeting," Arn told Park. "It will be a good way to see how the team reacts before we start waking up anyone else."

"There shouldn't be too many problems," Park told him. "You told me yourself that one of the criteria was that we were all without family and had a strong interest in the unknown. We all knew we might wake up long after everyone we knew was dead."

"We thought we might be a few decades out of our time, maybe a century or three," Arn replied. "We never considered anything like this."

"I'm fairly sure most of the team has figured it out already," Park told him. "Maybe they haven't made the same estimates, but none of us is stupid, nor are we uneducated. They're going to realize that millions of years had to have been necessary to put the base at ground level. By the way, I plan to go out on the chopper tomorrow morning. It's time to recon the area around us."

"I wasn't aware you could fly," Arn showed surprise.

"It's been a few years," Park shrugged. "Well, two point five hundred million years, but about five before that too. I've flown most sorts of fixed wing craft. Never been in a helicopter of any sort but Tina Linea assures me, I'll have it down in no time."

"We don't have enough fuel for a flight school, you know," Arn warned him.

"We only have two other pilots in storage too," Park pointed out. "Unless someone forgot to mention it among their hobbies. Besides, I'll be going out with Tina tomorrow. The chopper has two sets of controls so I'll get to try them with supervision. I've no intention of flying solo unless I have her approval. By the way, Iris will be monitoring us from Central Ops."

"How is she going to do that?" Arn asked. "We don't have a radio tower erected yet."

"I'd like to put one up," Park agreed, "but for now I've draped a wire antenna over the stump of the old elevator shaft. It runs down to Central Ops from there. It will be enough until we can get a real tower in place. With luck we may have a sixty mile range."

"I don't want you going more than thirty miles out tomorrow," Arn instructed.

"Thirty miles is nothing," Park scoffed. "We can see almost that far from the top of the base."

"Humor me on this," Arn replied. "We need to take this one step at a time."

"You said we didn't have all that much fuel," Park pointed out.

"We have enough to be careful," Arn insisted. "Besides we should do most of our recon by ATV or boat. Those vehicles use renewable resources."

"And the choppers?" Park asked pointedly.

"Emergency recovery if a team gets into trouble," Arn told him firmly. "I'm not even sure if we'll need the jet for some time to come."

"Probably not, but we should build the runway in case we do," Park told him.

Four

“Once you get beyond the rivers, there’s nothing but grassy plain as far as you can see,” Park reported by radio the next morning. “I still haven’t seen any large animal life, but maybe we haven’t been looking in the right places. We’re going to swing south and follow the river for a bit before doing our eastward swing. Over.”

“Park,” Iris called back, “Arn wants to make sure you’re staying within the... uh... assigned search parameters. Over.”

“What’s the matter Arn?” Park laughed. “Don’t you trust me? Over.”

“Not when you ask like that,” Arn grumbled back in the control room, but he did not broadcast that comment.

“We all have complete trust in you, Park,” Iris assured him at the same time. “Over.”

The truth was that Park had instructed Tina to fly over fifty miles from the base before starting their search patterns. Park was operating a self-stabilizing camera that had been hastily mounted under the helicopter to record anything they saw that was of note, but so far there had not been much to see they couldn’t spot from the base itself. The northern branch of the river had grown a little smaller as they headed upstream, but not by much. Then they did several swings to the north and west of the base and saw nothing but the tall golden-silver grass.

“Nice to know,” Park replied. “We’re just crossing the river to the southwest of base and will commence our southern search. Maybe I can find you some posies. Over.”

“I read you, Park,” Iris replied. “Over and out.”

Park had been disappointed in not seeing any animal life to speak of. He did not think the sound of the helicopter was frightening it all away. He had seen too many films of animal life taken from helicopters and planes. A lot of them did run from the noise, but you still saw them. He had to admit, however, that from a thousand feet up he would miss most, if not all, of the smaller critters and a lot of medium-sized ones could be hidden in the endless grass.

“It’s also possible this is the wrong season and they’ve all gone north for the summer,” Park told Tina

over the noise.

“If you say so, sir,” Tina replied. It reminded Park that Tina had been one of the military women the project had included. Tina had served as an Ensign in the United States Navy before volunteering for Project Van Winkle and, from what Park could tell, she was very good at flying so after a short stint, getting used to the controls of the chopper, for himself, Park had decided to leave the flying up to the younger woman. You have to watch where you are going when flying and Park was too interested in gawking at the new world like a tourist.

The grasslands extended far to the south of the base as Park expected, so he soon directed Tina, “Let’s move along to the east now. All this grass is starting to bore me.”

“We can follow the southern branch of the river back to base, sir,” Tina suggested.

“We can, but let’s swing a bit further to the east than we did along the northern branch,” Park suggested.

“Sir, we’re already twenty miles beyond the limits Colonel Theoday set for us,” Tina replied warningly.

“Tina,” Park laughed. “Do you really expect me to believe you aren’t as interested in what lies over the next hill as I am?”

“No, sir,” Tina returned the laugh. “The morning haze has burned off anyway, we’ll be able to see farther than we did on the first run that way.”

“Good point,” Park conceded.

They flew to the east and soon found the branch of the river that ran just south of Van Winkle Base. The stream here curved gently off to the southeast and Tina swung the craft to parallel the watery course. “What’s that in the distance, sir?” Tina asked suddenly.

Park looked forward and saw a dark line on the horizon. “Mountains, maybe?” Park asked almost to himself. “Fly closer so we can get a better look.”

“Sir, we’re sixty miles from the base already,” Tina warned him.

“In for a penny, in for a pound, Tina,” Park chuckled.

“Excuse me, sir?” Tina asked, unable to figure out what Park meant.

“I mean if we’re going to have to take the heat for violating Arn’s orders, we may as well do it right and proper,” Park explained. “Besides that thirty miles limit was more of a suggestion than an order.”

“Are you sure, sir?” Tina asked. “Sure doesn’t sound like the colonel.”

“Served with him before, have you?” Park asked. “Well, no matter. Just go close enough that we can see what we’re looking at clearly and then it’s straight back to base. The fuel is down to the last quarter of a tank anyway.”

“Yes sir.”

Fifteen minutes later the thin broken line on the horizon had resolved, as Park predicted, into a mountain range. "Now those are really tall mountains!" Park exclaimed. "But at least now we have something to see besides grass."

The helicopter was flying over the first few foothills and below them the seemingly endless waving grass had been replaced by scrub and finally true trees. Looking down, Park could still not see any large animals, but flyers of some sort were startled out of the bushes and trees. Whether they were avian, insectile or of some order of life Park had never heard of was unclear at this distance.

"We're still at least thirty miles away, sir," Tina commented. "I doubt the chopper can fly over them."

"Probably not," Park agreed. "I should call this in."

"If we're not out of range, sir," Tina added.

"Holman to Van Winkle Base," Park called. "Do you read me? Over."

"It's been too long since your last transmission, Park," Iris replied. There was a lot of static in the signal. "Arn was having a fit. Uh, over."

"Was having?" Park asked. "You mean he got over it? Over."

"I mean he went storming out of Central Ops, Park," Iris explained. "Where are you? Over."

"Within site of the largest darned mountain range you ever saw," Park replied. "The Earth has been busy in our absence. Over."

"Are they the Appalachians, do you think?" Iris asked. "Over."

"Negative," Park replied. "They look more like the Himalayas than the Appalachians. This is a very fresh range, not a rejuvenated one. I've no way to measure them here, but I suspect there are several that can give Everest a run for its money. Over."

"By now Mount Everest could be a lake, Park," Iris replied. "Are you coming back soon? Over."

"We're on our way right now," Park lied, still keeping his eyes firmly fixed on the distant mountains. Their peaks were snow-capped and even from here he could see the line beyond which no vegetation grew. Those were very tall mountains. "Be home soon. Over."

"I'll put the kettle on," Iris replied. "Over and out."

Five

“We only have a few month’s worth of food,” Patricia Zinco pointed out to Arn that evening. They were meeting with Park, Iris and a dozen others Arn had chosen to help plan the “Awakening” as Arn had started calling it.

“We’ll have to start a farm,” Arn replied. “We have the tools and materials; seeds, fertilizer and whatever else we need. There are several agricultural experts in stasis too. We can wake one or more of them up tomorrow.”

“We’re going to need animal protein too,” Park added, “and this morning’s fly around didn’t scare up much.”

“We don’t really need meat,” Patty disagreed. “A balanced vegetarian diet is easily planned.”

“But I like pepperoni on my pizza,” Park chuckled.

“Park,” Arn decided, “You should finalize your team of scouts and use the all-terrain vehicles to search for a supply of meat along with just mapping out the world around us.”

“I also want to establish radio beacons, repeaters from our main transceiver in Central Ops in order to extend our range at least up to the mountains,” Park told him.

“Do we have the materials?” Arn asked.

“According to the manifest,” Iris informed him. “We ought to have one hundred small, but powerful solar-powered units for the job. Each has a range of twenty-five miles, line-of-sight to the next repeater, and it wouldn’t take much to hoist one up on a pole. There is also some more interesting broadcasting equipment in storage to use on other frequencies.”

“Interesting in what way?” Arn asked.

“It’s multiband and adjustable,” Iris told him. “And even more interesting are the three communications satellites. Placed in synchronous orbit, we can reach almost any part of the world.”

“And how are we supposed to get them into orbit?” Park asked.

“My guess is that’s what the rocket is for,” Iris told him with a broad smile.

“We have a rocket?” Arn asked.

“You didn’t know either?” Park sounded surprised.

“It wasn’t in any of my briefings,” Arn admitted. “It must have been added after it we were put to

sleep. Someone did a lot here after we stopped existing in the world. Very few will have noticed, but the base is nearly twice as large as it was.”

“I would have thought that would be easy to see,” James Hardin commented. “How did we miss it?” Hardin was another former military man, having served as a major in the Marine Corps.

“Most of us didn’t get the full tour, Jim,” Arn explained, “but the real reason is that all the expansions were on the storage levels. There’s a lot of stuff down there. I’m not sure what anyone expected us to do with it all, but they did seem to be planning for any eventuality.”

“Weapons?” Jim asked interestedly.

“Yes and a lot of ammo,” Arn nodded. “Most of it is hunting equipment though. If we can find something to hunt with it, we’ll be all set.”

“Be vewy, vewy quiet,” Park commented in his best Elmer Fudd imitation. “We’re hunting wabbits.”

“Try to find something with a bit more meat on it if you can, Park,” Arn advised. “It will take a heck of a lot of rabbits to feed five thousand people.”

“Forty-eight hundred,” Iris corrected him instantly.

“Right,” he nodded, “but still more than we can feed with rabbits. I’ll start waking up our farmers though and we can get the rest out of stasis once we have a reliable food supply. Park, do you have a team of scouts picked out?”

“I do,” Park replied. “I’ve chosen ten men and women with recon experience and plan to have them out on the ATVs in the morning. Iris and I will take one of the boats and see where the river will take us.”

“Iris?” Arn’s brow furrowed. “Do you have any scouting experience?”

“Do Girl Scouts count?” Iris asked.

“Iris is an accomplished boater,” Park told Arn. “On the river I imagine that will be more useful and I can teach her what she needs to know as we go along.”

“I don’t like wasting a top-notch engineer on that sort of mission,” Arn told him.

“We don’t have a lot of choice, Arn,” Park told him. “We’re all top-notch at what we do. We also need to wear a lot of different hats.”

“Also you don’t need an engineer here at the moment,” Iris told him, “but Park does need someone who can handle the boat.”

“I don’t like the idea of you sailing your way out of radio contact,” Arn told them.

“We’ll be planting repeaters along the way,” Park replied, “and our land-bound scouts will be doing the same, so it may be a few days before we even have to. I don’t plan to rush downstream by any means. We’ll travel one day and then spend the next day conducting a survey of the area. Then go down stream another day and do the same thing for the next month or so.”

“A month?” Arn protested.

“Are you planning to go anywhere?” Park returned. “Look, we should be fairly easy to find if you need us. We’re going downstream. Just look for the repeaters if the river splits up into different channels.”

How about getting back here?” Arn asked. “Tributaries can be difficult to keep track of. Downstream may be one way, but coming back is another matter. It can be difficult to remember the course if you don’t have marker buoys.”

“Good point,” Park agreed, “but the repeaters can also serve that purpose. I’ll take a couple cans of a bright paint, so the poles the repeaters are on will be easy to spot.”

“What are you going to eat, then?” Arn asked. “Those boats in storage aren’t very large, just oversized rowboats, really.”

“I saw them,” Park replied. “They’re twelve feet long and wide enough in the beam to sleep four comfortably if we must, although I plan to take a few half-shelters out of storage too. We can rig them as a pup tent or a sun shade on the boat. Of course first we need to get a boat out of storage. Getting the helicopter out one piece at a time was murder.”

“Well, there I can help,” Arn told him. “While you were out flying around today, I organized a detail to dig a ramp to the storage level. It was only about ten feet below the surface and once we had an opening we were about to use some of the heavy machinery inside to speed up the work. It’s still a bit rough and we’ll eventually pave the ramp and build some proper doors for the big hole in the wall, but you’ll be able to drag the boat up that ramp rather than hoisting it up the elevator well on a block and tackle.”

“I wish you’d thought of the ramp before we had to do that,” Park chuckled. “Well there’s still a lot of stuff to unpack, so I appreciate it. We’ll launch and equip the boat tomorrow and then the next day Iris and I will start out down the river.”

“But what about food?” Arn pressed.

“We’ll take what we can and a few of those food test kits I found in storage,” Iris told him. “If we don’t find anything edible out there by the time our supply is half gone, we’ll just have to turn around and come back. Oh, and Park, “I finally ran that program you asked me to. Van Winkle Base is situated at twenty-six degrees, thirty-one minutes and five seconds north latitude.”

Park whistled. “That’s further south than I expected. It might explain the apparent savannah conditions out there, though. The only green vegetation we saw was directly along the rivers.”

“Well if that is a savannah out there we should have a lot of animal life as well,” Arn told them. “Hopefully some of it is edible. Although I would prefer you not try to find the mouth of the river this trip. It’s too soon, I think.”

“It may be reckless,” Park considered. “Tell you what we’ll only be gone a few days this trip. Consider it a shakedown cruise and also get to know our river a bit before doing the whole Lewis and Clark thing.”

“I appreciate that,” Arn told him.

Iris caught the exchange, although she was certain only she and Park understood the significance. Unconsciously Arn had just recognized Park as an equal in Van Winkle Base. They were not competitors, and deep down, she suspected Arn knew it. Everyone else in the project was in Arn's chain of command, but Park and his team had somehow slipped beyond the conventions.

On launching the boat, Park decided he ought to rig the canvas covers while he still had a machine shop to use and made a strong frame that he could cover with the canvas half-shelters. When finished he had a frame that could be covered in a number of ways to afford him and Iris sufficient shade during the day and shelter at night.

Without a pier to tie up to, loading the boat was a very wet job. "Any chance of getting a small dock here?" Park asked Arn hopefully as he and Iris were about to set off.

"I think that can be arranged," Arn agreed. "We'll need one anyway and compared to everything else we need to do it should be simple."

"Thanks," Park replied. They shook hands and he continued, "So we'll see you in a few days, I guess, unless this river is shorter than it looks."

"We're hardly at the right end to judge that," Arn remarked, "Don't forget to radio back every night if you can."

"We will," Park promised. Then he used an oar to push off from the shore and Iris started up the solar powered engine.

"This probably all looks familiar to you," Iris remarked once the people from Van Winkle Base were no longer in sight.

"Not really," Park laughed. "This all looks very different from up there. In fact from down here I can't even see over the south bank."

"That won't be necessary," Iris reminded him. "The rest of the team can scout over there. We're on long range reconnaissance."

"True enough, do you think the confluence will be difficult to navigate through?" Park asked.

"We may have some turbulence where the two rivers join," Iris warned him, "but it didn't look too bad from what I could see. Neither stream is particularly turbulent. Through the telescope I found, the confluence seemed placid enough. The north branch is also somewhat smaller than this one, and we would have to portage at least once had we launched from there. It probably won't have a lot of effect on our conditions. What we may find further downstream is another matter."

Iris' predictions were correct and they continued to move southwest for the rest of the day. "I think this is far enough for one day," Park decided in the middle of the afternoon.

"Are we beyond where you went on the chopper?" Iris asked.

"I doubt it," Park laughed. "Tina and I flew well beyond Arn's limits."

"I know," Iris replied. "Arn couldn't read all the indicators, but I knew precisely where you were the

whole time.”

“You didn’t say anything?” Park wondered.

“I agreed with you, dear,” she smiled. “We need to see as much of the world as soon as we can. Should we set up camp on shore tonight?”

“Let’s take a look around,” Park decided after making sure the anchor had been set securely. “I wish there was a tree or a rock to tie us up to,” he told her.

“There are normally a few isolated trees on savannahs, aren’t there?” Iris asked.

“On the African savannah, sure,” Park replied. “Here? Obviously not. There’s something about this that keeps tickling at my mind, though.”

“What’s that?” Iris asked. Park was soaked from the waist up, but was gallantly offering her his hand so she could disembark dryly. “Thank you, sir,” she told him with a mock courtesy.

“An honor, my lady,” Park replied just as facetiously. He had a pair of binoculars around his neck. They were digital with night-vision and infrared capability and he picked them up to look around the landscape. “I think I see some movement in the grass a hundred yards or so that way. I’ll switch to infrared, though with the sun up, that may not be all that useful.” He flipped a switch and grunted.

“Anything wrong?” Iris asked.

“No,” he shook his head. “I just forgot to close my eyes before flipping over to IR is all. It takes a moment for the display to filter out the excess light. That’s better. Still not too clear, but I think there’s something rooting about in the grass. Let’s go take a look, shall we?”

They stepped as quietly as they could toward the small area of disturbance. When they were about ten feet away, there was a frightened squawk and they got a passing glimpse of something cat-sized with hard plates for skin the same color as the golden grass they stood in. As it ran, Park and Iris could trace its path through the grass. It was still moving when after hundred yards something else moved in the grass and abruptly stopped its flight.

When Park started moving forward to see what that second creature was, Iris stopped him. “We brought hunting rifles along, Park. It occurs to me that in a strange land, it was reckless of us not to bring them ashore.”

“I hadn’t thought of that,” Park confessed, feeling somewhat abashed. “I’ve never really been into hunting. Guess I just don’t think in those terms yet.”

“I think we’re both going to have to learn to think that way,” Iris told him, indicating they should head back to the boat.

“True,” Park replied, following her. “We’re in a wild, new land and for all we know about it, it might as well be a whole new planet. Did you get a look at that little creature?”

“Very briefly,” Iris replied. “It was the size of a large housecat I think, but that skin...”

“Looked like armored plates to me,” Park commented. “Sort of like an armadillo.”

"It looked nothing like an armadillo to me," Iris told him. "It didn't sound like one when it moved either."

"It didn't move like an armadillo either, now that I come to think of it, more like a cat or small dog," Park recalled. "I wonder if it is a mammal. There was no hair to be seen, but with skin like that..."

"I don't think it was a reptile," Iris replied. "What else could it be?"

"Two hundred million years ago," Park began and then corrected himself, "well, two hundred million before we went into stasis, there were no mammals. Instead our proto-mammalian ancestors, the synapsids walked the earth in their unique reptilian way. Between the Permian and the Holocene, both birds and mammals evolved into existence, the dinosaurs died off and so forth. It's been two hundred and fifty million years since the world we know now. That's more than enough time for entire new orders of life, new kingdoms, perhaps, to evolve. I have a sneaky suspicion Linnaeus would not have known what to do with that thing. We ought to find another and bring it back to base for Patty and the other biologists to have a look at."

"We can collect samples on the way back," Iris suggested as they arrived back at the boat. "I imagine they would get very high if we start collecting them now. Should we get the guns and go for more of a walk, do you think?"

"Changed my mind about that," Park decided. "Let's move a little further downstream. We have another three hours of light. Maybe we can find a place where the grass is lower. Maybe we'll definitely stay on the boat tonight."

Iris nodded and they were soon moving downstream again. They pulled in near shore when the sun started to set and Park told her. "We have nightscopes for these rifles. I'm not sure why. Maybe we were expected to wake up in the middle of a war, but they're like the binocs and can be switched to infrared. Why don't we go up on the bank and see what we can spot through them."

"In infrared?" Iris repeated to be certain she understood.

"Right," Park nodded. "If that critter we saw and others around here are warm-blooded we'll be able to see their body heat in the grass. Even cold-blooded critters won't cool off as fast as the grass does. The scopes will show us where they are, and the guns should offer some protection against predators provided we don't forget to look around from time to time. I'm bringing the binoculars for that too."

"You don't want to hunt in the dark do you?" Iris asked.

"It's not unheard of," Park replied. "But that wasn't my intention. Let's just see how many animals we can spot. We didn't see any from the chopper at all."

From the top of the river bank they were able to see several dozen animals on the grassy plane. "Look over there," Iris whispered to Park. "Do you think that's a hunting pack or just a family group of things like the one we saw earlier?"

"Hard to say," Park whispered back. "My guess is they're predators, though. They're just sitting there like a pride of lions... rather small lions... as though waiting for something. I think herbivores, if not diurnal altogether, would be busy eating. These critters are acting like they're waiting to see or smell out

their prey before making a move.”

“That second creature,” Iris replied, “the one that caught the one we saw. It seemed to be waiting too. Then when the first one came too close it pounced.”

“That’s how it looked to me,” Park agreed. “I imagine there are a number of different predators and prey out here. This seems like a fairly good environment to me, though I wonder why we haven’t seen any megafauna, or at least something large enough to see over the grass.”

“Maybe evolution has adapted life for smallness for some reason,” Iris remarked.

“That most often happens when there’s a scarcity of food,” Park replied. “With three-foot tall grass, I would expect some larger herbivores. Something analogous to bison, perhaps. Well, maybe they’ve gone north for the summer or west for the dry season, although with this river it seem to me life should team near its banks.”

“Um,” Iris interrupted him. “Funny you should mention that. I see a fair number of things coming slowly toward us. I’m fairly sure it’s just the river they want but...”

“But we should get back to the boat,” Park finished for her. “We can see the pretty animals from there and we left the camera there anyway. At least we’ll finally get a good look at them.”

They used the oars to quietly push off from the shore and reset the anchor in the middle of the river’s channel. The river was only a little over fifty feet wide and still somewhat shallow in many places, but it was the best they could do. “Anything could probably swim or walk out here,” Park noted, “and if this world has something equivalent to elephants, we may have visitors, but for now, let’s just watch and wait.”

“Shouldn’t we be calling back to base?” Iris asked.

“Let’s get a look at the neighbors first,” Park replied.

Through the night-vision scope and binoculars they got a good look at the creatures that came down to the river to drink. The first to arrive were a group of round-headed creatures that reminded Park of pigs, but without any snouts. Even with the night-vision on Park and Iris could see the odd, plate-like skin on the animals. Iris found the camera and started snapping pictures. With the time to study them, it was obvious that the plates overlapped slightly, but had more flexible skin holding them together. The result was an incredibly tough skin that afforded the creature that wore it complete flexibility as well as protection. These were obviously grazers to Park’s eye, though, and he wondered what the carnivores looked like. He did not have long to wait.

After a few minutes, the round-headed grazers looked up from the water nervously and started walking briskly downstream. A moment later a somewhat larger animal with the same hairless, plated skin walked confidently to the edge of the river. Park and Iris estimated this one was somewhat larger than a man although it only stood two feet tall at its shoulders. It paused at the water’s edge and sniffed in all directions. Then it made an eerie, deep-pitched howl and several others of its ilk arrived.

These beasts did have snouts and rows of teeth that marked them for the carnivores they were. The teeth were all at least two inches long with front fangs even longer. Their long tongues dropped into the water as they drank their fill. When they were done, they slipped back away from the river silently.

“I’m glad we decided not to stay on shore,” Iris whispered as she took a few pictures.

“Yeah,” Park breathed. “Not exactly cute and cuddly house pets, are they? What I want to know is why they had to send a scout first. What are they afraid of?”

“I’m not sure I want to know,” Iris replied. “No, I take that back. I do want to know. That sort of information could be crucial. Oh something else is thirsty.”

As they watched, a dozen or so bipedal creatures jumped down to the water’s edge. Their bodies were mostly thick-looking bare skin, but they had vestigial wings covered with short dark feathers, a mane of feathers down their backs and broad, turkey-like tails. They may have been birds or something birds evolved into, but their heads were completely unlike any bird either Park or Iris had ever seen.

Their beaks filled most of their faces and were broad and long and, when they were closed, appeared circular in profile. They stood about four feet tall and had legs like tree trunks.

“Some budgies, huh?” Park whispered to Iris. She had trouble stifling a laugh. “At least we finally found something that can see over the seed heads.”

“There’s something rustling on the other side of the river,” Iris reported while the strange birds were still drinking.

“I’ll take a look,” Park replied, adding, “Next trip we both get binocs.” He studied the other shore but soon told her, “I don’t see anything either. The grass comes right down to the water there and a little in the water for that matter. Something seems to be making it move but I can’t see it. Must be futuristic mice or something like that.”

“There are some small things a bit upstream,” Iris told him, “but all I see is a sort of swarming movement.”

An hour later the banks of the river became quiet once more and Park called back to the base. Arn listened to the report but his only comment was, “Next time, don’t call so late. We worry about you here.”

Six

“Where did you find these?” Arn asked when Park and Iris returned to base three days later. They had delivered three large animal specimens, but the two that Arn were most interested in were the ones Park and Iris had decided to call a grazer and a blade bird.

“It was not quite two days from here by boat,” Park replied. “We got them more or less at the same time.”

On their second day away from the base, Park and Iris had continued on downstream for only half a day when the river had widened to a quarter of a mile and became so shallow it was necessary to portage past before getting back in the boat to continue on. The actual portage took two hours of strenuous work, tugging the heavy craft over the sand and gravel. Maybe we need to fit wheels on this thing,” Park grunted when they were halfway along.

Iris paused to consider the matter and replied, “That could be done,” she replied at last. We don’t want them in the water all the time, but I think a pair of retractable wheels that swing up and down near the stern would make this portage a lot easier. I’ll see about retrofitting them when we get back. They’ll have to have fairly wide tires for going over soft surfaces, of course...” she trailed off.

“I was only kidding,” Park told her.

“I wasn’t,” she replied. “Next time we go out, we’ll have a set of wheels.”

The next morning Park decided they were far enough away from base to stop for a day to do a detailed survey. The banks of the river were not as steep here and they could see across the plains on both sides.

“Look at those!” Iris pointed to the southeast. She had spotted a large herd of grazers about half a mile from the river. The grass was shorter here with only occasional tufts of longer stems where the animals had somehow missed them as they wandered by.

“I was beginning to wonder if there was anything that ate the grass,” Park admitted. “and these are big fellows, aren’t they?”

“They may be an all female herd, you know,” Iris reminded him, “Gals, not fellows.”

“Well there are obviously some females in the group, at least if they are at all analogous to the animals we’re acquainted with. See the young ones among them?”

“Where,” Iris asked, staring into the crowds of beasts. They were large creatures. The adults stood six feet and more at their shoulders. Their skin was black and had the same plated appearance many of the other creatures Park and Iris had seen so far. They also had a rhinoceros-like horn on their noses which combined with the fierce spikes that protruded from their shoulders, made the grazers nothing Park wanted to get into a fight with. As Iris peered at the grazers she realized that the largest ones were mostly staying on the edge of the herd while smaller animals and obvious babies were deep inside the protective formation. “Oh, I see them now. Do you think the smaller ones are the females?”

“Could be,” Park allowed, “or they might just be younger. These may also be edible. The young ones may be more tender, though.”

“You’re not going to kill one of the babies are you?” Iris asked.

“No,” Park shook his head, “but those big ones won’t fit in the boat either. Let’s try for something in between.”

“In the boat?” Iris asked.

“We’re supposed to bring samples back to base. We could just bring a limb or something for the biologists,” Park considered, “but they’ll get more out of a complete animal. If they turn out to be edible, they’ll be of even more use to us.”

“The cooler on the boat won’t hold anything that large,” Iris responded.

“Yes, we’ll have to race back to base if we want to do this,” Park told her, “but if we can get past the portage tonight, we can motor our way until we run out of fuel and then continue on when the sun comes out. The beast won’t be too bad by then, I hope.”

“I still wouldn’t want to eat it and the biologists will want its guts to study,” she pointed out.

“They will,” Park agreed, “but that will have to wait for another time. For now they get to study muscle structure and the shape of its skeleton. Gutting it will reduce the weight we have to carry and maybe it won’t spoil as much on the way.”

“So which one do you want?” Iris asked.

“I’m not sure yet,” Park replied. “Let’s just keep an eye on them. They don’t look particularly bothered by us. The odds are they have never seen anything like us. It makes them distrustful, naturally, but if we just stand here and don’t get any closer I hope they’ll eventually ignore us.”

“So long as they don’t attack,” Iris told him.

“If they do, you run back to the boat as fast as you can,” Park told her. “I won’t be very far behind.”

“You think they will attack?” Iris asked nervously. “Is that what herd animals like this do most of the time?”

“I honestly don’t know,” Park chuckled. “I told you I’m not a hunter. Not yet anyway. Also I have no idea if these things will behave like the ones in our time.”

“This is our time too, Park,” she reminded him.

“It is, yes,” he agreed, “but you know what I meant. These are new creatures to us. They seem to be acting like ones that are familiar to us, but we haven’t been watching them very long either. Similarities may be deceiving. I’m not even sure these plate-skinned creatures are mammals.”

“They are warm-blooded and obviously not birds,” Iris pointed out.

“In two-hundred and fifty million years there may be a lot of new animals that are warm blooded. In our time... our original time, that is, the only warm-blooded classes of life were the birds and mammals. Two hundred and fifty million years before that, there was no warm-bloodedness, just the beginnings of a transition toward it. Now? Well who knows what may have evolved. These may be mammals or they could be the descendants of descendants of mammals. Mammals as a class of animal life may no longer

exist, except for us, of course.”

“What about those birds we saw last night?” Iris asked. “Are they still birds?”

“Or something descended from them is my guess,” Park nodded.

As they continued to watch the grazers, they spotted other creatures as well. Since leaving Van Winkle Base they had seen a fair number of insects although none of them seemed to be interested in biting humans for which Park was grateful. They had also seen flyers, although not close up. High in the sky there had been slowly circling creatures with bat-like wings. Since they had been out in the day, neither Park nor Iris had been certain they were actually bats or if some new animal had evolved a similar wing design. Unlike the bats they were acquainted with, these appeared to circle and glide like hawks and Park conjectured that they might be this era’s equivalent of hawks or vultures.

What had puzzled Park the most, however was waking up that first morning on the river and looking at the southern shore where they had seen the grass moving slightly in the water. In the light of day there did not appear to be any grass that was actually in the water, but he decided that maybe the level of the river had dropped just enough to expose the muddy bank on that side.

It did not take long for the grazers to ignore the two humans. There were other creatures in the vicinity but the grazers were the largest and most plentiful in sight and whatever normally preyed on them was not currently in the vicinity. After a while some of the smaller creatures came outside the protective ring of bulls, if they were bulls, and began to graze where the grass was still plentiful.

Park lifted the rifle to his shoulder, chose a target and fired. The herd immediately reacted by tightening up into a rough circle with the massive bulls on the outside. The wounded beast also retreated within the protective perimeter, but not before Iris shot it as well. It screamed piteously and fell to the ground.

“The poor thing is suffering,” Iris told Park.

“I know,” Park agreed. “Our guns are underpowered for these things. We’ll have to find a way to put it out of its misery. Move back a couple dozen yards and I’ll see if I can spook the herd into running off.”

“Why move back?” Iris asked.

“So there will be someone to give my flattened corpse a decent burial if this doesn’t work,” Park told her with a wink. Iris shivered at the thought, but did as he had asked. A moment later, Park fired several shots into the air over the grazers and to his satisfaction they ran in the opposite direction. Then he and Iris went up to the whimpering animal and put it down. “Cover my back while I gut this one,” he requested. “With natural protections like these critters have, there must be a range of carnivores who find them tasty. We may too, for that matter.”

“I’m seriously thinking of being a vegetarian,” Iris told him, sounding just a little ill.

“Well, this isn’t exactly easy for me either, dear,” Park told her gently, “but it’s something I have to do. If I get sick, it will have to be later. Now I just hope my knife can open this thing up.”

There was a shriek from their right just then and both turned to see five large, bird-like creatures running toward them. They were larger than the ones they had seen the previous evening, standing almost

three and a half feet tall and they were covered with hardened feathers all over their bodies, giving them the appearance of wearing scale armor. Their beaks were a foot long and came to a wicked-looking point. They had wings too, although they appeared to help propel the birds along the ground rather than provide the power of flight. Iris lifted her rifle quickly and fired on the bird in the lead. It dropped instantly and the others halted, confused. Iris fired again and dropped a second of the strange birds. The others squawked and ran off again, flapping their wings rapidly. They still were not truly flying, but now they looked as though a great wind was pushing them along, their feet scarcely touching the ground.

Park turned back to the grazer and finally found a way to open the carcass up. It wasn't a straight incision nor was it a pretty one, but it did the job. Without being asked, Iris went and retrieved the two dead birds. The feathers, if they could still be called that, were sharp, blade-shaped and very hard. They covered the birds completely giving them a natural armor that would leave a nasty wound in the mouth of any predator that attacked them that way. Iris cut her hand on one of them when she tried to pick it up by the neck. The talons on their feet were also long and sharp, reminding both Iris and Park of the feet of certain dinosaurs.

Park had far less trouble gutting the two birds, but the load was far too heavy to carry back to the boat all at once. "Let's take these blade birds back to the boat first," Park suggested. "Then we can hurry back for the grazer."

"Blade birds?" Iris asked even as she picked the smaller of the two up by its feet.

"It just came to me," Park admitted as they started briskly back toward the river. "It fits. I don't know if those feathers are a unique adaptation or not, and I suppose the biologists will give these things their own names, but unless you have a better name for them..."

"Not really," she replied instantly. "We may as well call those other things grazers."

"Good enough for me," Park shrugged. They reached the boat and Park threw the two large birds inside. They were only halfway back to the dead grazer when a large, translucent, golden-colored thing approached them at a surprisingly fast run. It had eight stubby tentacle-like appendages that lifted the translucent body off the ground and made it seem to float rapidly toward them.

Not having the time to aim and fire, Park and Iris, tried running away from it. It followed them briefly and then turned to approach the grazer carcass. "Oh, no you don't, whatever you are," Park growled and lifted his rifle to his shoulder and fired.

He missed with his first shot, but fired again and hit the thing on his second attempt. The translucent creature turned and started attacking them again, so both Park and Iris opened fire repeatedly. They hit the thing several times but it continued to come at them. "Split up!" Park yelled.

They ran in opposite directions and the thing decided to follow Park. Fast as he ran, however, the strange thing was faster and finally, Park twisted his ankle on a rock sticking partway out of the ground and felt a sharp pain as he crashed into the dirt unceremoniously. Forced to turn around and fight, he sat up and, with all his strength, he swung the butt of his rifle, smashing it sideways at the creature. For a frozen moment, both man and monster stopped, and then Park broke the spell by hitting it again repeatedly. Finally, the weird creature broke off its attack and started to crawl slowly away. It only got a few yards, however, before collapsing to the ground.

Park crawled over and prodded it, deciding that either he had killed it or else had knocked it out. Finally he was able to get a closer look at the thing. It was slowly turning gray now and a clear, gooey

liquid was draining out of the bullet holes.

“What is that thing?” Iris asked, rushing over to Park’s side.

Park looked at the creature, ignoring the sharp pain in his ankle and replied. “More calamari, I think, than I ever want to see again.”

“Excuse me?” Iris inquired.

“Well, I believe this is a cephalopod,” Park explained. “You’ll note the endoskeletal shell is sort of like a squid’s shell. That skin over it is a mantle. Okay, it’s almost three feet tall and nearly as wide and it doesn’t look much like a squid, but I think that shell stopped our bullets, or deflected them, maybe. And look what it is using for legs. There are eight of them and while fairly short, they’re not entirely unlike a squid’s arms.”

“And those tentacles look mean,” Iris added.

“Tentacles?” Park asked and took another look. “Funny, I didn’t see them before.”

“They were nearly all I did see,” Iris told him seriously. “How could you have missed them? They nearly grabbed you twice.”

“I was looking more at the mantle, I guess,” Park replied.

“Why is it turning all gray?” Iris asked.

“I think that’s its natural color,” Park replied. “A lot of cephalopods have natural camouflage. Think of this thing as a land-squid.”

“Squids don’t breathe air,” Iris remarked. She held out her hand to help Park to his feet.

“They did not use to,” Park replied reaching to take that hand, “but all land animals descend from creatures that at first came from the water. Why not cephalopods? Ow!”

“You hurt yourself?” Iris asked concernedly.

“Dinged my ankle, I’m afraid,” Park told her, hopping on his good leg while holding on to her. “Let’s get that grazer before anything else decides to stop in for lunch.”

“Park, you can barely walk like that,” Iris protested.

“I can’t walk at all,” he confessed, “just bounce around. But we have to bring these samples home.”

“I have to at least wrap that ankle,” she protested.

“After the grazer,” he told her stubbornly.

“Now!” she told him just as stubbornly.

“Maybe if you bring a bandage from the boat, then,” he backed down. She nodded and ran off to the boat. Park was not yet willing to concede his defeat, however, and hopped toward the land squid,

grabbed it by the long tentacles and started dragging it, hop by hop toward the river.

“What do you think you are doing, Parker Holman?” Iris asked sharply when he had made it halfway.

“Trying to be useful,” he replied calmly.

“And how useful will you be if you completely ruin your ankle?” she countered.

“Not very,” he admitted. “Okay, strap me up, please.”

“Sit,” she commanded, helping him to the ground. Then she knelt by his foot and strapped the ankle tightly with his shoe still on. “Your ankle will be starting to swell,” she explained before he could ask. “If we remove the shoe you won’t get it back on again. And we probably should leave it like this until we’re past the portage. Unless you want to call for the helicopter”

“Heck, no!” Park told her firmly. “If I do that, I’ll never hear the end of it from Arn. Isn’t that a bit tight?”

“If you were just going to sit in the boat I would say yes,” Iris told him practically, “but you insist on being the big strong man. It will hurt if you step on that foot, but at least the ankle won’t give way under your weight, although you might wish it would.” She finished the job and told him, “Well, let’s get this squid thing to the boat and get the oars.”

“Oars?” Park asked.

“And some rope,” she decided. “We can strap the grazer to the oars as a sort of travois. I’ve never done that, but it is supposed to make that sort of thing easier.”

They got the grazer into the boat and started back upstream. While Park operated the motor, Iris re-rigged the cover to keep the dead animals in the shade and then she sliced off several pounds of meat from both the grazer and one of the blade birds and put it in the cooler.

“What’s that for?” Park asked.

