

## Chapter Two

“So that’s my report: As directed, I’ve stationed a team on site, with another team keeping an eye on them. Observers rotated every four hours, get a complete physical with their debriefing, and follow-up before their next duty. I’ve started to shuffle some people around here to make room for the research team you’ll be sending.” Her short, blonde hair tossed to one side with a glance in that direction. “There’s one other thing, . . .”

She never had a chance to finish the statement. “Dam’ right there’s another thing. I want you t’ get those clowns off’n my claim.”

A taut, leathern face fringed with white hair and the grey stubble of a neglected beard suddenly filled the screen. Off camera, Susan’s voice, a little exasperated, could be heard, “Dar, please. We discussed this.”

Darnell Sidwell pulled back from the stationary camera, stood next to Susan Jakobs. “All right, all right. Well, I jus’ want t’ be clear ‘bout this. You people can come an’ look at it, an’ play your games, but it’s mine, along wit’ th’ rest of my claim. Sure, I might let you have it, or I might donate it t’ the Smithsonian. Or I might just keep it fer company. All depends on whether you try an’ push me aroun’ or not.”

He looked as old as he sounded. Thin, but not yet fragile. Eyes still sharp and flashing. Shorter than the tall, plain woman standing beside him. Still very much a force to be reckoned with.

Susan glanced at him, looked into the camera and said, “I’ve assured Mr. Sidwell that no one is interested in his operation, and that he will be handsomely compensated for any disruptions or inconvenience. In return for granting us access to the artifact, we will accommodate any reasonable requests he may have. Final disposition of the ownership of the artifact will have to be a matter for future consideration.”

Sidwell almost sneered at her. “You sound like a ol’-fashioned lawyer. My contract says I own what I find on my claim. Yeah, you folks can come an’ investigate it, but you’re not goin’ t’ learn anythin’ I don’t already know. So you might want t’ have me aroun’. Think ‘bout that.” He stepped out of view of the camera, and the sound of a door closing could be heard a moment later.

Susan watched him leave, looked back to the camera. “He insisted that he tell you himself. Since having his cooperation will allow us to move with a great deal more stealth on this matter, I figured that it was best to work with him. I’ll look forward to getting your next message. Titan Prime out.”

Jon replayed the entire report in his mind on his way home. Susan had done what she could until the research team arrived. And this time around she seemed a little more certain of herself, a good sign that she had adjusted to the reality of the artifact. Sidwell didn’t present any real problem; other than adding a bit of color to the expedition, Jon

expected him to pretty much stay out of the way. Besides, Jon was looking forward to meeting the man again. A little cantankerousness would be a welcome break from the tedium of a thorough scientific examination.

The car he was in threaded through the old suburban streets, past still vacant houses and the occasional empty lot. Following the great death of the fire-flu, many homes had simply been abandoned, no longer needed. Some burned down, or were in poor enough shape that they needed to be demolished. Most of the rest were stripped of anything of real value, sealed against the weather, and were now used as a resource by anyone who needed either shelter or building materials. As the car turned a corner, he saw the flash of a crude sign. Backing up, he looked at the sign again. In the headlights of the car he read the bold words Return to Eden!

Down at the end of a cul-de-sac was his family's residence. A couple of the large, old homes which were built in the '90's served as the bookends of the compound, with additional structures between and behind them forming an open triangle facing the center of the cul-de-sac. Group families of various configurations had become the norm in the few decades since the flu. This was because the fire-flu did more than just kill, though it was very efficient at that. Almost everyone who survived the flu was left infertile, even the very young, and the children who were born were themselves as likely as not to be infertile. Mankind faced the very real possibility of extinction in a couple of generations. Children had become critically important, treasured above all else. Group families formed naturally as a way of raising more children in a secure environment, with shared responsibility. Those adults who were fertile came to be cherished and protected by the others. Couples still tended to pair-bond, as in Jon's family, but formed a small collective, or extended family structure. In some ways it was an older form of the family, a survival strategy from deep in mankind's racial memory.

The car pulled up to the gate of the compound, the window rolled down, and Jon pressed his palmkey to the ID-plate. The gate swung open, the car rolled inside, swung around to one of the open garage doors, and pulled in.

The house was dark and quiet. It was late, and Jon figured everyone had no doubt retired some hours before. He went inside, was met in the kitchen by two sleepy golden retrievers who nonetheless wagged in friendly welcome. They accompanied him down a hall and into a large room. There, a holo was playing above the projector in the lowered center of the room. While most people had the same cyberware he did, there was still a great deal of joy in a shared experience like watching a performance together. Now, only two people were sitting together there, lost in a large, comfortable couch.

Make that three. Judith, his formal wife, who was close to his own age, was nursing one of the family infants, a boy born just a few weeks previously. Though she had carried the child to term, she was only the host mother for another family member who was fertile but somewhat frail. Next to her was Lucy, the oldest member of the family, and the matriarch. Sixty-two, she had been born prior to the turn of the millennium. Her eyes were

a deep grey, and her voice carried the weight of all she had seen through the century.

“Well, I’m surprised you’re still up,” said Jon simply.

The holo went off, and ambient lights came on in the room. Jon kissed each of them lightly, plopped down onto the couch beside Lucy. He allowed himself to sink back into the cushions, his eyes half closing.

“How’re you doing?” asked Judith.

“I’m beat. Been a long day.”

Squeezing his hand lightly, Lucy quietly asked “So, what’s going on?”

Jon forced open his eyes, made himself focus. He touched the back of his hand, and through the connections of his cyberware felt the low static of their home security screen increase in intensity. Judith and Lucy looked to one another in mild surprise. “Well, I can’t tell you much, but something’s come up on Titan that requires me to go out with a research team. I’ll be gone a few weeks, probably.”

Judith spoke, “We knew something had to be up, since you came back so quickly.”

Jon nodded. “Yeah, this was completely unexpected. But it’s probably a good thing, it’s been a while since I’ve been out there. It’ll be a chance for me to see things first-hand, spend a little time with the staff.”