“We need to see if these things are edible,” Iris replied. “I figure it is probably better if we keep the meat fresh before testing it.”

“We have portable testers with us you know,” Park told her.

“I know, but we aren’t going to take the time to stop for a barbecue and we’ve no other way to cook it if it is safe,” she pointed out. “You’ll just have to put off your sampling of futuristic cuisine. And I’m not sure I care to try the land calamari. It smells horrible already.”

“No arguments from me,” Park replied.

Getting over the portage was sheer hell for Park. The added weight of the animals did nothing to ease the task, but they soon found the best way to lug the boat over the shallows with Park only able to hop was in short tugs. It was well past dark by the time they were able to power their way back in the river, but they continued on only another hour before stopping for the night.

Once they had, Iris redressed Park's ankle, which did not look as bad as they had feared and they both fell asleep in the middle of a deep section of the river. Another day of travel brought them back to the base near dusk.

"You should have called for help," Arn scolded them while others were unloading the boat.

"It wasn't that bad," Park insisted.

"You don't know that," Arn snapped back. "For all intents and purposes, we're on an alien world. We have not the faintest idea what sort of dangers are out there. I don't want anyone wandering around wounded if we can help it."

"We might have lost our samples," Park argued, "and maybe the boat."

"The boat and samples are replaceable," Arn replied heatedly. "You two are not. Now you are not going out again until the docs tell me you are fully healed."

"No kidding," Park laughed. "I'm not going out again until I know I'm fully healed."

"You're not a complete fool then," Arn growled. "So what did you find?"

Patty Zinco was fascinated by the smelly land squid which had only gotten worse for the ride in the boat, but Arn was more interested in the slightly more familiar animals. "They are not really a mammal or a bird," Patty reported the next day, "Although their descent from those classes is obvious. My colleagues and I are referring to their classes as postmammalia and postavis until we can get a better handle on them. We're going to need more samples before we know for certain and even then it is something we shall probably revise repeatedly for years to come.

"In any case both are safe to eat," she continued. "The grazer is quite tender and tastes a bit like veal, a little grassy, but not unappetizingly so. The blade bird is not too pleasant to eat. It's gamey and tough. It tastes like rubbish, if you must know. You could eat it in an emergency, but it would have to be pretty dire, I think. The land squid, if you insist on calling it that, is poisonous."

"And infernally hard to kill," Park replied.

"You need a gun with more stopping power is all," Arn told him. "I will see our people are better equipped."

Over the next three weeks, Park's team of scouts found still other postmammals and postavians that were both edible and tasty and Arn declared the problem of finding a local food source ended.

Part 2 Meet the Neighbors

One

Park was not decreed fit for travel for over a month, during which he became increasingly restless, insisting on going on the infrequent helicopter forays and hobbling around on the crutches the doctors had provided him. Unable to help much with physical duties he turned to working in Central Ops and made a nuisance of himself in there as well, so the entire base finally relaxed once he was cleared for exploration duties.

“Only half our crew is up yet,” Arn told Park and Iris the night before they planned to leave again. “Maybe you should wait until we’re at full strength.”

“Arn,” Park argued, “this is no longer a mission. We are a colony and as a colony it behooves us to explore the world around us.”

“You are a team leader, Park,” Arn insisted. “How can you lead when you aren’t here at the base?”

“I lead by example, Arn,” Park told him. “I always have. My scouts know what they’re doing. They’ve explored a one hundred mile radius around the base and are about to take a closer look at those incredible mountains. That will be an entirely different environment and may tell us more about the world as it is.”

Iris had been letting the two men talk but she cut in now. “I think I know the shape of this world as it is today, well, more or less.”

“Huh?” Arn asked.

“How?” Park asked at the same time.

“You gave me the idea, Park, when you said the number two hundred fifty million rang a bell with you,” Iris explained, “so I decided to do some research when we got back. If projections in the Twenty-First Century were at all accurate, the continents have mostly collided into a single super continent they referred to as Pangaea Proxima or the next Pangaea.”

“I remember that now,” Park’s eyes lit up. “But I thought the name was Pangaea Ultima.”

“Most scientists got away from that name realizing that the Earth would continue to change, so calling it the final Pangaea was inaccurate,” Iris told him. “Those mountains are so tall because they are possibly what’s left of the Atlantic Ocean and the entire Eastern Seaboard after the collision with Africa. Beyond Africa is Europe which still attaches to Asia which in turn, if our scientists were correct, is connected to

the lower tip of South America.”

“How certain is that?” Arn asked.

“This far out into the future?” Iris countered with a laugh. “Not much. Even the people who predicted this weren’t all that certain, but those mountains are in the right place and we’ll find out soon enough.”

“Hmm, if this is Pangaea Proxima, we ought to be thankful for that river,” Park remarked.

“Why is that?” Arn asked.

“The original Pangaea of the Permian Epoch was noted for the arid conditions on the interior of the supercontinent,” Park answered. “I guess the rain just dried up before it could get there. If that is a condition of supercontinents and not just of the Permian, then we’re in a fairly dry part of the world. That might explain the savannah-like conditions.”

“If that is a savannah,” Iris pointed out, “then there must be a dry and a rainy season.”

“I suspect this is the dry one then,” Park nodded. “It hasn’t rained since we got here. Although knowing how deep into the dry season it is may be crucial. Arn, better let the farmers know about that. Maybe just a kitchen garden this year until we know the best times to plant.”

“They’ve already decided that and reported on it,” Arn assured him.

“Well, they’re the experts on that,” Park nodded.

“It hasn’t stopped you from trying to help out anywhere else,” Arn noted.

“I’ve been bored,” Park admitted. “That’s why I’ll be best off exploring. I’ll stay in contact as long as I can, likely a couple weeks at the least – we aren’t planning to speed our way downstream – and plan to be back in two or three months at the outside.”

“Long trip,” Arn noted.

“Not long enough to see the whole world,” Park shrugged, “not even enough to see our own corner of it, really, but it’s a start. Just like last time you’ll know where to look for us if it comes to that.”

“Well, just to ease my mind,” Arn requested, “keep a journal, a boat’s log, if you will.”

“Why?” Park asked. “Our pictures and notes will be on board. Oh... I see if we go missing, but you find the boat you want our observations. Yeah, we’ll both keep logs. I’ll grab a few notebooks from out of Supplies, then.”

This time they chose to travel three days before stopping for a look around. The wheels Iris had fitted to the back of the boat looked ungainly and even a bit silly, but when they arrived at the shallows they still had to portage over. It took almost no time to swing them down into place and then just a few minutes to pull the boat to the other side and then back into the navigable water.

“Sure glad that worked,” Iris breathed once they were on their way again.

“You didn’t think it would?” Park asked, surprised.

"I had my doubts," she admitted, "You never really know if something will work until you try it, and while we did test it out near the base, we didn't have conditions quite like that – gravel under an inch or three of running water – to test it in. The theory was sound, but..."

"But you could have told me," Park complained.

"Why should both of us have worried?" Iris asked. "It worked and that's enough."

They continued on down the river and found another shallow the next day. After portaging by it, they moved a few miles further down the river before stopping for the night. "Signal strength is about seventy percent," Park reported on his nightly report to Arn. "I didn't expect that. Over."

"I directed your team to extend their repeaters in your direction first," Arn told him. "You'll have a strong signal on your next move too. After that, they'll be swinging off to the east and then north along the foothills of the mountains. Over."

"Yeah, okay," Park replied with a nod Arn could not see. "It's a good idea. When they've finished the circle around the base, have them follow the line of mountains for a while. Over."

"I will," Arn promised. "Any particular reason why? Over."

"It's a natural boundary," Park replied, "the one between Ohio and Congo, maybe. Over."

"You're kidding, right?" Arn asked, only belatedly adding, "Over."

"Not by much," Park replied. "Remember what Iris told us about Pangaea Proxima? Over."

"Oh, yeah. I guess it slipped my mind," Arn admitted. "Do you really think Africa is on the other side of those mountains? Over."

"If you had seen them you wouldn't doubt North America ran headlong into something the size of a continent," Park replied. "Africa is as good a candidate as any. Over."

"We'll know in time," Arn finished. "Over and out."

The next day, Park and Iris spent the morning on the northwest side of the river. They took videos and still pictures of the various animals and flora in the area. The golden-silver grass was still prevalent here, but there was other vegetation in the area. Most of the small and weedy plants they encountered had been present elsewhere, but the tall grass had been more noticeable. Here where that grass had been trampled and eaten the smaller undergrowth was both more obvious and plentiful. With the grass out of the way, some of those lesser plants had the room to grow and develop. One that seemed quite common had long flat yellow-green leaves that stretched out on the ground. There was a tight bud in the middle of each plant that Iris thought might be a flower in the wet season.

They saw more of the postmammals in various shapes and sizes and more postavians, but none of the land-squids, which suited Park just fine. In the afternoon they moved to the other side of the river and saw more of the same, with one exception. There was a tree. It was only twelve feet tall and its double-lobed leaves were a dark oily green, but it was completely different from anything else they had seen so far. They took a lot of pictures of the small tree, but when they noticed there was nothing living in the tree, they were careful not to touch the leaves as they collected some samples and placed them in

zip-lock bags. "It may be perfectly safe," Park told Iris, "but that looked all too much like the shininess of poison ivy."

They spent the next week slowly making their way down stream and adding to their map of the region and taking a lot of pictures.

There were plenty of flyers in the sky. They had seen the various insects and one of Park's scouts had managed to capture one of the bat-like things that had been seen earlier. It turned out to be another postmammalian species, although some few true mammals had been discovered. The class of mammals had begun as post-reptilian burrowers and seemed to have returned to a troglodytic existence, although the biologists reminded everyone that they had hardly explored even a significant fraction of the world, so there could yet be many species of true mammals and birds somewhere.

The strangest of the flyers Park and Iris saw first appeared on the sixth day after the second portage. Iris first spotted the odd object in the sky when it floated into view from behind a hill. It was about five feet in diameter with eight stubby triangular appendages hanging down below it.

Park lifted the binoculars to his eyes. "Well, that's one for the books. A flying cephalopod."

"Are you sure?" Iris asked.

"Looks vaguely like an octopus filled with helium," Park replied. "For all I know that might be what it is."

"Not very likely," Iris laughed, "but it could be full of hydrogen. I suppose it might break water into its constituent elements. The oxygen could be to breathe and the hydrogen to float."

"You think a cephalopod could evolve the ability to electrolyze water?" Park asked.

"I do, yes," she replied. "Or it could be a chemical process."

"No," Park shook his head, "Water is one of the most basic products of an organic chemical reaction. To separate them chemically and get pure or almost pure hydrogen you need an electrical current. Well, electricity is part of life and some creatures are truly shocking, like the so-called electric eels, so maybe you were right the first time."

"I'd like to get one for a sample," Iris mused.

"If I shoot it, it will likely burst into flame," Park replied. "It occurs to me that is not the safest way to get around in a storm."

"It probably comes back down to earth then by releasing the gas," Iris speculated. As though on queue the creature suddenly twisted around and shot downward to the river well ahead of the boat. It crashed into something that was swimming on the surface and instantly wrapped itself around the swimmer and after a series of squawks, dragged it down into the water. "Did you record that?" Iris asked.

"I did," Park confirmed. "I didn't get a clear view of what it attacked, though. We haven't seen many things that swim on the surface of water."

"I couldn't tell either," Iris admitted, "but it was probably a land animal that was crossing or fishing

and instead the fish – sort of – got it.”

“Haven’t seen many fish that could get something that size yet,” Park noted, “but then the river isn’t consistently deep enough yet to support such a creature, I don’t think.”

“There could be something that cocoons itself during the dry season like a lungfish,” Iris pointed out.”

“There could,” Park agreed, “but I don’t think this river gets more than three feet deeper during the wet season if that. The banks are not very high here so it would flood if the level came up over two feet. Judging from the nearby vegetation I’d guess it floods maybe to three feet and likely does not more than briefly each year. If you look carefully, you can see the change in vegetation on shore.” Iris looked and nodded.

As they came to the spot where the flying cephalopod had been they saw it through the clear water of the river where it had nearly stuffed the entire other creature into its mouth. Not having a net they chose to proceed on and leave it to its meal.

That night, on the extreme southern edge of their communications link to Van Winkle Base, they received a static-filled warning from Patty Zinco. “We’ve discovered another new class of animals,” she told them between the clicks and hisses of the almost non-existent signal. “We’re referring to them as Neoreptiles and the ones so far are nasty. Over.”

“How so?” Park asked. “Over.”

“So far all the samples we’ve found have venomous adaptations of one sort or another. Mostly it’s poisonous skin and/or claws. The venom is extremely powerful and even their touch can paralyze quickly. If you see anything that looks vaguely reptilian, give it a wide berth. Do not attempt to touch one without adequate protection or maybe just don’t try for now. Over.”

“Roger that,” Park agreed. “How large are these things?”

“Most are small and lizard-like,” Patty told him, “but we found one just today that was four feet in length and looked like a small crocodile. The morphological differences were only apparent on internal analysis. They’re all mean and feisty and they do not tire easily unlike many of their ancestors. Over.”

“Thanks for the warning, Pat,” Park replied. “Please remind Arn we ran out of repeaters the day before yesterday so we will be passing beyond contact range tomorrow probably. Over.”

“Will do,” Patty promised. “You be careful, now. This isn’t Central Park. Over.”

“No, what’s left of that is jumbled up in the Atlantic Mountains. Over,” Park replied.

“Atlantic Mountains?” Patty asked. “I had not heard we named them. Over.”

“Well, that’s my suggestion anyway,” Park replied. “Over and out.”

The river gradually took a more southerly course and by the time they reached a wide confluence over a month after starting out, it was already starting to turn back toward the south southeast. The tributary nearly doubled the size of the river and the confluence was a knot of roiling currents, but they kept to the eastern edge of the river and managed to get past without incident. From then on the crystal clear waters were replaced by ones that were deeply tinted by brown silt. It was only a few days later

that Park realized they had crossed the equator.

They continued on in that manner for the next month on a more or less southeasterly course. It had been an idyllic time for the two explorers. The wide river became even wider, growing to over two miles across as they continued. Park believed it was navigable to many ocean-worthy ships of the twenty-first century and there was still no end in sight.

On their exploration days they would hunt for fresh food, relying on experience and their testing kits. Anything they did not like the taste of, they avoided and so far that had seemed to serve them well. Some days they would spend time swimming in the river or just idly watching the clouds go by, when there were clouds. As often as not the sky was cloudless and Park began to wonder how far off the rainy season was. They had been awake for months and so far there had been no rain. Surely there would be a monsoon or other form of storm soon.

They were a day beyond the second major tributary and now headed east southeast, when they heard a scream from just around a wide bend in the river.

Two

“That sounds like a woman,” Park opined, quickly grabbing on to something. He knew what Iris would do next. There were several strange zapping sounds and an animalistic roar in response.

“It did to me too,” Iris agreed. “Are there people here after all?” She opened the throttle and let their carefully hoarded fuel rush to give the motor an extra boost.

“It’s not impossible,” Park told her over the sudden roar of the engine. “Not very likely, but certainly within the realm of possibility.”

The boat picked up more than enough speed to have supported a pair of water skiers as it zipped around the bend, giving Park and Iris their first view of who had been screaming. In the water ahead of them was a young woman, maybe sixteen years of age. They could only see her from her shoulders up, but she had long, dark brown hair and well-tanned skin and appeared to be wearing a tight, hot pink sleeveless garment, which Park thought might just be a form of swimsuit. She was holding what obviously had to be a weapon and there were two things that looked like eight-foot long crocodiles near her. One was obviously dead or maybe just stunned and the other was thrashing around in pain. Had those been the only aquatic menaces nearby, she would have been perfectly safe, but Park could see several others approaching from every direction.

The teen aimed her weapon at the next nearest neo-croc, as Park thought of them, but when it fired, instead of the loud zapping sound, it only emitted a faint pop and a small stream of vapor. Terror filled her face as she turned to see what was making the strange sound. Seeing the boat she slipped the weapon into a sheath on her back and started swimming toward it.

There was another neo-croc on a collision course with her, so Park lifted his rifle and took aim. After their previous weapons proved inadequate, Arn had issued the best assault weapons he could find to all the scouts. Park fired off a burst and his target began spewing blood. The other neo-crocs suddenly turned on that one and began to eat.

“Coh!” the young woman shouted at Park and Iris as the engine grew quiet and the boat began to slow down. “Miganz tana keepa!”

“What?” Park asked automatically. Then he silently cursed himself. There was no way either of them was likely to know each other’s language.

But she made the same mistake and sounding like every tourist in history who thought that by merely speaking slowly, clearly and loudly they could make themselves understood, she pointed at the neo-crocs and repeated, “Keepa! Miganz tana! Toh pikka cohna plis ta salapa. Jeefah!”

“I could be wrong,” Iris attempted an interpretation, “but I think she’s telling us we’re not out of danger.”

“Jeefah!” the young woman told them, pointing downstream.

“It could be these critters go berserk at the smell or taste of blood,” Park replied thoughtfully. If that’s the case, they might not stop attacking until there is nothing left in sight.”

“Jeefah!” the young woman told them, sounding frustrated. Then with an exaggerated sigh, she made a beckoning gesture and started swimming downstream, careful to avoid the ravening neo-crocs.

“I think ‘Jeefah,’ means ‘this way’ or ‘follow me,’” Park told Iris. “Catch up to her and I’ll pull her on board.”

“Sounds more like ‘Vamoose!’ to me,” Iris remarked as she turned the accelerator on the motor. Solar power was enough to catch up to a swimmer even one who seemed to be of Olympic caliber like the woman they were following.

Park leaned over the gunwales as they passed, held out his hand and, as the woman grabbed hold, he pulled her up and into the boat. Then he nearly dropped her again when he realized she was not human at all.

Instead of legs below her waist, she had a long, dolphin-like tail, colored dark brown like her long hair. Her tail seemed to be covered with scales, although it soon became apparent these were a sort of evolved hair in spite of their fishy look. Realizing he was still holding her off the deck by her arms, Park gently lowered her on to a seat and only then realized that she was as surprised by his anatomy as he was by hers.

She was not unclothed by a long shot. Besides the tight, shirt-like garment she wore over her upper torso, she also wore a short tan skirt with pockets. Park could see she had a number of items in them.

The weapon holster slung over her shoulder bandolier-style, was removed and placed on the deck so she could sit comfortably.

“Ooh,” she gasped interestedly and reached out to gently touch Park’s right leg. “Ja na catayma. Koo!”

“You’re pretty coo too,” Park chuckled. “Iris, look what I caught.”

“I see her,” Iris laughed. “If these weren’t such dangerous waters, I’d say she was too young and you should throw her back.”

“Jealous?” Park asked. “Doesn’t sound like you.” Thinking back, Park realized he had never done anything to make Iris jealous, so maybe...

“Not really,” she laughed, “No. But she is definitely too young for you.”

“That she is,” Park agreed and turned back to the mermaid. “Can I offer you something to eat or drink?” he asked.

It was another stupid question and her politely puzzled look told him so immediately. Before he could think of something else to say, however she pointed at her herself and said, “Marisea. Marisea Waisau,” and held her hand out in greeting.

“Park Holman,” Park replied, grasping her hand. Then for no particular reason he bent over and kissed it, making the mermaid giggle. He pointed toward Iris and introduced her too. Then he let go of Marisea’s hand and went over to the cooler. Looking inside he found a few grazer steaks he and Iris had acquired a few days earlier, and a large supply of water and soft drinks. Early on, Park had considered bringing a few six-packs of beer, but decided no matter how well he knew he could hold his alcohol, it was a suicidally stupid thing to bring along on a dangerous mission. He considered offering her a Coke, but decided that evolution had come too far to assume it would be safe for her to drink, so instead he pulled out three bottles of water, tossed one to Iris and gave another to Marisea. Finally he sat down next to the young mermaid and opened his own bottle.

Marisea caught on instantly and untwisted the cap of her bottle. “Harif gana too,” she told him, raising the bottle as if in toast. “Halu!” she drank the water and nodded.

Park raised his bottle to her, and in the same tones replied, “Here’s mud in your eyes, kid.” and drank as well. It was apparently the right gesture even if Marisea had no chance of understanding his words.

They had only gone another two miles or so down the river before Marisea remembered something. She pointed obliquely toward the north bank of the river and said, “Lim gretin wallata pbaba.”

“Excuse me” Park asked in turn. He too pointed toward the shore, although not in the same direction.

“Neh,” Marisea shook her head. “Neh torala; yetta fador.”

“If you say so,” Park replied for want of anything else to say. Marisea sighed heavily and jumped back into the water, swam a few strokes, turned and called, “Jeefah.”

“Iris, she wants us to jeefah again,” Park reported.

“I gathered that,” Iris laughed. “Jeefah it is, then.” She steered the boat to follow Marisea. As they caught up Marisea jumped back up into the boat with Park’s assistance and muttered, “Tarrase! Hant tou wokes gena haecka tangua?”

“It probably has to do with being stubborn,” Park told her seriously. She just laughed.

As the boat approached the shore, Marisea directed Iris with gestures to bring the boat around just another bend where there was a small sheltered cove. In that cove was another boat. It looked like it was made of white fiberglass or some similar material and was broader in the beam than the one Park and Iris used, but she was a slightly shallower craft with a solid cabin built toward her bow.

Marisea slipped into the river and swam to the other boat and reached into the gunwale to pull out a belt. A moment later she rose up and out of the water until only her tail was still submerged. She flicked it a couple times to bring herself to shore and then held her hands out toward the humans.

Park reached into the bow of his own boat and threw the painter to the waiting Marisea. He was only mildly surprised when it turned out she could pull the boat into the river bank. He had not been sure she had the leverage to actually haul them in, floating there like that, but evidently she did. He jumped ashore and together they pulled the boat firmly up and on to the bank.

For good measure, Park set the anchor, causing several unintelligible sentences to escape from Marisea’s lips. From what he could see she was curious about the design and probably wondered why he bothered with the boat already firmly beached. “It’s a long walk home,” he told her, knowing she would not understand the words but might catch a bit of the humor. Her answering chuckle told him he was right.

Park helped Iris ashore and together they followed Marisea as she hop-stepped away from the river. After a few minutes, they saw a merman somewhat older than Marisea working with some sort of odd contraption. Nearby, there was something that looked like a giant ant dressed in a striped bathrobe in shades of brown. The ant creature was kneeling on the ground and Park got the distinct impression it was praying.

“Bapa!” Marisea called out. “Genno whatta fomay tee!”

“Gata?” the other merperson asked.

“Neh, Bapa,” Marisea replied, shaking her head. “Tika donna spea neh.”

“Olaw,” the merman nodded. He stepped up to Park and Iris, made an adjustment on a torq he wore around his neck and said, “Kollahne, repoa. Yiesta, Taodore Waisau.” But from the torq. Park and Iris heard, “Grachta, wachtinoche. Boranoshtka, Taodora Waisautka.”

“Parker Holman,” Park replied, holding out his hand in the same manner Marisea had. “I think your translation doohickey has a sore throat.”

“Neh Gata,” Taodore mused absent mindedly before remembering his manners and accepting Park’s hand. “Neh Gata, do leet!”

“I hope that’s a good thing,” Park chuckled at the guttural translation that poured from the torq.

Taodore touched buttons on the torq and it said something else, in a less harsh-sounding language. “Not that either,” Park shook his head. The torq was silent. “I think we’re going to have to do this the hard way. Hello. My name is Parker Holman, my companion is Iris Fain,” he indicated Iris.

Taodore turned toward Iris and extended his hand. As Iris took it in his, he bowed, in much the same way as Park had with Marisea and kissed Iris’ hand in a courtly manner. Standing to the side, Marisea giggled again and Park guessed this was an adult thing in their society – something children and teens found amusing. He corrected himself a moment later, seeing a blush rise on Marisea’s face. It was obviously a form of mild or possibly courtly flirtation. Children always found that funny.

“So who’s your friend?” Park asked indicating the other being. The insectoid creature had stood up as Taodore greeted the humans and was now inspecting them gravely.

“Ah,” Taodore paused and turned toward the large ant-like creature, “Niesta, Okactack omo Totkeba yno Atackack yno iente.”

“Tkak,” the insect clacked at the humans and indicated itself, “Okactack.” He lifted both of his left arms in a sort of formal wave, that Park imitated as best he could while introducing himself and Iris. He took a good look at Okactack. The Insect stood approximately three and a half feet tall

“You am Parker Holman, Iris Fain?” the torq said after Taodore garbled some syllables at them.

Park started and laughed. “That’s right. Yes, but that should be ‘You are Parker Holman and Iris Fain,’ but that’s a start. We should learn your language though.”

Taodore frowned at the attempted translation but gestured that Park should say more and led him through a number of common objects in the vicinity. After a while they built up a fair vocabulary the torq could handle. By sunset it was still only using baby talk, but at least they could converse. It was still another day before they could really ask questions of each other.

“So, my friend,” Taodore began once they finally had the words they needed, “you say you come from the ancient past?” They were sitting in the Mer’s boat. Park and Iris had been surprised to learn Taodore and Marisea called their people the Mer, but chalked it up to an amazing coincidence.

“That’s about the size of it,” Park admitted. He described Project Van Winkle and the reasons behind it.

“True working stasis,” Taodore marveled. “We have stories of lost science, of course. The wonders and wisdom of the ancients, or so we were led to believe. But why were you sent so far into your future? Two hundred and fifty million years?”

“That’s our estimate,” Park agreed.

“Were you intended as a sort of time capsule perhaps?” Taodore asked.

“Not in the usual way,” Park replied. “The project was initiated because there was a large asteroid headed toward the planet. We didn’t actually expect it to hit, but we did it just in case. We were supposed to be a kernel of civilization should the real civilization collapse. Well, from what we learned in our own computer’s records, the asteroid did, indeed miss but the powers that be decided that since they already had us assembled and safely in stasis, it would be simpler and cheaper to just keep us there in case some other emergency came along. Not that we had any say in the matter, you understand.”

“But surely some great calamity must have befallen the civilization of your time,” Taodore insisted. “Otherwise you would have been awakened sooner.”

“More likely we were never needed,” Park replied. “If there had been a disaster, we’d have been woken up to deal with it. As it is we’re only up now because our systems were beginning to fail. I suspect there were a series of earthquakes that eventually disrupted the power to the equipment that kept us safe.”

“And yet that I should have lived to meet you,” Taodore replied. “Are you of the Originals?”

“The Originals?” Park echoed.

“The first intelligent species to come from Earth, of course,” Taodore explained.

“Well, not the first exactly,” Park shrugged. “Our scholars knew of earlier species of the genus *Homo* from whom we evolved, but we were the first to achieve civilization.”

“And you evolved naturally?” Taodore asked excitedly.

“Of course,” Park nodded. “There was no one else to breed us intentionally for one trait or another nor anyone to practice gene splicing or any other form of artificial genetics. Even in my time it was illegal to do so on people.” Then he thought of something, “Why do you ask that? Are there many artificial species?”

“Almost all to one extent or another, or so I believe,” Taodore replied. “My own people did not evolve at all. We know that we were created although it was so long ago that the records have been lost.”

“Well, I have to admit it seems unlikely you would have evolved naturally from humans without a nudge or two,” Park agreed, “but how do you know for certain? Is it a religious belief?”

“It is a part of our religion,” Taodore nodded, obviously taking no offense from Park’s question, “but we know because we cannot evolve. My people are gene-locked. The Galactics tell us so and our own scientists agree. We can never evolve. My hundred thousandth descendant will still be a Mer, no different from any other Mer.”

As Taodore and Park spoke to each other, Iris and Marisea were walking along the river where Marisea was showing Iris which of the local plants were good to eat. This region was far more varied in vegetation than it was to the north and looked more like the African veldt to Iris than the area around Van Winkle Base. Instead of an endless expanse of three-foot tall grass, constantly waving in the wind, the grass here was much shorter and there was brush and trees. The brush and trees were in small clumps, giving the region an open look even so and here there were larger beasts and far more flyers in the air.

Marisea, it turned out, also had a torq similar to her father, Taodore’s. She just had not taken it with her on her journey upstream. “I went to collect samples for Dad,” she explained to Iris. “*Thereshti* are not all that common and that was a larger pack of them than I ever imagined. Normally they only hunt in groups of two or three. My stunner should have been sufficient protection. I am glad you came along though,” she added after a pause. Then, without any warning, tears fell from her eyes and she gave Iris a bone-crushing hug. “Thank you,” she whispered repeatedly until Iris managed to calm the teenager down.

"I'm sorry," she told Iris after a while. "I don't know what came over me."

"It takes a while sometimes," Iris replied, smiling. "When you're in danger you just set your jaw and handle it as best you can. At least that's what you're supposed to do. Later you have the freedom to realize just what could have happened. That's when you really feel the fear."

"But I was frightened yesterday too," Marisea told her, wiping tears from her face with her hands. "I screamed my head off."

"We heard you," Iris replied, "That's why we rushed to see what was happening. But you didn't really scream very much. Just the one time. By the time we saw you, you were shooting the neo-crocs."

"Neo-crocs" Marisea echoed uncertainly. "We call them *reshiti*."

"Park and I didn't know that at the time," Iris explained.

"That gun of yours is the wrong way to handle them, though," Marisea told her.

"Because it kills?" Iris asked.

"No," Marisea laughed. "I have no problem killing *reshiti*. They have no problem killing me either. No, it was the wrong way because it spills blood. *Thereshiti* go mad when there is blood. First they attack the one that bleeds whether *reshiti* or not and then they attack anything else that is not *aresht* until there is nothing left. If you use the stunner, maybe you kill one, maybe not, but you don't spill blood. See?"

"I guess I do," Iris nodded. "In the past we had a sort of fish called sharks that sometimes behaved like that too."

"Yes," Marisea nodded, "There are fish now that do the same thing. We have other ways of dealing with them. There are certain sounds that keep them away. It's very simple really and they don't generally attack anyway, but *thereshiti* seem always hungry."

"Maybe they are," Iris shrugged. "They seem very active for aquatic reptiles or maybe they're neoreptiles."

"If I understand what you have told me," Marisea responded, "I think they are neos." There are not many of the old sort left. Just a few, uh, I forget the phrase. Really old species."

"Fossil species, perhaps?" Iris prompted her.

"Mmm, maybe," Marisea decided. "I really need to learn your language and not depend on the torq. It's lucky we have them really. We only keep them with us because we met Okactack shortly after starting out. It's impossible to speak any form of Atackack language without them, you see, although Dad's system is also programmed for any known Galactic languages and gets updates from the Central Net when we're in contact, which around here is only once every few days."

"Who are these Galactics?" Iris asked.

"The Galactics?" Marisea wrinkled her nose in distaste. Iris thought it was a pretty nose and would have loved to have one so cute. Her own nose had never satisfied her although she had never opted for

surgery to change it. “They’re the damned, uh excuse me, lords and masters of all space or at least they act like they are. They come here sometimes, mostly scholars, archaeologists more frequently than most but I’ve never met any of them. They might be okay. I don’t know, but the ones who enforce the Covenant, they’re different. They have decreed that since the Mer are an artificially created species, as though any of them have not fiddled with their genes from time to time, we are not allowed to go to space. Who are they to say that?”

“It doesn’t sound fair to me,” Iris agreed. “But what’s stopping your people from going up anyway?”

“They have a city on the Moon,” Marisea told her. “You can see it sometimes as a bright silver dot, when the sun reflects off of it just right. From there they watch and make sure all provisions of the Covenant are upheld”

“And what provisions are those?” Iris prompted Marisea.

“That the Mer must never again build a space craft or satellite and fly it more than one hundred miles over the surface of the earth,” Marisea recited as though having learned it from a text book. Iris decided the girl probably had done just that.

“Do you have ships that can do more?” Iris asked, “and how could they stop you?”

“I learned in school that our space craft are capable of interplanetary flight,” Marisea told her, “but they would shoot down any vessel attempting to do so. It has happened in the past. And if we try to do it too much, they could come here and destroy our cities and maybe all of us.”

“But why?” Iris insisted, unable to comprehend such a restriction.

Marisea replied, “We’re a gene-locked species. It is impossible for us to evolve. So they have decided that since we are not naturally evolved, we cannot be allowed to enter the interstellar community. It isn’t fair.”

“It doesn’t sound fair to me,” Iris agreed. “No one sees his species evolve within his lifetime anyway. To discriminate simply because your fossil record doesn’t change seems silly and arbitrary to me.”

“And it’s not like any of them evolved naturally,” Marisea went on. “All the Earth-descended species came from your sort, just like mine did. They were all genetically adapted to their worlds originally, it’s just that they are not gene-locked.”

“Not much I can say to that, aside from I think they’re wrong,” Iris replied.

Okactack spent much of the time silently studying the two humans. He did not say much and would occasionally light some incense and go into a trance. After a while, he would wake up, nod a few times and go back to watching Park or Iris for a while. Park tried to ask if he could help the insectile shaman, but Otackack merely shook his head and clicked out, “Not yet. I am not yet sure,” in his own translated language.

“I don’t get him,” Park admitted to Taodore and Marisea when he found an opportunity to speak away from the ant-like shaman. That turned out to be easier than he expected as Okactack spent most of his time in prayer and a sacred trance and rarely paid much attention to the humanoids.

“Who?” Taodore asked. “Old Okactack? Don’t mind him. He’s a good old bug. Never gets in the

way and even helps out when asked. You have to respect a guy like that. He rides with us in the boat even though he would drown in rather short order should he fall in the water. The Attackack are rather scared of water for that reason although they do have some novel means of building bridges when they need to, you know?"

"I don't," Park smiled, "but I'll take your word for it. Well, if they have a civilization, I suppose they would need to be able to build a decent bridge especially if they drown so easily."

"Civilization, old boy?" Taodore laughed as though that had been the funniest thing he could have heard. "The Attackack aren't civilized, not by a long shot."

"The Attackack are what my teacher called, a collection of neolithic tribes, loosely bound into five related groups," Marisea explained to Park and Iris.

"They use stone tools?" Iris asked.

"Not if they can help it," Taodore replied. "The Gecks and Bidachiks trade fairly extensively with the Mer of the southern coast and they in turn have a thriving trade network with the Totkebas and Pakatis..."

"Who?" Park interrupted to ask.

"The Attackack Tribal groupings," Marisea supplied. "Many people call them tribes, but actually they are five groups of related tribes. They are not quite organized enough to refer to as nations. The Gecks are the southernmost tribes, they live between the Strait of Australis and the Sink and the Bidichiks live in the southeast corner of the continent. The Totkeba Tribes live in Otke, you know, on the other side of The Sink, to the north of Geck Territory and north of them live the Pakatis."

"You'll have to show me a map," Park told her.

"I'll get a pad from the boat," she volunteered enthusiastically and quickly hop-stepped away.

"That's only four tribal groups," Iris noted. "What of the fifth?"

"The Kogacks aren't really a group of related tribes," Taodore explained. "That's just a name the other Attackack give to all the bands of Attackack who live in the far east beyond the Mediterranean Mountains. They are not as advanced, either culturally or technologically, as the other Attackack. I suppose when you get right down to it, you could refer to them as Stone Age savages. Unlike their cousins they do no farming or herding of animals. They make their subsistence almost entirely from hunting and gathering."

"Almost?" Park asked.

"I understand that some occasionally visit our cities to trade, but not very often. Mostly they bring gemstones from their lands, and craft goods they make. They're fairly popular, I understand."

"And knowing there are expensive gemstones on their lands doesn't make anyone want to go get some for themselves?" Iris asked. "You know, to cut out the middle man as it were?"

"Are you kidding?" Taodore laughed. "The Kogacks really are savages. I wouldn't call them cannibals as we're different species, but you get the idea. I wouldn't have you believe all Mer are all

honest and lacking in greed. We're only mortal, after all. There have been attempts to go inland there to get the gems directly. One or two groups of people try it every year, but no one ever succeeds and only a few very lucky ones ever return alive. Even other Attackack hesitate to enter Kogack lands and, in fact, only a shaman can do so with impunity."

Marisea returned then and showed Park and Iris a map of the world as the Mer knew it. On it they could see the supercontinent of Pangaea Proxima, although on the Mer map it was simply labeled with a Merish word that meant "the Land." They could make out the rough and contorted outlines of the continents they had once known. The Atlantic Ocean no longer existed. Africa had been pushed up into Europe which, in time, had rotated with Asia in a long clockwise motion. South America was now connected to what had been Southeast Asia and the remains of the Indian Ocean was now a large inland sea called, "The Sink." South of the supercontinent was the smaller continent, Australis, which appeared to have been formed by a collision between Australia and Antarctica. And here and there were chains of islands that had no doubt once bordered the Pacific Ocean, which was now the only remaining ocean, and completely encircled Pangaea. There were no ice caps; this was a warm world.

"We met Okactack over here in Geck territory on the southeast side of the Sink," Taodore told Park and Iris. "That was kind of strange. He said he had been waiting for us and that we would take him to where he needed to go."

"Did it occur to you he might be a little crazy?" Park asked in hushed tones.

"Of course he's crazy!" Taodore laughed. "By our standards, all the Attackack mystics are crazy, but not by their own. Tack is actually one of the more normal ones I've met. At least his prayers and trances are quiet. He's a shaman on a mission, though and that could make a difference. He told me he has been graced with the curse of prophecy."

"An interesting way to put it," Park noted.

"His own words," Taodore shrugged.

"His?" Iris asked. "Aren't most insects female?"

"Most Attackack workers are female, but they are not quite like the lower orders of insect," Taodore replied. "There are about five females for every male and all their shamans are male. Anyway, Tack had a vision about a year ago from what I understand."

"What sort of vision?" Park asked.

"Oh the usual sort," Taodore replied. "Death, destruction, general mayhem, world in danger and all that. Tack believes the world is in danger from the outside. Given the way the Galactics don't like us much, I suppose this is believable, though I'm not sure how many Attackacks would know a Galactic from a reshi. And he is following his vision to a place where he claims he will find a savior."

"I figured it was the neighborly thing to bring him along. If he's right then maybe I'm helping the whole world and if not, well where's the harm, eh? Besides I've never met an Attackack shaman who was violent. They are all pacifists by oath. It is part of why they can travel anywhere on Attackack lands without fear of the locals turning on them. The other Attackack frequently war on their neighbors."

"War?" Iris asked.

“Well, our culturologists call it war,” Taodore shrugged. “In truth, they do more shouting and waving at each other than actual fighting most of the time. It’s all very ritualized, I understand. Last year I witnessed such a war. It lasted five or six hours and ended after the first spear was thrown. Not only that, but it landed short.”

“Are all Attackack wars like that?” Iris asked, amazed.

“Most of them,” Taodore replied. “Oh they have wars that go beyond mere shouting and raiding. They have a few that get rather bloody, in fact, but these are relatively rare and only occur in areas of high population. Okactack tells me his people go crazy when two tribes have to compete over the same farming or herding areas for more than a few years, but that in most cases their shamans can keep things manageable.”