Lucy just watched him closely, and Judith was silent for a moment, shifting the baby from one breast to the other. After completing this task, the younger woman asked “How secret is this? Will you be able to call?”

“Routine communications shouldn’t be a problem. But I won’t be able to discuss the project until we get some things taken care of.”

“How soon will you have to leave?” asked Lucy.

“Day after tomorrow, probably, though I’ll be at the office much of the time between now and then making arrangements I prefer to handle in person.”

Judith said, “That doesn’t leave a lot of time.”

“No, unfortunately. But let’s plan a nice dinner with everyone for tomorrow night, OK?”

Lucy glanced at a display she pulled up. She always kept tabs on family schedules. “Dale has to be in London. I don’t think he’ll be able to change those plans. And I think Sally had a meeting in Houston, but she might be able to delay that for a day or two.”

“I’ll try and chat with Dale in the morning before he leaves.”

Judith smiled. “I’m sure he’d appreciate it.”

Jon nodded, then sighed, let his head fall back into the cushions of the couch.

Lucy and Judith exchanged glances. Lucy got up from the couch, took the infant from Judith. “I’ll get him burped and then tucked in. Don’t worry. You two go on to bed.”

Jon got to his feet, helped his wife up. “G’night, Luce.”

With a smile, she replied “good night.”

They went up to their room, just across from the nursery. Jon started to shove the bag which had been delivered there earlier in the evening into a closet, but Judith took the bag from him and put away his things. He didn’t mind, though was used to handling such chores himself. As she closed a dresser drawer, the last of the clothes put away and the

suitcase stashed into the closet, she asked, "So, how worried are you?"

They had known one another a long time. They had been part of the family for more than 15 years, through good times and rough ones. She knew his moods, his hopes and dreams as well as he himself did. And she probably understood them better.

"Not that worried," he said. "But it's a hassle."

"I know." She came to him, put her arms around him, and kissed him deeply. "Even on regularly scheduled trips out, you're never happy to be away from us for so long."

"Yeah." He paused, brushed her greying hair from her eyes.

Without breaking his embrace, she leaned back, looked into his crystal blue eyes. Then she kissed him again, and led him to the bed.

Afterward, as he drifted off to sleep he felt something tugging at his subconscious. There was something there, a scratching, just below the threshold of awareness. It was almost like a dream, waiting for him, enticing him to hurry and sleep so that it could unveil itself. He gave in to the sensation, felt a certain almost familiar warmth touch him as he slipped into a deep, deep sleep.

He woke alone, to sunlight pouring in through his windows. Judith must have already slipped off to start her day. Enjoying the play of dust motes in the streaming sunbeams, he lay there. And as he lay there, echos of a dream came to him. Images only, though he felt that there should be a voice or some kind of music. A huge, ancient oak, bare limbs silhouetted against a red winter sky. The deep red of either early morning or early evening, he couldn't tell which. Then that sky took on a deeper hue, becoming almost a reddish-brown, as it changed into the tholin-rich sky of Titan. Saturn rising, in a jumpy time-lapse sequence. And the last image was of Darnell Sidwell, the old man dancing in the open, naked and unprotected against the poisonous atmosphere, as Saturn fell from Titan's sky.

He got up, showered and dressed, went downstairs to find breakfast.

Judith, Dale, and Marti, the eldest of their children, were gathered around a table.

Judith looked up and smiled as he came into the room. "Morning, sleepyhead. Pull up a chair. We saved you some eggs."

"But we made sure they were cold." This came from Dale, with a smile. The two men had always gotten along well, something like the way brothers do.

"Gee, thanks."

"Happy to help." Dale stood and gave Jon a hug, grabbed the platter of eggs and stuck it in the warmer. "Want some toast with that?"

"Sure." Jon poured himself a cup of coffee, sat next to Marti as Dale fixed toast and waited for the warmer to cycle. Jon looked over his coffee cup at the girl. "Hey kiddo."

She smiled. She was 12 years old, a little awkward the way that girls on the verge of puberty tended to be. Dark hair and eyes, a touch of warm brown to her skin, from her biological mother. "Hey."

Dale placed the now-steaming platter of eggs down on the table near Jon, and

dropped a couple of pieces of toast on his plate. "Here ya go."

Jon shoveled eggs onto his plate, spooned jelly onto his toast. "Thanks. Everyone else off about their Saturday plans already?"

Judith answered. "Pretty much. Rob and the boys," they had two boys, ages six and seven, "are out in the greenhouses, playing in the dirt. They hoped you would stop out this morning before you have to leave for your office."

"And Nita and Sally are with the babies in the nursery," said Dale.

"Lucy?"

"In town gathering goodies for dinner, I believe."

Jon nodded. He looked at Dale. "So, you have your thing in London tomorrow night, right?"

Dale was an atmospheric scientist, involved in trying to untangle the complex interactions between the greenhouse gases which had started serious global warming effects prior to the nuclear exchanges between India, Pakistan and China, and the fine particulate matter injected into the upper atmosphere by that disaster. "Yeah. Keynote paper of the weekend. My thesis is that we have less time than others initially thought before global warming starts up again. Somewhat controversial, not so much in the modeling, but in the choices that it leaves us."

"Hope it goes well."

"Thanks. It will, I'm certain." Dale sat back in his chair, now sipped at his own cup of coffee. He touched the back of his hand, and the house security screen became more opaque. "So, Judith told us a little about what brought you back so soon. Gotta go out to Titan, eh?"

"Yeah. I'll be gone for a few weeks."

Marti said, "But I thought you were on vacation?"

Jon shrugged a little. "Something came up. That's the way it is."

The girl frowned. "That doesn't seem very fair."

"This is one of those cases where fairness isn't really an issue." Jon paused taking another bite of his toast. "Tell you what, when I get back, I'm planning on going out to the Buffalo Commons for at least a couple of weeks. The weather will be nicer. Want to come with me, maybe for a few days?"

She considered this, nodded. Then after a moment she asked, her voice carrying concern, "You'll be OK, won't you? On your trip, I mean."

Spaceflight had become fairly common, but there were still dangers associated with it. And living or working in the extreme environment of Titan itself was downright risky. It wasn't an unreasonable question to ask. Jon looked to her, then to the two adults. "I should be fine. Most of my time will be on the station, I think, or in one of the hard shelters on the surface of the moon. Shouldn't be any problem."

"Promise?"

Jon smiled slightly. "I'll do what I can."

She looked at him, a little unsure, but said nothing.

Dale reached over and tussled her hair. "It'll be OK. Now, go get your things, and

let's get going. We've got a plane to catch."

Marti got up, gave Jon a quick hug, and left the room.

After a moment, Jon asked, "She's going with you?"

"Yeah, I'm going to show her London after the conference is done." Dale sat back, and considered Jon. "I expect you to keep that promise."

Jon attempted a smile, but didn't quite manage it. "You know I always do."

"Yeah, but there's something different about this time, isn't there?"

Judith looked at Dale, a little surprised. "You see it too?"

Both men looked at her. Dale asked, "See what?"

Just then Marti came back into the room, suitcase in hand. "Ready."

Everyone stood. Jon gave Marti a solid hug. "Enjoy the British Museum."

"I plan to. What I really want to see is the Rosetta Stone, even if it is just a duplicate."

Jon glanced at Dale, who shrugged. "Since when did you develop an interest in archeology?"

"I dunno. It's just something that I dreamed about last night." She took Dale's hand, tugged on him. "Come on, you said we had to get going."

"OK, ok." He turned and gave Jon a long, powerful hug. "Take care, and keep in touch with us."

Jon reflexively returned the hug. "Will do. You guys have a good trip."

"Thanks." Dale looked to Marti. "Let's go, punkin."

The two of them left. Judith and Jon sat back at the table. She looked at him. "Speaking of dreams, I had the strangest dream last night, with you in it. And I don't usually have people in my dreams; too literal. I stick with symbolic images and archetypes, for the most part. Helps me figure out my work."

He looked at her. Unpretentious, long brown hair. Plain face. Full figure, though not overweight. Dressed this morning in paint-spattered overalls and an ancient sweatshirt. She was an artist. Worked mostly in oils, though also would play with bronze sculpture from time to time.

Judith was a lucid dreamer, one of the relatively rare people who could become aware that they were dreaming, and then direct their dreams. He'd known this since they first got together. She continued talking, "But you were in it. And I couldn't control the dream, just had to watch it, though I was conscious and aware that I was dreaming. Like watching a vid."

He asked, "Well, what happened?"

"That's another strange thing. I always remember my dreams, can almost play them back at will. But not this time. All I have are glimpses, sketches. But I remember that I dreamt, and that you were in it." She picked up a peach from the bowl on the table. Rolling it over, back and forth from hand to hand, she studied it. Finally she bit into it, savored the sweetness, looked back at him. "Yeah, you were in it. Having some kind of trouble."

"You're just worried about my trip, that's all."

"No. I know worry, and how it feels in my dreams. It takes on a texture, grainy and

hard. This was different. Plush. Soft, warm, thick. Almost blood-like. That much I remember.”

“What else?”

She bit again into the peach, thought for a moment, closing her eyes. “Music. Seems almost classical. But played by a simple, single instrument, some kind of woodwind. Light, playful notes, dancing like wind through a tree. But that doesn’t seem right, since there was this sense of a lurking threat. The music should have been darker, heavier.”

Jon considered. “During the night I had what I guess was a dream. With images of Titan, and a man I know there. Some of it sounds similar to what you describe. But I don’t recall having any sort of trouble in the dream, or of seeing you in it.”

She shook her head, like she was trying to remember something else, but couldn’t. She looked at him, through him. Not like she was boring into him, but as though he was a window into something else. “You’re a funny color this morning, you know that? Some kind of deep red about you, instead of the normal blue-grey I see.”

Jon smiled. Judith had always claimed that she could detect a color aura around people. He thought it was just a touch crazy.

She saw his smile and returned it, but said, “You know, you shouldn’t dismiss it so quickly.”

“So you’ve said before.”

“And meant it.”

“Oh, I’ll grant that perhaps there’s something that inspires you, gives you the wonderful artistic gift you have. You certainly see things in a different way from most of us. But paranormal stuff just doesn’t stand up to examination.”

She sighed, a little exasperated. This was an old argument for them. “Even Dale saw something unusual about you this morning. There’s more to the universe than your scientists know, Jon.”

This caught him. He thought of yesterday’s events, and laughed out loud at himself. But Judith misunderstood the laugh. She looked hurt, started to get up from the table. Realizing what had happened, he said, “Sorry. I wasn’t laughing at you. Please, sit back down.”

With some reluctance, she settled back into her chair. “OK, so what were you laughing at?”

“Let’s just say you are more correct than you know. Look, I’ll explain after I get back from Titan, all right? But take my word on it for now.”

She looked at him, considered, and finished the peach. Placing the pit down she said, “Be careful. I don’t like this color seeping into you. I don’t know what it means, but I don’t like it.”

“I’ll be careful, promise. But now, I need to get going. I have a lot of things to take care of today.” Taking his plate over to the sink, he kissed her quickly in passing, and headed for the door.

“Morning, Jonathon.” Seth appeared as Jon cleared through Security and entered the USSA headquarters.

“What’ve you got for me?” asked Jon as he made his way to his office. Once he crossed the broadcast threshold of the facility, his personal computer uploaded a file Seth had waiting for him. In the lower left quadrant of his visual field a display came up.

“Routine things. You’ll note a few minor changes to your scheduled meetings later this morning. Director Magurshak wants to meet with you over lunch, concerning bringing in someone to help with the workload here while you’re gone.”

“Oh?” said Jon as he turned a final corner, came to his office. He frequently had a working lunch with his superior, and wasn’t surprised to see this on his modified schedule for the day. “What did he say?”