“Crazy?” Park wondered. “Do you mean as in some sort of biological or territorial imperative?”

“I’m not really sure, old boy,” Taodore replied. “Not really my field of study, don’t you know, but I suppose that could be the case. It seems to only happen when two tribes have been competing for a fair number of years and the populations of one or both have grown large.”

“Could be that as their food sources begin to strain to feed them, certain hormonal or pheromonal changes occur to make them more aggressive,” Park commented. “I think some of the insects in the past may have behaved like that too, although that wasn’t my specialty either.”

“And what is your specialty, old boy?” Taodore asked.

“I don’t really have a single specialty,” Park chuckled. “I have degrees of higher learning in a number of subjects, but rather than specialize I have spent much of my life following whatever interest beckoned to me at the moment. I guess you could say I am a professional generalist.”

“Ah!” Taodore smiled broadly. “Then we are brothers of the spirit. I too have been educated in our universities, but have never settled down to a single field of competence. Some of my fellows find some amusement in my enthusiasms, I know, but I find life so much more interesting this way. And you, my dear?” He turned toward Iris.

“I’m an engineer,” Iris replied, “although even there I have generalized. My training was in electrical and mechanical engineering and I have taught both subjects. How about you Marisea? Are you looking for a specialty or planning to follow the path your father walks?”

“I’m not sure,” Marisea admitted. “I like most of the subjects I have in school and most of the teachers too, although this year, Dad has been teaching me. I never really have had a specialty.”

“You’re a bit young for a specialized education just yet anyway, dear,” Taodore told her. “We all start with the same educational basics and only choose a specialty while at University and you’ve another two and a half years before then. My daughter,” he told the humans, “could yet be a generalist, of course, but I know she truly loves looking at the stars.”

Marisea sighed, but said nothing, but it was enough to let Iris know the girl wanted so much more than to actually look at the stars, but after their previous discussions it did not seem likely she would ever get any closer to them. It was not a problem Iris could see an easy solution for.

Three

Taodore had been studying a unique class of motile plants on the river, which according to his map was called the Zontisso. The plants could literally walk on their roots and were to be found all over Pangaea, but here along the Zontisso there appeared to be some unique varieties including a tree-sized walking plant that was unique to the middle and lower Zontisso valley. The grass-sized species could move fairly rapidly, but this tree-like species could only move a few feet each day.

“Motile plants?” Park whistled. “We had nothing like that when we came from, not above the microscopic scale anyway. I think that would explain what we saw on our first trip on the river, though.” He explained how he had seen grass in the water, but that by the next, the banks had been clear again.

“Could have been any number of common species,” Taodore told him. “There have been several dozen catalogued. It’s these big ones I’ve been interested in, although we seem to be at the limit of their range. There are more downstream, some in fair-sized forests that move a little from day to day.”

“What’s the point though?” Park asked. “Why should a plant be able to move?”

“Why not?” Taodore answered. “We do, don’t we, old boy?”

“Most animals do,” Park noted, “but plants?”

“I imagine the ability evolved from a need to find additional nutrients,” Taodore replied. “I know a botanist who is trying to figure out if these motile plants can think. Some have elaborate movements they go through in the pollination season and many travel in large circuits, whether to and from water or in wide circles. He was interested in the trees which was why I started out this way. But now, I’m more interested in your people and this base you tell me about.”

“Would you like to come for a visit?” Park invited him.

“Old boy,” Taodore clapped him on the shoulder. “I thought you would never ask. The oldest ruins we know of are a mere one million years old, so the chance to see an intact facility from two hundred and fifty million, well, it’s something I would give anything to see.”

“I’m not sure you can call it intact,” Park warned him. “You have to realize it was originally built over three thousand feet underground but is now roughly half exposed.”

“But it is mostly intact, isn’t it?” Taodore asked.

“It’s still livable inside,” Park admitted. “And there are only a few holes in some of the walls, although by now they should be patched up. Fortunately, the walls were not damaged too long before our first stasis units gave out. We had a bit of dust that got blown in, but it wasn’t too bad. From what we can tell there was an earthquake that disrupted our connection to one of our geothermal energy generators and that caused power to start to fail in a number of sections until we woke up. We’ve rigged up solar panels to make up for the loss now, so I think you’ll have a fair notion of what the base was like when it was new.”

Okactack, or Tack as he told the humans to call him, chose to ride in Park’s and Iris’ boat as they began their return trip and that gave them both a chance to talk to the insectoid shaman. “Taodore tells me you are following a vision?” Park asked him through one of the Mer translation torqs.

“Yes,” Tack replied. “I am on a vision quest. Our world is in danger from beyond.”

“Yes,” Park nodded. “Taodore told me about the Galactic quarantine of the Earth.”

“It is not merely the quarantine,” Tack rocked back and forth in what Park had learned was a gesture of negativity, similar to the shaking of one’s head. “We, the people of Earth, have enemies; ones who would see us all dead if they have their way.”

“So they don’t like us much,” Park chuckled. It was the wrong thing to say to the devoted Atackack. Tack glared at him from his multifaceted eyes. That’s a lot of glare, Park thought to himself, but aloud he said, “Forgive me, Tack. My mouth runs without my brain behind it sometimes. I meant no disrespect.”

Tack nodded, it was a human and Mer gesture he had learned. “The saviors will have many weapons,” Tack replied. “Perhaps humor is one of them.”

“How many saviors are you looking for?” Park asked.

“Two,” Tack replied. “Oh, there are many saviors, for indeed, we shall all play our parts in our own salvation, but there are two Savior Strangers who come to us from another world, and yet not another world who will do the most to save our world and everyone in it.”

Tack, when not praying was most interested in Park, Iris and their people and asked many questions about them. He also shared his impressions of the Mer. “They confuse me, sometimes,” Tack confessed. “The Mer are wizards who work great wonders and yet they do not believe, or rather, in spite of all their knowledge they are uncertain whether the gods exist.”

“I have heard it said that the more you learn, the more you understand that you do not know,” Park told him, “and I believe you mean to say they are agnostic, neither believers nor disbelievers.” Tack nodded emphatically. “According to what Taodore and Marisea have told me, they aren’t agnostic at all. They do have religious beliefs, but their society is a very secular one, where as for your own people, religion is a very important part of every day life.”

“But how can they have such power without constraint?” Tack asked. “How can they without constant divine worship and guidance?”

“Among my people we say that God helps those who first help themselves,” Park replied. “He does

not merely hand out gifts, we have to earn them.” Tack grew very thoughtful and soon returned to his prayer.

On the trip back, Park and Iris also learned far more about their new Mer friends. Taodore was an aristocrat in Mer society, but had been one of the few of the upper class to opt out of the usually expected political service and competition. Instead he preferred to spend his time in what he called “worthwhile pursuits,” which as he described them were various forms of research. It had been his original intention to study the salinity in the Sink, but on meeting Tack, Taodore decided instead to conduct the survey of the motile trees his friend had wanted, as it was just as interesting and it would allow him and Marisea to conduct the shaman into the deep northwest.

As Tack lapsed into silence, Park stopped to study the borrowed torq. It was Marisea’s and silver in color, although Taodore’s was golden, with a series of brightly lit buttons set flush against the outer surface of the ring. It was, as Taodore explained, the ultimate personal computer, although to get full functionality one needed an input device which Park could not yet use and would not be able to until he had learned Merish. The torq, however, could be used to learn that or any other programmed-in language, and in their spare moments both he and Iris did their best to learn that most foreign tongue. Taodore and Marisea were equally anxious to learn the human language, but were surprised when Iris explained there were actually many such languages. However, since everyone at Van Winkle Base spoke English, even those from Europe and elsewhere, there was no need to teach the Mer any other language.

The torqs could also communicate with each other, which proved very useful as an alternative to shouting back and forth between the two boats. They could even be used to make the equivalent of phone calls when within a Mer communications network. However, because the Mer were not allowed to use geosynchronous communications satellites, much of the interior of Pangaea had only spotty coverage, so that while Taodore had been able to send the results of his survey off to his botanist friend via delayed relay, he could not have simply called him up with the results.

Marisea was at first a bit disappointed to learn they would be going north to Van Winkle Base. She had hoped to be able to bring Park and Iris to her home city of Sanatis, in southern Pangaea on the Strait of Australis and show them around, but as they grew closer to the human’s base she became excited by the prospect.

“You know Arn is going to freak when he sees these maps,” Park chuckled when Marisea was showing them to him again. They were on Taodore’s boat, practicing each other’s languages without the use of the torqs. It had been a long process since neither Merish nor English had any points of commonality, but after the first month they had no trouble understanding one another and the torqs could be relegated to their more common uses.

“Why is that?” Marisea asked innocently.

“He doesn’t really believe we were in stasis this long,” Park explained. “We had our estimates, but they were based on the time our computer kept, except the computer itself was in imperfect stasis and none of us were really sure of our calculation, but from the shape of the world, I’d have to say we were close to within a few million years.”

“How can you tell?” Marisea asked, still unable to understand.

“Do you know anything of plate tectonics?” Park asked her. Behind her, he saw Taodore turn from a conversation with Tack and Iris to pay attention. Marisea just shook her head. “Well, the surface of the Earth is broken up into plates that sort of float over the molten interior we call the mantle. The mantle so

far as I know is all molten rock, like you get from a volcano. Understand?"

"We call that lava," she replied in Merish.

"Yes," Park nodded after a brief conversation with Taodore. "So do we, but lava is what we call it when it approaches the surface. When it is down there, it is part of the mantle and the solid surface floats over it in the same way ice floats on water." Park suddenly realized he didn't really know if that was why the surface didn't sink into the mantle, but decided the image was enough to go on with. "Well, like I said it isn't all one piece, but several large pieces. They move slowly. Sometimes they move apart and sometimes they crash into each other. We are in one of those epochs in which most of the landmasses have joined to form a supercontinent, but here, I'll draw a rough picture of how the Earth looked when I was your age."

Park reached for one of his notebooks and started sketching out the continents as he remembered them. He showed the resulting map to Marisea and her father. "Now if you look carefully and allow for tectonic deformation, you can see parts of these same shapes in your own world map, especially along the edges." He traced out the various continents on the map of Pangaea for them. "It is this movement of the plates, in fact, that causes earthquakes and some volcanoes and the formation of mountains as well. See here, for example, where Africa and North America have collided? Note the shapes they once had? All that missing land mass has been broken and pushed up to form those mountains and they are tremendous, I can tell you. Here and there you can see other mountains that have formed via similar continental collisions and in fact you can pretty much figure out where the plates' boundaries are that way. Even Australis down in the south used to be two separate land masses.

"From the look of it," Park went on, "this long chain of mountains in the west were caused by subduction. Are there a lot of volcanoes and earthquakes along that stretch of coast? There were in my day too. What's happening there is that the Plate that forms the basin of the Pacific Ocean..."

"We just call it the Ocean," Marisea corrected him.

"Of course," Park nodded. "There is only one these days, so that makes sense, but the plate that forms its basin is sliding under the plates that formed the Americas. As the stone of the ocean floor slides down it starts to heat up. There is a lot of water in that suboceanic rock; some of it is in the form of hydrated minerals and also a lot of water just goes down with the rock. It makes for an explosive mixture. As the water mixes with the mantle, it lowers the melting point, which, of course produces magma. The magma rises to the surface and erupts as lava. Very often these eruptions are violent, combined with earthquakes, tsunamis and so forth. But being ocean dwellers, I suppose you know that part."

"About tsunamis, yes," Taodore nodded, "But this thing about plate tectonics is new to me. I don't think my people know this. Do you have proof of this?"

"Old maps," Park replied. "Our library may have some papers on the subject."

"We have an encyclopedia in the library room," Iris told them both. "I'm sure it will have an article on plate tectonics. It won't have all the scientific proofs you'll want, but it should tell you enough to devise your own experiments to prove the theory."

"How much further is this city of yours?" Marisea asked suddenly.

"I was wondering how long it would take," Park laughed.

“Take for what?” Marisea asked, puzzled.

“For you to start asking, ‘Are we there yet?’” Park laughed again.

“We’ll be there in another week, dear,” Iris told her. “We’ll have to portage the boats twice. From there it will be another day and a half. Park, we really ought to call the base and let them know we’re on our way back.”

“You’re right,” Park agreed, “We’ve probably been in range again for days, but I guess I got used to not calling home every night.”

“We both did, dear,” she told him, “but I suppose the honeymoon is over.”

“Honeymoon?” Park considered. “Hmm, I suppose it was. I think maybe I’ve done you wrong, though. Shouldn’t we have had the wedding first?”

“Maybe,” Iris gave him a crooked smile, “but where in this world would I have ever found a rabbi?”

Park laughed at that, “I knew we had forgotten to pack something. So where does that leave us?”

“It leaves us to create new traditions, I suppose,” Iris remarked, an odd tone in her voice. It seemed like a mixture of lightness and gravity. She took his hand in his and said simply, “You. Me. Us. We’re married.”

“You. Me. Us. From now on,” Park responded.

Marisea sighed and a few tears trickled down her face, but the mood was broken when Okactack asked, “This is how your kind gets married?”

“This is how *we* get married,” Iris told the shaman, emphasizing the “we.” “Others might opt for a formal ceremony, but it all comes down to the same thing. Why? Do you have a ceremony you would like to perform?”

“I would say a blessing over your union,” Tack replied.

“We would appreciate that,” Iris told him graciously. Park took her hand and they both turned to face the three and a half-foot tall insect. Tack looked up at them and decided he was not comfortable with the situation, so with a seeming lack of effort he jumped up on top of the cabin of Taodore’s boat. Turning once more to face the couple, he nodded in satisfaction and began speaking in a series of buzzes and clicks which the torqs did not even attempt to translate. Finally he made a few complex gestures with all four of his three-fingered hands and pronounced, “Now you are married.”

Park wanted to reply, “We knew that already,” but Iris was already swinging him around for the traditional kiss. Somehow they did not manage to call Van Winkle Base until the next day.

Four

During Park's and Iris' absence, the remainder of the Project Van Winkle people had been woken up and put to work. Arn had been expecting trouble from the shock that they all had been forgotten and cast into an alien future, but with the exception of fourteen people who just wandered off one night and had not been seen in two weeks, everyone seemed to be taking it in stride as Park had predicted and most were actually cheerful about the chance to build a whole new civilization.

The arrival of Park and Iris along with their guests was an excuse to take the day off, however, in order to show them around the base and to allow Park and Iris to see what had been accomplished during their absence.

A small farm had been established along the south branch of the river and irrigation was already watering the seedlings. Park was a bit worried that they might still be headed into the dry season, but Taodore assured him that the dry season was nearly over and that they would soon experience two months of rain in the area. The Farmers then fretted that they would have to protect their crops from over watering.

Taodore was in Seventh Heaven as he hop-stepped through the facility, looking everywhere and taking verbal notes with his torq and in fact was so distracted by the wonder of the place that he failed to notice Arn's less than enthusiastic welcome.

"What's with you?" Park asked Arn as soon as he was able to get the project leader alone.

"What do you mean?" Arn replied stiffly.

"Here we have friendly intelligent indigenes to work with who seem genuinely pleased to see us and you're doing your best to snub them. Do you want to settle down and have to carve out a civilization one inch at a time? It would be a heck of a lot easier to just join the one that already exists and enjoy the mutual benefits. We have things they don't and vice versa, it will be a fair trade between equals. The Attackack mostly keep to themselves, but I understand some are willing to trade as well."

"They're not human," Arn shuddered.

Park looked at him. He would not have suspected Arn to be a xenophobe. "Yeah, I noticed," Park told him sarcastically. "I would have been very surprised if they were. In fact I am surprised to meet people who look as much like the Mer as they do. As for Tack, well, given the amount of time we were napping, we're lucky not to be dealing with pandimensional cockroaches, although for all we know they're the guys living up on the Moon."

“There’s someone living on the Moon?” Arn asked.

“Yeah,” Park nodded, “And it doesn’t sound like they’re there for the great view and prime real estate. But I should let Taodore tell you about them. So it’s an even newer world out there than we ever expected. So what? We were lucky to wake up and find we have friends. If the Mer or Attackack wanted us dead, we wouldn’t stand a chance, you know.”

“I know that,” Arn agreed. “But they’re so alien.”

“In this world, they’re the natives, Arn,” Park pointed out firmly. “We’re not quite aliens either. I understand these Galactics fill in for that roll, but this is their world. We’re lucky enough to be living in a part of it they don’t want and so far they seem willing to share it with us. There’s no going back, Arn. You know that.”

“Of course I know that,” Arn nearly spat at him. “Unless these wonderful Mer of yours have a time machine.”

“I doubt it,” Park laughed, “though I never asked. It’s highly unlikely though and they would remember more of their past if they did have a way to go look at it. But they do have a way to launch satellites.”

“So do we,” Arn replied.

“Once,” Park corrected him. “The Mer can do it repeatedly and they have manned spacecraft that Marisea tells me are capable of interplanetary travel, although they don’t go into space.”

“Why not?” Arn asked.

“Well, I’m not completely sure, but it has to do with a treaty they have with these Galactics,” Park replied. “It sounds like the Earth is under quarantine.”

“So just who are these Galactics?” Arn asked, “and who are they to quarantine the Earth and why?”

“The reason I was given was that the Mer are not allowed to leave the Earth because they are an artificial and gene-locked species, incapable of evolution,” Park replied. “It sounded like a silly reason to segregate a perfectly nice bunch of guys, but then so is judging people by their skin color or religious beliefs and practices. Maybe we should have Taodore explain it for you.”

That evening, Arn and his section heads met with the Mer in a conference room for a briefing about the world of Pangaea. Park was amused that everyone had adopted Pangaea as the name for the future Earth the moment they heard Iris and him refer to it by the name. He tried to explain that its full name was Pangaea Proxima, but the Proxima was dropped immediately. Park supposed they were correct; There was no mistaking this world with the one that had existed four hundred and fifty million years before.

“The Mer have cities along most of the edge of the landmass you call Pangaea,” Taodore replied. “For some reason we don’t have a special name for it although we do for the southern continent and for each and every island. Pangaea is a good name though and I intend to start using it. Our cities as I hope you will all have a chance to see very shortly are built in protected shallow waters along the coast. My people are built for swimming you understand although, with technology, we have been able to exploit the land and build vertically as well, although we rarely built anything with more than three stories. We much prefer to have our cities spread out, not up.”

“The Attackack live across much of the eastern side of Pangaea,” Taodore continued, pointing at a map Park had pinned to the wall behind the Mer, “and are most populous down here in the lands on the eastern shores of The Sink. The Mer do not live in the Sink. The water there has a higher salinity and with prolonged exposure it irritates our skin. There are occasional scientific missions there, however, as it has a fascinating ecosystem that has long been isolated from the Ocean.”

Taodore went on to describe the tribal groupings of the Attackack, occasionally wandering off on a variety of minor subject, causing Park to realize his friend was not an organized lecturer. It did not matter, he realized, because once more official contact had been made with the Mer, there could be a sharing of knowledge. Finding a way to making their data storage systems mutually compatible would be high priority. Taodore had already contacted friends in the Mer government, apprising them of the existence of Project Van Winkle

The Mer officials were, to Taodore’s shock, surprised and suspicious of a mysterious population of ancient people living deep within the continent. It was the stuff of supermarket tabloids, the existence of which in this future world amused Park no end. At Taodore’s insistence however, his friends agreed to assemble a small delegation to visit the site of Van Winkle Base quietly and without fanfare, at least at first. If his claims proved correct, a more official sort of relationship could commence.

That reticence saddened Taodore, but Park and Iris were quick to point out their own governments would have reacted the same in a similar circumstance.

Finally, Taodore got to the subject of the Galactics. “They are by no means a single species,” he explained. “They are many species of suprahuman, that is, those claiming descent from beings such as you, and a fair number of people who evolved entirely on other worlds. They form a large confederation of worlds, covering much of this side of our galaxy.”

“So they do not extend throughout the Milky Way?” a man asked. Park recognized Maurice Hellingsgrove, an astrophysicist from Great Britain. He had not had a chance to practice his specialty much beyond mapping the current stellar positions since waking up, but his former administrative experience had caused Arn to offer him a council position to represent those other scientists currently forced into manual labor until they could get established. The appearance of the Mer, was especially welcomed by these displaced scientists as it meant they might be able to return to their studies sooner than expected.

“Not at all,” Taodore laughed. Park was not sure that the Mer had laughed quite so freely when they first met. It was Park’s instinctive reaction and it had served to put others at ease in his experience. Park thought it possible a bit of that might have rubbed off on Taodore during the long trip upstream. “The Milky Way is a very large place, indeed. We are somewhat isolated here so all we know of it is what the Galactics allow us to know and what they accidentally let slip, of course.

“As I told Park and Iris weeks ago, there is a treaty called simply the Covenant which was forced on the Mer so far back in history that we have no records of it; hundreds of thousands of years at the very least. According to the provisions of the Covenant no space craft or satellite from Earth may be placed over six hundred miles above the surface of the planet.”

“You must be going through satellites at a horrendous rate,” Arn remarked. “Six hundred miles is not all that high up as I recall.”

“We send our satellites up with fuel tanks,” Taodore replied. “They can generally correct their orbits

for several years before we have to refuel them.”

“Even so,” Arn told him, “you would do better to place them in geosynchronous orbit.”

When Taodore looked confused at the term, Park explained, “High enough up over the equator so that they are always over the same spot on earth. But, Arn, that means well over twenty-two thousand miles up. Just a little higher than what the treaty demands,” he added with gross understatement.

“That high?” Arn asked. He looked to Tina Linea for confirmation and she nodded. “Well, heck. We have three satellites in storage and a rocket to launch them with. And they’re meant to be in geosynchronous orbit.”

“According to the Covenant,” Taodore warned him, “they can be destroyed by the Galactics.”

“I didn’t sign any treaty,” Arn growled. “What do they have against you anyway? You and your daughter seem nice enough and the ant is well behaved. Gives me the creeps, but I have to admit he’s well behaved. Where is the ant, anyway?”

“Tack,” Iris told him, stressing the name in rebuke, “is outside praying down the sun.”

“Praying down the sun?” Arn asked, disbelievingly. “Does he think it won’t set without his help?”

“That is precisely what he thinks, Arn,” Iris told him seriously. Since the impromptu wedding ceremony, Iris had grown quite fond of the insect shaman. In spite of his odd form, he seemed like a nice person. He was very quiet and rarely spoke first, but that was part of what she liked about him. “More accurately, the Attackack believe that if a sufficient number of worthies do not pray for the sun to rise and then set, then it will not and the Earth will freeze in its tracks.”

“Its orbit, you mean?” Tina Linea asked.

“Well, they believe the earth is a living creature that walks through the stars,” Taodore informed them, “So I think Iris has it right. And, yes, they do, indeed, believe the sun only rises and sets because of prayer. In all fairness, Tack does not know if he is actually worthy of the task, and in fact he confesses that he doubts he is, but he prays just in case he is one of the ten worthies that keep the world in motion. Just between you and me, if Tack isn’t worthy, I doubt there’s an Attackack who is.”

“In any case,” Iris cut in, “I’d suggest giving him the same respect you would the Pope regardless of your own religion.”

“All right!” Arn held his hands up against the verbal assault. “All right. I’ll be nice to him. Taodore, what about the first question. Why do the Galactics want your people confined to the Earth?”

“Arn,” Park interrupted, “I already told you that.”

“You also said I should ask Taodore,” Arn reminded him. Arn turned to the merman. “So?”

“We are an artificial species,” Taodore explained. “We were created by someone in the distant past, although even the Galactic records don’t go that far back and they claim the Covenant was forged almost one million years ago, although the oldest Mer record is less than half that age.”

“You say they claim the Covenant is that old,” Arn observed. “I take it you don’t agree?”

“One million years is a suspiciously round number,” Taodore replied. “However we have been under the Covenant for as long as anyone can remember. It is our oldest historic record.”

“Why were you created?” Patty Zinco asked.

“The reason has been lost,” Taodore admitted, “We have three religions that differ on that answer, but I think that we were created because whoever did it needed a group of people who could live in the shallows of the coasts. Whoever it was no longer exists and neither we nor the Galactics have any notion of who they were. We are not water breathers, although on the average a Mer can hold his breath for fifteen to twenty minutes. With adequate preparation – super-oxygenating our blood - that can be extended to maybe half an hour, but my point is we were born to swim, but not stay submerged. Our scientists believe we may have been bred to conduct aquaculture. We are very good at that, but we might have been created stupid, non-sentient. Instead, we are as intelligent as any other sentient population, so whatever we were created for, we have transcended our original purpose and created a civilization of our own.”

“So you were artificially created,” Arn summed up, “and Park already told me you were gene-locked, which as I understand means that your species will never evolve. That still doesn’t tell me why you are under the restrictions of the Covenant.”

“We are under the Covenant because we have been forced to agree to it,” Taodore replied.

“Are the Attackack bound by the Covenant?” Arn asked.

“Don’t be silly,” Taodore shook his head. “The Attackack can’t build a spaceship.”

“But if they could?” Arn pressed.

“I’m not sure,” Taodore replied. “They are a natural species. More natural than any of the suprahuman Galactics can claim to be. None of them evolved naturally, they adapted themselves to the planets they settled. Some adaptations were more extreme than others, but the difference between them and us is they can and have evolved over the course of time.”

“I don’t get it,” Patty admitted. “What’s the big deal about being gene-locked?”

Taodore sighed and shrugged, “We are given a number of reasons, but none of them make sense to us.”

“Try us,” Arn told him bluntly.

“More often than not, the replies have been that it makes us unfit for civilized society,” Taodore told them sadly, “or that without evolution we can never grow and thus are sort of permanent children. Still others have called us anathema and should not be allowed to live, but we understand they are in the minority, which is why we have the Covenant.”

“What are they afraid of?” Arn demanded. “Cooties?”

“No, Arn,” Park cut in. “It sounds more like a religious argument; ‘And God did speak to Moses on the mountain, and lo, He commanded, ‘Thou shalt not create man in your own image.’ Only in this case, it was, ‘You will not create life that cannot evolve.’ It doesn’t have to make sense to the victim, it doesn’t

even have to make sense to the believer, really, so long as they obey. It's possible the Galactics will deny this is part of their religion, but as a prejudice it is certainly as ingrained as though it was.

"Taodore," Park continued, "since we do not know the origins of your people, all this is speculation, but my guess is that you were originally created to be a class of servants. Why is anyone's guess, but your theory of having been aquacultural farmers sounds reasonable. The thing is, even if you don't remember... Heck, even if they don't remember either, the belief you are not as good as they are remains. I think the whole gene-locked thing is just a latter-day justification for keeping you all penned up on Earth."

"That could be," Taodore allowed, "but it doesn't change the fact that we are bound by the Covenant and have renewed that Covenant every one hundred years by the insistence of the Galactic Council."

"Well, we didn't sign any Covenant," Arn repeated. "It can't bind us."

"I am not sure the Galactics would agree," Taodore told him, "All those reasons may be nothing but gratuitous insults. They also claim they see all Earth as a sort of nature preserve and that the Covenant serves to protect our world. However, I have not studied the Covenant in detail. Perhaps you should take that up with the leaders of my government when you meet them."

Five

In spite of an official reticence, the Mer government was secretly anxious to meet with the humans, but there was a matter of transportation to be worked out first. Arn, not feeling the need to bring the jet they had online, had pushed the priority of building a runway down to the bottom of the stack. Now, however, it became more urgent because whether they went to visit the Mer or vice versa, the jet was the only reasonable way to travel and the Mer vehicles would need a runway as well.

"Cheer up," Park told Arn as they watched the bulldozer starting to prepare the new airport. They had taken to meeting at the top of the hill under which Van Winkle Base sat. From beside the stumpy remains of the old elevator tower, they could see the entire exterior of the establishment. The project leader had a tendency to become irritable when he had to change his plans. Arn was a careful and deliberate planner and preferred not to be rushed. Having shelved the need for a runway, he was annoyed to have to order the construction of one now. "The Mer don't require as long a strip as we do."

"Maybe not," Arn grumbled. "But if we're going to do the job, we may as well do it all at once." Then he smiled. "If there's any asphalt left over I'll have them redo the basketball courts. Packed dirt is working out for tennis, but the guys who play basketball have been complaining their courts are dead."

Paving the roads and paths we're wearing into the dirt around here would be a good idea too," Park pointed out. "Especially with the wet season coming on."

"We have enough concrete to do that with," Arn told him. "We only have enough asphalt for the strip with a small safety margin. After that all we have are instructions for how to make more, but that could be years away. Concrete, on the other hand, we have plenty of even after using it as the base beneath the runway."

"And for that we have instructions on how to make concrete as well," Park added. "Of course we have to find limestone and other materials for all that. The Mer should be able to help there, they have their own building materials. Some may be better than ours, although it is probably better if we keep our colony self-sufficient."

"I'm not sure if colony is the right word for what this is," Arn told him.

"Are you planning to go back to the Twenty-first Century?" Park asked pointedly. "Because unless you have a way to do that, we're a colony whether we call it that or not. We probably ought to allow people to build houses outside the original establishment. I understand we have the building materials."

"We were never intended to make Van Winkle Base a permanent residence," Arn admitted. "but there are only so many pre-fabricated buildings in storage and not much to build new ones out of around here."

"Sod houses, I suppose," Park suggested, "although we just chopped up some prime sod in the name of building our airport."

"How many of our people would want to live in a sod house?" Arn asked.

"Don't know," Park admitted. "I understand they can be fairly comfortable, though. Cool in the summer, warm in the winter, not that we'll get much winter at this latitude. Of course we do not have a means of building air conditioning units yet, so maybe that's not such a good idea. You know, I don't really know what would be best in this climate. Perhaps we should experiment. If we want wood to build with, though, there are some nice looking forests on the slopes of the Atlantic mountains. The wood samples our teams brought back are very good too. We'll have a time figuring out what to call them all, well maybe not. The Mer may have names we can use, but the thing is it is a nice mixture of hard and softwoods so we'll be able to get all we want from the same place."

"Of course," Park continued, "has anyone actually said they wanted to move out of the base?"

"A few people have," Arn admitted. "Most seem to take comfort in the modern conveniences the base affords, but some want more space. The agriculturalists and biologists especially seem eager to get outside."

"Makes sense to me," Park nodded. "That's where their work is. And we're already running power from the main base for the airport. We should plan a community and run the wires out to where they'll be needed. If we do them first they can be underground and less subject to weather damage."

“Also we have a shortage of poles, but not conduit,” Arn added thoughtfully. “Can you put together a proposal?”

“Iris is more suited to that sort of work,” Park told him.

“Iris is on your team,” Arn countered. “All right, ask her to work with Terry Lefavre. He’s our only remaining civil engineer. The other two were kept in those rooms we found empty. See if they can come up with something between them.”

“I’m sure they will, although right now she’s working with Taodore to build a link up between our computer network and that of the Mer. They have evidently torn Taodore’s boat apart to get the inboard computer and satellite link out and are rebuilding it into an interface between the two systems. We’ll have to give him and Marisea a ride home eventually.”

“The mermaid?” Arn mused. “You know, I’ve come to like her.”

“She’s a very likeable person,” Park admitted.

“And very intelligent and inquisitive,” Arn added. “She’s been a delight, helping out everyone where she can and learning as much as possible too.”

“She comes by her intellect honestly,” Park laughed. “She’s her father’s daughter from tip to tail.”

As though mentioning the girl caused her to appear, Marisea hopped out of the door to the base just then. The door was installed over the same hole in the stairwell wall Park, Iris and Arn had discovered shortly after waking up. The mermaid turned back toward the door and called back in Merish, “See? I knew they’d be up here. Hi, Park, Hi, Arn,” she added in English. By now Marisea could converse in English nearly as well as in her native tongue and while her accent was unlike anything Park had ever heard, he found it charming and hoped she would never lose it. His own grasp of Merish, while he was assured by Taodore and Marisea was excellent, he knew lagged far behind.

Both men returned the greeting as Tack crawled up onto the hill-like roof of the complex. “Good morning, Tack,” Park added to the shaman.

“A good morning to you too, Parker Holman,” Tack replied. He was wearing Marisea’s torq and his click-clacking words were instantly translated. “Might we converse?”

“Of course,” Park agreed. “Have a seat if you like.”

“I shall leave you two alone,” Arn got up suddenly. He may have warmed to Marisea, but not to the Attackack. “I’m supposed to give final approval before we start paving anyway.”

It was a polite lie, Park knew. Arn would be inspecting before the paving operation, but the builders had yet to roll the dirt over which the concrete and asphalt would be laid. He had hours before he would be needed, maybe even another day or two.

“I promised to help pick tomatoes,” Marisea announced. “I hope we can grow a lot more soon. They’re delicious.” It had turned out that with the exception of the infrequent allergy, the Mer could eat anything the humans could. Marisea hop-stepped to the edge of the hill and called back, “Hey, Park! Look what I can do!” Then she jumped as high as she could and fell in slow motion all the way to the

base of the hill.

“Nice trick,” Park commented dryly. “I’ll have to get one of those belts and try it for myself.”

“Why?” Okactack asked, puzzled.

“It looks like fun,” Park explained.

The Attackack obviously did not understand why anyone would want to jump off a large hill, but after swaying forth and back in a gesture Park had come to understand was confusion, the shaman finally sat in the Attackack manner with his legs and lower arms on the ground, but bent upward with his upper arms in the air. Park didn’t know if the ants of the past could get into that position, but decided that as long as Tack was comfortable that way, it did not matter.

“What do you want to talk about, Tack?” he asked pleasantly.

“You have asked about my vision,” Tack replied. “I am ready to explain.”

“All right,” Park nodded.

Tack took his time, but after another minute of silence, he began, “I have been having visions nearly all my life. It is why I was chosen.”

“Chosen?” Park asked.

“A shaman does not wake up one day and decide to be a shaman,” Tack replied. “It is something to be avoided. But the other shamans can see those who have the gift and once you are chosen there is no denying it. It just is. I have no regrets and in fact I no longer even understand why I tried to avoid it. I am shaman and always have been, Do you understand, Parker Holman?”

“I think I do,” Park nodded. “Yes.”

“Good,” Tack responded with satisfaction. “I also want you to understand that not all shamans have such visions. Some are chosen for their aptitude at healing or for their natural leadership qualities. Each Attackack tribe is governed by its queen, so when a male is found who can lead, those qualities must be redirected for the good of the tribe. Shaman leaders will often lead female soldiers into battle. There are other reasons a male may be chosen to be shaman, but most males prefer a life of leisure in which their only responsibility is to fertilize the queen.”

“All right,” Park nodded again, “by being shaman, you are one of a very extraordinary few. Correct?”

“That is correct, Parker Holman,” Tack agreed. “It is a great responsibility especially for a mystic like myself. We know that a mystic’s visions are always accurate although they are often confusing, and I want to tell you about my strongest vision.”

“By vision, do you mean a prophecy?” Park asked.

Tack paused to touch the torq he was wearing. He touched a few of the buttons and the torq clicked and clacked at him. Park decided it was giving him a list of synonyms. “Yes,” Tack replied finally. “A prophecy.”

“I imagine this will be as complicated and obscure as most prophecies, then,” Park replied.

“It is not complicated,” Tack replied instantly, “it may be obscure.”

“You may be the first prophet I’ve ever met to admit that,” Park replied.

“You have met many prophets, Parker Holman?” Tack countered with a sense of humor Park had not previously suspected.

“Oh here you are!” Iris said suddenly, coming out of the doorway. “Marisea said you needed me here, Park.”

“Me?” Park asked. “No. I suspect she meant Tack wanted to speak to both of us together.”

“Both of you, yes,” Tack agreed eagerly. Iris sat beside Park and Tack became silent and motionless for a long time, and then began to speak. “Our world is in grave danger,” he began. Even through the translator capabilities of the torq, his voice seemed to change and become distant and hollow. “Our enemy has us in his grasp and is squeezing the life out of the entire world. No one will live; not the Attackack, not the Mer, not even your own people. If the enemy has his way, Earth will become a dead world. There are also two strangers who alone have the ability to stop the enemy. I can see them through their actions, but their faces are hidden from me, but they shall lead us all to our salvation.”

Park and Iris were silent for a while, waiting to see if Tack would continue, and then something clicked in Park’s mind. “Oh wait just a minute. Are you saying that we’re the strangers of your prophesy?”

“I think you are,” Tack replied in a more normal sounding voice. “I hope and pray you are. If you are not, I fear what may happen to us all.”

“What are we supposed to do?” Iris asked a bit more practically.

“You are supposed to save the Earth and everyone on it,” Tack told her. If he had been anatomically capable of shrugging, Iris and Park thought he would have. “I only know the what, but not the how. You were correct, Parker Holman. Perhaps it is obscured from us at this time. But there have been signs that you are the two.”

“Signs and portents?” Park asked lightly.

Tack did not recognize sarcasm. “Just so. In my vision I saw your wedding.”

“Our wedding,” Iris echoed. “What was that blessing you said?”

“Hmm?” Tack’s translation asked. “Just the traditional ceremony among the Attackack.”

“Don’t all the males, aside from shamans, marry the queen?” Park asked.

“They all service the queen,” Tack replied, “but most choose to live with worker females. Procreation has nothing to do with an Attackack marriage. Among us, companionship and love are paramount. I have discussed this with Taodore Waisau, but I am not sure he understood. The animals of this world bond through the sex act, I think, but the Attackack bond in a more intellectual way.”

“But the language you used was not translated,” Iris pointed out.

“It was an ancient language,” Tack explained. “We do not use it in conversations for the Mers’ computers have never heard enough to be able to translate.”

“Never mind that,” Park interrupted. “I’m more concerned with your signs and portents. Merely accepting your blessing can hardly be a sign.”

“There were others,” Tack replied. “You proved yourselves to be saviors when you came to Marisea Waisau’s rescue.”

“You foresaw that too?” Park asked, this time barely hiding his skepticism.

“No, I did not,” Tack replied, sounding almost as though he were laughing. “That merely told me what sort of people you were. But I have been looking around your Van Winkle Base. What does that mean? Van Winkle?”

“It’s an old story,” Park replied. “It was written almost three hundred years before I was born although it was based on even older versions of the story. I’ll be glad to tell it to you sometime, but the main character, Rip Van Winkle, supposedly slept for twenty years and when he woke up he had to deal with all the changes that had occurred while he was not there to see them happen.”

Tack thought about that and decided, “Very appropriate, that is, indeed, what you are doing.”

“Would the Galactics, really destroy the Earth?” Iris wondered. “Didn’t Taodore say they consider this world a nature preserve?”

“They might,” Park nodded, “but it seems to me that there are various sorts of preservation. What if some wacko decided the Mer and the Attackack are an infestation?”

“Unpleasant thought,” Iris shook her head. “Tack, what about your people? You’re naturally evolved, the Galactics couldn’t be prejudiced against you.”

“Prejudice is not a logical thing, Iris Fain,” Tack almost chuckled. “But I have not said the Galactics are the enemy.” He paused and lapsed back into his prophetic voice. “The enemy is of the Earth but not from it. The saviors are both of the Earth and have always been from it.” For a moment he shook his head and added in a normal voice, “That was new. The vision comes to my eyes at odd moments sometime.”

“This is a heavy burden you are placing on us,” Park told him, “assuming it is real.”

Tack did not bother to debate the reality of his vision, which made Park all the more uncomfortable when the insect replied, “It is not your task to save the world all by yourselves. All the peoples of the Earth must be your allies.”

“And does your vision care to give us any clues as to where we should start?” Park inquired.

“I am convinced that whatever you choose to do will be correct, Parker Holman,” Tack replied.

“Then why bother telling us any of this in the first place?” Park asked, aggravated.

“It was necessary,” Tack replied. “Telling you started the chain of events that will save our world. Know this, however, the safe course leads to certain disaster.”

Six

Once Taodore’s computer had been reconfigured to act as a link between Van Winkle Base and The Mer network, information began to flow in both directions. Even while the government was dithering over whether to establish formal relations, the Mer scientists were happily swapping recipes with their human counterparts, and culturologists and archaeologists were anxiously arranging to visit the human base.

Arn and Park studied the terms of the Covenant closely and were frequently at odds over what some of the passages meant. “This thing reads like it was translated through Coptic, Farsi, French, Chinese and Spanish before someone thought of putting it in English,” Arn grumbled.

“Effectively,” Park replied, “that may well be the case. Not those languages, of course, but it probably has been retranslated many times and by many translators as well. The various clauses are not consistent. In some places they refer to the Mer quite specifically, but in others it merely says Earth People.”

“Sometimes in the same sentence,” Arn added sourly. “And that stupid argument about being gene-locked can’t be seen anywhere.”

“Well, I’m fairly certain, Taodore’s right when he thinks some of those reasons are just insults, official or unofficial,” Park told him. “Nothing to go on there, of course, but it feels right. I also am fairly certain this document was only ever meant to apply to the Mer. What I don’t like is that for all the high-falootin’ words, it all comes down to an unconditional surrender.”

“Yes, but I notice that there is nothing in here about how high a satellite or space craft may be in orbit, so long as it does not doesn’t leave Earth orbit,” Arn observed.

“And I notice these Galactics aren’t playing fair,” Park added. “The way I see it, the Moon, being in Earth orbit, belongs to Earth, but they have a city up there and they’re not paying rent. They do say they are preserving Earth in the name of those who came before them. I figure that’s us, whether they know it

or not.”

“I hate squatters,” Arn grinned viciously.

“What are you thinking, Arn?” Park asked.

“Same thing as I’ve been thinking all along,” Arn replied. “We need to launch our communications satellites. We’ll reprogram them to relay Mer signals, of course and get a decent and consistent signal out to our friends.”

“Better wait until they are officially our friends,” Park warned. “We’ve been invited to their nearest city, Ghalati.”

“Is that the one up on Hudson’s Bay?” Arn asked.

“Yes, the Mer don’t have a single capital and their government meets electronically as often as in person,” Park explained. “The officials move around meeting in whatever city seems more convenient.”

“It’s a hell of a way to run a country,” Arn shook his head.

“It works for them,” Park shrugged.

“What happened to the bug prophet?” Arn asked in a sudden change of subject. “I haven’t seen him around in days.”

“Okactack,” Park replied in rebuke, “left a few days ago. Once we had the computer stuff out of the Mer boat, Taodore gave it to Tack so he could go home in comfort and convenience.”

“Won’t he have trouble getting past the portages downstream?” Arn asked.

“Not really,” Park replied. “The Mer boat is equipped with the same sort of anti-grav lifts they wear to walk around. When he gets to them he can float over them.”

“Isn’t that a rather extravagant gift to give to a...” Arn paused to think of the right words.

“Neolithic barbarian?” Park prompted him impudently. “A man of the cloth? A witch doctor?”

“Well, it seems to me that if the Mer normally only trade steel knives and other trinkets with the Atackack,” Arn replied, “a boat is entirely out of the normal range of gifts.”

“Taodore is rich,” Park informed Arn. “He is also an aristocrat among his people. He can afford to make such a gesture and he also feels honor bound to see Tack home safely.”

“So why did Tack come here in the first place?” Arn asked. “Sight-seeing?”

“In a way,” Park replied. He was tempted to add, “Tack just wanted to talk to Iris and me,” but held off on that. Arn had more important issues to deal with than the shaman’s vision. “Iris and I saw him off and had to stop Taodore from repeating all his cautions for the umpteenth time. He was especially worried Tack might try to sail directly across the Sink. It may no longer be the Indian Ocean, but it is fifteen hundred miles across and three thousand long. But all Tack would say is ‘I follow the divine path, Taodore Waisau.’ Iris warned him that those water gods are a capricious lot, but he merely bowed and

made that odd gesture they do in place of laughing.”

“He thought that was funny?” Arn asked. “Most devoutly religious people are a bit more serious about the gods than that.”

“I think he was being polite,” Park chuckled. A moment later he returned to their earlier topic. “You know, if we do launch that rocket, don’t we have to build a launchpad?”

“We already have one,” Arn replied. “Haven’t you seen it?”

“It wasn’t on my list of priorities,” Park replied. He looked around. Down below them he could see the new airport with the jet parked just off the runway, lashed securely to cleats in case of foul weather. It seemed a logical precaution with the rainy season due any time now. He also saw the farm, still smaller than planned but already producing some fresh food and the various building. There was also a large pile of timber that had been carted in from the nearest tree some hundred miles away. It was being cut into lumber and put aside to dry properly. One thing the base did not have was a kiln, so until one could be built, the lumber would have to dry naturally. Houses would just have to come a little later. “Where is it?”

“Built into the base,” Arn replied. “We have to produce our own fuel, but we do have the equipment.”

“Having a giant firecracker next to my bedroom doesn’t sound like the sort of thing I would want,” Park told him.

“It’s almost a quarter of a mile away and near as I can tell, the top of its silo is still two hundred feet down as well,” Arn explained. “We’ll need to cut it out and also put in vent holes at the bottom or the whole thing will just explode when we light it off, but that will still be easier than moving it outside.”

“How the heck did they ever get it down there?” Park asked.

Arn just shrugged. “The tunnels in are just barely large enough, I guess.”

“They would have to be,” Park laughed. “Glad it wasn’t my job though, carting a rocket piece by piece down over half a mile and then assembling it. Some of those pieces are huge as I recall.”

“It you look carefully you can probably see gouges in the sides of the access tunnel,” Arn laughed. But Park did not think that was funny.

“That’s actually a good point,” Park decided. “We had better check that bird out from stem to stern before daring to launch it. The slightest bit of damage could be a disaster.”

“I’ll put you in charge of inspections,” Arn told him.

“Oh thank you so much,” Park replied snidely. “What do I know of rocket science?”

“I thought you knew everything,” Arn jabbed verbally.

“Apparently, I wasn’t issued omniscience while we were sleeping,” Park replied.

“But you do understand enough to supervise the team that does the inspection, Park,” Arn reminded him. “You thought of the possibility and the possible consequences. I hadn’t. I need to rely on you and

everyone else to know what I don't and so do you. Grab our experts and figure out what we need to look for."

"We have rocketry experts?" Park asked.

"Two, in fact," Arn replied. "Former NASA men. Put them in charge of training others in what they have to do and ask them how it all works."

"If we had a ship I could probably fly her," Park replied, "but I doubt I'll ever be an expert on launching. But then I don't have to be. I just have to understand the answers. All right. I'll get that in motion today before we leave for Ghalati. We're supposed to be there in time for dinner you know. It's been a while since we had fresh seafood."

"Makes me wonder what passes for a lobster these days," Arn remarked.

"I'm just glad the lobsters don't talk," Park laughed.

The Van Winkle jet could hold twenty passengers, although Arn chose only twelve to accompany him to Ghalati. Paul Gannes, the former Air Force man, turned out to be the only professional pilot, with experience with this particular sort of craft, but there were over fifty people at Van Winkle Base with licenses to fly various craft, Park included. So it was Park who acted as copilot for the flight north to the Mer city. "Just trying to get experience with everything," Park told Paul. "You never know when it may be essential."

"Yes, sir," Paul responded. "I would feel better if we had the radar tower installed already."

"Nothing but those neobats and big insects in our airspace today, Paul," Park told him. "Hopefully that won't last, but for now, we'll just have to keep an eye out. Once we're in Ghalati airspace they'll give us course corrections, I'm sure."

"Then I'm glad I have you in the cockpit, sir," Paul told him. "I'm terrible with languages."

"I wouldn't worry," Park laughed. "They already have the auto-translation algorithms from Taodore's computer. They'll be giving us instruction in perfectly good English and they've promised to give each of us torqs on our arrival."

"Those necklace things?" Paul asked. "Are they really all that useful? I mean having a translator is nice, but..."

"They're a lot more than translators, Paul," Park told him. "They are more like the ultimate Personal Digital Assistant, smartphone and encyclopedia all rolled into one. They connect to the Mer computer net and can be used to access anything in their data banks, well anything we have permission to see, but Taodore assures me that aside from personal data, very little is hidden. They only have one government so there are far fewer secrets to be kept, I guess. In any case they operate both by vocal commands and through manipulation of the buttons along the outsides and when you pull up a video-based file it will project it for you on a nearby wall or even just a piece of paper you can hold in front of you."

"I still need to improve my ability to read in Merish," Park added. "I'm still not too far past the 'See Dick and Jane' level and while they have vocal translations, I do like to read for myself. Besides their translators are only as good as the input we have given them. They make the occasional error. It can be amusing at times."

“Yes, sir,” Paul nodded noncommittally. “VW1 to tower, are we cleared for takeoff? Over.”

“All clear, VW1, have a nice trip and bring us back some souvenirs from the beach,” came the reply.

“Wasn’t she supposed to supposed to say, ‘Over?’” Park more commented than asked.

“Civilians, sir,” Paul commented as the jet’s engines revved up and they started to roll down the runway. “Besides, it’s an old convention. It’s not really necessary with duplexing transceivers and hasn’t been for a very long time.”

Three hours later they made their approach to Ghalati. “Short runway here,” Paul grunted after he received landing instructions.

“Not too short, I hope,” Park commented nervously.

“Longer than a carrier deck, sir,” Paul shrugged, “but no net to catch us either. There’s room for error, though. We’ll make it.”

Park looked at the approaching runway and decided that maybe it was just as well Paul was flying today. To distract himself, he took his first look at the City of Ghalati.

The airport had been built to the east side of a river they later learned had the name Towint. The city itself was built along the banks of the river and into the shallows of the very southern tip of Hudson’s Bay, which the Mer referred to as the Bay of Coolinda. Park already knew the Mer preferred to expand horizontally rather than vertically, but he had not realized how far they expanded. The business district was composed of three-story tall buildings that had all been built on dry land, but the residential neighborhoods were in the bay itself where there were waterways for streets, reminding Park strongly of Venice before the Innundation.

Ghalati was a very large city as well and as they came in for a landing, Park began to wonder how the denizens got from one place to another quickly. Then he turned his attention back to what Paul was doing and made careful note of how he landed on the short strip. After it was over, Park realized that he had worried for no reason. The small jet had no trouble stopping in the available strip length.

“You make it look easy,” Park told Paul appreciatively.

“Nothing to it, sir,” Paul replied with a smile. “This baby’s no 797. I could have brought us to a complete halt one hundred yards behind us if I’d needed to. So could you.”

“I think I could have kept us from going into the drink,” Park replied, noticing the river just beyond the end of the runway, “but I’m fairly sure we would have used most of the runway to do it.”

“Nonsense, sir,” Paul laughed. “I’ve seen you fly. You brought her in about the same way I did in practice at Van Winkle.”

“Didn’t seem that way,” Park admitted.

“No, sir,” Paul continued to laugh as they taxied off the runway and toward a long terminal building. “The length of the strip just makes it seem tight in comparison. Our strip is long enough to accommodate anything that flew in our day. I imagine our friends are going to wonder why we built it so long.”

“That could be,” Park smiled. “Maybe they’ll think we meant to be able to land two planes at once; one from either end.”

“Ha!” Paul laughed so hard Park took hold of the jet’s steering yoke just in case. “I wouldn’t even want to try that in an air show, but wouldn’t that be something to see?”

“That it would,” Park agreed. “Looks like we’re expected. That’s quite a crowd we’re attracting. You would think these folks had never seen a two hundred and fifty million year old jet plane before.” Paul grinned back at him, but then turned his attention to bringing the plane to a halt near what seemed to be a platform with a brass band playing on it. “I’m supposed to be one of the first ones out. See you on the ground, Paul.”

“Looks like your people are welcoming us with full honors, Taodore,” Park chuckled as he went back to join the others. Iris had just opened the exit door and Tina was about to extend a small ladder for everyone to ascend to the ground on. The music from the band sounded all wrong to the humans. It was obviously something being played in a march tempo, but the notes all seemed sharp or flat to their ears.

It was obvious the Mer did not compose their music using a diatonic scale. He thought back and remembered Marisea being fascinated by human music and saying how much she liked it, although Taodore had never said anything about it. Had he been polite? It was possible. Park decided to emulate the younger Mer and keep his mind open to new experiences. Taken on its own merits this was no better or worse than the marching band music he had grown up with.

“Did you expect any less?” Taodore asked with the same smile Park was wearing. “We don’t welcome new people to Earth every day, you know.”

“Not even when Galactics come?” Park asked.

“They don’t visit very often and welcome is only accurate in a diplomatic sense,” Taodore replied. He held his arm out to Iris. With a wink at Park, she accepted the Mer’s arm and stepped up to the door with him. Then suddenly he put that arm around her waist and lightly hopped down to the odd dark brown paving material beneath them. They fell in slow motion and once they had come to rest, Taodore, removed his arm from Iris’ waist and offered it to her once again. Park saw her say something to him and she did not seem displeased, but whatever it was had been masked by the music.

Not wanting to be outdone, Arn walked past Park, offered his arm to Tina and escorted her down the three steps. Next Park made the same gesture to Marisea, which made the young mermaid blush. Instead of taking Park’s arm, however, she put her own around Park’s waist and instructed, “Hold on tight!” and as soon as Park had a grip just beneath her shoulder, Marisea gave him a big grin and jumped several feet into the air, just as Iris and Taodore had done. Park, taken by surprise, tightened his grip, but Marisea only laughed lightly as they softly settled down to the ground.

“You could have warned me,” Park told her, barely moving his lips from the broad smile he kept for the applauding crowd.

“I did, silly,” she laughed, and Park supposed she had at that. Once on the ground Marisea took his arm in the conventional manner and they followed the others even as still more debarked from the plane.

Taodore led them past the band to a small group of waiting officials where he started introducing the

humans. The head of the welcoming committee was Prime Terius, leader of the Mer Council. Terius was an imposing Mer with gray hair at his temples and a long salt and pepper beard that took Park by surprise. Taodore had been so clean shaven that he was unaware Mermen were even capable of growing facial hair. It was too loud out there to do more than greet each other, so as soon as he could, Terius escorted the humans into the airport terminal and a private room that had been arranged.

"I never get used to all that," Terius admitted to the others, once they were safely ensconced.

"It was a bit loud," Park laughed.

"And not particularly in character for us either," Taodore added. "What gives, old boy?" he asked Terius.

"We do not have a lot of experience at welcoming foreign dignitaries," Terius admitted, "so the only procedure we had to go on was the one we use to greet Galactic officials when they come here."

"We understand all the noise annoys them," Marisea announced. The humans laughed at that. Marisea had a profound talent for getting the humans to laugh, possibly because she had been the youngest person at Van Winkle base and they tended to indulge her.

"It does, indeed," Terius smiled as well. "We do not normally greet each other with such fanfare."

"Or such terrible music," Marisea added. "You could have at least had them playing something from this millennium, Prime."

"That music is very traditional," Terius told the young Mer a little stiffly.

"Which we use to traditionally annoy the Galactics," Marisea pointed out with a broad grin.

Terius faltered under her gentle attack and smiled back. "True, but even we have become accustomed to such nonsense during such occasions. I shall endeavor to have the band play something a bit more pleasing in the future."

"Or not worry about the band in the first place," Arn suggested. "I appreciate the honor, but there is so much for us to talk about and do."

"And so we shall, my friend," Terius told him, "but first we must get you to a comfortable location. We will have a vehicle brought here presently."

The vehicle turned out to be a small bus that had been comfortably furnished inside with large padded seats and tables. Park and Iris had already known that Mer chairs were compatible with human anatomy, but the fact took most of the other humans by surprise.

"Well, we aren't really all that different where we sit," Marisea pointed out while her elders were looking for a more diplomatic way of saying the same.

"And your tails are a bit longer than our legs," Park told her from the seat across a table from her, "so there's plenty of room for us that way as well. I hoped you didn't feel cramped on the plane."

"No, this is a lot of tail room for me too," Marisea admitted, with a gentle flip of her flukes against his feet. Park briefly wondered if that was the Mer version of playing footsie, but let it pass without

comment.

The bus gave them a tour of the city as they passed through the business district and an area of governmental buildings and then down into the residential neighborhoods on Hudson's Bay. The bus had no trouble transitioning from land travel to water and by the grace of Mer suspension units, passed with barely a wake out to the very edge of the city where the finest homes and hotels were situated.

"I half expected to see people swimming everywhere," Arn commented along the way.

"Not in the streets, silly," Marisea laughed, earning an admonitory glare from her father, "Sorry," she added quickly. "We're taught from infancy not to swim in the street."

"And to look both ways before crossing?" Park asked lightly.

"Of course," Marisea laughed. "Besides, as much as we love to swim, you can't do it while wearing the suspender, so swimming is recreation for us, not locomotion."

"I see the first floors of your houses are just barely above sea level," Iris remarked. "Don't they ever get flooded?"

Marisea looked out the bus' window. "Hmm, must be high tide. Prime Terius, is it?"

"It's that time of month," Terius admitted, "and the tides are near their extreme points."

"Our first floors do get wet when there are storms," Taodore told the humans, "but we do not generally keep anything on that level that can be harmed by water. The first floor of a residence is an entrance to the rest of the house and is generally the party room when guests come to visit."

As they continued on, the homes they passed became larger and more elaborate until they came to the open bay. Once in open waters, the bus accelerated and turned to the north affording the passengers a view of the finest homes in the city. A few minutes later they pulled up to the front door of one such home.

It was situated half in the water and half on a broad sandy beach and it was, by far, the largest such residence they had seen so far. "We're staying in the Prime Mansion?" Marisea asked delightedly.

"Of course, my dear," Terius smiled. "I frequently play host to visiting dignitaries from the other cities, so it seemed only natural our guests would stay here. We will not be disturbed over the coming days, as we might have been, had we found hotel suites for you. Also, we have so much to talk about I would not want to waste the time traveling back and forth. No, this meeting between our peoples is far too important."

"Indeed it is, Prime," Arn agreed. "Should we start in right away?"

Terius laughed, "We're not barbarians, sir. There's no need to rush on your first day here. Please, let's get you comfortably situated, then we'll have dinner. I fear this will be a rather large affair as every politician on Earth wants to meet you. We won't be able to truly start talking until tomorrow morning, but then I will be utterly at your disposal."

The servants who escorted the humans to their assigned suites were taken aback when Park and Iris told them they did not want separate suites. "Park, old boy," Taodore told him quietly. "It is customary in

polite society for each adult to have his or her own rooms. To both move into the same suite openly is something only the lower classes do, even when married.”

“But that is not our custom,” Park replied.

“Well, it’s not such a big deal, really.” Taodore chuckled. “The suites adjoin through interior doors, and what goes on inside them is no one’s business but your own, if you follow.”

“I see,” Park shrugged. “It still sounds silly, but I’m living two hundred and fifty million years in my own future. In comparison a little silliness about living accommodations is nothing. Iris, hon, why don’t you take this suite and I’ll grab the next.” Iris nodded and slipped quickly inside with his travel bag.

By the time Park entered his own suite, she had already found the adjoining door and was waiting for him. “See?” she asked. “Now propriety can be observed. We wouldn’t want to scandalize our hosts.”

They kissed warmly until Marisea’s voice interrupted them. “Hi, neighbors!” she greeted them, hop-stepping into the room. “Oh my! Do I get to kiss you too, Park?” She hopped closer.

“Only on the cheek and on special occasions,” Park told her, embarrassed at the interruption. Marisea laughed and then slipped an arm around Park and kissed him on the cheek. “I didn’t mean now.”

Oh,” Marisea giggled. “Human customs are so much fun! “ Iris was still partially embraced on Park’s other side. “Iris, you’ll share him, won’t you?”

“That depends, dear,” Iris told her, shocking Park. He had expected his wife to be quite territorial about him. “First of all you’re a bit young for this old goat.”

“I’ll get older,” Marisea laughed playfully.

“So will he,” Iris bantered.

“Hmm, there is that,” Marisea agreed and backed off half a hop-step. “Did you know there’s hot coffee over here in this bottle? Well, it’s not really coffee like you have at the base, but it’s pretty close and it will help keep you alert tonight. These parties go on a long time, or so I’m told. This will be my first.”

She hopped over to the counter where the Mer coffee and various nibbles has been arranged and started serving. When she discovered there was only enough there for two, Marisea ran back to her own suite for more. Finally, when they were all seated together Marisea asked in a much more serious tone than she normally used, “Um, this party tonight? It is customary that all women be escorted into the hall, you know.”

“We didn’t know,” Park admitted, “but that shouldn’t be a problem.”

“Well not for you two, but me,” Marisea blushed then. “This is my first formal state occasion, and well, Park, I love my father, but I’d rather be your second date than Dad’s first. Uh, if that’s okay with you, Iris.”

“Shouldn’t your father have someone to escort, dear?” Iris asked gently.

“Well, it’s not a requirement for men and well, my first time...” she trailed off.

“You may be trying to grow up faster than you need to, dear,” Iris told her, “but I don’t mind if Park doesn’t.”

“What about men who bring two dates to such occasions?” Park asked carefully, unable to figure out what way Iris wanted him to answer. “How are they seen?”

“Enviously,” Marisea laughed, “At least that’s the way it seems when the boys at school talk. It’s not uncommon for a man to have two wives. Three or more is not unknown, but fairly rare. All the boys try to date two girls at once. I know that.”

“Yeah?” Park asked. “And how do the girls see it?”

“Depends on the boy,” Marisea told him. “A guy’s got to be really special for you to want to share him, you know? Mostly we laugh at the boys who try, though. There were none of them I would want, never mind to share. That’s for sure. So, Park? How about it?” she asked coyly with a mixture of fear and excitement thrown in for good measure.

“Of course he will, dear,” Iris told her.

“Oh good!” Marisea laughed with delight and threw her arms around Park. This time she kissed him on the lips, although only for a moment and left Park sputtering.

“I haven’t noticed a lot of public displays of affection since we got here,” he pointed out uncomfortably.

“We’re not in public,” Marisea chuckled and leaned forward again. This time Iris held her back gently.

“I think you’ve made your point, dear,” she told the teen without any hint of jealousy in her voice.

“Don’t you people kiss on the first date?” Marisea asked teasingly.

“That depends on the date,” Iris replied, “and in our day we tried not to date outside our species.”

“Well, I wouldn’t try to date an Attackack,” Marisea laughed. “Humans might be close enough. Of course you’re all so old, so maybe not.”

“Gee, thank you,” Park grumbled.

Marisea laughed again and started hop-stepping back to her room. “I’ll come get you when it’s time for dinner,” she promised happily, and they heard the door close behind her.

“You didn’t really discourage her,” Park told Iris.

Iris chuckled. “She’s young and has a crush. You did save her life, after all. You could have stopped her, you know.”

“I didn’t want to hurt her either,” Park admitted. “I like Marisea, but...”

“You mean you aren’t flattered by her attention?” Iris asked archly.

“It’s flattering,” Park admitted, “but she’s far too young. I don’t know what the Mer laws are, but she would be jail bait where we come from.”

“Sixteen is of age in Mer society, dear,” Iris told him. “Well, I’ll have a chat with her very soon and that should take care of that. In the meantime you should enjoy having two beautiful women on your arms.”

“I’m never going to entirely understand you, am I?” Park sighed.

To her credit, Iris did not give the usual response. Instead she laughed and said, “It’s very simple, dear. First, I trust you and second, Marisea doesn’t threaten me.” Park stared at her for a bit until he realized his frown had turned to a look of affection. “Your coffee’s gone cold,” Iris observed. “I’ll get the other bottle.”

Seven

“You’re wasting too many of your precious resources this way,” Arn was telling Prime Terius through his new torq when Park, Iris and Marisea joined them for cocktails before dinner that evening. “Three satellites can do the work of the twenty you’re using now.”

“The satellites you propose would violate the terms of the Covenant, Friend Arnsley,” Terius told him politely.

“If they were placed in high orbit by the Mer, perhaps,” Arn argued. “But the satellites and the launch vehicle belong to Project Van Winkle and we never signed the Covenant.”

“Tempting,” Terius admitted, “but I must consider how the Galactics would view it. I am fairly certain they would destroy your satellites without bothering to wonder who had launched them. Then they would descend on our world and exact the penalties they chose as per the damnable Covenant.”

“How many Galactics are on the moon?” Park asked suddenly.

“I’m sure I don’t know for a certainty,” Terius replied thoughtfully. “Tens of thousands I should think. The base there is large enough to be seen from here without a telescope.”

“Is it?” Park wondered.

“Park? What are you thinking?” Iris asked.

“Ever since we got back to Van Winkle Base, you’ve been monitoring the Moon for radio transmissions,” Park pointed out. “Heard much?”

“Not really,” Iris admitted. “Assuming Taodore gave us the right frequencies, there’s just been a little chatter, just with various spaceships.” She had needed Taodore’s computer to handle the translations of the three major Galactic languages, but the new antenna array was easily adapted to listening.

“How many ships?” Park pressed.

They had discussed this before, but Iris did not know where Park was going now, so she allowed him to lead her. She took a deep breath and let it out in a long sigh as she tried to remember. “Four,” she replied at last. “One was coming from somewhere else and left a week later just a few days before we came here, and the other three seem to be stationed in this system. I think they spent most of the time grounded near the lunar city, really, since the communications seemed to deal mostly with maintenance.”

“So we only know of three ships stationed at Luna,” Park concluded. “Is that right?”

“Well, there’s no proof we heard from all the ships up there,” Iris hedged, “and like I said, I only had Taodore’s say-so that we had the right set of frequencies.”

“But only three?” Park pressed.

“Well, okay,” Iris nodded. “Yes, three ships, that we know about.”

“Prime?” Park turned the Mer leader, “how large are these ships?”

“Spaceships vary in size,” Terius replied. “The ones we have seen carried crews of two hundred.”

“That’s it?” Park asked, showing surprise.

“Spaceships are very expensive to run and the cost of running one goes up exponentially with their size,” Terius replied sensibly. “We have three ships we use to maintain our satellites and they each only hold a crew of fifty. I have heard of ships that can hold one thousand crew or passengers, but they are supposed to be quite rare. Why are you asking?”

“So they have three ships we know of, at least one of which carries two hundred men and women,” Park summed up. “For the sake of argument, let’s assume the other two each are manned by crews of one thousand. Heck, let’s assume they just sent the two hundred man ship home in exchange for another large model. So those three ships represent maybe three thousand people.”

“Plus the men and women stationed on the moon itself,” Iris pointed out.

“Yes, and how many are there?” Park went on, “and you know what? It doesn’t matter because they can’t come here, only those three thousand on the ships can. How many Mer are there in the world?”

“According to the last census,” Terius replied, “there were not quite nine hundred million adults and children. Oh, I see what you’re getting at, but they do not have to land to kill us. They might have terrible

weapons that could destroy whole cities.”

“It’s conceivable,” Park admitted. “My people did. I was hoping someone had developed a defense against the nuclear bomb by now.”

“Would anyone actually use such a horrible weapon?” Marisea asked.

“There have been incidents,” Park admitted. “Terius, have the Galactics ever done that to your knowledge?”

“There are stories,” Terius replied.

“True stories?” Park asked. “Did they ever drop the Bomb on a Mer City?”

“The Bomb?” Terius echoed.

“One of those weapons that could destroy a city,” Park translated.

“Not in any of our records,” Terius replied, “but we wouldn’t want them to start now.”

“Admittedly,” Park agreed, “but would doing so fit in with their whole argument that Earth is a nature preserve?”

“No,” Terius admitted as though the thought had never occurred to him, “I would have to say that does not sound in keeping with that particular argument, and, before you ask, they have never actually threatened to use such a weapon, not directly. But they have shown them to us and given us demonstrations of their use. The meaning was clear.”

“I think they’re bluffing,” Park told the Mer. “I think they have a base up there with maybe three or four thousand people at best. It’s possible I’m giving them too much credit and there are half that number. It seems to be that big shiny area is a field of solar energy cells to supplement whatever sort of power generator system they have and that the actual base is far smaller than it seems.”

“On what do you base that, Park?” Arn asked.

“The low levels of radio chatter for one thing,” Park replied. “If they had a dozen ships or more we’d be hearing a lot more talk going on. And if they only have three ships we’ve heard about, I doubt there are more than another one or two. It’s possible the base is as large as it looks, but I suspect it’s relatively empty if that’s the case. There’s just not enough activity. I think that fourth ship we heard coming and going brought supplies and maybe new personnel. If it brought new people, it probably took some away. The whole thing sounds more like a listening post than an actual military base.”

“Three or four ships is more than a listening post, Park,” Arn pointed out.

“For an entire planet?” Park countered. “I doubt that. Prime, when was the last time the Galactics actually had to exact any of the penalties in the Covenant?”

“That would have been seven centuries ago, when we were forced to stop putting our satellites in high orbit,” Terius replied. “I would think they’d be looking for us to try that again.”

“That would make sense,” Park told him, “if they didn’t think you had learned your lesson. Have

there been any incidents since then?"

"We protest the terms of the Covenant every century when it comes time to renew it," Terius told him.

"A protest?" Park asked. "Just words? I doubt that scares them very much. As long as you're talking and not acting, they'll be complacent and after several centuries, I doubt they're doing much up there besides showing the flag. They know they have you cowed and after this long I'm sure they have become complacent. It's time to press back a bit."

"Yes," Arn took up the argument. "We should launch those satellites. Park's right. The odds are, the first thing they will do is complain and threaten at which point I'll personally tell them whom they belong to. Besides I've read that Covenant backwards, forwards and side to side. It doesn't even mention satellites."

"They have Earth under quarantine," Iris commented thoughtfully, "behind a blockade. I have to agree with Park. It is high time that blockade was broken. A better system of communications won't harm anyone."

"And if you have ships that can travel between the planets," Park added, "I've always wanted to see Saturn for myself."

"This is a matter for the Council to decide," Prime Terius decided, "but we can begin that tomorrow."

"Good," Iris laughed, "because I'd like to dance with my husband while I have the chance."

"And his second," Marisea put in, "wants to dance too. Iris, there are dances for three, you know."

"Well, if Park's going to insist on bringing two dates to these things," Iris laughed, "I suppose he is going to have to learn them."

"I don't recall being the one who insisted," Park told them both, but allowed himself to be led out on to the dance floor.

"Park," Marisea asked after showing Park and Iris the modified steps for a trio, "Are you really going to go to Saturn?"

"I'd love to," Park admitted, wondering idly whether she even knew where Saturn was, "but right now I would just like to establish a permanent link between Van Winkle's and the Mer networks. It's not going to be as easy as I made it sound though. First of all we have to get those satellites up and working and we may have to defend them."

"Or not," Iris told him. "From the sounds of it, this Covenant has been so much talk back and forth across the backyard fence for centuries. If we launch and then nothing else happens, they might just let it go at that."

"Well, we'll see won't we?" Park shrugged as he prepared to twirl both Marisea and Iris. The dance, he decided was entirely too athletic for the man who dared to engage in it with two women. Then he decided maybe that was the point.

After the dance, Marisea noticed the small golden pendant hanging from the chain around Iris' neck. "What's that?" she asked. "I haven't seen you wear jewelry before."

"This?" Iris touched the pendant at her throat. "It's says, 'chai.' It's the word for 'Life' in another human language. I've had this since I was even younger than you. Would you like it?"

"I couldn't," Marisea shook her head, "a good Mer girl doesn't wear jewelry until..." she trailed off.

"Until what, dear?" Iris asked.

Marisea gave her a crooked sort of grin. "Before her first formal occasion."

"I would think this qualifies then, right?" Iris asked, reaching behind her neck to unfasten the thin gold chain.

Marisea looked around nervously and then nodded with uncharacteristic shyness. She blushed as Iris fastened the necklace around the teen's neck. Tears were rolling down Marisea's face as she hugged the older woman and repeatedly told her, "Thank you!" Then she suddenly broke off to race across the hall to show her father.

Taodore came up to Iris sometime later to say, "Thank you, Iris. You've made my daughter very happy."

"It was hardly anything, Taodore," Iris replied. "And it seemed appropriate."

"Very," Taodore agreed. "You should know, however, that is something a young woman's mother usually does. Sadly, Marisea's mother, my wife, died when she was just a year old. I've done my best, but I know she's missed out on certain things."

"It's all right, Taodore," Iris responded, seeing the Merman beginning to be at a loss for words. "I don't mind filling in and, truth to be told, I would be proud if Marisea were my daughter." Taodore nodded and gave her thanks once more before Marisea came bouncing happily back.

Eight

Park woke up the next morning when he felt movement on Iris's side of the bed. "Getting up, Hon?" he asked sleepily.

“Getting in,” Marisea’s voice replied playfully. Park’s eyes snapped open and he turned around only to be caught up in Marisea’s arms and felt the warmth of her body against his as she kissed him full on the lips and this time held on for several seconds. “Thanks for the date, Park,” she told him as she allowed him to disengage and slip back. Park noticed she was still wearing the chai necklace Iris had given her. “Next time, though, remember you’re supposed to kiss your date good night, not good morning. People might talk.”

“Marisea, what are you doing in here?” Park asked. “I thought I locked the adjoining door.”

“You did, spoilsport,” Marisea laughed. “Oh, I’m just teasing you, Park. You take this so seriously, it’s hard to resist, and I really did want a kiss good night. On the cheek would have been sufficient. Anyway, Iris asked me to wake you up. You have to admit it worked.” She jumped back off the bed. “The council is meeting today and they want you there.”

Marisea hopped back out of the room and was nowhere to be seen by the time Park was up and dressed. “We have got to find her a boyfriend in her own species,” he told his wife.

Iris laughed, “That is not going to be a problem. We had a little chat while you were sleeping this morning.”

“And then she climbed into bed with me,” Park told her.

To his surprise Iris laughed again. “You shouldn’t lead her on so, then,” she teased. “Relax. She told me what she planned. Mer teens play around like that all the time I’m told. I asked several adults about it last night. It rarely goes beyond hugging and kissing, not with a young lady of Marisea’s social status. Besides, I think she has several young men her age dying to date her after last night. Merely by being your second date, she suddenly became very desirable to her male peers. I understand that giving her my necklace helped there as well. In any case, if you missed it, she had a swarm of young men around her by the time the evening was over.

“She’ll be far more circumspect with them, I’m told,” Iris continued. “Kissing and cuddling with one’s first formal date is just practice, evidently. She may want to do it again in the future before she finds a more serious relationship. And some ladies continue to greet their firsts with hugs and kisses all their lives. It’s interesting behavior and it’s a shame we don’t have a full-time anthropologist back at the base. A study of the Mer culture would be interesting.”

“You can always do it as a hobby, or seek out some Mer culturologists as they call them,” Park suggested. Iris nodded and made a mental note to do so.

Over the course of the next week, Park, Arn and Iris managed to convince the Mer Council that launching the human’s satellites was worth the risk of angering the Galactics. The desire to strike back at the Galactics among the Mer was actually fairly strong and the real debates were along the lines of how much assistance the Mer government could give the humans and still be able to honestly call it a human project.

Park, in turn, was impressed by the fact the Mers wanted to be honest about that. Human governments, in his experience, cared little for honesty, often redefining the word to suit their own purposes.

In the end the Mer government promised to build a spaceship for the humans and deliver it to Van

Winkle base before the actual launch of the satellites some two months hence. Park, however, surprised everyone by proposing that the crew on any mission flown in that ship would be a mix of human and Mer.

Arn had just passed Park a note asking if his brains had been left behind in a jar, when Prime Terius magnanimously extended a similar proposal for flights by ships owned by the Mer. "There is, in fact, a maintenance flight scheduled for next month," Terius told them. "It would be a good idea for your people to get some real flight experience before trying out on your own. Simulators, I am told can only teach you so much."

The spaceship would not be free, of course. If it had been simply a gift, the Galactics could claim any mission flown in it was still being conducted by the Mer, using the humans as a cover. Park pointed out the Galactics could claim that anyway, but the Mers were satisfied so long as they knew they would be able to tell the truth. And access to human records and technology was a priceless resource to the Mer. That they would have unlimited access to the oldest Earthly records known would, they felt, raise their own status in the eyes of the Galactics.

Priceless that knowledge may have been, but they set prices anyway, but even so it would leave the Mer in debt for a long time to come. Since they agreed there would be no interest charged on such a debt nor a short term deadline for payment, everyone was satisfied they had gotten the best deal possible.

Taodore also accepted an appointment from the Mer Government to serve as "Ambassador to the 'Human Nation.'" Park thought calling forty-eight hundred men and women, counting those few who had wandered off and had not been seen since, a nation was somewhat ostentatious, but Taodore assured him that assigning the people of Project Van Winkle nation status was the correct and proper diplomatic thing to do.

"I'll have to take your word for that," Park laughed. "I've always tried to steer clear of governments and diplomats."

"Ha!" Taodore laughed, "So have I, and yet here we both are. Well, if I had to finally bow to convention and join my government, I couldn't ask for a more interesting and delightful posting."

"Given your basic anatomy, I would have thought you would prefer a more watery locale," Park commented.

"Most Mers would," Taodore chuckled, "but I always have been one of the eccentrics. I must say, old boy, I owe you a debt of thanks for how you treated Marisea back in Ghelati."

"It wasn't so much," Park shrugged, wondering how much Taodore really knew of what had happened the first couple of days.

"Oh, but it was," Taodore replied. "I had been dreading how I would see her introduced to society and in fact I probably should have seen to it months ago. I realize it is customary to throw a large party to commemorate the occasion, although some of the young ladies see that as old fashioned these days. I never would have expected it to be dinner with the Prime, but still, one's first official occasion is special."

"So Marisea told me when she asked to be my second... is that the term?" Park asked.

"It's actually short for second wife," Taodore laughed, but on seeing Park's startled reaction, he held

up his hands. “No, no, you haven’t suddenly gotten married for the second time in as many months. But it is the term used when a man escorts two ladies to an official event.”

“Official,” Park echoed. “Don’t you mean formal?”