“Nothing. Sappho communicated with me about scheduling the meeting, and the primary topic. I asked her, and she said that Magurshak was concerned that I was also going to Titan, thought that it made sense to shuffle personnel temporarily.”

“All right. I have some ideas on that. Let him know that I’ll be there.”

There was hardly a pause. “Done.”

Jon sat at his desk. First thing was to send a message off to Titan Prime, advising Jakobs of their plans, and setting up a regular schedule for communications. “Seth, package a summary of last night’s general meeting for me, ready for transmission to Susan Jakobs. Focus on decisions, time frame. Append reports about personnel to expect, including the NSA force.”

“Of course. Anything else?”

“Not at present. Give me a little time to review this stuff and take care of my message to Jakobs.” Jon touched the back of his hand, pulling up the status reports that he needed to go through, and settled back in his chair.

“. . . so we should be en route by late afternoon tomorrow. I’ll be arriving with the NSA force and my team on the da Vinci. Bradsen’s research staff will arrive with their equipment a couple of days later. In the meantime, let’s stick to the regular communication schedule. USSA out.”

The message looked good, and with a touch to the back of his hand Jon sent it off for automatic encryption and transmission. He glanced at his schedule, noted the time. The first of his appointments would be in momentarily. He pulled up the file and reviewed it.

Seth’s voice announced, “Jackie Gates to see you, Jon.”

Jon got up, went to the door of his office. Opening it, he saw a young woman, American, red hair. Thin, moderately tall. Green eyes and a quiet but bright smile. She stood, as if in conversation with Seth. She looked at Jon, held out her hand. “It’s a pleasure to meet you. Seems things have been going well with Seth since he left our facility.”

“My pleasure also,” Jon said as he shook her hand. Nothing in her palmkey information he didn’t already know from her file. “Yes, Seth has been a great asset to me. I

think we get along pretty well. Won't you please come in?"

"Thank you." She followed him into the room, took an offered chair. Seth also came into the room, appeared to sit.

"Were you involved in Seth's creation?"

"Not directly. I worked with my father to develop the semifluid CPU, but he has handled production for our company. One day I'm sure I'll get more involved in that end of the business, but for now I prefer the experimental stuff. I've spent the last couple of years trying to isolate and resolve some of the difficulties that gel-based systems still present. It's good, satisfying, hands-on engineering."

"You've also published quite a number of papers on gel systems."

She smiled. It was a pretty smile, but it had an edge to it. "And the most interesting stuff won't see publication until we're ready with the next generation of the semifluid CPU."

"Family tradition, eh?" Jon meant it as a small joke, but her smile disappeared.

Coolly, she asked "Now, why did you want to see me?"

Jon caught his breath for a moment. He didn't mean to offend her, and carefully said, "Something has come up on Titan related to the tholin-gel. Would it be possible for you to go out there and give us some advice on the matter?"

She studied him. Looked to Seth. Looked back to Jon, said "This is something which requires me to travel out to Titan?"

"That's right."

She frowned. "I don't much care for spacetravel. Can't this be resolved with holo images and field reports?"

"I'm afraid not. But I believe that this will provide you with a unique opportunity. We've found something which may radically change our understanding of the gel."

Her eyes narrowed somewhat as she looked at him intently, and she sat silently for a few moments. Finally, she asked "How much can you tell me?"

Jon shook his head. "Not much, until you've committed. I'm sorry about that, I know it is asking a lot."

There was a silence.

She sat back, considered. Jon knew from her file that she usually was a very cautious person, exhaustive in her engineering research. It was a trait she shared with her father. But she also had a streak of opportunism, of entrepreneurship, which evidently came from her famed grandfather. On several occasions she had shown a willingness to take significant risks to achieve substantial results. And her instincts were almost always proven right. "How long would we be gone?"

"We're estimating four to six weeks, including transport time. It's possible that your component may be finished sooner. We certainly won't keep you any longer than necessary."

"And you need me? No one else will do?"

"You're the best gel theoretician there is. And I want the best for this mission."

She smiled slightly at the compliment. "Glad you recognize that. So, you say this

could change our understanding of gel.”

“Correct.”

“Would my company have proprietary use of any discoveries I make?”

Jon nodded slowly. “As related to the gel, yes, so long as it is understood that NSA concerns are paramount.”

She thought for a moment. “Well, we’ve had a good working relationship with the government for the last few decades. I’m sure that we can hammer out an understanding which is mutually beneficial.”

Jon felt a surface flush of satisfaction. “Then you’re willing to commit?”

She looked him in the eye, and slowly, she said “I’ll take the chance. Yeah, I’m in.”

“You’re certain?”

“I said I’m in. Now, tell me just what you’ve found, and when I have to be ready to leave.”

“We believe that time is important, and I’ll be leading a mission out to Titan Prime, leaving tomorrow afternoon.” Jon looked to Seth, back at the woman. “As to what we’ve found . . . well, probably the best thing would be for Seth to escort you to one of our meeting rooms and give you a complete briefing on the situation, show you what we know so far. But we’ve found what seems to be a nonhuman artifact.”

Her eyes got wide. “Whoa. Seriously?”

Jon nodded. “Yeah, that’s pretty much the reaction that all of us have had.”

“Technological?”

“Apparently.”

“What’s the connection to the gel?”

“We’re not sure, though there seems to be some relationship. That’s why we wanted you as part of our team.”

She paused, blinked a couple of times. “Huh. I can certainly see why you didn’t want to tell me too much to start with.”

“And you’ll understand that henceforth you’ll have to abide by NSA regulations about protecting this information.”

“No problem.”

“Good. Seth will go over the details of that with you, along with everything else.”

Jon stood, extended his hand. “I’ve another meeting I must prepare for. But I’ll be available later if you want to discuss any aspects of the mission which Seth can’t help you with.”

She looked momentarily stunned, but took his hand. Calmly, she looked him in the eye, and he could see her determination to grasp the implications of the discovery. “Thanks. For this opportunity.”