“It is pretty much the same thing,” Taodore explained. “You already know that I am one of the privileged class, right?”

“You never actually said, but I figured it out,” Park admitted. “Marisea going on about the formal dinner was a bit of the capper.”

“Yes,” Taodore nodded. “As it happens, you solved a lot of problems for me. I’ve been wandering around the globe for the last few years, taking Marisea with me when she was on school break, so neither of us has had much to do with the so-called polite society, but Marisea did deserve to enter that society in style. The problem was finding the opportunity and there weren’t many such among the Atackack or in the Eastern Hills of Australis. And then I would have needed to find the appropriate people to do the honors.” He sighed.

“The honors?” Park asked.

“Iris was wonderful,” Taodore told him. “One of the key... uh rituals? Maybe... Well one of the things that is supposed to happen is that a young lady is given her first piece of jewelry. When she took off her necklace and placed it around Marisea’s neck... Well, I was overcome. It was only later that I realized she gave Marisea the piece out of generosity and in a way that was even better. The act is supposed to symbolize how the recipient must be generous all her life and what is better than true generosity? And since Marisea lost her mother before she ever got to know her, it was perfect that Iris should play the part a young lady’s mother normally would.

“Having you act as Marisea’s *stamovir* was just as moving, Park.” Taodore continued.

“*Tamovir*?” Park echoed. “What’s that?”

“The *tamovir* is the gentleman who escorts a lady to her first official formal outing,” Taodore explained.

“I was never part of that sort of thing,” Park remarked, “but it doesn’t sound all that different from a coming-out ceremony, although there weren’t any ostentatious announcements, ceremonies or presentations.”

“Most do have that sort of thing,” Taodore nodded. “Many parents want their daughters to have a truly unique experience. My daughter and I have never been into that sort of ostentation. I have asked her many times what she wanted, but her answer was that it be something simple and wonderful. You gave her that.”

Park chuckled. “She pretty much set it up for herself. Iris giving her the necklace was a spontaneous gesture, but it was Marisea who asked me to escort her to the dinner.”

“Not at all out of the ordinary,” Taodore assured him. “You did kiss her goodnight at the end of the evening, didn’t you?”

“That was part of the tradition, was it?” Park asked.

“Oh yes, definitely,” Taodore replied.

“I sure wish I’d known that from the start,” Park muttered. “Where I come from, teen-aged girls do not generally throw themselves at men over twice their age.”

“Well, I imagine it was only a kiss or two and a few hugs, wasn’t it?” Taodore asked unconcernedly.

“Pretty much,” Park admitted.

“Marisea is actually a very well-brought up and traditional young lady at heart,” Taodore told him. “Some of the girls these days go entirely too far, if you follow me.”

“Well, I’m sure our anatomy would have been incompatible even if she weren’t,” Park commented.

“Not according to your biologists, old boy,” Taodore laughed. “Although I am glad to know you didn’t have the opportunity to find out.”

“You could have just asked,” Park told him, equally relieved.

“Much too blunt, old boy,” Taodore told him. “Just not the way I was brought up. However do not be shocked if she occasionally cuddles up with you in the future. Most ladies become quite fond of their *tamovir* s and frequently behave in a familiar manner with them. They say a girl never forgets her *tamovir* , so I’m glad you could make that evening truly special for her.”

Then Taodore changed the subject. “So, how long before that rocket of yours is ready for a systems test? I know there are several Mer scientists who are begging for a chance to come observe.”

“We can start those anytime I suppose,” Park told him. “Our excavators are still opening up the top of the silo and carving exhaust vents out of the bottom, but there’s no reason we can’t start the systems tests. We need to get mission control into order too.”

“So I should tell them to come here then?” Taodore asked.

“I should think so,” Park told him. “On the day of launch we’re going to have to have tracking stations all over Pangaea to monitor the launch and deployment of the satellites anyway. Do the Mer have any bases out in the middle of the Ocean?”

“There are a few stray archipelagos out there,” Taodore replied, “but nothing of interest save to a few scientists. Why?”

“Because we may want a tracking station or two out there too,” Park explained. “What about ships? Are there any out there?”

“Cargo ships sail the ocean regularly,” Taodore replied. “We have a military, but it’s mostly ceremonial, you know. We have not had an enemy to war with in millennia. There have been a few incidents with the Attackack, but those were mostly Kogack raids and easily repulsed.”

“Well, maybe we can place a tracking station temporarily on a cargo carrier or two that plans to be in the right place on launch day,” Park replied. “If possible I want to be in constant contact with our bird.”

“Bird?” Taodore asked. “Why do you call it a bird?”

“In my day most birds were known for their ability to fly,” Park explained. “You have mostly other things in that ecosphere now, but... you have brought up another concern, though. The military. Has anyone thought to put them on alert? If they haven’t had a war in millennia, it’s probable no one is taking the possibility of trouble seriously enough now.”

“I shall look into that,” Taodore replied, “although to be perfectly brutal, if the Galactics choose to chastise us, we haven’t got a chance you know.”

“That remains to be seen,” Park replied grimly.

Part 3 Knock, Knock, Knocking on Heaven’s Door

One

The Mer-built spaceship arrived at Van Winkle Base three weeks ahead of schedule to Park’s intense delight. The ship was larger than he had expected. When he honestly thought about it, he was not sure what he expected. The craft stretched out over three hundred feet of the runway and stood some sixty feet tall. It was shaped like a long isosceles triangle that was about seventy feet across at the base and he was assured could take off and land without the use of booster rockets. Half of its volume was actually a cargo bay, but the crew quarters seemed vast to Park as well.

However, it was Iris who immediately jumped into acquainting herself with the craft. She was not interested in flying it, but in how it worked and how they might customize it for whatever missions they chose to fly in her. She also came up with the name for the craft. “*The Hendrick Hudson*”, of course,” she told Park and Arn. “What else would Van Winkle’s first starship be named?” Neither man had an answer for that and she immediately had the name and a hastily designed logo, a bowling ball and a set of nine-pins, painted on the ship’s tall tail.

“And you say this baby can go to the moon and beyond?” Arn asked Terius later that day after they had both toured the new craft.

“I thought we had been through this,” Terius told him gravely. They had this argument several times already. “You know we cannot go to the Moon. The Galactic base is there to enforce the Covenant and

I am certain they would stop you from going anywhere else for that matter.”

“I keep hearing about that,” Arn nodded, “but to me it just sounds like a bad case of squatters. Well, if they are there to defend the Covenant, I intend to rely on them to do just that.”

“What do you mean, Arnsley?” Terius asked.

“I’ve been reading that Covenant of yours even more closely since we met in Ghalati,” Arn replied, “and I’ve read the legal commentary on it as well, and according to what I have read, The Mer may not be allowed to fly your own ships out of Earth orbit, but there is nothing at all in there about traveling on a ship owned by someone else.”

“Save that no one else would allow us to,” Terius pointed out.

“I would, and I have such a ship,” Arn assured him.

“The Galactics will include you in the Covenant,” Terius predicted.

“Over my dead...” Arn stopped and corrected himself, “Over their dead bodies if they try.”

“You may have been correct in the first place, Arnsley,” Terius told him.

“Well we’ll just have to see about that, won’t we?” Arn commented.

“We will,” Terius nodded.

Discussions between Park and Taodore were more productive and revealing, however. “My people fear for yours, Parker,” Taodore told him a few days after the *Hendrick Hudson* had arrived. “Most see you humans as our venerable ancestors brought back to life and no one wishes to see you come to harm. Also keep in mind that while this ship is rated for interplanetary travel, it has been longer than any of our records go back since a Mer ship has gone beyond the Moon.”

“When did you last go to the Moon?” Park asked curiously.

“Nearly a century ago,” Taodore shrugged. “We have to go there once each century to renew the Covenant. I must have mentioned that before.”

“Not that I can remember,” Park replied. “And when is the next time you’re supposed to go there?”

“In nine years,” Taodore replied. “We are particularly worried on that count, of course. On the renewal who knows what new restrictions the Galactics might place on us?”

“Not much more than they already have,” Park replied. “But we’ll both talk to Arn. I think it is safe to say we won’t take the *Hudson* out of low Earth orbit unless it is necessary to repair one of our satellites at least until the next renewal. After that we’ll all have a better gauge by which to judge the Galactics, I should think.”

“That sounds reasonable,” Taodore agreed.

Opening the launch silo turned out to be a longer and messier job than planned and the launch of the Van Winkle satellites got pushed back a year while the job proceeded and the rocket was checked and

rechecked for damages from the shower of rocks that rained down on it when the mining crews finally broke through the hard siltstone and dolomitic limestone layers. The stone was, in fact, much harder than Park had been led to believe from the base's records and he decided it must have at least partially metamorphosed during the time the humans had been in stasis.

Fortunately the launch vehicle had only suffered minor scratches from the breakthrough, but tests of the telemetry and guidance circuits turned up unexpected flaws that had to be worked out. In the end, many new customized systems had to be fabricated in Mer factories.

During that year, over three thousand Mers came to live at Van Winkle Base, bringing their families and helping to turn it into a true colony town. The humans started pairing off and two dozen children had already been born with more on the way.

While over two thirds of the population were living in their own homes outside the original base, Park and Iris continued to live inside the subterranean structure simply because they had not had the time to build a home and move into it. They had, however, managed to take over the entire wing their bed rooms had been in and renovate it into a more comfortable suite where they could relax, often with Marisea, who slept over as frequently as not and who had her own room in the suite from the start.

With the influx of other Mers her age, Marisea started dating young men, which to Park's surprise made him as nervous about the prospect as it did Taodore, but Marisea had a streak of traditionalism in her and brought all her young men over for Park's approval. A Mermaid's *tamovir*, evidently, was more important to impress than her father and with such a famous and prominent *tamovir* most of the boys were overwhelmed by the prospect of meeting him.

Marisea was also a serious student and, with the establishment of a school at Van Winkle Base, most of her time was spent doing homework in Park's and Iris' suite, which also intimidated some of the boys who wished to go out with her since both humans found the time to teach at the school. So there were many nights when after a long day, the three of them would sit cuddled up on the couch together either reading or watching a movie from the Base's large store of entertainment media. Once a set of relays had been established between Van Winkle and Ghalati, they were able to receive live broadcasts from the Mer City as well.

Park taught an entire class comparing the cultures of the Mers and the humans through their entertainments that had people of all ages in his classroom once each week. He would often bring in guest lecturers from various Mer universities as well as the humans of Van Winkle. The class became so popular, in fact, that they ended up holding it in a newly-built auditorium one night each week.

Park and Iris also found themselves traveling extensively during that year, often with Marisea. The teen was an invaluable aide and guide in the various Mer cities they had to visit, especially in her own home town of Sanatie. Their travels were mostly to coordinate tracking for the launch day, but they also found themselves lecturing on what the Mer referred to as pre-ancient history, human technology and entertainments. That last surprised Park in spite of the popularity of his class at Van Winkle Base, especially when the Mer entertainment industry plunged headlong into a series of stories that were essentially remakes of old human films.

One puzzling development over that year was the sudden disappearance of most Atackack from the trading post cities they shared with the Mer. The Mer had built schools in which young Atackack were taught to read and write, history, and arithmetic. Some few, mostly males, who had been chosen to serve as shamans, stayed in school long enough to learn more advanced subjects although all inevitably returned to their tribes.

The Mer had never learned why that was. Most enlightened Mer looked forward to the day when they could interact with their Attackack neighbors in a peaceful and productive integrated society. The Attackack, however, were ultimately loyal to their tribes. Park wondered if it could either be genetic or a form of pheromone imprinting from birth.

However, the Mer schools for the Attackack had always been filled with the young insect people, and the trading cities were usually filled with Attackack traders doing business in their click-clacking language with the Mer and each other. The Mer Trading cities were the few places Attackacks from different tribes could always meet in peace.

Two months after the human's first visit to Ghelati all the Attackack abruptly vanished from all Mer cities except for a few crippled and addled Attackack who either could not leave or would not. When asked about the withdrawal of the others, the remaining Attackack would not say why the others had gone.

"It is quite the mystery," Taodore told Park and Iris in their suite one evening. Marisea, tired after a long day, had been unwilling to go to sleep and instead had drifted off while cuddled up against Park. He was almost used to that by now and realized he would miss it that day she found a Mer man to cuddle with instead. "We know they went back to their tribal lands, we just don't know what prompted them to."

"Do you have trading posts for all the Attackack tribes?" Park asked.

"Well, we deal mostly with the Geck and Bidachik tribes as they have settlements on the coast," Taodore replied. "A few Totkeba tribesmen will make the trek, like Tack did, of course, but we almost never see the Pakatis unless we go to them."

"What about the Kogacks?" Iris asked.

"They've never sent their children to our schools, though we did offer," Taodore answered. "Only a few ever came to trade, but they haven't been around lately either and they aren't receiving visitors either. The Attackack have marker sticks on their paths that they have been kind enough to teach us, the markers are all saying 'No admittance.' Generally that means they will kill any stranger who dares venture beyond the markers. We've always respected their privacy in such matters so..."

"...nd the near settlements," Marisea mumbled sleepily from Park's shoulder.

"Oh yes," Taodore nodded, "They've abandoned all the settlements within a hundred miles of our cities. It's like they have all chosen ignore everyone else in the world."

"And just as it's becoming interesting," Park remarked. "Think of all they're missing!"

"Uh huh!" Marisea agreed sleepily into Park's shirt.

"Okay, small fry," Park chuckled. "Time for you to go to bed."

"I'm not that sleepy," she protested.

"No, of course not," Park agreed. "So why don't you do your homework?"

“Oh yeah,” Marisea nodded and start falling to sleep again. Her eyes snapped open and she protested, “I did it hours ago.”

“Then maybe you should get some sleep,” Iris suggested. “You have an early class tomorrow and Park’s class in the evening.

“Oh, okay,” Marisea agreed reluctantly. “Good night, Park.” She kissed him on the cheek and then did likewise with Iris and her father and hop-stepped off to her room.

“She’s a good girl,” Park noted. “But it usually takes Iris’ suggestion to get her to go to sleep.”

“That probably explains why I never could get her to her bed either,” Taodore laughed. “I did leave out something about the Attackack. The few ones left in our cities tell us their kinsmen are preparing.”

“Preparing for what,” Park asked.

“Ah, now that’s the question, isn’t it?” Taodore asked pointedly.

Two

Iris knew there was something wrong with the *Hendrick Hudson* , but it took a while for her to place her finger on the problem. The craft could fly, that was obvious. It had been flown from the far eastern city of Planaco where it had been manufactured and in fact had completed three orbits as a test flight on its way.

It flew on jets in the atmosphere and on rocket power once in space. The humans were mildly surprised that rockets were still in use in spaceships, especially with the gravity suspender technology the Mers used on a daily basis. But it turned out the suspensor units needed a surface to hold their wearers over. The higher above such a surface, the less effective the devices were, so while the ship effectively had artificial gravity, the same technology would not assist in the launch. Park and Iris learned that the Mer kept the gravity in their ships just low enough to be able to tell up from down and to keep their tails in contact with the floor. To them it felt like wearing their suspensors and the humans found they could soon adapt to the lighter pull on their feet.

The inside was fantastic beyond anything she had expected. It was all gleaming hallways and bulkheads, with perfectly contoured chairs and couches and ample room for the crew. The bridge looked more like something from a jet plane than anything from Star Trek. Well, she had always thought the Bridge of the Enterprise was an impractical use of space, but for some reason she had expected something from a sea-going ship's bridge. In spite of that disappointment, the myriad of flashing lights and digital displays made up for it all.

There was nothing wrong with any of the instruments and the exterior of the craft looked flawless, so she started making sketches of the spaceship. She made several dozen of them and from as many different angles as she could figure out and finally she saw it. There was a small flat area just under the nose of the bird. It looked like there was supposed to be something mounted there.

She asked Taodore about it, but he was unable to enlighten her. After asking questions for several days, Iris finally called the manufacturer who eventually referred her to the designer of the craft, an elderly Mer named Farn Gerocis. "Oh that?" Farn laughed. "I probably shouldn't have really."

"Why not?" Iris asked him. "Does it represent a danger to the ship?"

"Oh no, nothing like that!" Farn laughed even harder. "It's just an old tradition to have it there. You see, we used to mount our meteor defense there."

"Meteor defense?" Iris asked.

"A small but powerful laser, if you must know," Farn informed her. "We used to mount one there on every ship. Silly of us, really."

"Why is that?" Iris wondered.

"It's supposed to be a holdover from the days long ago when we used to explore the solar system," he explained. "The laser was there to protect a ship while passing through regions of high asteroid concentration. I understand even then they probably did not get much use. We still had them installed up until a century or so ago, but the need for such a thing in Earth orbit is non-existent. There are pebbles and other space junk that could do you damage, sure enough, but the chance of seeing one before it was too late? Well, it's not going to happen. And there isn't enough of the larger stuff to worry about."

"But we can be very traditional and the area on which such guns were mounted still exists," Farn concluded.

"Do you have any of those meteor defenses left that we could mount?" Iris asked.

"Of course not," Farn chuckled. "What would we do with it? What would you do with it for that matter?"

"Well, I can be very traditional too," Iris told him. She thanked him for his time and went back to look at the flat area under the *Hudson*'s nose. Now that she knew why it was there, it bothered her. There was an aesthetic wrongness to the flat, so she started drawing again; this time with a variety of weapons. Some were fanciful but others were ones she knew were in storage deep within Project Van Winkle.

Iris had been angry that they had been sent into the future, prepared for a war. The hunting weapons

and some of the higher-powered guns that might normally have been considered assault weapons had proven useful, even essential, for dealing with the food animals they had found in Pangaea, at least until they had met the Mer. The Mer had a variety of domesticated creatures, most of whom looked ugly but either tasted delicious or could be put to work, so hunting had become more of a pastime than a necessity.

It was the larger guns Iris objected to; great angry-looking tubes and rods of whatever had been state of the art of warfare in the late twenty-first century. But as she tried sketching one of them into the spacecraft, it looked right. A gun of some sort right there gave the whole thing some visual balance.

So Iris went down into the depths of Van Winkle base and started searching. There was a lot she could work with, but most of the space-worthy weapons were missiles and their launchers could not be mounted near the nose of the craft. Finally, however, she found what she was looking for. It was sleek and aerodynamic and would work in space. In fact, the powerful pulse laser was more suited for use in space than on land. She had it taken out of storage and spent the next few days installing it on the *Hudson*.

“Isn’t that going to be a major hazard on reentry?” Arn asked when he saw what Iris had accomplished.

“Not at all,” she replied. “The Mer vehicles don’t make fiery reentries like ours used to. The return is slower and under power, so special heat shielding is not required. I tried this out on the computer models before we started the installation. It’s perfectly safe.”

“But why do you even need it?” Arn pressed.

“It completes the bird,” Iris told him. “The Mer ships used to have small defensive guns on them all the time.”

“But they don’t anymore,” Arn pointed out.

“It’s not really necessary in Earth orbit, but we do want to explore further eventually, right?” Iris countered. “It’s just a precaution.”

“Have it your way,” Arn shrugged. “I think you just went to a lot of work for nothing, but so long as it doesn’t jeopardize the ship, do what you like.”

“I will,” Iris shot back smugly.

Park, in the meantime had other concerns about the ship. He rounded up the people with flight experience and chose four, including Paul Gannes and got them started on training for space. Park enrolled himself in the program as well. He justified it by saying he did not want to supervise the new astronauts without being able to do everything he asked of them, but in truth, flying a spaceship was every boy’s dream and he was having the time of his life.

Because the *Hudson* had been delivered early, they had time for several low orbital training flights on her. Park made sure that each time they lifted, there was a mixed crew of human and Mer, although the Mer refused to pilot the ship. “We have to maintain our story that this is primarily a human venture,” Taodore told him on several occasions.

“So we can’t hire a Mer pilot?” Park countered.

“Not until the Galactics accept you as a space-faring species, I should think,” Taodore replied.

“And you think having the controls labeled in both English and Merish won’t be a giveaway?” Park laughed.

“Well, no one would believe a colony of under five thousand would be up to fabricating its own spaceship,” Taodore replied, “so it seemed only reasonable the labels would be bilingual, just for safety sake, you understand.”

“You say that with such a straight face that even I almost believe you,” Park noted.

“It’s called being a diplomat, Parker,” Taodore chuckled. “I may have avoided this sort of job all my life, but I was trained for it.”

“You poor fellow,” Park chuckled.

“It’s tragic,” Taodore sighed. “I can only hope to save my daughter from such a fate.”

“That reminds me,” Park changed the subject, “Marisea wants to go up with the *Hudson*. I told her under no circumstances, of course.”

“Why?” Taodore asked. “You’re going up, aren’t you?”

“Are the Mer in the habit of deliberately placing their children in harm’s way?” Park asked incredulously.

“Not at all,” Taodore told him. “I just don’t see this as all that dangerous. Spaceflight is a routine matter, you know.”

“Not for us,” Park explained. “I can’t go taking an untrained passenger up for a joy ride.”

“Then train her, old boy,” Taodore suggested.

“Excuse me?” Park asked, incredulous.

“Give her a mission job and train her for it,” Taodore told him. “You know my daughter quite well by now. She is intelligent, imaginative and a very quick study. She is also very good with her hands and has assisted me in my investigations since she was a child.”

“She still is a child,” Park replied..

“She is a young woman,” Taodore corrected him, “and a talented one at that. Really, Parker, you act more protective of her than I do. Typical of *atamovir*, I suppose, but hardly necessary. Besides, you will find Mers are uniquely suited for working in space. It is almost like swimming for us.”

“Well, if you insist, I’m sure I could have her train as a navigator,” Park decided. “She can stay here in the simulator in case something goes wrong up there.”

“That won’t be good enough, Parker,” Taodore warned him. “Oh she’ll take her turn in the simulator, like any other potential crew member, but she’ll still insist on going up when her turn comes.”

"I haven't given her a turn," Park pointed out.

"You should," Taodore told him. "You will."

Taodore was right about his daughter. Marisea picked up astronavigation in record time and quickly moved on to other facets and specialties that were predicted for possible space missions. She also turned out to have one of the best mechanical aptitudes from among the crew and excelled in all the satellite repair simulations they could devise.

"It's like a video game for her," Iris pointed out to Park one afternoon over tea. "In fact the simulations are video games when you get right down to it. You ought to see her at the controls of the meteor laser. She's phenomenally accurate."

"You rigged that laser's aim to be computer guided," Park pointed out.

"Computers crash," Iris told him. "They did in the twenty-first century and they still do today. Marisea is nearly as good without the computer as she is with it. She's also applied for the command program, you know."

"I didn't know," Park admitted. "When did she do that?"

"This morning, I believe," Iris replied.

"She's too young to command a mission," Park resisted the notion.

"I agree," Iris nodded, "but she is not too young to train for it. Oh go ahead, Park. I really don't know why you're being so stubborn. She has the ability and she's at the age at which Mer students begin to specialize anyway."

"She's not specializing," Park pointed out. "She's trying to do everything."

"Just like her father," Iris smirked, "or *hertamovir*. Face it, Park, she has two father figures in her life and neither is a specialist. Further, she loves Taodore, but she idolizes you. She's going to emulate you both anyway."

"A good generalist has to be able to specialize in everything," Park pointed out. "It isn't easy."

"Then stop trying to make it any harder on the girl than necessary, Park," Iris argued. "She's going to do it anyway. I think it would be better for her to do it to make you proud than to do it just to show you she could in spite of you."

"Oh, very well," Park sighed. "You know I'm only trying to protect her, don't you?"

"I do and it's sweet of you, dear," Iris replied, "but you're wrong to do so. She doesn't need protection. She needs and deserves encouragement."

"She ought to at least go to university first," Park pointed out.

"She has another year before she can enter," Iris told him. "The universities here are even more pig-headed than you are. The minimum age for matriculation is seventeen. Marisea has completed all her

required pre-university work, but still has to wait that extra year. So she'll train with us for that year and then go to university. If nothing else, we'll know she has a summer job lined up."

"Only in the future can a kid have a summer job as an astronaut," Park laughed. "You know, maybe that's not such a bad idea at all. We'll see how Marisea does, but maybe offering internships to the high school-level kids is a good idea. We can't send them up as an all-teenager mission, but they can work in mission control and run the mission simulators and, depending on how well Marisea does, maybe we can allow the top interns to go up as a special treat. That is," he continued after a slight pause, "if I can be convinced it's as safe as the Mer insist. I'll have to run it past Arn as well."

"You should for the sake of courtesy," Iris allowed, "but he put you in full charge of the space project. With Mer cooperation, it is effectively autonomous from the Van Winkle chain of command. Of course, your team has been effectively autonomous since we started. Arn doesn't really know how to handle you, does he?"

"I confuse him," Park grinned. "I don't take orders worth a darn, but I do everything he wants, sometimes even better than anyone else. There was a time when he only knew me as an ROTC cadet under his command, but even then I skirted as close to the line as I could without actually disobeying a superior officer."

"That was living dangerously," Iris laughed.

"Well, it wasn't a deliberate attempt on my part," Park laughed, "But I soon realized that I thought too much to just blindly take orders the way he, or any other officer, would expect. It's really why I did not pursue a military career. It wasn't that I could not make it in the AeroSpace Force, but that I realized the AeroSpace Force would be better off without me mucking up the chain of command. But I was good at what I did and made a name for myself in certain circles as the go-to guy for oddball problem solutions. That's why Arn tapped me for Project Van Winkle, in fact.

"I hadn't seen him for a decade or so after I had my first degree," Park went on, "but when our paths crossed next he was running a project out in Nevada with some experimental aircraft designs. That project's computers kept crashing for no discernable reason during flight tests and after replacing the systems twice, all their high-power IT specialists threw up their hands in disgust and I got a call from the Defense Department."

"And you solved their problem, of course," Iris nodded.

"In under an hour," Park chuckled. "Good thing I was charging a flat fee and not an hourly price."

"What was the problem?" Iris asked.

"You'll love this," Park laughed. "There was a bird's nest in one of the tracking dishes. That isn't all that unusual, but this clever birdie had found some very fine copper wire to build its nest with. I mean it was mostly the usual twigs and straw but there was a lot of wire in the little structure as well and it had built the thing in just the right place to mess up the signals coming in. Worse it wasn't consistent. Sometimes everything was fine and sometimes all the tracking screens would go dark. The computer programs couldn't handle the messed up data when it happened and would crash out. Once I removed the nest, everything was fine again."

"What about the bird and her eggs?" Iris asked, only successfully stifling a smirk.

“Oh, this had been going on for months,” Park replied. “The bird, or birds, I suppose there was a mated pair – I don’t know what the species was – was long gone. The interference was sporadic depending on which way the antenna turned.”

“I’m surprised they never noticed the nest,” Iris remarked.

“Me too,” Park agreed, “but they hadn’t. Easiest money I ever made. Anyway it brought me to Arn’s attention once again. He was none too pleased with his own boys and girls, but he did appreciate the fact that he was back in business far faster than expected. After that he called me in every time they had a problem that couldn’t be solved in a few days, both there and in later postings. I guess it was only natural he would think of me for Van Winkle too.”

“And to think I had to apply for this job,” Iris laughed.

“I’m glad you did,” Park told her and settled back to enjoy the smile that elicited.

Three

Launch Day was planned to coincide with the end of the rainy season at Van Winkle Town as it was being called now. There were now barracks and homes constructed for everyone associated with the base and even Park and Iris had finally managed to find the time to move into one that over-looked the river just to the west of the original base itself. It was close enough to walk to work from, regardless of where they were headed, and the hill that encased most of the original installation kept them visually isolated from most of their neighbors.

Park woke early that morning unable to sleep, and scowled at his peacefully sleeping wife, jealous of her ability to just relax in spite of the impending satellite launch. He dressed quietly and slipped out of the room and was surprised to find Marisea pouring herself a cup of coffee in the kitchen. “Shouldn’t you be sleeping, dear?” Park asked.

“Shouldn’t you?” Marisea threw back at him.

“I couldn’t sleep,” Park admitted. “I get that way before a big day. Of course this means I’ll probably fall asleep in mission control. How about you?”

“Same thing,” she admitted. She filled a second coffee cup and handed it to him.

“Thanks,” Park told her.

“You’re welcome,” Marisea replied. “I don’t know how Iris can stand it with milk and sugar, though.”

“Most people drink it like that,” Park replied, “and I’m sure they’re happy there are still plants from which sugar can be extracted and purified. Too bad about the honey.”

Marisea wrinkled her nose. When Park and the others first asked if there were sources of honey in the world, the Mers did not know to what they were referring, but as they described how honey bees produced it, interest turned to disgust. There was honey of a sort in the world, but it was produced by certain female Attackack. The thought of eating something produced by the body of a sentient being did not appeal to them nor, once it was explained, to the humans as well. Marisea had adventurously tried some of the precious bee honey that had been in the Project Van Winkle stores, but decided she did not really like it. There were other natural sugar and syrup sources in Pangaea, but to Marisea’s tastes, there was a flavor about the honey she did not like.

Park had always enjoyed his coffee black and unsweetened, which he decided was a mercy when he saw what sort of beast the fresh milk would be coming from in the future. The postmammals were an ugly bunch to his eyes, and the milk they produced for their young tasted terrible. There were true mammals left in the world, though, and one of the Mer domesticated beasts was something that looked like a sheep with the fur of a cow, but with delicate deer-like legs and hooves. The milk from it was fine, he supposed, so long as he did not think about it very much. At least it did not have the half sour, half dirt flavor all the samples from postmammals had displayed.

“Will there be a place to sleep in Mission Control?” Marisea asked curiously.

“A couch maybe,” Park smiled. “It’s not a place for the sleepy, you know, but there’s always the floor.”

“Ugh!” Marisea threw back at him. “I’ve never been comfortable sleeping on floors. And Mission Control doesn’t even have carpets.”

“There didn’t seem to be any need to put much work into finishing that building,” Park admitted. “Once the satellites are up and in their orbits, most of the equipment in there will be relocated and post-launch monitoring will be moved to Central Ops up in the base installation. Then we’ll rebuild it all for regular missions with the *Hudson* .”

“Isn’t it used for that already?” Marisea asked.

“It is, but it’s a small building and we’re all feeling a bit cramped,” Park explained. “It will be completely given over to crews who monitor the *Hudson* .”

Marisea nodded and hopped over to the refrigerator. “I’ll make breakfast,” she offered. “What would you like?”

“Just toast, this morning,” Park told her. “I’m not very hungry.”

“Toast?” Marisea asked, sounding disappointed. Park nodded, realizing she had hoped he would want something that would require more effort on her part. To the Mers, bread had been a lost art. The grains of Pangaea were unsuitable for bread-making anyway, so it was not until the humans woke up that such a delicacy as bread was even possible. Unlike honey, bread was an overnight sensation and several small farms struggled to keep up with the demand for bread grain. It would be another four years before there would be enough seed for wheat, rye, oats and so forth to feed the desires of everyone. However, Van Winkle Base was already producing enough for their own needs as well as having enough seed left

over to sell.

The teenaged Mer busied herself with toast production, while Park turned on the television. There was only one available channel at this time of day and soon the old TVs would become obsolete. The three new satellites would give the whole world full-time access to the Mer communications net, but until then the old Van Winkle Town sets could pick up the few channels available from the base. In the evenings old movies were broadcast on one channel, but there was another channel that played around the clock. It was mostly news, but tended to run an unmonitored camera on the satellite mission control when there was nothing else going on.

Park looked in and saw the late night shift working at their stations. The launch window would not open for several hours yet, but the final fueling was taking place now and the countdown proceeding normally. He smiled at the teams of human and Mer working together so well. It was as though the two species had been created for each other. Their cultures were vastly different, but their values and thought processes were compatible. Man and Mer made for a good team.

The last month had been a nerve-wracking one for Park. As with so many exploration and development projects, the satellites fell under his jurisdiction. Park knew well enough not to try to do everything himself, but he was also the sort of manager who felt he had to at least know how everything was done and had sat at every station at one point or another. And his people were all wearing multiple hats as well. With less than the original five thousand adults Project Van Winkle had included, and most of those unqualified for working on the space mission. Those who were had to be as versatile as Park.

The Mers on the team had been quick studies but they had never seen a launch vehicle like the one the humans were using. No one had ever heard of launching anything fueled by the combustion of liquid hydrogen and oxygen. It had been rare in the late Twenty-first Century as well, and Park wondered if the missile they were using had been military surplus. It probably was, he decided. He had not had much experience with space flight besides the same interest many people had in the Luna colony, little more than a collection of scientific laboratories, really, and the manned flights to Mars and beyond.

As he thought of that, he realized it was the space industry that had produced the same stasis technology that had made Project Van Winkle possible. With all the radiation and other hazards of slow interplanetary travel, not to mention the conservation of life support, leaving the crew safely tucked away in stasis had been essential.

There were no apparent emergencies going on, so Park turned the set off in time to have his toast while it was still warm. The past month, however, had been filled with emergencies. No one in Project Van Winkle had actually ever launched a liquid-fueled rocket before and none of them realized how complex a project it was. Having to learn what they needed out of a printed manual hardly helped.

All sorts of parts had failed and had to be replaced. The compressors that made the fuel gave them tremendous headaches. When fired up, the liquid oxygen or LOX compressor worked well enough, but the jet engine that was supposed to run the hydrogen compressor was a dead loss. Fortunately the Mers had other uses for liquid hydrogen and had sent in a compressor to do the job. Then midway through production, the Oxygen compressor's gaskets started failing and all new parts had to be fabricated.

No one in the project realized that they could not just store the fuel in the rocket and a lot was lost when they had to figure out a way to empty the tanks back out. It was just as well they had, since while they were doing so, several insects got caught in the LOX filter. It turned out that, while no one was watching, a nest had been built inside the LOX tank, requiring a full and thorough cleaning while the biologists had the pain-staking job of making sure all the insects were accounted for. When they could

not find several legs and antennae, the entire batch of LOX had to be disposed of and remade just to be certain.

The launch window, as planned, was only open for one week and the weather, which seemed ideal for such pursuits at first, started playing havoc with mission plans. The temperatures soared above the recommended launch parameters at the beginning of the week, but the heat spell was soon broken by a day of heavy rain, which Taodore assured the humans was quite unusual at this time of year. Finally the night-time temperature dropped to freezing causing them to cover over the launch silo and attempt to heat it.

Finally, this morning, everything seemed to be going right. "It's still early yet," Park grumbled to himself.

"What was that?" Marisea asked.

"Nothing, dear," Park replied absently. "Maybe I'd better get over there as soon as I've finished breakfast."

"You aren't needed yet," Marisea pointed out.

"How do you know?" Park countered.

"Someone would have called you if there were a problem," Marisea laughed.

"There is that," Park admitted. Hardly a day had gone by in which his phone had not rung with one problem or another. "That may be why I'm awake right now. I've gotten accustomed to having the phone ring at four in the morning."

Marisea glanced at the clock on the wall. It had taken her a while to get used to human time measurements and the analog clock had baffled her. Now she took it for granted and decided she liked it better than the system she had grown up with. "It's five thirty now," she pointed out.

"So we're overdue," he retorted.

Marisea laughed again, reached into the cabinet for a stainless steel travel mug and filled it from the coffee carafe. "Here," she handed it over to him. "Go to Mission Control already. You know you won't be happy until you do."

"You want to come with me?" Park offered.

"I think I'll try going back to sleep," Marisea decided.

"The wisdom of youth," Park smiled as he picked up the mug and headed for the door. "I'll see you later."

"The folly of age," Marisea laughed softly, but was certain Park had not heard her.

Park was almost disappointed to not find a problem he had to deal with as he entered Mission Control. There were a dozen people seated at stations, running checks and watching various monitors. There was a low hum in the room as they spoke softly to each other through their microphones. Later there would be three times as many in here and all the consoles would have someone seated at it. There

would likely be even more standing and watching from the gallery behind them.

“You’re two hours early,” Tina Linea informed him as he sat down next to her. The pretty and young woman was one of the four chosen astro-pilots at Van Winkle. She had already flown the *Hudson* on her orbital training flights and Tina had impressed Park as being better at it than Paul had been and Paul had done very well indeed.

“I don’t recall seeing you scheduled for this shift either,” Park shot back.

“It’s the in place to be,” Tina laughed in her contralto. The deep voice coming out of the slim pilot always surprised Park. Tina looked like she ought to have a relatively high voice and giggle a lot, but she was a serious person at heart and not at all prone to the giggles, even when drunk. “I take it you couldn’t sleep either?”

“I’m surprised more of us aren’t up,” Park chuckled.

“Paul and Velvet were here until a half hour ago,” Tina reported.

“Did they leave together?” Park asked. He was only kidding. The two had been getting on each other’s nerves since they had awakened.

“How did you guess?” Tina responded.

“Are you having me on?” Park asked accusingly.

“Not at all,” Tina replied. “It surprised the heck out of me too. Maybe there’s hope for world peace after all.”

“I wish them well,” Park shook his head, “but I won’t count on world peace even if we bring back the Miss America Contest.” Tina chuckled politely. “Any problems?”

“All systems appear to be functioning normally,” Tina replied, and then with uncharacteristic humor added, “We’re all going to die.”

“You want to live forever?” Park retorted.

“Or die trying,” Tina assured him. They grinned at each other. “I don’t suppose you brought coffee for two did you? The stuff here in mission control is six hours old and starting to evolve a new civilization of its own.”

“And it’s Mer coffee, not the stuff we brought with us,” Park added.

“I like the Mer stuff actually,” Tina replied. “Just as well, we don’t have much of the real thing left anyway.” Park reached over and took Tina’s cup and poured half of his mug’s worth into it. “Thanks,” Tina told him as she accepted it back.

“We don’t?” Park asked, referring to the coffee supply.

“We’ll be out in six months or less, I hear,” Tina told him. “I figured you were pulling rank to get it, in fact.”

"I don't do that," Park shook his head. "Someone must just like me. But I don't mind Mer coffee either. It's still burnt beans, it's just different beans is all."

"It's a bit lower in caffeine," Tina pointed out, "but that's not really a bad thing, I think."

"No, not really," Park agreed. "It's still got enough to get you going in the morning but with less chance of jitters. It will do. I just miss honey is all." It was a repetition of his earlier conversation with Marisea, but with different results.

"Yeah," Tina nodded, "but I'm not interested in the stuff the Atackack make. It puts me off bee honey too when you get right down to it. But you know there are some naturally produced syrups we could call honey."

"Are there?" Park asked.

"Oh yes," Tina replied. "There's a thick, sweet liquid you can get from pressing the fruit of a certain tree the Mer grow up north. It's got a strong flavor, sort of like date syrup and then there's something similar to a pitcher plant, but larger, down around the end of the Zontisso River, that produces a clear sugar-based syrup from what I hear. Taodore was telling me about it the other day. He felt it may have been bred to produce that syrup intentionally somewhere in the distant past."

"And all along the northern edge of the supercontinent there are still maple trees," Park told her, "so we won't be lacking for something to pour over our pancakes."