She turned and looked at Seth. “Let’s go.”

Jon watched the two of them leave the office, go down the hall. He checked the time, pulled up the next candidate’s file, and said, “I just hope that Mr. Ng isn’t too late.”

Seth was instantly next to him. The advantages of multitasking. “I’ve taken the liberty to monitor his car. He should arrive in a few minutes.”

Duc Ng was hung over. Jon could see it the moment the man walked into the room. He was thirtyish, ethnic Vietnamese, but third-generation North American. His family had settled in Canada after escaping war, famine, and more war in the latter part of the last century. Lived out on the west coast, north of Vancouver. Long black ponytail. Slouch hat pulled down to shade his eyes.

Jon had expected it, from reading the man's files. Seth had confirmed it, when Ng entered the facility. And now Jon could easily see it for himself. Dull eyes. Slow movements. Classic short-term burnout. Hangover, as it was known.

Duc Ng was an artist. A holo sculptor, whose specialty was slow-progression transformation, what he called 'greening'. The works were beautiful, inspired, and appreciated by almost anyone who saw them. But they were most appreciated by Ng, and those like him, who had jacked-up cyberware to heighten their sensitivity, and used psychotropic drugs tailored to cause neurotransmitter activity to increase dramatically, as the normal constraints on data flow to the brain dropped off. This created an artificial synesthesia for a short period of time, during which the usual senses became blurred and intermingled, adding layer upon layer of perception to any experience. It was the difference between seeing the world in flat black and white and seeing it in 3-d color.

And it was addictive. Not really harmful, though the short periods of burning brightly used up the brain's chemical reserves of neurotransmitters, leaving the addict to struggle through periods of near sensory deprivation. There were supplements one could take to mitigate the effect, and to help restore the brain's natural equilibrium, but these only went so far.

Jon had tried it a couple of times. Intense experience. But the cost was just a little too high for him. Always left him feeling like he'd had a lobotomy for two days afterward.

"You with me, Ng?" Asked Jon.

Unblinking, the dull eyes slowly looked at him. "Yes."

"We need you to help us understand something we've found. Perhaps you'll see something we would otherwise miss. As my expert Seth told you last night, we'll need you to go to Titan with us."

"I remember. And I understand. I will go." The man nodded slowly, deliberately.

"We need you to not use the drugs until we say so. It won't be too long, just a couple of weeks. Can you do that?"

"Yes. I can wait. I need some time to recover, anyway."

"OK, good. Seth has made arrangements for you for tonight. We will leave tomorrow. Do you have any questions?"

Ng looked at him for a long time. At last his eyes blinked, and he said "Did you see it?"

"See what?"

"My latest piece. Finished it yesterday. Show opened last night. Then Seth called." He tried to focus on Jon. "Did you see it?"

"No, I'm sorry, I haven't yet. I will install it on my system at home tonight."

“Not proper space. But should be good enough. Let me know.” With this, the man slowly got up and moved toward the door. Before he left the office, though, he turned and looked at Jon again, said only, “I will be your eyes. It is my art.”

With that, he turned, went through the door, and was gone.

Jon shook his head. This was going to be an odd group, even by the standards he was used to. He checked the latest updates to status reports, summarized by Seth. Owen Roberts had rearranging the ship manifests well in hand, and already much of the scientific equipment was loaded or being transported for loading. Bradsen posted that he had already met with several of his team members, and there were no difficulties in persuading any of them to join the mission. Jon went over the summary that Seth had reported on his own efforts, was somewhat amused to note how the expert had characterized Jackie Gates’ reaction to having to actually go to Titan. Jon wished he wouldn’t be cooped up with her during the flight, but they had decided that each team should travel out to Titan as a group, give the members time to get to know one another.

“Seth, have Arthur Bailey come in as soon as he arrives.”

“He’s here already, Jon. I’ll send him in.”

The man was almost twenty minutes early. Jon smiled.

Arthur Bailey came into his office. Slight man, wiry, face a little prematurely aged by weather. Close-cropped blond beard. Worn work clothes, heavy boots. Used to doing a lot of his own fieldwork, by the looks of him. Jon stood up, shook his hand, gestured to a chair. “Please, have a seat.”

“Thank you for seeing me. I know I have been a bit of a pest these last few months, at least for your expert. I take it you’ve decided to act on my proposal?” There was just a hint of anxiety in the man’s voice.

“Well, I have looked it over. And I am intrigued. Though I must admit, I’m not very familiar with your field of study.”

“It’s still a fairly young one, and many people aren’t aware of it. But the tools people use tell us a lot about their culture. The same is true, just on a larger scale, of the machines of the industrial age, or even our own.” The man paused, to gauge Jon’s reaction. “I have spent most of my time in studying the opening of the western frontier in North America during the mechanized age, and the forward and backward linkages that had on economic development. But I still need to understand the mental landscape of the people involved in such enterprises.”

“So you want to go to Titan, to study the gel prospectors?”

“And the USSA staff facilitating the mining.”

“You don’t think that perhaps we’ve changed some in the last couple hundred years?”

“Fundamentally, no. Oh, sure, there are some superficial changes. But no doubt you are aware of just how similar this period is to the one that existed at the beginning of the Industrial Revolution in America? I thought that the historical parallels were a template the USSA was using for settlement of the planets, and eventual colonization of nearby star systems?”

“Certainly. But how this relates to Industrial Archeology somewhat escapes me.”

“Seeing the way that individuals interact with the tools they depend on to survive in a new and hostile environment, how those tools are used, maintained, and discarded when no longer useful, should provide me with insight into use patterns during the period I’m studying. It’ll help me understand and hopefully document industrial evolution during those early, exciting years of the Revolution.”

“I see. Well, I have decided to approve your request, though there is something I want your assistance with, in return.” Jon smiled.

This caught the younger man off guard. “Well, of course all my research results will be made available to your staff, and I will be more than happy to assist them in utilizing it in any way I can.”