"Oh, that reminds me. I should do something for breakfast," Tina remembered.

Park looked at his watch. "I've arranged for meals to be brought in here all day," he informed her, "but it will be another half hour or so before breakfast is served."

"Oh," Tina nodded. "It would take me longer than that to go home and make something. I can wait."

There was a growing feeling of tension and anticipation in Mission Control as the morning passed. Conversations gradually shortened and eventually disappeared save for anything directly related to the impending launch. "I just want this over with," Arn complained testily a half hour before the launch time. "I'd like to go back home. There's too much work to do to take the whole day off."

Of the entire colony, only Arn and Patty Zinco were still actually living in the original base installation. They had paired off fairly early on and Park knew that Patty would like to move into a real house, but Arn still felt the need to be within a few minutes of the Central Ops room so they had taken over an entire floor in the former residential levels and had the place made over to suit them. However, with the rocket housed in a silo directly attached to the base, the base was deemed too close to allow anyone to be there during the launch itself so Arn had been forced to order an evacuation despite all precautions.

"At least your home isn't directly in the shadow of that giant firecracker," Park told him. "No matter what happens, the base is likely to survive. If that bird does a belly flop just after clearing the silo, I might not even be able to find the foundation when the fire goes out."

"You chose to live there," Arn reminded him.

"And I'll rebuild if I have to," Park told him. "It's got a nice view of the river and who knows? Someday Iris and I may find the time to put in a garden."

"T minus thirty minutes and countdown is resumed," Iris, the voice of Mission Control announced. Park looked around and spotted her on the other side of the room. He waved and she blew him a kiss in return.

"Why was it halted?" Arn asked nervously.

"That was planned," Park explained. "We always meant to hold the count at thirty minutes for a ten minute systems check."

"Why not just add ten minutes to the full count and check while the clock is running?" Arn asked.

"Because the ten minutes was an estimate," Park told him. "It might have only taken five or may have run on another half an hour. It's no big deal. The window will be open for three hours today. We have a lot of wiggle room. Look, Arn, there's no need for you to be down here on the floor and someone ought to be up in the gallery making our guests feel welcome."

Arn turned around to see where Prime Terius and his various ministers were seated, watching the proceedings and nodded. The gallery was only a few inches higher than the control floor and behind it was a large wall of reinforced glass so they could both watch the crew of Mission Control and the actual launch. The hill tops could be seen through the wall and the larger one covered the main installation of Van Winkle Base and the slightly shorter one was where the missile was.

The next half hour felt like it lasted a week. No one dared to speak except to make official reports about the rocket's status, down range weather and confirmation that their world network of tracking stations were in ready status.

And then finally, "T minus ten, nine, eight, seven, six, five, ignition, three, two, one... negative contact confirmed. We have lift-off!" Iris shouted loud enough to have been heard without the public address system.

There was a smattering of applause from the gallery until they realized no one in the control room was celebrating yet. Then a sound of dismay caused Park to spin around to see what had caused it. Through the large glass wall there were huge plumes of white steam and smoke billowing up into the air. There were half a dozen small plumes all around the base of the hill where excavators had carved out the ventilation tunnels, but the largest of all was coming straight up from the top of the second biggest hill looking for all the world like a volcanic eruption. The rockets were firing, but so far the missile had not cleared the top of the silo. The bird might be off the ground, but it wasn't flying yet.

Almost painfully slowly, the nose of the long craft eased out of the hill top, still enshrouded by the violently spewing exhaust. It seemed to hover there forever in the man-made storm and then it slid upward gently with increasing speed. Up it went, leaving a giant contrail in its wake. Higher and higher until only the contrail remained in sight. Finally the men and women at their consoles began to celebrate. Loud cheers erupted from the floor, echoed by the spectators in the galley. One woman, Park couldn't see who, let loose with a wild ululation that echoed through the large hall and startled the Mers, who had never heard anything like it.

As long as those first few seconds had seemed to last, the next few hours rushed by in unseemly haste. The rocket was sixty miles down range and twenty five miles up, and then almost immediately it was two hundred miles down range and sixty-five miles above sea level. Soon it was beyond the primary tracking antennae in Van Winkle Town, past the Atlantic Mountains and screaming over the river-filled

jungles of what had once been South Africa. A moment later the trackers in the remnant of the Indian Ocean, that vast inland sea called “The Sink,” had picked it up as it made its way toward Asia and the Atackack territories. They saw the primary stage splash into the Sink even as the rest of the craft raced onward and upward.

Then, just as suddenly, it was out over the Ocean and settled into a nearly circular orbit at three hundred and eighty kilometers above sea level and that’s where the tricky part began. Just before dinner, after the fourth complete orbit, the payload of the missile split into three parts and one of them was directed into an even higher orbit. Slightly less than thirty-one minutes later the second part started climbing and then a bit over half an hour later, the third’s booster turned on and all three began their long climb to their planned positions thirty-five thousand, eight hundred kilometers directly over the Equator.

Four

“Ladies and Gentlemen,” Park announced at the press conference some time later, “This morning at four forty-three, the third of our satellites successfully reached its position in geostationary orbit. So far, two of the satellites are functioning perfectly, but we’re only getting intermittent signals from the third. Sadly that third is the most important, being the one that is placed to service this installation and most of Western Pangaea.

“Even as I speak, we have a team working running diagnostics and attempting to ascertain the cause and amount of damage,” Park went on. “Once we know that, we can hopefully figure out how to repair it and put the satellite in service. Questions?”

A dozen Mer hands shot into the air. As of yet, there were no humans in the news media. Park was grateful for that. There were too few humans on Pangaea to waste on reporting the news in this first generation. They were all too busy making it. “Yes?” Park asked pointing at one Mer woman in the front row.

“Mister Holman,” she began. “What will you do if you are unable to bring the satellite into working order?”

It was a good question, Park had to admit. It was one that had Arn and Prime Terius arguing for the last half a day. It was also why they waited until late afternoon to break the news. Taodore had been to see Park three times so far about it as well. They had discussed this from the start, but now that the possibility was actually there, everyone felt the need to argue it over once again.

“That all depends on what our diagnostics tell us,” Park replied. “It is possible, the problem is merely that the solar panels that produce the necessary power to the satellite failed to deploy correctly. If they are still folded up, the device will only receive a fraction of the power it needs and would indeed act like it has been so far. To that end we are trying to determine if the unfolding mechanism is stuck. If so, repeated commands to fold and unfold may loosen it up.”

Park seriously doubted that would work. It had already been tried dozens of times with no discernable results,

“But what will you do if that doesn’t work?” she followed up.

Park responded, “There are other possibilities. The satellite may be spinning end over end. It is intended to rotate on its axis, of course, but with the solar cells oriented toward the sun. We’ve also been trying various minor attitude corrections, but not knowing where it started, it will take some time to find the right position.” Park knew that was pure nonsense. One of the first things they had checked was the attitude and spin. The satellite was fine in that respect. “There are many other possible solutions to try and our simulation team is devising still more.”

“Simulation team?” one of the men in the press corps asked out of turn.

Park smiled. Normally he might ignore a question that was asked before he called on the reporter who asked it, but he was hoping someone would pick up his queue. “Yes,” he smiled broadly. “It is standard operating procedure, or SOP, to work out all missions on a computer simulation before proceeding.” Was it? Park wasn’t sure about Mer space operations, but it had been the way it was done at Van Winkle Base. “We keep the simulation running during a mission for just such an eventuality. Now that this has happened, we are using the simulator to find various configurations and situations that would result in the sporadic data we are receiving from the satellite.” For the umpteenth time, Park wished they had named the satellites or assigned a project name to the launch. It would have made it easier to discuss now. Well, no help for that. He pushed on through the questions.

For the next half hour he described the goal of simplified and economized world communications via the placement of geostationary satellites as well as rewording in as often as he could the hope they could fix the problem shortly.

Finally, toward the end of the session, one reporter asked the question he had been trying to evade. “Mister Holman, your Project Van Winkle has a spaceship at its disposal, does it not? That being the case,” the man went on without waiting for an answer, “are you planning to go inspect the malfunctioning satellite in person?”

“That may be necessary,” Park admitted, “but...”

“Are you aware,” the man cut in rudely, “that would be in violation of the Covenant?”

“Project Van Winkle is not signatory to the Covenant,” Park replied firmly and calmly.

“But since the Mer nation will benefit from these satellites of yours, that makes them subject to all the terms of the Covenant,” the reporter shot back. Mer journalists were for the most part a politer breed than the human ones Park had known. This one, save for his dolphin-like tale would have been indistinguishable from the vulture flocks Park had dealt with in the past.

“Have you actually read the Covenant, sir?” Park retorted.

“Children are required to in grade school,” the reporter replied smugly.

Park was tempted to ask, “And did you graduate?” but instead he swallowed that retort and asked mildly, “And where in the Covenant does it actually say anything about satellites or orbital flights to maintain them?” After all these months, Park knew full well all such restrictions were Galactic-imposed interpretations of the clause that disallowed Mers from leaving Earth’s gravity well. Satellites, it might be argued, were still in that well, just near the upper rim rather than down in the actual water. Park went on to shove that particular metaphor down the reporter’s throat along with a repetition that the Covenant did not apply here. Eventually after several harangues from the reporter, Park lost his temper just enough to say, “and if we must go up to repair the satellite, we most certainly will and no one, sir, neither you nor your Galactic buddies has the power to stop us.”

The rude reporter tried to protest Park’s accusation that he was in league with any of the Galactics. He seemed to be demanding an apology, for that matter, but the rest of the press corps was applauding so loudly, Park was able to tune him out. He used the commotion to close the conference.

“That was exciting, old boy,” Taodore chuckled just off stage when Park approached.

“If you want exciting,” Park retorted, “wait until that moron broadcasts that we not only launched the satellites but intend to go repair one in situ. I was really trying to sidestep the whole issue, you know. The point was to go up quietly, do what we had to and slip back down before anyone on the Moon noticed us. Even Terius agreed the satellites alone weren’t likely to arouse the Galactics much. Going up in the ship might. I should have kept my big mouth shut.”

“It would not have made much of a difference,” Taodore assured him. “I know that one. He just likes to make trouble and the other reporters resent him because he makes their jobs all the harder. Telling him off in there got the rest of them on your side. I’m sure the favorable reports will outbalance anything he comes up with.”

“I hope so,” Park sighed, “because we have already started the launch countdown for the *Hendrick Hudson*’s repair mission. Unless we can get that satellite working from here, we launch in five days.”

Two days later it was official, “They’re going to have to go up,” Arn told Park in their daily briefing up on top of the Van Winkle installation.

Park looked down at the aerospaceport they had built and replied. “I’ll head the mission personally.”

“Is that wise?” Arn asked. “Space is dangerous even in a Mer ship.”

“I won’t send anyone where I’m not willing to go first, Arn,” Park replied.

“Okay, so you’re willing,” Arn shrugged. “That doesn’t mean you have to go.”

“Well, it’s complicated,” Park admitted. “A large part of me wants to go no matter what.”

“Every little boy wants to go to space,” Arn noted.

“Yeah, that’s the part,” Park grinned. “But that’s not all. I feel compelled to go. First of all it may require split-second decisions on my part. If that’s the case, I’d better be up there to make them rather than hearing about it all through a radio.”

“You’re expecting trouble then?” Arn didn’t really ask.

“Expecting?” Park echoed. “Well, maybe not quite expecting it so much as desperately wanting to be fully prepared. In all likelihood we’ll get to the satellite, find all we have to do is manually unfold the solar panels and then come on back down. If the Galactics have even noticed the satellites they’ve been amazingly quiet about them. I really doubt they know they are there and if so, probably won’t see us up there either.”

“I thought you wanted to break Earth’s quarantine,” Arn commented.

“Just as you do, but doing it one small step at a time is more likely to work than just booking a flight to Jupiter, don’t you think?” Park asked.

“That depends on whether I can get a reservation at the Ganymede Hilton,” Arn laughed. “Still you’re right. We only have one ship so far. That’s not enough to demand our place among the stars. I’m in negotiation for a second one, you know.”

“I didn’t know,” Park admitted. “A sister ship to the *Hudson*?”

“About half again the capacity,” Arn replied.

“Do we need that?” Park questioned.

“We may eventually,” Arn replied. “Terius doesn’t think so and points out that ships like the *Hudson* are actually optimal for those that must land on Earth.”

“Well, he would know,” Park replied. “So would the Galactics consider the *Hudson* a tender, do you think? A ship that carries passengers and crew to larger ones that never leave orbit?”

“How did you know that?” Arn asked, surprised.

“It seemed like a logical extension of what you said,” Park shrugged. “If the internal floor plan were redesigned and part of the cargo hold used for more passengers, we could probably fit seventy five to one hundred people on board, assuming they stayed in their seats from ground to orbit. Two trips would man the more common Galactic fighting ships.”

“Logic,” Arn mused. “I’ll have to try it someday. So you think I should just ask for another ship like the *Hudson*?”

“Let him talk you into it,” Park advised. “You’ll likely get a few concessions on other matters that way.”

Arn nodded. “So, you’re going up. Who else is on the mission?”

“Well, Iris, naturally,” Park chuckled. “She would kill me if I tried to ground her anyway and she’s actually our best navigator. Velvet and her team will be doing the actual on-site repairs. As for the rest of the crew, I figure whoever is next on the rotation will do. They’re all good, so there is no need to play favorites.”

“Taodore came to me about that yesterday,” Arn told him.

“Did he?” Park asked. “I thought he might. Is he still insisting that he be allowed on board as an official Mer observer? A quarter of my crew will be Mer. All of Velvet’s repair team will be all Mer saving herself. They are ideally adapted for working in free-fall. I told him that yesterday and he still wants to sit in.”

“He has a little boy living inside of him too, you know,” Arn pointed out.

“Don’t we all,” Park laughed. “Well, we have the room and he isn’t exactly dead wood. He’s been in the pilot program too. He’s worse than me when it comes to specialization, you know.”

“Heh! I wouldn’t say worse,” Arn chuckled. “Neither of you has a sense of ‘beyond my abilities.’”

“We both have our limits,” Park retorted. “It’s just that we keep stretching them.”

“I used to be skeptical about those who refused to specialize,” Arn admitted. “Now I see that you guys are essential to progress.”

“Nice of you to think so, Arn,” Park told him, “but so are specialists, you know. Many, if not most, of our technological breakthroughs over the ages have been made by those who had some training in two or more specialized sets of knowledge. Most of the inventions they came up with, however, were later refined and made more valuable by specialists. Both types are needed for constant and healthy advancements.”

“I’d like to meet with your mission team as soon as possible,” Arn told him.

“Going to give us a rousing pep talk?” Park chuckled.

“Something like that,” Arn replied. “I’m just jealous of the lot of you is all and this is my way to at least be a part of the mission.”

“Arn, you’re project leader,” Park pointed out. “You are the leader of every human on earth. When was the last time anyone could say that?”

“Never,” Arn admitted. “Of course I never thought of it that way.”

“Well, good!” Park laughed. “It would only go to your head and the last thing we need right now is a megalomaniac. Seriously, Arn, you’ve learned that being in charge is a responsibility and a burden, not a prize, and it doesn’t matter if you’re the leader of a small project or the king of the world, at least not if you do it right. Well, I’ll look though the duty roster and get everyone ready for your troop inspection.”

Park still had an office in the main installation but he hardly ever used it unless he was making phone calls. It was, however, where his desk was. Whether he liked it or not this was where memoranda and various official paperwork were left for him. In Van Winkle Base proper he need to use his computer pad. That was something else that didn’t get as much use as its manufacturer had anticipated. Park had no aversion to the pad. He had customized the instrument to his personal preferences and brought it with him from the Twenty-first century in his stasis tube, but he did not need to sit in a single office in which to use it. However he had come to prefer to use the torq the Mers had given him on his first visit to Ghelati. It had taken him over a week to get used to wearing it constantly while awake, but he found it an invaluable tool. The only thing it could not do for him in most parts of Van Winkle Town was to provide a printout. The device could easily send data for printing when he was in a Mer settlement, but in spite of

the linkages between the human and Mer networks, to date no one had managed to devise a protocol that would allow a torq to send a job that would be compatible to a human printer.

Park had meant to request a Mer-built printer for his office several times, but so far had yet to actually do so. He had a small one at home, mostly for Marisea's use, and there were several around the town, including in the aerospaceport, but Park needed the privacy his office would afford, so made his way inside and then took the restored elevator to the command level.

Park stepped into his office and picked up a thick stack of paper from the seat of his chair. He actually detested finding things left for him like that, but the base staff seemed to think that was the best way to bring something to one's attention when they could not report directly. He let the pages thump down on his desk and then turned on his computer pad. While waiting for it to boot up, he picked up the paper pile and turned it upside down so he could start with the oldest items.

Had it really been three weeks since he was in this room last? He started making piles of the paper and completely forgot his terminal for the next half hour. Over half the items that had been left for his attention had already been handled and a second pile was composed of items that were in progress. He may not have seen the memos but he had been handling the problems anyway. The remaining five memos were about things he had to sign off on.

Park noticed that almost everything had been left on his chair by Arn's administrative assistant. He wondered if he should hire someone to do a similar job for him. He had just decided against that when Marisea hop-stepped into the room.

"Hi, Park!" she greeted him cheerfully. "I heard you were in today and I hadn't seen your office."

"Not really my office," Park laughed, "or rather, it isn't where I work."

"I know that," she laughed in turn.

"What are you doing in the base?" Park asked curiously.

"Class assignment," Marisea replied. "I was doing a paper for Human History and my teacher suggested I use the library here since we didn't really have much about Alexander the Great in the town library. At least nothing beyond the school texts and an encyclopedia article."

"We ought to move all those books into town," Park remarked, "and link the base computer to the rest of the net as well."

"The computer is linked," Marisea informed him. "It was the books I wanted to read. Moving them to town is a good idea though."

"Well, I'll just have to add it to the stack of things to be done," Park told her, pointing at all the paper on his desk.

"Do you want some help organizing that?" Marisea asked. "I have time."

"I have it organized well enough," he told her, explaining how most of it had handled itself.

"So you just need someone to bring it to your attention rather than leaving it in your chair?" Marisea interpreted.

“It’s not worth hiring someone to do it,” Park told her. “I don’t get that many memos, after all.”

“You get enough,” Marisea argued. “Don’t worry, I’ll take care of that for you. I can stop in once a day or so and see if there’s anything waiting for you.”

Park argued over that for a few minutes as Marisea knew he would, but eventually he agreed that might not be a bad idea, “but I don’t want you neglecting your school work.”

“Of course not,” she laughed. “Now why did you really come here today?”

“We’re going up to fix that satellite,” Park told her. “I need to put a crew together, so I came here to look up who’s next on the duty roster for the flight crew.”

“I’ll do that for you,” Marisea offered, turning his terminal to face her. She started typing.

“Since when do you know how to use a human computer pad?” Park asked. Marisea had learned to read and write in English early on, but he had never seen her use anything but Mer computers.

“We have them in school,” Marisea told him. “I’m one of the few who actually use them, though, but I found I can get into human archives more quickly with it, without the translation lag, you know?”

“I’ve noticed it goes both ways,” Park nodded

“This is a bit different from the others I’ve used,” Marisea noted. “Is it a special model?”

“I’ve made a few modifications to suit myself,” Park admitted. “Mostly just wrote some special controls and rearranged the icons a bit. You shouldn’t have that much trouble with it.”

“It seems easy enough,” Marisea nodded. “It just looks a bit different from all the others. That’s all.”

“Yes, that’s all,” Park agreed, “but it’s amazing how many people have trouble with it simply because a few things have been moved around. Okay, Iris will be the navigator this trip, but bring up everyone who is up next for the other standard crew slots. Velvet, that’s Miss Blaire to you, will choose her own repair team. I’ll have to send her a note on the subject...” he trailed off as he suddenly realized, “Wait a minute, you shouldn’t know how to do that.”

“Well, I do need a password,” she admitted flashing him the same crooked grin he had shot at her often enough, “but the sections on space missions are easy enough to find.”

“I can’t just give you my password,” Park sighed, “but as my aide-de-camp I suppose you’ll need access. What’s your username?”

“Marisea1,” Marisea responded.

“Okay,” Park nodded and took back the terminal. He logged her off and logged on using his own identity. “If Arn knew I was giving a teenager this kind of access he’d have a fit, so you will not make an issue of this with anyone. Understand?” he tapped and scribbled a few more things into the pad. “Okay, you now have access to most of my work files except for things like others’ personal data and various other private matters. Please do me a favor and only use those files you need to for this job, okay.”

“Yes, Park,” Marisea responded seriously. None of her usual playfulness was evident.

“All right,” Park nodded. “Log back in and bring those files up for me, please, while I finish this garbage.” He indicated the remaining paper on his desk.

Marisea went to work and without needing assistance managed to find the files Park wanted before he had finished reading the more urgent memos. “Where do I print them out?” she asked.

“The nearest printer is down the end of the hall,” Park told her. “The top sheet of the print job will have your name on it.”

“Okay,” she told him, all business. “I’ll be right back.” And she hop-stepped out of the office. Two minutes later she was back with a small pile of folders.

“Where did you get the file folders?” Park asked.

“They were in the printer room,” Marisea replied. “I thought you might want to keep these in a file somewhere.”

“File?” Park laughed. “I usually throw this stuff out when I’m done with it.”

“Park!” Marisea exclaimed, sounding almost like Iris for a moment. “Even I know better than that. Hey, you don’t have a file cabinet in here, do you?”

“Just the circular one beside my desk,” Park pointed at the waste basket.

“That’s ridiculous,” Marisea argued and started tapping on the pad again.

“What are you doing now?” Park asked.

“Putting in a requisition for a file cabinet, of course,” Marisea replied practically.

“Where would I put it?” Park asked.

“In my office, of course,” Marisea told him.

“You don’t have an office,” Park retorted.

“I do now,” she chuckled. “It’s right next door and I’ve asked for an adjoining door between us, mostly to keep you from having to shout to make me hear you since we both know you can’t be bothered to just use the phone or your torq. I will need my own office, you know, and I checked it out on my way to the printer room. The furniture is already there, but I’ve requisitioned a phone and a pad along with the file. Am I forgetting something?”

“Only that this isn’t such a big job that you need an office,” Park replied. “I thought you were just going to bring me the memos.”

“Park, that’s just it,” Marisea explained patiently. “If all I do is tote the memos to you, you’ll look at them and throw them away.”

“That’s what nearly all of them deserve,” he replied patiently. “Look at this one. A weather report for

the day of the launch. Judging from the date and time, I already knew that before it was printed.”

“Sure, but you’re handling some of the others aren’t you?” Marisea countered. “You need to keep copies of those and of your replies. Oh don’t look so pained by the thought. I’ll keep them in order for you. Now do you want me to go over the crew list with you?”

“No, that’s okay,” Park shook his head. “Why don’t you make sure you have enough pens and pencils in your new office.”

“Okay,” Marisea, agreed readily. She got as far as the door before Park stopped her.

“Wait a minute,” he told her. “What’s this?” He held up one of the folders.

“A personnel file, I imagine,” Marisea remarked lightly.

“Your personnel file,” Park corrected her. “I’m sorry, hon, but I can’t take you up there. Not this trip in any case.”

“Why not?” Marisea demanded. “It’s my turn on the duty roster and I haven’t been up yet.”

“That’s part of it,” Park explained. “but if I were to take someone your age into space on a potentially dangerous mission, the entire colony would have my guts for garters.”

“Your what for what?” she asked, but Park was not about to be distracted.

“No, out of the question, dear,” he shook his head. “Arn wouldn’t allow it even if I did.”

She glared at him for a moment before allowing her face to relax. “Oh, all right,” she told him, giving in. “I’ll go see to my office then.”

“Right,” Park nodded and got back to work.

Five

“Marisea?” Arn asked at the meeting the next morning. “What are you doing here?”

“She’s serving as my assistant, Arn,” Park told him immediately.

“I’m also part of Miss Blair’s team,” Marisea added.

“What?” Park and Arn demanded in unison.

Velvet cut in, "I signed her up. Besides, Marisea has been working with my IT people for weeks now."

"She's just a kid," Arn told her dismissively.

"I am not!" Marisea argued.

"She is of age among the Mer, Arn," Park admitted, "and legally allowed to do something like this."

"On a Mer mission, yes," Arn retorted, "not a human one."

"Um," Velvet broke in, holding a hand up to forestall an argument from Marisea. "We have respected Mer laws and traditions in everything else, Arn. It's a strange time to start changing that now and it would set a bad precedent in any case. Besides, Marisea is absolutely essential to the mission."

"Oh, this I have to hear," Arn replied sarcastically.

"Marisea has smaller hands than anyone else on my team," Velvet explained. "Even with her spacesuit on, she can reach into places in the satellite the rest of us cannot without bringing it on board the ship and working on it inside, and that we cannot do without setting up a clean room. Even then I would hesitate to try it."

"Do you think we will need Marisea's small hands to repair the satellite?" Iris asked.

"There's a very good chance that is the case, Iris," Velvet replied. "Most of the sims keep pointing at one or more of the internal components."

"And you expect me to believe only Marisea is capable of getting at them?"

"Without completely dismantling the satellite," Velvet countered, "yes."

"I don't like it," Arn grumbled.

"It doesn't fill me with joy either, Arn," Park pointed out with a stern look at Marisea, "but Velvet knows her job and if she says Marisea is the go-to girl, we have to take her word for it." Then he turned toward Marisea and added, "But you and I are going to have a very long talk about courtesy and not going around the boss' back, young lady."

"I didn't," Marisea protested. "Miss Blaire asked me, not the other way around."

"Park, that is the case," Velvet told him. "Marisea told me you were against it. I would have respected that, but I really believe we're going to need her and I didn't ask until half an hour ago. If you're going to have a long talk with anyone, I'm your target."

"No, Velvet," Park shook his head in defeat. "I promised you a free rein in your selection of a team. If you want Marisea on it, you have her."

"Thanks, Park!" Marisea told him enthusiastically.

"I still haven't approved this," Arn growled, causing Marisea to look fearful.

“I have, Arn,” Park told him. “This is my project and I made my promise to Velvet. I won’t countermand her decisions and if you do, you’ll need another project leader.”

“You know I can’t do that this soon before the launch,” Arn told him.

“Neither can I,” Park pointed out. “We’ll just have to move on. Hmm?”

“Yeah,” Arn admitted with minimal grace.

Park was not particularly happy about Marisea being in the crew, but unlike Arn, he was willing to admit he had been outmaneuvered. Whether Marisea had connived her berth on the *Hendrick Hudson* with Velvet Blaire or whether Velvet really had asked her from out of the blue didn’t really matter to him. He felt she should have made his feelings clear with Velvet, but now that the teen was part of the crew, he wasn’t going to throw a fit about it. She would just have to pull her weight.

If she could do that, then so much the better. He would even apologize for underestimating her, but if he had been right she would have to work a long time to redeem herself in his eyes, just like any other crewmember who had failed.

The tension that built up to the launch of the rocket had been high, but it was a walk in the park in comparison to what was building up prior to the first active mission of the *Hendrick Hudson*. Park had already been up on low orbit training missions, but this time it felt even more exciting than those mere test flights. They were not just circling the Earth, they were actually going somewhere. That made a big difference.

Another difference was that the Mer spectators weren’t milling around Van Winkle Town this time. They had never seen an ancient multistage rocket fueled by LOX and liquid hydrogen lift off before, but ships like the *Hudson* were old hat to the Mer and while the mission was important and potentially of immense value to the world, there would be nothing of interest to see on the ground. Park had been approached to mount cameras on the ship so the world could watch the repairs as they took place, but he pointed out that the satellite they would be working on was out of commission and the other two would be out of range for the cameras. However, he did intend to record the operation and, if successful, they could relay that recording once the satellite was working again.

While Park fretted, however, Velvet’s repair team was practicing around the clock. For the first time since the trip to Ghelati, Marisea stayed away from Park’s and Iris’s home for more than two days in a row. In the last half a year, in fact, the teen had completely moved into their home, but in the days leading up to the repair mission, Marisea was spending every moment working the simulator and learning every part of the satellite and how it all fit together.

On the third evening Iris got concerned and went looking for Marisea only to find her fast asleep on a beat-up couch in the mission control building. She reached out to wake the young Mer up, but someone reached from behind to hold Iris’s arm back. She turned to see who it was.

“Shh!” Velvet whispered and gestured down the hall. “Poor thing,” she remarked once they were in the model room where a mock-up of the satellite was still being worked with by some of the rescue team. They looked silly with mock-ups of spacesuit arms on, but working bare-handed would not have been as good for practice. “She’s been working harder than any two of us.”

“Hard to believe she’s a teenager, huh?” Iris remarked.

“Not really,” Velvet shook her head, “I just wish I still had her stamina. But she’s killing herself, you know.”

“I was worried she might be trying to do more than she could,” Iris admitted.

“Oh, she’s capable of doing everything she tries,” Velvet laughed, “but she’s got to realize that sometimes you can work faster if you slow down.”

“Have you tried ordering her to take time off?” Iris asked.

“I’ve tried hinting,” Velvet replied.

“Marisea is a clever and intelligent girl,” Iris smiled, “but if she doesn’t want to hear something, a hint is not going to get her attention. You need to order her to get a full night’s sleep.”

“You could do it,” Velvet remarked. “You’re the closest thing she has to a mother.”

“I could, but I suspect she would sneak out the window as soon as she thought she could and come right back here,” Iris chuckled tiredly.

“She would at that,” Velvet nodded. “And you think I could order her home?”

“I think so,” Iris nodded. “Tell her she must take off a minimum of ten hours a day for the next two days before the launch. She’ll complain that’s too much but remind her that leaves her fourteen hours of work, six more than most do.”

“We’ve all be working overtime in prep for the mission,” Velvet pointed out.

“By now I’m sure you all know that satellite inside and out,” Iris remarked. “Maybe everyone should have enforced time off. You aren’t likely to learn any more about it by now.”

“Gaining a bit of muscle memory could make all the difference,” Velvet replied tiredly.

“Maybe so, but working in your sleep is generally ill-advised,” Iris retorted.

“You have a good point there,” Velvet laughed. “I think that’s what we’re doing right now.”

“Learning to push through the fatigue is not a bad idea, but we ought to be as refreshed as possible when we get there, don’t you think?” Iris asked.

“Sounds good to me,” Velvet nodded. “Look, why don’t you wait outside while I wake Marisea up? I think it will go better if she thinks it’s my idea.”

“Isn’t it?” Iris smirked.

“Only in the sense that I have accepted it,” Velvet told her. “However, as far as Marisea will know, I called you here to pick her up.”

“That will work,” Iris nodded.

“Good,” Velvet agreed. “Then once she’s on her way, I’ll work up a rotating schedule for the rest of us. I’m glad you came by, Iris. We’ve been killing ourselves through over-dedication.”

“Yes,” Iris nodded. “Don’t do that. We might need you all again later.”

“Heh!” Velvet laughed. “You might need us when we reach orbit.”

Six

Park was always disappointed by the feel of the *Hendrick Hudson* as it launched. He had been brought up on the knowledge that going into space involved experiencing an acceleration of several gees as one’s ship roared its way upward from the surface of the earth. In the *Hudson*, however, he felt no more acceleration than he had in the jet that had delivered him to Cleveland Hopkins International.

The craft rolled down the long runway and lifted gently from the tarmac and climbed swiftly into the sky. Where the flight differed from that of a commercial jet was that instead of leveling off after a few minutes, the *Hudson* continued upward for the next hour until the sky had turned from blue to night black and they were in orbit. Then, Tina swung the nose of the craft to face a point somewhere away from the Earth and they accelerated again.

Mer craft did not need to coast for anything short of interplanetary distances and what in their own day might have been a two day journey, took only eight hours on this trip. “We could have been here sooner,” Tina explained to Park as she brought them to rest relative to the satellite, “but I followed the optimal fuel use guidelines the Mer provided us with.”

“I’ve no problem with that,” Park grinned. “I’ve been enjoying the scenery. Velvet,” he called into the ship’s intercom, “time your boys and girls to earn their keep.”

“Just suiting up now, Skipper,” Velvet called back.

“Skipper?” Park wondered aloud.

“Well, you are in charge of this mission, dear,” Iris told him, from the navigator’s seat.

“Tina’s the ship’s captain,” Park replied.

“I am?” Tina asked. “I thought I was the pilot.”

“No dear,” Iris corrected him. “You’re captain. Did you think you were just along for the ride?”

“I guess I didn’t think it out,” Park admitted. “I don’t have Arn’s sense of military organization.”

“Suits most of us just fine, Park,” Tina told him. “I’ve been in your exploratory teams from the start, you know, and I know I prefer your greatest-of-equals management style to Arn’s autocratic one. Most of us feel that way. Besides didn’t you just order Velvet’s team to work?”

“I was letting her know we were here,” Park admitted.

“Same thing,” Tina nodded. “You know this really is disappointing. Here we are in orbit and the ship still has gravity. I keep wanting to float around the cabin.”

“Me too,” Park agreed, “but we don’t have time for games this trip anyway. Taodore, how are you doing? I haven’t heard a word out of you for an hour.”

“Uh, hmm?” Taodore replied drowsily. “Oh sorry, old boy. I must have fallen asleep. How much longer?”

“Until when?” Park countered. “We’re within spitting distance of the satellite and we should have the first shift of Velvet’s repair team on the job in no time. You know if it’s past your bedtime, you could go get some sleep.”

“That’s what I’ve been doing all the way here,” Taodore replied. “I think I’d like to watch the repairs as they go along, though.”

“There are monitors in the aft cabin,” Park explained. “We can go have a look so long as it doesn’t bother the repair team.”

When they arrived aft, three suited figures had just left the ship and were carefully jetting toward the satellite about thirty yards away. “Who drew the short straws?” Park asked interestedly. “Velvet insisted on the first shift, sir,” one of the men replied, “and with her are Planko and Marisea.”

Park looked at the monitor and saw two figures with tails rather than legs. The smaller of the two would be Marisea. Looking ahead of them he saw the satellite. “I see the solar panels never deployed.”

“Right, sir,” the man replied.

“Maybe it was just a bad servo then?” Park asked hopefully.

“We doubt that, sir. Each panel has its own servo motor. If that’s all it was, the other two panels would have been in place.”

“There is that,” Park admitted.

Park and Taodore sat down without another word and proceeded to let the repairs proceed. Velvet was reporting partial success three hours later when Iris called back to Park, “Park, we need you up on the bridge. We’ve got company coming.”

“Tell them ‘I want to be alone,’” Park snapped.

“I doubt they’ll get the reference, dear,” Iris replied.

“I’m surprised I do,” Park admitted. “On my way. Tell Velvet to get everyone back in here,” he instructed the man at the monitor.

“Yes, sir,” he replied and was already relaying the order as Park ran toward the bridge.

“I don’t imagine our company has tails, do they?” Park asked as he and Taodore returned to the bridge.

“They may have,” Iris replied, “but not Mer tails. This ship is the *Vigilant*, one of the regular patrollers from around the Moon.”

“A little out of their usual stomping grounds aren’t they?” Park replied.

“We don’t really know that,” Iris reminded him. “So far they aren’t trying to hail us.”

“Well, I told Velvet to get back to the ship in any case,” Park replied.

“Then she isn’t following orders worth a darn,” Iris retorted.

“What? Patch me into her suit, please,” Park requested. Iris nodded and flipped a couple of switches. “Velvet, what’s going on out there?”

“Almost done, Skipper,” Velvet reported. “Just give us another half an hour.”

“We don’t have half an hour,” Park replied. “There’s a Galactic ship bearing down on us and I’ve decided you’ve been out in the sun too long. Get in here before you get a burn.”

“These suits are SPF one hundred and fifteen million, Skipper,” Velvet started to argue, but then abruptly changed her mind and reported, “We see the approaching ship, Skipper. Coming back in now.”

“Bloody well about time,” Park growled after the connection had been broken. “Anything from the *Vigilant*?”

“Not yet, Park,” Iris began, but she was abruptly cut off.

“This is the Galactic Federation Ship *Vigilant*,” came out over the speakers, “calling unknown Mer vessel. You are in violation of the Covenant. Return to Earth now or we are empowered to open fire.”

“My turn,” Park nodded toward Iris for a connection. He decided to ad lib a bit. “This is the Pangaeon Alliance Ship *Hendrick Hudson* and we are not subject to your Covenant. We do not recognize it. Firing on us will be deemed an act of war. You really do not want to go there.” It was a bluff, he knew, but it was one he had rehearsed in his mind several times.

“Go where?” the returning voice wondered in confusion. “We do not care what you are calling yourself, Mer. All Earth ships are bound by the Covenant.”

“Negative, *Vigilant*,” Park replied. “This is a human ship, not Mer. We are not signatory to your precious Covenant, but we have read it chapter and verse. There is nothing within it that defines the

altitude under which any Mer craft must stay, merely that it not leave Earth orbit. Any restriction on the part of you Galactics has been a grievous violation of the Covenant and a crime against our friends, the Mer. Furthermore, the Covenant is null and void by virtue of the fact that our species owns the Earth by right of seniority, and therefore you had no right to impose it in the first place.

“We are performing peaceful maintenance on a communications satellite, sir,” Park continued, “I suggest you back off and allow us to continue.”

“I repeat, *Hendrick Hudson*, this is the *Vigilant* and you will be shot down if you do not leave the vicinity immediately,” the reply came.

“You have not the right, sir,” Park replied, wondering if Velvet’s team was safely inside the airlock yet. “This is a human ship and speaking on behalf of the entire human species, I must inform you that you are trespassing on human space. Your base on Luna is illegal and must be abandoned forthwith and reparations are to be paid. We do not tolerate squatters on our real estate.”

“Everyone’s on board, Skipper,” Tina reported quietly even as Iris got up from her chair and waved one of the Mer crewmen to take her place.

Iris moved across the bridge to a chair where no one had been sitting until now and activated several switches there. Three small monitors lit up. One, Park knew, was the same view of the ship’s exterior he had been watching in the aft cabin and another looking like a radar screen. Technically, he supposed, that was what it was. The third was new and Park hadn’t noticed it before, but it seemed to have a series of concentric circles. If he hadn’t been so busy debating with the *Vigilant* he would have asked about it.

“This is your final warning, *Hendrick Hudson*,” the voice of the *Vigilant* replied.

“And this is yours, *Vigilant*,” Park replied. “Back off and allow us to do our work. You cannot afford the penalties.”

There was a brief pause and then something bright shot out of one of the *Vigilant*’s weapons and hit the satellite. There was a coruscation of flashes and sparks from the satellite and Park heard the screams of outrage from the aft compartment.

The shot was answered from Iris’ station and a bright spot appeared on *Vigilant*’s hull followed immediately by a small explosion. “You bloody pirates!” the *Vigilant*’s officer screamed at them.

“Arr!” Park growled back. “Now you get back to Luna and tell your buddies to either start packing or start paying the back rent on that joint.”