“I’m glad to hear it, though I wasn’t thinking of your specific research request.”

“What then?” Bailey seemed a little confused, and concerned.

“My expert recommended that you may be an asset to us in dealing with something which has just come up. It seems that some studies which were done last century suggested that someone with an anthropological background would be useful in the circumstances we find ourselves in. You see,” Jon sat back in his chair and watched the man, “we think we’ve found an alien artifact out on Titan.”

Arthur Bailey was genuinely startled. He almost stammered, “But I don’t know anything about aliens.”

“Nobody does. But you know about tools. And have degrees in mechanical and industrial engineering, along with your anthropology work, right?”

“Well, because of my anthropology work, more accurately. But I’m not an engineer, and I only know about human cultures.” It was almost a protest.

“Still, you may be of use to us. And after our survey of the artifact, you can go on to spend as much time doing your research on gel mining as you want.” Jon paused. “That is, if you want to. Once we have established that this thing presents no threat to anyone, there will be plenty of opportunity for real cutting-edge research concerning it and what it tells us about the civilization which made it and left it on Titan. You may find that you’re able to open up a whole new field of anthropology.”

The prospect of this was too good for him to ignore. “It’s a deal. What else can you tell me about the artifact? When do I leave?”

“I’ll be leading this component of the team. We leave tomorrow. Seth will give you a complete briefing, show you what we know so far. He can also assist you with any research you want to do prior to departure, help to keep it low-profile. As you might guess, this is not news we want to get out prematurely.”

“Forgive me if I’m a little stunned.” He shook his head for a moment, thought, then asked, “How much can I tell my family?”

“I’m afraid that from here on out, NSA guidelines must be imposed. Can you keep it to just letting them know that your research proposal has been approved, and that there is an unexpected berth outbound, that you have to take the opportunity and leave tomorrow? Is that sufficient?”

Bailey nodded. “Yeah, that’ll work. They know how much I’ve wanted to get this project approved, and are used to me being gone on short notice.”

Jon smiled, stood. He held out his hand again, shook with Bailey as the other man got up. “Then it looks like you’re on your way to Titan, and all the research you want. Welcome to our team.”

“Thanks.” The man still looked a little thunderstruck. “Well, I guess I have a lot to do. And you probably do, also.”

“Yes. And don’t worry about being a little stunned by this. We all are.” Jon gestured at the door, to the image of Seth now standing there. “Go with Seth. He’ll get you the background information, and help with anything else you need to do before we depart.”

Bailey left. Jon dipped into the data stream and checked the status of Ng and Gates, saw that both had left the facility, presumably making arrangements to be gone for a few weeks. Commander Navarr, the Security liaison, posted a report indicating that his team was already at the near-Earth station where the da Vinci was docked, and seeing to the loading of their equipment.

Jon was tending to some details of his own when Seth announced “Robert Gish is here to meet you.”

“Gish? What’s he want?”

“I’m sorry, I have no idea. He refuses to tell me, says he just needs to meet with you.”

Jon checked the time; he only had a little while until his lunch meeting with Magurshak. “All right, send him in.”

The rumped little scientist came into the room. It looked as though he hadn’t bothered changing clothes since Jon last saw him. “What can I help you with, Mr. Gish?”

“Got your team assembled?”

Jon wasn’t sure what he was expecting from the man, but this wasn’t it. “Mostly. I still have a mid-afternoon meeting with someone, but I expect that will complete it.”

“No, there’s someone else you need. Come with me.” Gish turned as though to head out the door.

“Seth, lock the door to the outer office.” There was an audible click from the adjacent room.

This stopped Gish in his tracks. He turned and glared at Jon. “Why’d you do that?”

Jon looked at the man calmly, said “I can’t go with you right now.”

“But you have to!”

“No, I don’t. Why don’t you just tell me what you have in mind?”

Gish frowned. “There’s someone you have to meet. Someone you must have on your team.”

Jon sighed. “Then just give me the name of this person, and I’ll arrange to see them. But right now, I need to prepare for a lunch meeting with Magurshak.”

“No. You have to come with me. Now. She won’t meet with you otherwise.” Gish looked at his feet. “I’m sorry. But it will only take a few minutes, and she is waiting outside the building. I’ve already explained everything to her.”

Jon was surprised, annoyed. “You what? You know that Jen Grant would probably have a coronary if she knew you pulled something like this.”

“I don’t care. This is important. Come on, we only have a few minutes, or she’ll leave.” He headed for the door again, this time looking back to see if Jon was going to follow.

Jon thought for a second, said, “Seth, unlock the door. I’m going with Gish. Inform Magurshak that I may be a few minutes late.”

Gish smiled, said as he went out the door with Jon behind him, “I’m glad to see I was right about you.”

“How so?” asked Jon as they made their way through the building.

“Tell you later.”

Jon pondered this as they walked. Exiting into the crisp morning air, Jon looked around the plaza in front of the USSA building. He didn’t see anyone who looked like they were waiting for them. But Gish made for a small cluster of benches beside a row of low, decorative bushes on the far left side of the plaza. “Over here.”

They went over to the benches. Still no one in sight. Gish sat, looked at Jon in expectation. Jon looked around again, and sat. “Now what?”

A few moments later he heard a sound from behind a nearby bush. Turning slowly, he saw a young girl come out of hiding. She was very small, perhaps seven or eight years of age. Chinese heritage. Dressed in filthy, though ample, clothing.

Jon looked back at Gish, annoyed. “What are you up to? This child needs to be in a care facility, not hiding behind bushes to meet with me! Where’s her family?”

“She won’t go. Family’s dead.” Gish looked to the child, said something in what sounded like Chinese. The girl came over to Gish, but warily, keeping the scientist between her and Jon.

Gish took her small, delicate hand in his own. Smiled at her and said something else, then turned to Jon. “She’s a refugee, doesn’t speak much English. I’m not too sure of her entire story. But somehow she managed to make it to Toronto. She won’t stay in any of the care facilities, refuses to remain with any family.”