“They are backing off,” Tina reported.

“Good,” Velvet replied from the hatchway to and from the bridge. “Skipper, I want permission to go inspect the damage.”

Before Park could reply the entire ship shook. “They’re returning fire,” Tina reported as a loud hiss filled the cabin.

Iris fired the defensive laser at *Vigilant* once more and another small puff appeared on their hull. The Galactic ship turned and flew off at high speed.

“Permission denied,” Park told Velvet. “We’ve a leak. Condition red! Everyone into their suits. Velvet put the first suited team on patching the leak. Tina, get us started homeward, then suit up yourself.”

“But, Skipper!” Velvet protested. “The satellite...”

“Low on the totem pole now, I’m afraid,” Park told her even as he was scrambling for his space suit. “Our first priority is going to be a safe landing. Manage that and we’ll see about the satellite next trip.”

“Then we are coming back?” Velvet asked.

“You heard me talk to Captain Vigilant over there, didn’t you?” Park retorted, slipping quickly into his suit with practiced ease. He was glad now for the hours of practice he’d had. “We own this system and if they want to stay, they’d better start paying rent backdated a thousand millennia or so. If they’re not careful I’ll give them a Covenant to sign too. See how they like being forced.”

The loud hissing sound cut off abruptly as someone plugged up the hole, but Park ordered everyone to stay suited up when it was reported the plug might not hold all the way back to earth.

“Skipper, we lost the aft life support modules,” Velvet reported once the homeward course had been set. “And a lot of the power. It’s getting cold back here,”

“Then bring your team up to the bridge,” Park told her. “You’ll have to sit on the deck, but at least you won’t be frozen.”

“Before we do that, we need to go outside and do a visual inspection of the hull,” Velvet told him. “The leak was suspiciously near a wing joint.”

“Hmm, that would make flying problematic, would it?” Park asked dryly.

“Well, we could stop arguing over whether to add flame-painting details to the job on our hull, Skipper,” she replied.

“Give us an hour, Vel,” Tina told her. “We’ll be coasting by then, unless you want to wait until low orbit.”

“I’ll wait the hour,” Velvet replied, “but we may not have the option to orbit before landing. Not if the repairs don’t hold.”

The ship shook again and a muffled boom resounded through the cabin. “Now what?” Park asked. “Are we under attack again?”

“Not unless we hit a mine,” Iris replied. “Vel?”

There was another shudder and the overhead lights went out. “Delayed damage is my guess,” Velvet conjectured. “Maybe we should coast now before something else goes.”

“Cancel the maybe,” Park told her. “Make it definitely. Iris, what will that do to our course?”

“We’re still headed for Earth,” Iris replied, “and I wasn’t sure where we were going to have to land in any case.” She got up and stared toward the navigation station. “I’ll start working on it.”

“Engines disengaged,” Tina reported. “Vel, you’re cleared for EVA.”

“Be careful,” Park told her.

“Right-o, Skipper,” she replied.

The next hour was a nervous one with Velvet refusing to report until she had a chance. Park knew enough to give her the room she needed to do her job, but he had to stop himself several times from suiting up to join her team. Finally, the lights came back on, although much dimmer than they had been and their spacesuits were standing between everyone and hypothermia.

“I think it was warmer outside,” Marisea remarked after removing her helmet.

“The suits will keep us alive,” Park told her.

“Only for twelve hours,” Velvet informed him, “but I think I can rewire the life support to work on the bridge at least.”

“And the rest of the report?” Park asked.

“I want a rematch with the Galactics,” Velvet growled. “That one shot at us left a hole in the port side of our belly.”

“The next one could be dead on,” Park pointed out. “We don’t even know what they shot at us.”

“I think it was a ball of plasma,” Velvet replied. “And it seems to me I read something about magnetic shielding against such a weapon.”

“We are not allowed such technology,” Taodore told her.

“Another silly interpretation of the Covenant?” Park asked him.

“Not as such,” Taodore denied, “but they refuse to share that technology with us.”

“And yet, they’ve allowed you to read their scientific journals,” Velvet smirked. “I’ve read enough to think I can cobble something together. It’s not entirely unlike our stasis technology, really, just sort of inverted.”

“Well, you have my support on that,” Park assured her, “but first we need to get down in one piece.”

“And still breathing,” Tina added. “We lost a lot of breathing air. Was there an explosion?”

“One of the air tanks let go,” Velvet replied, her breath condensing into a white cloud. “That qualifies as an explosion. When the tank ruptured it damaged other nearby systems. We’ve patched her up as best we can, although we’re still working on a bit of heat in here. Excuse me, Skipper I should get back there.”

“I’ll come too,” Marisea volunteered.

“No, dear,” Velvet smiled at the teen. “You haven’t this sort of training. Don’t worry, maybe next

time. Stay up here. Believe it or not, this is warm in comparison.”

The heat rose to a mere ten degrees Celsius over the next hours, but it was enough to conserve the power in their spacesuits. “We’re going to have to use the aft compartment when landing,” Iris pointed out.

“We want to all be in our suits with helmets closed I should think,” Park replied. “Velvet can we land safely?”

“We can’t stick our thumbs out and hitch a ride,” the radio officer, a Mer named Garnore Theens, told them.

“Um, do the Mer hitchhike?” Park asked, momentarily distracted.

“Not that way,” Garnore laughed, “but one of the guys at Van Winkle Town told me about it. But the thing is I can’t pick up any radio traffic. I think we may have lost the antenna.”

“One more problem,” Park sighed. “We should have named this bucket *Murphy’s Chariot*. No helping that now. Keep transmitting in case the problem is only one-way. Iris, what’s our ETA?”

“Estimated time of arrival?” Iris considered. “I guess that depends on where we land, but we should be reentering the atmosphere in two hours.”

“Velvet?” Park asked. “How much trouble are we really in? I mean what’s likely to happen when we start scraping the atmosphere.”

“It’s going to be a bumpier ride than on the training flights,” Velvet replied, “but I think we’ll make it. This bird doesn’t come in on a blanket of fire like our old ships used to, you know. We come in under power and can control our descent.”

“Yeah,” Tina added, “but given the lack of air, we’re going to have to balance powered flight with a choice of landing spot.”

“I estimate we can land in one of the east coast cities,” Iris told them. “I just hope they see us coming.”

They spoke less and less often over the next two hours and Marisea took to sitting on Park’s lap for emotional comfort and looked so worried when the crew started back toward the after cabin, Park allowed her to sit at the laser operator’s station which, except for when Iris had returned fire on the *Vigilant*, had been empty most of the trip. And then finally, they felt the first kiss of the atmosphere.

It started as a low, soft whistle, barely loud enough to hear, but it soon rose up in pitch and intensity, and then all became quiet again. The calm lasted two more minutes and then the *Hudson* began to vibrate. “Oh, I don’t like this,” Tina remarked.

Park looked over and saw her white knuckled grip on the steering yoke. The yoke was vibrating worse than the spaceship. Outside, the sky had started turning blue again but Tina was still holding the yoke with everything she had. “Park, take the co-pilot’s yoke, please,” she requested. “It’s going to take both of us to hold her together.”

Park, already seated in what was supposed to be the co-pilot’s seat, reached forward for the

controls. Tina was right. The ship was fighting the air every inch of the way. They were still ten miles up when there was a horrendous shriek of tearing metal.

Somebody screamed. Park thought it was Marisea. He didn't blame her. He felt like screaming himself, but he was too busy trying to hold them on course to wonder whether the wings were coming off. He did know that suddenly the ship was incredibly less aerodynamic.

And then the engines stopped and the ship was falling. "Hold us!" a hoarse female voice told Park. It was Tina who had been screaming even as she had maintained her post. "I have to reinitialize or we're dead."

"Got it!" Park shouted. Shouting wasn't necessary to be heard in the cabin, but no other mode of speech was emphatic enough. He kept the ship's nose in the air, but even so felt himself lighten in the seat. It had to be an illusion, but he now felt lighter than air and that without the seat belts he would have floated away. And this too he shoved to the back of his mind as inconsequential. Nothing but keeping them level while Tina worked to reinitialize the engines had any meaning.

Turbines whined forlornly and there was an occasional slight cough as Tina prayed, "Come on! Catch! Catch!" and then suddenly something reignited and they had power again. Tina's capable hands gripped the steering yoke once more and Park allowed her to guide them, merely working to keep the ship going where she pointed it. The ground was a lot closer now and Tina had them in nearly full reverse. Park heard the sounds of the wheels coming down for a landing. Outside he saw a gently hilly landscape with a lot of dark green grass and clumps of trees. A part of his mind wondered whether it mattered if they crashed on the grass or into the trees. At the moment they were somewhat blurred together so he supposed not.

They continued coming down fast. And then Tina suddenly tried to bring them upward again. There was a slight thump as they touched the ground, but the ship obeyed one last command and managed to stay up as the landscape stopped blurring quite so much. There was another shriek of tortured metal as they touched down again. Park was certain they had lost the port side wing. It didn't matter. This bird wasn't flying anymore; now it was skidding.

Landscape was moving past the windshield sideways and then suddenly everything stopped. Park took a deep breath and then the wheel at the nose of the craft collapsed and they fell with a thump, leaving the cabin with a frontwards list.

"Are we dead yet?" Marisea asked bravely even though fear showed in her voice.

"If so," Tina rasped, "I hope this is Valhalla. I certainly was screaming like a valkyrie."

"Not *abean sidhe*?" Park asked, some amusement coming back into his own mind.

"If I were Irish perhaps," Tina admitted with a fierce grin, "but I'm Scandinavian."

"You're a bit short for a valkyrie," Park observed.

"And you're a bit short for a storm trooper," Tina laughed, "but you'll do."

"Anyone hurt?" Park asked the others. A chorus of negatives greeted him as he got out of his seat and climbed with some difficulty toward the aft cabin. Marisea made an adjustment to her suspensor and hopped over to help him. "How about back here?" he asked as they came through the hatch.

“A few bruises,” Velvet told him from one corner. Three others, two Mer and a human man were disentangling themselves from her. They had obviously all fallen there together.

“What are you doing out of your seats?” Park asked as the sound of dual servos could be heard and the cabin righted to a more or less level attitude. Someone had retracted the back wheels. Park had not thought that was even possible on the ground.

“Couldn’t fiddle with the ship’s gravity from our seats,” Velvet told him. “I figured we might be able to slow our descent if I could invert the suspensor field. It worked, sort of, but I expected internal gravity to go up, not down.”

“So I was flying in my seat,” Park noted as he helped them up. Velvet had twisted an ankle and one of the men had what might be a broken arm. “I’d wondered. Velvet we’ll have to strap up that ankle at the least, I think. Claner, that arm looks bad. Anyone have experience with a broken arm?”

“I wouldn’t know how to set it,” one of the others told him, “but I can rig up a sling and a splint for now.”

“Good,” Park nodded, helping the Mer to a seat. “Try not to scream, but this may hurt a bit.” He warned Claner. Claner nodded and clamped his mouth shut as Park felt through the still swelling arm for the Mer’s bones.

He did not press roughly, but Claner gasped involuntarily twice during the examination.

“I think it may be a green-stick break,” Park told him a minute later. “I can’t be certain, but I couldn’t feel any sharp bone edges in there. All that swelling, though, I could have missed something. We’ll splint you up for now and have the doctors see to you soonest.”

Park returned to the command cabin and told the others, “We did better than we should have. I don’t know when the last time a spaceship crashed with all hands surviving, but we managed it anyway. Uh, why is everyone looking so nervous?” he asked suddenly.

Iris turned toward him, her face ashen. “We’ve landed somewhere in the middle of Asia, deep in Kogack territory.”

Seven

“The savage Attackack?” Park did not really ask the question. “I don’t suppose there’s a chance they didn’t notice us coming down...”

“Not too likely,” Tina replied. “Sonic booms for the last two thousand miles and the roar of engines should have tipped even the most ignorant savage off that something was going on. And we left a contrail in the sky that points right at us. Someone is going to come looking to see what caused the ruckus.”

“Can’t be helped then,” Park replied. “Do we have a distress beacon?”

“We can rig one up now that we can jury rig an antenna,” Garnore reported. “I’ll get on that right away.”

“I’ll help you,” Iris volunteered.

“Good,” Park nodded. “I’m going to open a hatch and let some fresh air in. However did we manage to crash land without bursting into flame?”

“A lot of luck is my guess, old boy,” Taodore told him. He followed Park and Marisea, who had not left Park’s side since the landing, to the emergency hatch that could be opened from the large aft compartment. “I don’t mind admitting that I find being in the heart of Kogack territory worrisome to say the least.”

“It’s not on my top ten list of tropical vacation spots either,” Park replied, “Although it feels like tropical is the watchword. A bit hot and sticky out here. Well, the air is breathable at least. Are those trees moving?”

“That sort does move,” Taodore nodded. “You’ve seen motile plants before.”

“I have,” Park agreed. “The walking grass and trees along the Zontisso River and a few other places. But the trees never moved fast enough for me to actually see the movement.”

“We must have given them a fright, then,” Taodore shrugged. “Some Kogacks may have been scared off for a bit too, but they’ll come back to see what it was, I’m sure.”

“We seem to be surrounded by hills,” Park noted. “Not a traditionally defensible position.”

“Wow!” Marisea enthused. “Look at that gouge we made in the dirt behind us.”

“That may be what kept us alive,” Park noted. “We came in down that long hill at nearly the same angle. We would have hit much harder had it been a level surface, or worse, slammed into the side of the next hill. So how long before the Kogack welcome wagon arrives?”

“The what?” Taodore tried to absorb the concept. “Well, as I think of it, we may not actually be in quite as much danger as it seems, you know. The Kogacks cover a large area, but they are grouped into small bands of hunter-gatherers most of the time and their population is relatively sparse, so even if there are some in the immediate area a single hunting rifle would be sufficient to drive them off.”

“We don’t have a hunting rifle,” Park retorted. “We don’t have so much as a pea-shooter and a slingshot. However, we’re rigging up a distress beacon, so maybe we can call for help unless you think we ought to start hiking out.”

“Hiking?” Taodore laughed. “We must be a thousand miles from anywhere.”

“Close,” Iris remarked from behind them. “According to the GPS, the nearest Mer city, Planaco, is nine hundred fifty miles away.”

“And over uncertain territory,” Park added. “Somehow I suspect we would run into a few hungry Kogacks between here and there. We’ll have to sit tight. Any luck with that beacon?”

“We have something rigged,” Iris nodded, “but for best range we’ll have to run the antenna to the top of our tail. Garnore thinks he can jump that high with his suspensor on.”

“I just hope there’s someone out there listening for us,” Park replied.

Rigging the antenna was simple enough and in fact the beacon antenna could also be used to get a voice signal out as well. Using radio skip off the ionosphere, they managed to contact Van Winkle Base who promised to have a rescue team on its way and there within the day. However it was the Kogacks who found them first.

Two hours after they had crashed, Marisea spotted the first Kogack scouting party. She and Park were walking around the downed space ship when five giant ant-like creatures ran at them, screaming in their click-clacking language. Marisea and Park threw rocks in response and the Kogacks threw spears, but while Park and Marisea each hit a Kogack squarely, the Attackack spears were poorly aimed and Park was able to grab one of them while Marisea continued to throw rocks.

To Park’s surprise, the Kogacks did not stay for a second volley of spears, but instead broke off their attack and ran back up and over the hill. “That was just a little too easy,” Park told Marisea. “Let’s gather up these spears and the larger rocks and get them back inside the ship.”

Once they were inside, the ladder they had used was brought back up as Taodore remarked. “I don’t think they were actually trying to kill you.”

“Oh?” Park asked, “Is spear chucking the Kogack way of saying, ‘Hi! Welcome to the neighborhood. Have a bundt cake?’”

“Not hardly,” Taodore laughed. “But from what I have read they are very accurate with those spears of theirs. Either these were a bunch of children, which from their size I doubt, or these were just making a ritual first foray. It’s a sort of behavior some bands have been known to partake in. Throwing those rocks and actually hitting them may have actually been bad form.”

“Nice,” Park sighed. “So now those savages know I’m an ignorant barbarian?”

“Something of the sort,” Taodore remarked. “They do not generally attack in earnest until certain niceties have been observed. This first foray is a sort of opening of negotiations. They wanted to make sure we were worthy of going to war with.”

“So we shouldn’t have fought back?” Park asked.

“Oh, I wouldn’t say that,” Taodore replied. “The Kogack mentality does not really respect the concept of pacifism. Had you just stood there, they would have butchered you like animals. Now that they know you are worthy, they backed off in order to proceed with the next phase of warfare.”

“Which is?” Iris asked.

“Dancing and music, I think,” Taodore replied.

“What?” Park asked. “Are they challenging us to a battle of the bands?”

“Ha, now that would be most civilized of them, what?” Taodore laughed. “No, this is not that sort of dancing and music.”

“Old anthropology classes are coming back to me,” Park nodded.

“In this case it’s arthropodology,” Iris smirked.

“See why I love her?” Park told Taodore and then went on. “Certain cultures of humans would behave in an analogous manner. Wars can often be settled by displays of strength rather than actual fighting. And I think you mentioned that some of their wars end with the throwing of a single spear.”

“Yes, but that doesn’t apply in this case,” Taodore told him uncomfortably. “You see that sort of fighting usually only takes place between tribes and bands of related Attackack. Most groups are related to those near it and fighting complete strangers is rare, but there is no doubt we have no discernable relation to these Kogacks. This will be a war to the death once they actually start attacking. In a way this is all quite fascinating. I don’t know of another Mer who has actually ever witnessed this form of war.”

“Well, if you think it through,” Park told him, “any who were involved were probably killed before they could tell you about it. How do you know this, however?”

“We have asked Attackacks about it,” Taodore replied. “Um, they’re going to kill us, aren’t they?”

“Cheer up,” Park told him. “Maybe your informants were lying. That’s something else primitive humans used to like to do to those who studied them. In some cases “Lying to the Anthropologist” became a national sport. People would compete for who could tell the tallest tale the researcher would believe or use rude words instead of various people’s names and such. Good fun, except for the anthropologist, of course.”

“Well the Attackack do have a somewhat primitive sense of humor,” Taodore remarked.

“Sure. So all this is some sort of an initiation, you think?” Tina asked hopefully.

“Not a chance,” Park and Taodore replied in unison. Taodore continued. “The Kogacks find and kill a couple dozen unwise Mer every year. They will attack.”

“We can try holing up here in the space ship,” Iris suggested.

“That’s what we will try, but I doubt they’ll have all that much trouble breaking in,” Park told her. “Ants are very strong for their size and weight, I doubt Attackacks have that strength proportionate for their size, but they are considerably stronger than humans or Mer. Give them two or three hours and they will get in.”

“They do respect strength,” Taodore told them. “Our best chance to still be alive when the rescue team finds us will be to fight. It seems to me they will try to come in this hatch first. We can try holding

them off with these spears. The door should be easy to defend for a long time, it seems to me.”

“They can only come in two at a time,” Park considered, “but we can stand just inside with five or six all having a clear shot at them. Where are you going?”

Iris was on her way toward the hatch with Marisea and two others of Velvet’s team. “I want to see if that laser is still functional,” Iris replied. “Coherent light is a better weapon than a spear.”

“Unless they think to bring a mirror,” Park noted and the ladder was lowered back down again.

“The Kogacks are a Paleolithic culture,” Taodore pointed out. “The only metals they have are knives and axes they have traded for.”

“I seem to remember some Stone Age mirrors made from obsidian,” Park replied. “Sufficiently well polished, it could wreak some havoc. Have the Attackack had much experience with Mer lasers?”

“I should say not,” Taodore remarked even as Iris led her team out of the ship and back down the ladder. “We have never traded them with the Attackack nor used laser weapons against them. I think we’ll be safe enough from stone age mirrors.”

A few minutes later the drums started. From the top of the hill to the north a drum slowly beat out a long and complex rhythm. It was soon echoed by another from the east and then the south and, in time, the west. After a while they began to beat out their rhythm in unison.

“I’m impressed,” Park admitted. “They are staying in time from our vantage point at those distances. That beating doesn’t sound the same to them as it does to us. They’ll all be out of synch from each other up there.”

“So they play for their maximum effect,” Taodore mused, “their maximum intimidation.”

Iris and the others returned with the remains of the laser just then. “It doesn’t look good,” Iris told Park. “We think the actual unit is intact, but it got torn off in the crash. We won’t know if it will work until it can be rewired. No telling how long that will take, but we’ll go to work on it right away.”

“So back to the spears for now,” Park shrugged.

Outside, the drums were joined by things that sounded like trumpets, flutes and reed instruments all played together in what could not be called a melody to human or Mer ears. It played on for another half an hour getting louder and louder until it suddenly stopped.

“Now they attack?” Park asked.

“They may be waiting for a response from us,” Taodore replied. “Attackack war is a matter of move and response. The first foray was the move and we responded by fighting back. Second they played music, but what can we use for a response.”

“Velvet,” Park decided, “how quickly can you dismount a pair of speakers and point them out the hatch.” He pointed at some speakers mounted in the bulkhead of the aft compartment. He was unsure why the spacecraft had been fitted with a music system, but he was glad of it now.

“Not long,” Velvet replied, reaching for her tools.

“Do it,” Park told her. “Marisea!”

“Yes, Park?” Marisea asked, hopping to the doorway.

“Is your torq still filled with human music classics?” Park asked her.

“Of course,” she smiled. “I downloaded your entire music library. I still have plenty of storage space. Why should I have deleted it?”

“Good, I need you to hook it up to the music system and play a certain song,” Park told her.

“Okay,” she nodded. “Which one?” He told her.

A few minutes later heavy rhythmic drumbeats resounded loudly back at the Kogacks. “Park?” Iris asked, returning to the aft cabin with a puzzled look on her face. “Do you know what you’re doing?”

“Not really,” Park replied. “I’m working this out along the way, but this seemed the appropriate response, and what the heck, it is an old classic.”

“Queen?” Iris asked incredulously.

“Closest thing thing we have to what they were playing,” Park shrugged. Iris rolled her eyes and went back to work on the laser while the speakers continued to boom out the rhythm and words of “We Will Rock You.”

Park looked out the door and saw the surrounding hills covered with brightly dressed Kogack warriors. As the human music played, they had edged ever closer to the ship and on the second repeat of Park’s chosen sound track they had started to clap their spears against one another and to their bodies in time with the music. “Hmm, Rock and Roll really is forever,” Park mused.

A loud trumpet blast filled the valley and the Kogacks moved back to the top of the hills and their own music began to play again even louder than before. “Heh!” Park chuckled. “We nearly won them over and their leaders were getting worried.” He turned off the music system.

“I don’t think so,” Taodore disagreed. “This is a bit different and there seems to be something coming up over the hill to the west.

“A progression of some sort,” Park noted, leaning out the hatchway to get a better look. The Kogack warriors had been wearing garments colored in bright reds and yellows, but the people coming down the slope were wearing every color in the rainbow and a few more besides. The Kogacks in that direction had moved to leave a wide corridor open for these new Attackack to walk down. In the center of this display of color was a single Attackack who wore all brown clothing.

“Are parades a normal part of primitive warfare?” Park asked Iris who had once more returned, having given up on restoring the laser.

“Well, various societies have different ways to show their strength and wealth,” Iris commented. “These Attackacks seem to be dressed differently than the others to me and the one in brown looks very familiar.”

“A striped brown robe is always worn by a shaman of the Totkeba tribes,” Taodore told them. “You may recall Okactack wore one.”

“I think that is Tack out there,” Iris remarked.

“Really?” Taodore asked, taking a look for himself. “I hate to admit it, but they really do all look alike to me. He does look familiar though.”

The Procession drew up beside the ship and the Attackack in brown waved up to them with three of his four arms. “We meet again, honored friends!” Tack shouted.

Eight

“My vision improved after leaving you,” Tack explained once he had climbed aboard the *Hendrick Hudson*. Outside the Kogacks and other Attackack stood in respectful silence. “I saw you would arrive here at this time and that you would need assistance. As a mystic, I can travel safely in all Attackack lands, of course and have traveled extensively since we parted to share my vision with all.”

“And these thousands of Kogacks have accepted your vision?” Taodore asked.

“Yes,” Tack replied. “Of course. All Attackack accept the vision once it has been revealed. I do apologize for the ones who initiated warfare against you, but I had not yet shared my vision with them. They wish to make amends this evening.”

“Amends?” Park asked.

“Food is being gathered,” Tack told him. “Even now large fires are being lit to cook it on. We know Mer and humans prefer their foods cooked. We can eat it either way, although cooked food is a delicacy we enjoy on special occasions.”

“So,” Park interpreted. “Tack to the rescue.”

“Indeed, Parker Holman,” Tack replied. “Just as you and Iris Fain will save us all.”

“That’s a heavy burden you’re laying on a pair of people who just crash landed a spaceship,” Park

remarked. "I've always felt people should save themselves."

"Precisely," Tack agreed. "The Attackack will save themselves as well. We must be part of our salvation or we will be lost. The young people who accompanied me here will go with you to learn the ways of Human and Mer. If you accept them, please teach them in your schools, allow them to learn beside your children and we shall forge a bond between our peoples such as has never existed."

The arrival of the rescue teams an hour later was somewhat anti-climactic, but the crews on those vehicles enjoyed the Attackack barbecue along with the crew of the *Hudson* so it was not until the next day that they were able to move on to Planaco.

"We'll have to leave the *Hudson* here," Park sighed. "I just don't see any way to salvage her, not in her entirety. We'll take the log recorders and anything else we can carry. I guess the local Kogacks can make a lot of tools out of this much metal."

"They will not," Tack told him. "This site is holy and they will venerate it."

"I'm not really very comfortable with that whole stranger-savior thing, you know," Park reminded the shaman.

"You shouldn't be," Tack told him. "It is not a comfortable thing."

"Terrific." Park shook his head. "Are you coming with us to Palanco?"

"No, my friend," Tack told him with a negative motion. "My work is here for now. Well, in Totkeba and Pakati. It is ironic, is it not, that I have not shared my vision as fully with my kin and neighbors as much as I have with strangers?"

"Life is full of that sort of irony," Park told him sagely. "We've called for additional transport to carry your fifty chosen students. We'll eventually bring them to Van Winkle Town and train them in our school there."

"Good, then I have seen that correctly," Tack replied.

"You weren't sure?" Park asked, surprised.

"There have been false visions in the past," Tack replied easily. "It never hurts to verify a vision. Imagine all the waste that could occur if we did not."

"I see what you mean," Park nodded, thinking of some of the sadder incidents in human history.

Palanco had been built along the shore at the mouth of a wide estuary in what Park estimated had once been extreme northern Russia. Now the territory was comfortably temperate and reminded him strongly of his childhood home in southern New England. The tidal water levels here had a wider range than in Ghalati, so most of the homes were situated on the land and in what Park thought was an interesting reversal, the business and governmental districts were in the water itself, although considerably upstream from the residential districts. Park's astronauts and Attackack students were given a whole floor in a land-bound hotel. The mayor of Palanco, whose title was actually "Prime," but Park thought of him as mayor to not get confused with Prime Terius who was the chief executive of the entire Mer Nation, had wanted to house them in a more prestigious establishment that stood in the middle of the river.

It was Marisea who pointed out their Attackack protégées would not be comfortable surrounded by all the deadly water. Marisea, in fact, became an instant mentor to all the Attackack students, meeting with them at least once a day to answer questions and to just make them feel welcome. It cut down on the time she could spend with Park and Iris, but she felt the sacrifice was well worth it.

Both Prime Terius and Arn were waiting for them in Palanco when the astronauts and their charges arrived. Both had brought a gaggle of subordinates with them and both insisted on meeting with Park and Iris immediately on their arrival. Taodore and Marisea were hauled along too. “The Galactics are livid,” Terius informed them. “They have filed demands that we destroy the new satellites immediately.”

“Why can’t they be bothered to do that themselves?” Park asked.

“They feel it is just punishment that the cost for doing so come to us for having broken the Covenant,” Terius replied.

“The hell with the Covenant!” Park retorted. “It’s nothing but a one-way deal for you and it doesn’t apply to us in any case. You agreed before the launch.”

“And I continue to agree,” Terius nodded. “I am just telling you how they feel. They probably would have ignored the satellites had you not opened fire on their ‘peaceful investigation’ of your presence there.”

“Oh, peaceful investigation my Aunt Fanny Mae!” Iris argued. “There was nothing peaceful about it, and any investigation was in a military sense if you ask me.”

“Still,” Terius continued, “they say you fired on their ship in an act of piracy.”

“Wait a damned minute!” Park nearly shouted. “They are calling us pirates?”

“Those bastards shot first!” Iris cut in angrily. “Our telemetry will confirm it.”

“They say otherwise,” Terius replied.

“They’re lying,” Iris denied.

“That’s nothing new,” Terius admitted, “but they have the might.”

“If they’re so strong,” Park asked suspiciously, “why are they just spewing lies at us? Doesn’t sound like they’re really in a position of strength to me.”

“Their garrison on Luna may not be as fully populated as we once thought,” Terius admitted. Park, with some amusement, noted the Mer leader had begun using the human word for the Moon, “but do not forget that they are backed up by hundreds, maybe thousands of other worlds and colonies.”

“Which are a long way off,” Park pointed out. “From what I can see, while technology has progressed to the point that they can effectively travel faster than the speed of light, it still takes several days to go a light year and the hyperdrive or whatever they call it cannot be used much inside the orbit of Saturn. Also, communications don’t move any faster than the ships that carry the messages. I’d say it is questionable anyone is going to do much about those satellites if we don’t meekly surrender on that point.”

“Park’s probably right, Terius,” Arn chimed in. “These Galactics talk a good game, but so far all I’ve seen is a lot of posturing. If they are as strong as they want us to believe, they shouldn’t be so vocal about it.”

“Vocal or not,” Terius shook his head sadly, “they are demanding we turn over the person or persons responsible for shooting at them and that we disarm all future missions.”

“That’s ridiculous!” Iris shouted. “We were defending ourselves and you haven’t had an armed ship in centuries. We’re not pirates and I resent the accusation.”

“We’re not pirates,” Park repeated quietly, but with a big grin on his face. “Oh, but we can be. Aye! If pirates they wants, then pirates we be! Arrrr!” He finished with a raspy growl.

“Why are you talking like that?” Marisea giggled.

“That be how pirates talk, me lass!” Park continued the parody. “Tell you what, we have some old movies in the Van Winkle archives. I’ll pull them out when we get back and show them to you. Most of them are cheesy, but fun to watch.”

“Okay,” Marisea nodded. “I find most of your old movies fun to watch.”

“Frankly,” Arn cut in, “I think the Galactics owe us an apology and I intend to demand it.”

“They will never apologize,” Terius predicted.

“I don’t imagine they will,” Arn agreed, “but I intend to make those demands in any case. I understand how you have that damnable Covenant to consider, but I do not. If anyone is going to get into trouble here it will be me and my people. We shall speak for ourselves.”

Two hours later Arn got his wish. Terius had a call set up with the Galactics on Luna and Arn gave them a list of demands.

“How dare you?” the spokesman in Luna asked incredulously.

“Quite easily, sir,” Arn told him coldly. “We are humans. Homo sapiens, the first intelligent species to walk the earth from over two hundred and fifty million years ago. By right as the oldest surviving hominid species, we claim Earth and its system as ours. According to your Covenant you claim the Mer cannot own it as they did not evolve naturally, right? Well we did and we predate every other species calling itself Man.”

“That’s impossible!” the Galactic told him angrily. “The original forbearers are extinct and have been for longer than we have historical records. They died out in the Scattering.”

“More likely they bred themselves out of existence,” Arn snapped, “but there are a few of us still left and unlike you, nobody’s been giving our genes a trim, a shave and a touch of plastic surgery.”

“No Mer has ever dared to insult us this way,” the voice on the moon growled.

“And no Mer has done so now, Binky!” Arn snapped. “Get this through your head, or heads, however many you have attached to your shoulders; we are humans. The one and only originals and you have committed an act of war. We expect a formal public apology and reparations for our damaged ship

and for the pain and suffering of the occupants. We also expect one hell of a lot of back rent for squatting up there on the Moon for the last million years or so.”

“It hasn’t been a millions years,” the voice of Luna told him coldly.

“Can you prove it?” Arn countered. “Because for all I know it’s been a lot longer. Just get this straight.”

“No,” the man on the Moon stopped him. “You get this straight. You will apologize to us and turn over the guilty parties for trial and execution.”

“Well at least he isn’t hypocritical enough to say a fair trial,” Park commented wryly.

“You get nothing,” Arn told the Galactic. “Humans have never signed your damned Covenant. We do not recognize it as a legal document. We don’t even recognize it as toilet paper. You will make restitution.”

“The only way we deal with pirates is with guns,” came the reply.

“I can arrange that,” Arn replied before Park could jump over and break the connection.

“Too slow,” Park sighed. “That might not have been your height of diplomacy, you realize.”

“Actually it might have been,” Arn grinned back. “The fact I was allowed to volunteer for Project Van Winkle could be construed as my superiors’ willingness to do without me, you know.”

“I can think of one or two people who were glad to see the back of me too, but I doubt any of them were on the selection committee and I doubt anyone considered Iris disposable,” Park replied.

“You weren’t chosen for that reason,” Arn told him. “Having decided on a competent but irksome colonel to get rid of, they gave me the best of the best for the project. Well, that’s neither here nor there, I did run off at the mouth a bit.”

“A bit?” Terius and Iris remarked together.

“How do you expect us to back up those words?” Park asked. “I’m willing enough. They shot up my ship after all, but the *Hudson* isn’t going to fly again. According to Tack it’s now holy ground to the local Attackack and even if it were salvageable, I don’t think they would appreciate our moving it. How long before the new ship is ready?”

“Terius?” Arn asked in turn.

“I understand it won’t be flight worthy for months yet,” Terius replied. “You did just order it. If you take it up, they will likely attack you immediately. You know that, don’t you? It won’t be any better armed than the last ship.”

“I’ve been thinking about that ever since we got shot down,” Iris told him. “I have a few ideas and we have all the materials I’ll need in storage at the base. I have some sketches in my room if you would like to see them.”

“I know I’d love to see them,” Park told her.

A short time later they gathered in the room Park and Iris shared and she brought out her sketchpad. "You've been busy," Park commented.

"I have," she smiled, "and with Marisea working with the new students, I've had the opportunity to work this out. Now I think we could strap some missiles under the wings and mount several more lasers."

"It's been millions of years, hon," Park reminded her. "I'm sure the best weapons of our time are all obsolete now."

"Perhaps not," Terius shook his head, "Those lasers are easily countered. That's true enough. You got lucky in that the Galactics never expected you to open fire. Mer ships never have and they thought you were just another of ours. Your missiles are another matter, however.

"If they are fast enough," the Prime continued, "I believe they will be a real surprise. No one has fought with physical projectiles in hundreds of millennia. I only know about them at all because of Galactic history books. They are currently considered primitive and ineffective according to what I have read, but I am also informed that defenses against them are no longer installed."

"Sounds like short-sightedness to me," Arn remarked.

"Perhaps," Terius nodded, "but until Iris Fain mentioned them, I had not even thought of using such a weapon."

"What do modern fighting ships equip then?" Park asked.

"Energy and field weapons," Terius replied. "Multiphase X-ray lasers are popular, I'm told."

"Multiphase?" Park echoed. "Sounds like Star Trek."

"Most illogical, Captain," Iris smirked.

"That plasmacaster you got hit with is favored as well, although easier to deflect," Terius went on. "It recharges quickly and we have heard of some sort of gravity cannon."

"Gravity cannon?" Marisea asked from the doorway. She and her father hop-stepped into the room. "What's that?"

"We really do not know," Terius admitted. "It is just something we have heard mentioned in our routine surveillance of Galactic signals."

"Sounds like a form of propulsion," Park remarked.

"Our suspensors work by using gravity lenses," Taodore mused. "I suppose they could be modified and their power increased to be used as boosts to more conventional drive systems."

"That would be interesting to try," Iris remarked, "but could they also be modified to send, or maybe that's pull, a sudden burst of gravity? Maybe 100 gees?"

"That would be very dangerous," Taodore replied automatically. "Could you imagine what might

happen if you hit something with it?"

"Very clearly," Iris smiled.

"Oh, I see what you mean," Taodore nodded. "I have some colleagues who might be able to try something like that out. I'll contact them tonight."

"Good!" Arn exclaimed. "Now how soon can we get a ship to try things like that on?"

"We don't have a lot of ships," Terius demurred. "It will have to wait until the new one is finished."

"What if we borrow and refit one of the ones already in commission?" Park asked.

"The Galactics would consider such a loan to be collusion with you humans," Terius told him.

"They don't even believe in humans," Park pointed out. "They think we're just a bunch of uppity Mers and if they act out, they come at you too."

"Besides, Prime," Taodore added, "We are colluding with them. We may as well go all the way, I say."

"Better to be shot for a wolf than slaughtered as a lamb," Arn added.

"A what and a what?" Terius asked.

"I'll explain later," Arn promised.

Just then a messenger looking for Prime Terius arrived and handed him an envelope. Terius opened it and read the report inside. "This is bad," he moaned.

"What's wrong?" Park asked.

"It's from Luna," Terius explained. "The Galactic Governor, they never tell us his name, has decreed that all Mer are in violation of the Covenant and that he intends to establish a base on Australis from which he will enforce the Covenant and, according to this, most rigorously exact the penalties for breaking it."

"Well, that settles it then, doesn't it?" Marisea asked.

"What, child?" Terius asked.

"If they're going to invade like that, we have to fight back," Marisea replied.

"That will only serve to anger them," Terius told her.

"They're already angry," Marisea argued. "This is our world, not theirs and they have no right to come here uninvited."

"Why are you so angry?" Terius asked Marisea.

"You would be too if those dirty Galactics had shot at you," Marisea replied heatedly.

“Hmm, there is that,” Terius admitted. “All right. I will have a ship flown today to Van Winkle Town. Outfit her as you see best. I don’t want a war, but I also do not see how we can avoid one without giving up everything we have worked for these last few millennia. I also do not wish to see a Galactic presence on Earth. However, perhaps it will be best if we try to demonstrate our peaceful intentions.”

“That’s fine with me,” Park told him. “I think our first mission should be to finish the repairs on the commsat. If we can do that without incident, it should show them we only want a better communications system.”

“Do you really think you can do that unopposed?” Terius asked.

“That is entirely up to Luna, now isn’t it?” Park retorted.

Nine

The Mer did not traditionally name their ships, so Park and Iris, working with Marisea, christened the new ship *Trenisi*, the Merish word for “Freedom.” *Trenisi* was a sister ship to the *Hudson* and nearly identical in every way.

Iris consulted Velvet Blaire concerning the plans to arm the new ship. “I’ll help of course,” Velvet told her, “but the real evil genius when it comes to building weapons systems is Veronica Sheetz. We definitely want her in on this.”