“And why do you think she wants to have anything to do with me, or our mission? For that matter, why do I want her to?”

Gish looked at him. “I found her on the street near my apartment, a little over a week ago. While I am a bit of a curmudgeon, I do have a heart. I spoke with her, established something of a connection. I took her back to my place for a hot meal, and to see if I could help her.

“While she was there, she found a chess set I have set up. It’s an ongoing series of games I play with a friend. We both agree not to use any AI help, just our own skill. And I’m quite good. Anyway, she recognized the game, which surprised me a little. Seems she picked it up somewhere in her travels.

“Anyway, as we ate, we played a game. She beat me, soundly. The second game I loaded a strategy program, used it to guide me. She won again, just as easily as the first game. I escalated the ability of the program. She kept with it to the Grand Master level.

And she doesn't have any cyberware."

"Great. She's a chess prodigy. So, find her a family, give her a stable life, and get her into a school."

"No, she's more than just a prodigy. Over the next couple of days, she would come to visit me. I tried her out on a variety of games, some she had never seen before. She intuitively understood the underlying strategy of every single one in a very short time, and was able to beat me and any AI system I could come up with, to the highest level."

"I still don't understand why you think she should be on the mission."

"Well, I also started testing her other abilities. And her understanding of strategy is actually just one component of her understanding of game theory. Oh, she can't tell you anything about any of the scholarship on it, and her vocabulary is very limited, even in her native language. But she understands it. Yes, she needs a family. Yes, she should go to school. Yes, she needs to develop this talent. Yes, yes, yes! But it won't hurt her to wait a few weeks, and she may be a real asset to you. Didn't you say in the meeting last night that you needed an expert on game theory?"

Jon looked at the funny little man for a long time, then to the ragged girl. "Gish, I know I don't have your genius. But this is insane."

Gish looked into the eyes of the girl. But he spoke to Jon. "Why did you come out here with me?"

"What? Well, because . . ."

"Because you know when to listen to those you have to work with, when to trust their instincts as well as your own. That's what I meant when I said I was glad to see I was right about you." Gish turned to face Jon. "Listen to me. My instincts tell me that this child will be important to us. I can't explain it. But I know I'm right. I've only felt this way twice before. The first time was when I understood how to use the BEC as the heart of long-range sensing. I was proven right on that in a matter of months. The second time was in knowing that there is other intelligent life in our galaxy. That's taken decades to be proven correct. But I was right, even if most of the world doesn't know it yet."

"And on the basis of this instinct you want me to bring a child along to Titan."

"Yes."

Jon shook his head. "No. I'm sorry, none of us will be able to play nanny to a child, in the crazy hope that she might be a prodigy with a particular gift suitable for our research."

Gish looked at Jon almost defiantly. "I'll take care of her myself."

"You? You barely take care of yourself! Have you ever cared for a child?"

Gish looked down at his feet, was quiet for a very long time. Just as Jon was about to get up and leave the scientist spoke. His words were low, difficult to hear, almost like he was talking to himself absently. "I know. I know. I was a graduate student at Los Alamos when the flu hit. There were news reports about the sudden onset of the flu, but I tried to ignore it, continue my work. I came home from my lab late one night feeling a little feverish, and my wife got me into bed. I don't remember anything after that, until I came out of a delirium five days later, dehydrated and almost dead. Weakly I got out of bed, crawled into the living room of our apartment, where I found my wife and our twin toddlers

dead from the flu.”

He looked up at Jon. “After that, I was never able to face starting a family again. Yet I cannot ignore this little girl, or what my instincts tell me about her. I will care for her.”

Jon looked from Gish to the little girl. “Have you talked with Bradsen? You’re scheduled to be with the researchers in his team. Why come to me about this?”

“Like I said, because I knew you would understand.”

Jon sighed. “OK. Let’s get her to come inside and I’ll have Seth run through some tests with her, confirm what you’ve found. If everything checks out, I’ll help you persuade Bradsen to allow bringing her along.”

Gish smiled. Said something to the girl, who nodded. Then he turned back to Jon. “She agrees. But I want to be with your team for the trip out.”

“Why?”

“I know the personnel he has assembled. Good, competent researchers. But most of them don’t like me, and I’ll just irritate them. I’ll pretty much be doing my own work, once we arrive on site. I think Bradsen will be happy to let me transfer ships.”

‘Lucky me’, thought Jon. “All right. Let’s get her inside and get Seth working with her. By the way, what’s her name?”

“Chu Ling.”

Jon nodded his head, touched the wafer under his ear. “Seth, download the record of the last few minutes from my pc. Then make the necessary arrangements for us to get inside with the girl. I’ll meet you in the conference room; since she isn’t wired, you’ll have to conduct the tests from the holo projector there. And tell Magurshak I’m on my way to lunch.”

“Understood. See you inside.”

“Let’s go.” Jon looked to Gish and the young girl.

“Oh, and Seth . . .”

“Yes?”

“Prepare a Mandarin language program for me, OK?”

“It’s waiting for you.”

The cafeteria was situated on an upper balcony, affording a view of the city. At a simple, utilitarian table, his lunch finished and the plate pushed to the side, Magurshak faced Jon. Each of them could see both of the experts standing to the side of the table.

“What I’m saying is that you don’t need to bring in anyone.”

“Then who is going to handle your job while you’re gone?”

“Seth will.” Jon said this as he glanced to the image of the expert standing there.

“Usually, I’d agree that he could handle things while you were out of the office, even for a prolonged vacation. But Seth will be with you. He won’t even be functional for the trip out.”

At this point Seth spoke. "I can duplicate enough of myself onto a thin-film machine to handle the routine office demands for a brief period. Once I am functional again on Titan Prime, I can run the majority of the office's needs from there."

"And I can manage policy decisions and most other things which come up, no matter where I am. The communication lag shouldn't present any real difficulty, just a minor annoyance."

Magurshak looked unconvinced. "And if something happens to either or both of you?"