“Her and anyone else who can figure out the Mer technology,” Iris nodded. “I should have thought of Ronnie. She’s been collaborating with Mer scientists since we made contact. Do you think she can figure out how to build one of these gravity cannons?”

“I can’t say,” Velvet replied, “but if any of us can, she’s my nominee. I’m pretty good, but I’m just a talented mechanic. Ronnie’s the real innovator and given some of the others on the team, that’s saying something. Now about your designs, I don’t really like putting all that hardware on the wings. Besides, we can fit a lot more missiles into the cargo bay. Why don’t we build a module that can be retracted when not in use. We are trying to look peaceful, aren’t we?”

“Which will look worse?” Iris asked. “A few weapons on the wings or a great mess of them slowly dropping out of the cargo bay?”

“What makes you think they’ll deploy slowly?” Velvet countered. “At least if they aren’t in plain sight, it won’t look like we want trouble. But if the Galactics want to start a fight, we sure as hell want to be able to end it.”

Veronica Sheetz was a short, thin woman with graying hair. As Velvet had said, she was a genius when it came to weapons systems and immediately corrected several design flaws in Iris’ and Velvet’s plans before going on to consider new weapons. “Multiphase lasers?” she asked. “Interesting.”

“Can you make one?” Iris asked.

“I haven’t the foggiest,” Ronnie shrugged, “but I’ll talk to our Mer colleagues and see what they know about them. Those gravity cannons too. They sound like they have more potential. I wish I knew how those plasmacasters work, maybe we could build one of them, but I think I know a way to minimize their effects.”

“Anything would be better than what happened last time,” Iris told her.

“I’m sure,” Ronnie remarked dryly. “I wonder if anti-laser gas would effect multiphase lasers... We should just call them phasers, you know. Everyone probably will anyway. Hmm, phasers... how would that work?”

“Anti-laser gas?” Iris asked. “What’s that?”

“Oh, something we were playing around with about the time we took that extended nap,” Ronnie replied off-handedly. “The concept was to release a suspension of reflective particles in space that would reflect and dissipate a laser beam before it could be used destructively. We didn’t have it all worked out because the gas they were suspended in tended to dissipate too quickly, so unless you happened to release it just before a laser hit you, it had very little effect. We were working on the concept of gaseous coherence in space. Hmm, magnetism, maybe. That reminds me, that note you sent about the anti-plasma defense...”

Carrying on a conversation with Ronnie, Iris found, required a flexible mind capable of discussing several things at once, but once she got used to jumping back and forth between topics, it got easier. It was not that Veronica’s mind leapfrogged back and forth in an undisciplined manner. She was capable of working on several problems at once; her only limitation being the spoken language and its inability to communicate more than one idea simultaneously.

The cargo bay missile launcher was ready a week later although Ronnie wanted time to improve the payloads, but when a breakthrough in phaser technology occurred, she turned to that. When she and her team managed to get one of the early attempts at a phaser to work, Iris mounted it on the bow of *Trenisi* just before they lifted off on the second repair mission.

“Looks just like the laser we had,” Park noted, when Iris showed it him proudly.

“It is the laser we had or rather one of it’s kin,” Iris told him. “Ronnie reworked it into a multiphase job. It’s still a visible light laser, not X-ray like the Galactics’ models, but it will do for now. We also have a defense against the plasmacaster.”

“I heard about that,” Park nodded. “Some of Taodore’s friends worked out a magnetic defense using a steel screen inside the cabin walls.”

"It looked strange with all the bulkheads open like that while they were installing it," Iris nodded, "but the *Phoenix Child* will have it built into the design and should be even more effective."

"*Phoenix Child*?" Park asked. "She already has a name?"

"It was Marisea's idea," Iris explained. "She learned about the phoenix from old human legends and liked it so much she's been talking everyone into it. She even taught an entire class on the subject to the Attackack students. Now that was funny."

"Why?" Park asked.

"It turns out Attackack religion has a similar figure as one of its main spirits, except instead of a bird, it's a flaming insect. They had a hard time with the concept of a flying bird. None of the birds and postavians in Pangaea can fly, you know, and they repeatedly told her she must be mistaken and asked if maybe she meant one of those postmamalian bats if it wasn't an insect."

"I'm surprised they didn't suggest one of those flying octopi," Park laughed. "With a bladder full of hydrogen those critters really will burst into flame if they aren't careful. What are they called?"

"The Mer call them *haweeta*," Iris replied. "The Attackack call them *gractatac*, I think. It's hard to pronounce. Who's on the crew for this mission?"

"Well, it's Paul's turn to be the pilot," Park replied. "Tina wasn't happy about that – can't say as I blame her – but she took it with good grace, or as good as anyone could expect considering she wants payback."

"You could offer her the co-pilot's chair," Iris suggested.

"Then what would I do?" Park asked.

"You're the captain," she pointed out. "Besides you've been training in every position. You'll be ready to fill in wherever needed. Now about Marisea..."

"She's going," Park said instantly.

"You're giving in very easily," Iris remarked.

"I want her to get some experience as navigator," Park told her. "Besides, Velvet's insisting Marisea be there for the repairs. Small hands, remember?"

"I thought I was navigator," Iris remarked.

"You'll supervise," Park told her, "but we're not taking chances this trip, I want you at the weapons' console most of the time."

"I'm not the only one trained in the weapons," Iris told him. "I'm good, but there are three others who are equally good, I think."

"You're also modest," Park told her. "For pilot, any of our people will do, but you're right, I'll offer Tina the co-pilot's seat. That leaves me in the back cabin with Velvet's crew, but I'm a big boy. I can take it. However, it's like I said, we're not taking chances and you are the only one on this world with

real experience in space warfare.”

“One shot with a laser is hardly experience,” Iris remarked.

“I know you can pull the trigger,” Park insisted. “I can’t say that about anyone else. We lift in two days.”

Park’s next surprise occurred just an hour before launch. “What’s this?” he asked seeing the large padded seat in the middle of the bridge area. It looked like a cross between something from a science fiction starship and a barbershop.

“You’re new command chair, Skipper,” Velvet laughed. “I even gave you a cup holder.”

“What? No Omega-13 device?” Park asked lightly.

“Ronnie’s still working on it,” Velvet told him with a straight face. “Right after the stasis plating.”

“Stasis plating?” Park wondered. “Have I been missing meetings again?”

“She just came up with the idea or we might have it now,” Velvet explained. “She figured that if the walls of Van Winkle Base were in stasis just as we were, why not apply the same technique to the hull of the ship? She needs to work out a way to not put the rest of us in stasis at the same time, but she thinks it can be done and it will make us close to indestructible.”

“I like the sound of that,” Park nodded. He sat down in the large chair. “Not bad,” he commended her. “When are you installing the massage unit?”

If anything, *Trenisi*’s launch was even smoother than *Hendrick Hudson*’s had been. Park found he had to swallow back his discontentment. He was far more accustomed to leading from the front and even though he had only used the co-pilot’s controls when Tina requested, having them within reach at least gave him the comfort of knowing he could act directly. He found sitting in a “Captain Kirk” chair the ultimate frustration and the joke cup holder Velvet had built in only accentuated the fact he was mostly there for the ride. His crew needed few orders, he had trained them well, and they all knew what had to be done without constant instructions.

“Attention, *Trenisi*,” Arn’s voice crackled out of the radio set and added unnecessarily, “Van Winkle Base here.”

“Go ahead, Arn,” Park replied. “Tell someone I want a vidscreen to talk through next mission. This radio nonsense is straight out of the Twentieth Century.”

“Aren’t we in a foul mood this morning?” Arn retorted.

“Sorry,” Park apologized. “They should have at least given me a ship’s wheel to play with while in the new highchair.”

“Well, I don’t have any news guaranteed to cheer you up then,” Arn warned him. “Prime Terius just let the big boys on Luna know you’re on your way.”

“He did what?” Park asked with preternatural calm. “No, I heard you. Why?”

“It’s just possible we sold him on our ability to take care of ourselves just a teensy bit too well,” Arn replied. “If anything he was even less polite than I was when I spoke to Big Bozo.”

“Big Bozo?” Park laughed.

“Terius and I decided to start calling him that after I explained what a Bozo was,” Arn admitted.

“So we’re naming him after a well-known children’s entertainer?” Park asked.

“Well, it was the clown part that appealed to him,” Arn replied. “I just wanted you on battle stations when you approach the commsat.”

“We’re already on battle stations,” Park replied, “but at least we’re forewarned. I don’t suppose Terius sounded so sure of himself that Big Bozo won’t try to have anyone meet us out there?”

“I wouldn’t count on it, Park,” Arn replied. “If anything it sounded like BB wants to make an example of you. If you want to cancel the mission, I’ll understand.”

“Hell, no!” Marisea exclaimed suddenly. The rest of the bridge crew cheered the sentiment.

“Sounds like that idea just lost the election,” Park chuckled.

“Yeah, I heard that,” Arn laughed. “Well, be careful and keep your guns warm.”

“Tell Terius he buys drinks for everyone when we get back,” Park replied.

“We both will,” Arn promised. “Van Winkle Base out.”

Ten

There were three ships standing off the stricken communications satellite as *Trenisi* approached. “Earth ship,” an officer on one of the ships hailed them. “You are in violation of the Covenant. Turn back or we shall destroy you forthwith.”

“The hell you will,” Park growled back “We have warned you before, Not only are we not party to the Covenant, we find your Covenant to be null and void. You are commanded to vacate your base on the Moon within thirty Earth days or pay the back rent for the last three millions years.” Park was not sure why he chose that number; it just came to him. “And any attempts to interfere with our mission will be considered a barbarous act of war and be dealt with severely.”

“You have a lot of nerve, pirate,” the reply came. “I’ll give you that.”

“Aye!” Park roared back. “I be Black Captain McArrgh! And all your base belongs to me! Arrrr!”

“You may have just confused them terminally,” Iris chuckled, then got abruptly serious. “They’re charging plasmacasters.” She flipped the switch to deploy the missile launchers. Servos whined softly throughout the ship.

Three balls or plasmas shot out of the muzzles of the Galactic ships’ guns. The trio of blindingly bright lights sped toward *Trenisi*, only to veer off less than an inch from the ship’s hull. The magnetic defenses had worked!

“Open fire!” Park commanded.

Iris’ hands flashed over her console with practiced ease and got off the first volley before the Galactic weapons were completely recharged. The phaser drilled a hole through one of the ships and two missiles hit each of the others.

She readied another volley, but it proved unnecessary. One ship had been blown to pieces and another’s engines had been destroyed. The third ship, badly damaged as well, turned and ran, heading away from the vicinity at full speed.

“Mercy!” one of the ship’s captains begged. “We surrender.”

“We’ll allow your people to pick you up,” Park decided, not wanting to take prisoners. “Hail the other ship and offer to let them rescue their own,” he told Garnore, the Mer at the radio station.

“No response, Skipper,” Garnore replied.

“Oh heck,” Park sighed. “Velvet, looks like we’ll be bringing Galactics on board. Do we have a way to lock them up?”

“In here?” Velvet asked incredulously.

“Hopefully they’ll behave,” Park muttered. “Stand by.” He nodded to Garnore to reopen the microphone. “Looks like your buddies are too scared to reply, Mister Galactic. Do you have spacesuits?”

“Of course,” came the reply.

Park heaved a sigh of relief, unaware he had been holding his breath. “Fine, stand by, we’ll be coming alongside in a minute. Do you know the meaning of the word parole, sir?”

“We are not barbarians, sir!” came the reply. When Park let the silence drag a bit, he added, “You have my word and parole. Please, do you promise safety? We have injured on board.”

“If your parole is good, you’ve my guarantee of safety,” Park assured him. “We’re beside you right now. We can rig a line between us, but our locks are not compatible. We cannot dock with you.”

“Understood, sir,” the Galactic officer replied, “and thank you.”

“We’re not barbarians either, sir,” Park told him. “Is there a chance of survivors on the other ship, do

you know?”

“It is possible,” the Galactic admitted. “Our ship’s compartments can all be pressurized independently. I surrender on their behalf too.”

“Good enough,” Park noted. “Let’s get your crew to safety and then we’ll go searching for more.”

“Thank you, sir.”

Shortly after Velvet had attached a line between the two ships, the surviving fourteen crewmen of the Defender came out of their airlock and made their way to *Trenisi*. Their leader was a tall, thin supra-human who, when he doffed his helmet, turned out to have bright green skin and eyes and jet black hair. Park later learned the green was due to the plant-like chloroplasts in his species’ genetically modified bodies. One or more of their ancestors had decided it would be efficient to add photosynthesis to the species’ dietary abilities. In his crew were several other sorts whose ancestors had once been human. Why they had prehensile tails, or horns on their heads was a mystery even to them, although most genetic modifications and adaptations made some sort of sense when one learned about their planet of origin.

“So, Mister Galactic,” Park asked, “how do we best go about rescuing the others?”

“Mister Galactic?” the green man asked, confused.

“I understand none of you seem to like giving your names to us mere Earthlings,” Park explained, “and I have to call you something.”

“My name is Dannet Nrenth of Deensee,” the suprahuman replied a little stiffly. “I would not expect you to know it, but my father is the Lord of Dennsee. You are Black Captain McArrgh?”

“Parker Holman, actually,” Park laughed, holding out his hand. Dannet Nrenth accepted it briefly. “Call me Park if you like. I’d love to hear more about your world and family, but we may have others who need rescue. We can talk later.”

An hour later another dozen survivors had been collected and Park was trying to decide what to do with them, while Velvet’s crew finally got to work repairing the satellite. “Park, we have to take them back to Earth,” Iris told him. “The other ship refuses to come back for them. The captain doesn’t trust us to respect a flag of truce.”

“Lord Dannet,” Park asked, “do you think you could have a talk with him?”

“It’s just Dannet, sir,” Dannet replied. Once Park had grown accustomed to Dannet’s skin color, he realized that the man was fairly young – quite possibly only twenty years of age – and took himself far too seriously. Park supposed if taken hostage after an extremely brief space battle he might not be quick to make friends with his captors either.

“Dannet then,” Park nodded easily. “We aren’t really equipped to take hostages nor is that our inclination. We’d much rather return you to your base.”

Dannet looked at him strangely before replying, “I can try.” The young green man called the remaining Galactic ships but there was no response. He tried in several languages ending up in a frustrated shout. Finally he turned to Park and told him. “It is possible they think I am being coerced.”

“Fine,” Park shrugged, “Garnore, please hail the base on Luna and tell them we will be returning these people as soon as we can land there.”

“They won’t like that,” Dannet predicted.

“Why not?” Park asked.

“Ah, er,” Dannet muttered embarrassedly. “Well, you know. You’re from Earth and, well...”

“They’re afraid of catching our cooties?” Park prompted him.

“What?”

“We’re unclean and unfit for polite society, maybe?” Park translated.

“Well, I wouldn’t quite put it that way,” Dannet replied uncomfortable. “I mean... Look, I really must thank you on behalf of us all for your rescue and generous terms.”

“I didn’t offer you much,” Park told him.

“You rescued us and promised our safety,” Dannet replied quickly, and then blurted, “It’s more than we expected from pirates.... Uh, I mean...”

“What?” Park pressed. “Barbarians? Savages from a forgotten past, perhaps? Look here, Dannet of Dennsee, we’re people, same as you. That includes both the humans on this ship and our friends and allies the Mer. Thinking, breathing people. We would like to think we are honest and honorable people as well and if we are pirates, it’s because you Galactics want us to be. But just keep this in mind; we know what pirates are and if your people want piracy in the space lanes, just remember it was your choice, not ours. You asked for it.”

“Sir?” Garnore spoke up. “Luna base replied that none of their ships will come and pick up the hostages and if *Trenisi* dares to approach, all their ships will open fire.”

“What?” Dannet asked incredulously. “They only have two ships left; *Vigilant* and *Starwing*. And they’re both damaged.”

“I don’t think you’re supposed to have told us that,” Park advised him. “Still we may have gotten lucky and the base could well be defended.” He looked at Dannet and was unable to read the man’s face. “Very well,” Park sighed, sitting down at his over-stuffed captain’s chair. “Patch me through, please.”

“All set, Skipper,” Garnore reported a moment later.

Park took a deep breath and announced, “Attention Luna Base or whatever you call yourselves. We have your people on board *Trenisi*. There were some casualties and we are sorry for that, but the survivors are well and as comfortable as we can make them. They will be fed and housed in civilized accommodations but we would prefer to simply return them.”

A high pitched voice replied, “Stay away from the Moon, pirate! No indigenes of Earth are allowed here or anywhere in space.”

“Well, we’re here now and we are not going away,” Park retorted.

“Park,” Iris informed him. “Four ships have just launched from Earth.” Park knew that was the entire Mer fleet at the moment and, unlike *Trenisi*, they were unarmed, but in a moment he made a decision. “Luna Base we have reinforcements on their way. You have two damaged vessels. Ours are all intact and unharmed. You’re out-numbered and out-gunned. Here are our terms.

“One,” Park continued. “I cannot repeat this enough. Your base is on Earth territory, human territory which we cheerfully share with the Mer. Two. You have been trespassing on our territory for a very long time and we expect you to pay your rent retroactive to the establishment of your base. I imagine that roughly coordinates with the establishment of the so-called Covenant. If you do not pay the back rent you are hereby evicted and have thirty Earth days to vacate the premises and, in fact the entire Solar System.

“Three,” he went on, “the Covenant is hereby null and void. It was illegally drafted as you are not the owners and protectors of the Earth’s biosphere. We are. And Four, you have attacked our ships and our people in a barbarous and unprovoked manner. You have unjustly imprisoned two sentient races for no good cause other than your own racial prejudice. You owe restitution to the Mer and the Attackack to be determined by the injured parties later. You may now signal your surrender.”

“Pirate, whoever you are,” came the high pitched response, “You have not the right to dictate such terms. You will stand down and await our orders...”

“Negative!” Park shouted back, grateful for the full duplexing abilities of the Mer radios. He could shout over the other speaker and make him listen. “I have the right of conquest. I have the right of prior occupation. I have the right of ownership. You have none of that. I understand your weapons become ineffective at a range of three hundred and fifty kleckamers.” Park knew that from a previous briefing with the Mer. He was uncertain just how long a kleckamer was, but seemed to be something between a kilometer and a mile. “Our weapons have a greater range and we can simply bombard you until you either surrender or die”

“Park! You wouldn’t!” Dannet exclaimed. “That’s barbaric.”

“And pitting three armed ships against one is civilized, is it?” Park turned on him. “We clearly stated our peaceful intentions and you just didn’t care, did you? Not until we shot back. You thought three balls of plasma would destroy us, didn’t you? Never thought we might be too smart to fall for the same trick twice. Well, Dannet of Dennsee, you and your lords and masters screwed up big time.”

“Screwed up?” Dannet asked awash to the term in English.

“You look like an intelligent kid,” Park told him condescendingly. “I’m sure you can figure it out from its context. We won, you lost. How would you explain it?”

“Better fire power, sir?” Dannet guessed.

“Using weapons that were obsolete two hundred and fifty million years ago,” Park told him. “Keep that in mind when you think about your fellow Galactics.”

“Why do you keep calling us Galactics?” Dannet asked.

“It’s what the Mer call your confederated government,” Park told him. “You have another name?”

“The Alliance of Confederated Worlds,” Dannet replied.

“And doesn’t that just trip off the tongue,” Park returned. “Well, to each his own. In any case we’re acting in our own self defense. You were not. All we were trying to do was establish a more efficient world communications network.” Park decided not to mention their eventual plan to break the blockade the Galactics, or the Alliance of Confederated Worlds, if they would rather, held on the Earth. “And what did we get for that? Not one but two unprovoked attacks. So don’t you go feeling all superior over the barbarian pirates. We did not fire until you did. That was an act of war. I warned whichever squadron leader I spoke to before he decided to open fire.”

“That would have been Captain Harroi,” Dannet supplied, “of *Watcher*. He was the senior ship captain on the Moon. I guess I am now, and I’m two ranks lower than he was.”

“So *Watcher* was the lead ship, I take it,” Park nodded. “I see it does not always pay to lead the charge.”

“You were not aiming at him in particular?” Dannet asked.

“I was aiming at all of you,” Iris informed him from her console. “He just got the phaser in the face, is all.”

“What’s a phaser?” Dannet asked, but no one answered him.

“Sir, the station on Luna seems to have been turned off without warning,” Garnore reported. “There was a blank signal coming in, but then there were a few shouts in a language I didn’t understand, followed by nothing.”

“Perhaps they are considering their options,” Park conjectured. “We can afford to give them a few hours to think it over. Velvet and her team are still working on the commsat and the other four ships won’t be able to rendezvous for hours yet. It appears we have a bit of time now, Dannet. Tell me about Dennsee, if you please.”

Eleven

Marisea had barely taken a moment to glance at the varied Galactics in the after cabin before

following Velvet and the others though the airlock on their mission to repair the satellite. However, once the repair work was done, she had the time and inclination to study these people of whom she had only previously heard of.

There was no one with formal medical training on board *Trenisi*, but everyone had some first aid instruction before being permitted into the human-Mer space program so Marisea started helping others in attending to the wounded. Most of the Galactics were only bruised. As all *Trenisi*'s crew were rapidly learning, injuries in space were usually either fatal or minor. The few worse than minor injuries were mostly broken bones caused by the sudden demise of Watcher.

As the young Mer helped Iris and Velvet make their hostages comfortable as best they could, she got her first real looks at the mysterious Galactics she had heard about all her life. What she saw were not the monsters she had expected, but people. They were people, in fact, who looked more like the humans than not, in spite of additional limbs and digits or the odd colors of their skin, hair and eyes.

"Marisea," Iris called her out of her reverie. "This is Sartena." She indicated a woman with bright red hair cut in page boy style and deep orange skin. She also had long pointed ears and thin round fleshy protrusions that stuck up about three inches from the back of her head and ended in small violet balls. "She's developing a fever and I'm very worried."

"Hi, Sartena," Marisea told the orange woman with gentle politeness. "I'm Marisea Waisau. Pleased to meet you. Iris what can I do?"

"I've prepared some cold compresses," Iris told her. "It's all we can do for now. Just use them to help keep her cool, like this." Iris demonstrated until Marisea signaled her understanding.

"Marisea is a pretty name," Sartena told her. "Oh yes, that cold feels good."

"Where are you from?" Marisea asked curiously.

"My world is called Tzantsa," Sartena replied. "Some call it the Orange Planet."

"Because of your people's coloring?" Marisea asked.

"In a way," Sartena smiled thinly. "Our ancestors genetically enhanced us by giving us pigmentation that matched the plants of our world. Our world is actually nicknamed for the plants, you see."

"Must be pretty," Marisea remarked wistfully.

"Green plants just don't seem the same to me," Sartena sighed. "Oh, yes, more of that compress on my forehead, please. Perhaps I can show you my home someday."

Marisea looked at her strangely, "Now how could you do that?" she asked, not betraying any sharpness.

Sartena looked stricken, "Oh, I'm sorry. But I wish I could take you there. I've never understood this whole gene-locked thing."

"Really?" Marisea asked.

"Really," Sartena assured her. "What difference does it make? We've all been genetically modified,

well our species have. Evolution doesn't happen to individuals, after all."

"That's what I've always said," Marisea told her. "Of course it's different when a Mer says it."

"No it isn't," Sartena disagreed. "It's the same no matter who says it."

"Well, then if you don't think the Covenant should force us to stay on Earth," Marisea asked, "why are you serving in a fleet that enforces it?"

"I was assigned to the *Watcher*," Sartena explained. "It's not like the Space Force lets you choose where to serve, you know, or maybe you don't. No, don't stop. Please. I need the coolness."

"What happened to you?" Marisea asked.

"I was slammed back against a bulkhead when your weapon hit the ship," Sartena explained. "It was so bright. Never saw anything like it. I think it overloaded me."

"Overloaded?" Marisea asked.

"You see my antennae?" Sartena asked. "On the back of my head? They enhance my senses; smell, sight and hearing. I think the brightness of your light weapon was too much for me and now my body is in shock. Oh. Oh! Starting to feel cold now, take the compresses away." She started to shiver and Marisea looked around. Someone had brought out some blankets and some of the hostages were curled up in them.

"I'll be right back," Marisea promised. She jumped up, hop-ran to the pile of blankets and brought back two for Sartena. The orange woman grabbed the blankets and wrapped herself but she was still shivering so Marisea stretched out beside her and hugged. Sartena returned the gesture, shivering in Marisea's embrace.

Gradually, Sartena began to relax and stop shivering. "I'm better now," she told the mermaid at last. "Thank you. I think I'll sleep." A moment later she was snoring softly and Marisea sat up and rearranged the blankets and checked the woman's temperature. Sartena seemed normal now, so Marisea went forward to the Bridge.

"How's your patient?" Park asked her.

"Sleeping," Marisea told him, hop-stepping over to give him a warm hug. Only after breaking the embrace did she realize Dannet was sitting beside Park in a fold-up chair. "Park's my *tamovir*," she explained to the green man.

"I see," Dannet nodded understandingly.

"You know what that means?" Park asked.

"Of course," Dannet nodded again. "It's a charming custom, I think. Not much practiced on most worlds except for Dennsee. But we're considered a bit quaint and old-fashioned by some of the more trendy worlds."

"There's prejudice even between Galactic worlds?" Marisea asked.

“Sadly, yes,” Dannet nodded. “We’re no better than anyone else, I fear. I know that more now than I did this morning. We members of the Alliance consider ourselves the true descendants of mankind, but now, especially after talking with your *tamovir*, I’m beginning to wonder if any of us can claim that title exclusively.”

“Park, are we really going to attack the Moon,” Marisea asked.

“It might not be much of a fight,” Park told her.

“But they’re the Galactics,” Marisea protested. “They have ships and...”

“At the moment,” Dannet explained, “they have two badly damaged ships. I think those two ships have more modern armaments, but you have proven today that sometimes the older ways are best.”

“Should you be telling us that sort of thing?” Marisea asked.

“It is nothing we don’t already know,” Park replied for Dannet. “There has been some sporadic babbling on the radio from Luna. Whoever’s in charge there has no grasp of military security.”

“It was Governor Therent when I left this morning,” Dannet told them. “He was assigned by the Alliance Council, but in the wake of the first encounter we had with you, he was losing his grip on the base. I know Admiral Holwane was aching to declare martial law and several other community leaders were pushing to declare an official emergency with themselves in charge.”

“How many people do you have up there?” Park asked curiously.

“Two or three thousand,” Dannet replied. “Most of them are scientists or bureaucrats of one sort or another.”

“Not much of a garrison,” Park scoffed, “and it sounds like you have far too many leaders.”

“A garrison?” Dannet laughed. “One hundred men and women is hardly a garrison; not for an entire world. We’re a listening post only. Oh, I think we used to be larger, but now most of the people at Luna are researchers of one form or another.”

“Then why was *Vigilant* dispatched to attack us?” Park asked.

“Ask the Admiral,” Dannet shrugged. “He’s the one who gives the orders. I’m just serving a term. It’s expected of the nobility, you know. If I had to guess, though, it’s because we thought you were unarmed. Mer ships are never armed and I’m afraid the Admiral, most members of the Alliance, to be honest, do not think much of the Mer.”

“A bad estimation on several levels,” Park pointed out.

“Prejudices often are,” Dannet admitted.

“*Trenisi*, this is Alliance Base on the Moon. Stand by, please.” a woman’s voice could be heard over the speakers.

“Who the heck is that?” Dannet wondered. “I didn’t know there were any women in the radio room.”

“There’s at least one,” Park pointed out.

“Never called yourselves Alliance Base either,” Marisea added. “Moon Base Lagina is how I heard it in the recordings.”

“I don’t even know who Georndi Lagina was,” Dannet admitted.

“Don’t look at me,” Park told him. “I just got here.”

“Attention Earth Ship *Trenisi* , a deep masculine voice came on next. “This is Governor Caromir Wanets speaking.” There was a long pause.

“What? Who elected him?” Dannet remarked. “He sure was not appointed by the Alliance Council.”

“Who is he?” Park asked.

“He owns a shipping company,” Dannet explained. “So far as I knew, he was on the Moon because he was looking in Sol System for a good place to put a warehouse. Your system is centrally located, after all.”

“I suppose we might rent him a moon somewhere,” Park mused. Dannet looked at him strangely, but said nothing as Wanets finally continued.

“There has been a change of leadership in Alliance Base and we are suing for peace on reasonable terms,” Wanets announced.

“Terms?” Park asked when Garnore activated the microphone. “Who says I have to grant terms? You are beaten, Mister Wanets. If you don’t believe me, just wait a few hours when I start lobbing missiles on your weapons installations.”

“Don’t do that!” Wanets replied hastily. “I just want to negotiate a reasonable armistice.”

“Okay, here are my terms,” Park replied. “All the Solar System is the property of Earth and her sentient species; Mer, Atackack and Human. Any Galactic installations, any installations manned and operated by people from the Alliance of Federated Planets,” and thinking of what Dannet had just said about Wanets, Park added, “whether governmental or private, will only be allowed by lease back dated to the establishment of said bases.”

“What?” Wanets demanded.

“That is not a new term, Mister Wanets,” Park told him, “and it is not negotiable. Any failure to agree to that or to be delinquent in payments will be cause for eviction.”

“You pirate!” Wanets snarled.

“Arrr!” Park agreed. “Now as to the rest...”

“We’ve lost the signal, Skipper,” Garnore informed him.

“Maybe you would like to negotiate?” Park asked Dannet.

“I’m not so empowered,” Dannet shook his head.

“It doesn’t sound like Wanets was either,” Park pointed out, “and that pirate remark is going to cost him dearly.”

Another hour later, the four Mer ships caught up to *Trenisi* and fell into formation as they continued outward to Luna.

“Moon Base Lagina to Earth Ship *Trenisi*,” a man called over the radio next. “Please disregard any messages from the self-proclaimed Governor Wanets. He was neither elected nor appointed to any such post.”

“And to whom, am I speaking now?” Park asked.

“This is Deputy Governor Gount,” the man replied. “Am I speaking to Black Captain McArrgh, sir?”

Park decided he could straighten that out later and merely replied, “You are.”

Gount went on, “I am acting in Governor Therent’s stead while he remains incapacitated.”

“What happened?” Park asked in spite of himself.

“There has been some, ah, small upset and trouble on Lagina Base,” Gount replied. “It is over now, but His Excellency suffered a small mishap and is currently being treated. However, I am fully empowered to treat with you on his behalf.”

Park looked over at Dannet who nodded. “All right,” Park decided. “You have been hearing my terms?”

“You were serious?” Gount asked.

“I’ll be glad to demonstrate how serious I am today,” Park growled.

“Ah, uh, no,” Gount replied quickly. “That won’t be necessary. We recognize your ownership of Sol System and desire an immediate armistice in which we may negotiate revisions to the Covenant.”

“No Covenant,” Park told him. “That document is dead. We will negotiate a fair and equitable treaty for all the sentient beings of Earth.”

“Very well,” Gount agreed reluctantly.

“Now we are coming to Luna to...” Park began.

“No!” Gount replied, obviously in a panic. “Not until we have a treaty.”

“What?” Park asked. “We have survivors on board this ship from *Watcher* and *Diligent*. Your own people.”

“Keep them for now,” Gount replied. “They are your hostages to hold until an agreement can be reached.”

“I don’t want hostages!” Park protested.

“Keep us,” Dannet advised. “Gount is afraid of you and this will keep him honest. Heh! My ransom alone will keep both him and Therent in line and in awe of you and the rest of your humans.”

“Ransom?” Park asked incredulously. “If anything you are a prisoner of war to be returned at the end of the hostilities. I have no intention of accepting ransom.”

“You don’t have a lot of choice there,” Dannet told him and then chuckled, puzzling Park even more. “It would be a gross insult to my people for you to refuse. I can see you don’t mean it as such, but I am a prince, you know.”

“So Lord of Dennsee is another way of saying ‘King’ is it?” Park realized.

“Of course,” Dannet agreed.

“You seem fairly agreeable to that,” Park noted, “and amazingly helpful.”

“Sir, you have fought us with honor and won,” Dannet told him. “Further you have treated us with honor, saved those lives you could and administered aid to those who needed it. You have treated me, a defeated captain of a destroyed ship, as a friend and equal.”

“You evidently out-rank me,” Park pointed out. “Being an equal could be an insult.”

“We’re not on Dennsee,” Dannet replied with a thin smile. “My politico-social rank means nothing in the Space Force. What I am saying is, you have earned my respect and friendship. A free Earth is no danger to the rest of the Galaxy so far as I can see and we would be better off to have you with us than against us.”

“This is the assessment of the future Lord of Dennsee, is it?” Iris asked.

“It is,” Dannet replied with a nod.

“Well, it still seems odd to me, they are willing to let us keep you hostage,” Park noted.

“Our customs of warfare obviously differ,” Dannet replied. “Only a barbarian goes on fighting after an honorable surrender.”

“There’s no need to collude with the enemy either,” Park replied.

“Are you my enemy?” Dannet asked. “Doesn’t seem that way from here.”

“So what is your answer?” Gount’s voice came over the speakers again.

“Forgot he was still there,” Park muttered. “Conditionally accepted, Deputy Governor. You will be hearing from Earth representatives shortly. The negotiations should be brief and expeditious.”

“Of course, sir,” Gount agreed and signed off.

“Does nobody say, ‘Goodbye’ anymore?” Park wondered aloud. “Okay, let’s relay this to the fleet,

such as we are. Let's plot a course back to Earth. You know, in my day it would have been faster and cheaper to loop around the Moon from here before heading back."

"That would be a minimal fuel course," Dannet agreed. "Are you short on fuel?"

"Not really, no," Park shook his head. "But it sort of violates everything I learned about space travel. Now if I could only be sure this Gount is dealing honorably, or is just using the armistice to await reinforcements."

"Oh, I don't think you need to worry about that," Dannet told him. "By our traditions, Luna, as you call it, has effectively already accepted you as owners of the Moon by conquest."

"It is ours by ancient right," Park reminded him.

"Perhaps," Dannet nodded, "but conquest is the clincher, now isn't it. Most likely the negotiations will be over whether or not you should be recognized as owners of the entire system. It is debatable whether Luna is empowered to concede that."

"There are other Galactic bases?" Marisea asked.

"Not like Luna," Dannet shook his head. "There are some commercial concerns in the outermost reaches of the system. You are rather centrally located, you know."

"After two hundred and fifty million years," Park commented, "that does not necessarily follow. Still, I'll let Arn and Terius have the fun of arguing that out. For now let's just go home."

Epilogue

Nearly all of Van Winkle Base came out to greet *Trenisi* when it landed late the next day. Thousand of Humans, Mer and Atackack crowded around the spaceship when it came to a halt at the base of the control building.

"Well, nice to know we can bring one back all in one piece for a change," Park laughed as he strolled down the long stairs with Iris on his arm. Normally he might have had Marisea on his other arm, but she had decided Dannet deserved an escort for his first steps on the motherworld.

The other Galactics were somewhat more hesitant to leave the ship, but Marisea adjusted her suspensor, jumped back to the top of the stairway and led Sartena out of the cabin by hand as well. Once they were out, the others followed.

“Where’s Arn and Terius?” Park asked Patty Zinco when it turned out the two leaders were nowhere in sight.

“Those two? They’ve been shouting to the stars for hours,” she laughed. “Practically since you radioed the results of your little foray. A few minutes ago they were arguing over where to sign this new treaty or surrender or whatever it’s supposed to be. The Galactics want to come here and Terius insists we go to the Moon.”

“I’ve always wanted to go to the moon,” Park remarked thoughtfully. I wonder if Tranquility Base is still there. Probably not.”

“Where?” Dannet asked.

“The site Man first stepped on the surface of another world,” Park explained. “Part of the landing craft and a flag was left behind, but for all I know it was a juice bar one hundred million years ago.”

“You know where that was though?” Dannet asked.

“More or less,” Park nodded. “If the moon were up I could point it out to you.”

“I’d like that,” Dannet told him. “No one has ever known where that was. Well, if that’s what they are arguing about, I think it is safe to say they’re close to an agreement.”

“Hopefully,” Patty nodded. “Although that Gount character slipped at one point and called Arn a pirate. That’s going to cost him even more than when he aimed the same word at Park,” she laughed and then turned toward Dannet. “Hi! You must be the prince?”

“Dannet Nrenth at your service, Miss,” he replied with a grin and a slight bow.

“Hmm,” she considered, “I think Arn could take a few lessons from you,” Patty laughed. “Well, I’ve been arranging accommodations for you and your people. I’m sorry they’re in the original installation and most of the rooms are a little small but I understand you won’t be here for too long if we can agree on a formal treaty.”

Dannet chuckled wryly. “I’ve been living on various spaceships for two years. I doubt even your broom closets will look small in comparison to any of my cabins.”

“That reminds me,” Park commented. “I want personal cabins in the next ship even if we have to stack them three-high. Sleeping in the chair gets old fast and the couches in the big aft cabin weren’t enough once we took on passengers. Dannet, we have an extra room in our home, if you like.”

“Kind of you,” Dannet nodded, “but so long as my people are here, I’ll stay here as well.”

“Patty, give him the old suite Iris and I used to share,” Park suggested.

If Dannet is staying on the base,” Marisea asked, “would it be all right if Sartena stays with us?”

“Fine with me,” Park shrugged. Iris nodded and Park turned to her. “Hon, I’m going to go see how the negotiations are going. I’ll meet you back home in a while.”

“Don’t stay up too late, dear,” Iris warned him. “Dannet, why don’t you come to dinner at least?”

Dannet thanked her and when Park gestured for him to follow; both men went toward the upper door of the original Van Winkle installation. “Sorry about all the steps,” Park told him. “It’s hard to believe this was once three thousand feet underground. Hmm, are you sure none of your people will try to escape?”

“We have formally surrendered,” Dannet replied, stiffness coming back into his voice.

“In the world I came from, it was considered the duty of a prisoner of war to try to escape,” Park told him, “but that is not why I asked. Well, in a way it is, but actually I was just making sure. I found out the hard way that there are some fairly exciting wild animals out there once you get beyond the town line. A lot of them are carnivores and a lot of the herbivores are mean-tempered enough to fend off a carnivore. The river monsters are, well, impressive and some of the plants can’t be bothered to sit and wait for their food to come to them.”

“Sounds delightful,” Dannet opined.

“Well,” Park hedged, “it’s not guaranteed instant death or I wouldn’t be here to tell the tale, but it’s not exactly a tropical idyll either. I just don’t want anyone getting hurt. Later on, if anyone is interested, we can fly around.”

“That sounds like fun,” Dannet decided. “I’ve always enjoyed playing tourist and from what you tell me, this base is probably the oldest structure in the galaxy still being employed in its original use.”

“Well, we cheated a bit and came here by a temporal shortcut,” Park laughed. He paused before going inside and looked out over the town. “This was a very different land two hundred and fifty million years ago.”

“What do you call this land?” Dannet asked.

“We used to call it Ohio,” Park told him, “but now we call it home.”

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