"Sappho has the necessary codes to decrypt all archive and working file backups, in accordance with standard operating procedures. You'll have the information you need to select a replacement and get them up to speed. In the meantime Sappho, working with the Seth dup, can keep the office running." Jon smiled. "Look, nothing is going to happen. And if it does, well, that's why I'm going instead of you. Because I can be replaced."

"I'll remind you that you said that next time your contract's up." Magurshak returned Jon's smile. "OK, you win."

He looked to the apparent image of Sappho, an olive-skinned, dark-haired woman about Seth's height and age. "Make the arrangements."

The expert nodded, then looked to Seth. "Done," they said simultaneously.

Magurshak looked across the table at Jon. "Now, I see from your postings that your team seems to be coming together pretty well. But what was this meeting which kept you late for lunch?"

Jon thought about it. "I'll have the full report in a while. But Gish came to me with an addition he wanted me to make to my team. A young refugee from somewhere in China, who is evidently a prodigy in game theory. I have Seth working with her now to confirm."

"Who is this girl? How old is she?"

"Her name is Chu Ling. Seth wasn't able to find any records of her anywhere, but that isn't too surprising, considering conditions throughout China. She's about seven or eight years old."

Magurshak frowned. "Do you think it wise to take such a young child along?"

"No, it's crazy."

"Good. You were starting to worry me."

"But I don't want to dismiss Gish's recommendation too lightly. There's clearly more to it than the story he has concocted, but for whatever reason he seems to have bonded with the girl, and she to him."

Magurshak's frown didn't lessen. "Do you think she'd be of any use?"

"I'm not sure. I have a meeting with Johan Klee from Berlin later this afternoon. He's a top notch linguist and communications theorist, and perhaps she would be a complement to his abilities." Jon shook his head. "Gish is adamant about bringing her along, and I'm willing to do so just to keep him happy, whether or not the girl would be of any use. I really hate to go against him - he's a bit of a nut, but he is undoubtedly an asset to the team."

"Well, do what you think is best. I'll look for your post later." Magurshak glanced

briefly at Sappho, then back at Jon. “I need to get going. I’ll meet you at the airport tomorrow, unless something else comes up.”

Jon nodded, got up as Magurshak did, the two men shook hands and left the room.

Klee took the news of the discovery of the artifact in stride. A quiet man, early fifties, with somewhat wild white hair, he listened as Jon outlined the mission, and his role in it. “I will do what I can, though if there is no activity from the artifact, if it isn’t trying to communicate with us, I’m not sure what good it will do to have me there.”

“We’re not quite sure what we’ll find when we get the equipment on site to do an in-depth examination of the artifact. It may be that it is attempting to communicate, but we haven’t detected it yet.” Jon paused. “And it may be that you’ll be bored with the wait. We’re not sure.”

“But it is reasonable to bring along an expert in communications. I will be happy to be involved.”

“There’s something else. I’d like your opinion on a possible colleague for the trip. Please take a look at the file my expert is uploading to you now.” Jon watched as the man scanned the file, gave him a few moments to digest the information.

“Well?”

“I’d like to meet the girl, if I may.”

Jon nodded, and said, “Come with me.”

They went down to the conference room, where they found Gish and the girl. Gish was off to one side, just sitting and watching Ling interact with Seth. She looked up when they came into the room, but said nothing.

Jon introduced Gish and Klee to one another. Gish only nodded, seemed to be in a sullen state. Initiating the language program, Jon said “Chu Ling, this is Johan Klee. He would like to talk with you.”

The girl looked at Klee, said nothing. Klee smiled, asked Jon, “May I spend a little time with her? I have some ideas I’d like to explore.”

“Sure. Just ask Seth to provide holo images of any games or anything you want to try. I’ll be in my office.”

“Thank you. This shouldn’t take long.” Klee took a chair and moved it over to the edge of the holo field, then got another chair and placed it beside the first. As he was sitting down, Jon left.

Jon had been in his office for about 15 minutes when Seth told him that Klee was on his way back. Moments later, the linguist knocked on his door and then entered.

“Well?” asked Jon.

Klee sat opposite Jon’s desk. “Oh, she’s a prodigy in game theory. And probably will master the principles of communication theory just as soon as she can be introduced to it. And if we do manage to make contact with the artifact, she may well have insights that no one else would have.”

“Why do you say that?”

“Oh, several reasons. The biggest is she doesn’t have some of the biases that we adults have.”

Jon nodded. “The Emperor’s new clothes.”

Klee laughed. “Something like that. In any event, I think I can offer her the specialized training in game and communication theory that no one else can. Gish and I spoke about it, and he’s certainly capable of handling her general education. Seems to have been, in fact.”

“Fine.” Jon nodded again. “Seth, please ask Dr. Gish to join us.”

In just a few moments, Gish came into the office, the girl in tow.

Jon looked at the two of them. “You’ve got your wish. She can go, and you two will be part of my team.”

Gish looked like he was about to break into tears, but just nodded.

Jon continued. “There isn’t time to get her implanted with cyberware before we leave, and it might be too much, too soon for her anyway. But we should get a phone into her, just for safety if nothing else.”

Gish held tightly onto the girl’s hand. “I would agree.”

“Seth will make the arrangements, if you’d follow his directions and escort her.” Jon paused. “And please, get her cleaned up and into some decent clothing before we have to leave tomorrow.”

Very quietly, Gish said, “Certainly.”

Klee considered, asked, “Since she won’t be wired, can you find some sort of portable display we can use for her lessons?”

Jon thought for a moment. “Seth, see what is available that will travel well. I know they have some holo projectors on the ship, but no reason to cut into anyone else’s recreational time.”

Seth appeared as soon as he was addressed. “We have a few small projectors which don’t require cyberware to work. Herr Klee, if you and Doctor Gish would just suggest the things you would like to have available for instructional purposes, I’ll be glad to get those prepared for your use.”

Klee looked to Gish. “We can discuss it while she gets her phone implant.”

Jon looked to the two men and the girl. “Until tomorrow, then.”