

## Chapter Five

“What do you mean she’s a clone?” Jackie Gates almost stammered the words.

Jon looked around the meeting room, at all the members of the team. Gish and Klee had already had a few minutes to absorb the news, since he had talked with them privately before getting the others together. Still, the rumpled little scientist looked devastated, and Klee stunned. Around the room, Jon saw various emotions, ranging from disgust to outright fear. Except for Navarr, who sat coolly watching the others.

Cloning of humans was first attempted early in the century. But it didn’t really work, and after public revulsion at the hideous, short lives of the cloned children a worldwide prohibition on human cloning was put into effect. Further attempts were made after the flu, in the hope that a solution to declining populations could be found. But those efforts had proven no more successful, and the pain of watching any child die prematurely was too much. The ban was never lifted. To find out that someone, somewhere, was producing human clones, was a shock.

“You’re sure about this?” asked Gates.

“The data is clear. The telltale degradation of the ends of her DNA at a number of key locations proves it. She has the characteristic signs of aging, because the DNA at those points reflects the actual age of the original host.” Jon looked around at their faces. He decided to tell them the rest of the bad news. “And that’s not all. There’s evidence that the original host had been genetically manipulated to radically change several characteristics related to intelligence.”

Bailey looked a little confused. “What’s that mean?”

Gish sighed. “It means that someone has created a better human, and now is producing copies.”

“Well, better in their eyes, anyway,” said Gates. Her voice contained a touch of bitterness.

Jon looked at her. “Look, it’s not her fault that she’s a clone. She’s no more responsible for her origin or background than you are.”

Gates give him a hard, cold stare, but said nothing.

Bailey shook his head. “I don’t get how it is anything we have to worry about. I mean, she’s just a little kid who likely has a rough, short life in front of her.”

Jon started to answer, but Navarr spoke. “Perhaps it is important for us. It certainly raises security issues. Before, she was just an orphan that Gish had found. Now, we have to consider that she was intentionally introduced to him.”

Klee scoffed. “You cannot think that she is some kind of spy!”

Navarr smiled slightly. “No, of course not. At least not in any conventional sense of the word.” He turned and looked at Jon. “Any indication from the medical report what the genetic changes mean functionally?”

“No, not yet. I mean, we know about her abilities as a prodigy in game theory. But the way that the genetic manipulation will play out is very difficult to predict, since that is a

subtle and complex dance over time. They have simulations running now, and we may have an idea in a few days.” Jon searched Navarr’s face. “Why, what do you have in mind?”

“Well, the biggest potential threat I can see for us is whether she is some kind of passive, unaware spy. Maybe those genetic alterations give her a photographic memory, or something, so she is constantly storing up information that someone will want to ‘collect’ later.”

“Which just means that we have to protect her from being ‘collected’,” said Jon.

“Realistically that’s probably not much of a concern until after we have gotten to Titan and discovered what the artifact is, and how to proceed with it.” Navarr paused and thought for a moment. “Still, I will make arrangements to have a guard on her, just to be sure.”

Gish nodded, looking somewhat relieved.

Gates didn’t look relieved at all. “But do we need to be concerned about having her around? I mean, should we keep her from our discussions, or from examinations of the artifact?”

“I don’t think that will be necessary,” said Jon. “Certainly not until we reach Titan, and by then we should have a better idea of her potential.”

Gates frowned, but said nothing.

“OK, let’s leave it like that for now.” Jon looked around the room. “I’d like to get us together tomorrow morning, resume our brainstorming about the artifact. Say, ten o’clock?”

As they went their different ways, Jon kept an eye on the others. Klee went with Gish, presumably to spend a little time with the girl, prepare her for the presence of Navarr’s troops. Gates left quickly, obviously upset. Jon would check with her later. Ng and Bailey wandered off together, talking intently. Navarr waited.

He said, “I figured you’d want me to stick around.”

“So, how long have you known?”

“About the girl? Found out just before you called this meeting.”

Jon looked at the man for a long moment. “So, what else did your people tell you?”

Navarr returned Jon’s look, considering. He reached a conclusion. “Not much. I’m too far down the chain of command to be included in such speculation. They did say that they have a couple of experts doing a complete assessment of why such a project was implemented, what the possible ramifications are for us. Whether they’ll tell me their conclusions, I can’t say. How about you?”

“Nothing else. Though I will put in a call to Magurshak and have him keep close contact with Secretary Grant, see what else she comes up with.” Jon leaned back on the bench. “So, you think there is anything to worry about?”

“No. Like I said, the girl herself can’t really be considered a threat. But I’m not too sure that everyone on the team agrees.”

“You mean Gates.”

“Yes.” He paused, “I find it interesting that you decided to tell everyone.”

“I figured that it was better to get it out in the open. I don’t like the notion of

keeping secrets. I want my people to be playing with all the relevant information.”

Navarr smiled slightly. “So, you think that this is relevant?”

Jon sighed. “I’m not sure. It might be. We’re dealing with a lot of unknowns here . . . better to keep everyone informed, so if there are any connections that can be drawn, we have the greatest chance to do so.”

“Playing the odds.”

“Right.” Jon stood. “And that applies to both of us, too.”

Navarr raised an eyebrow, but said nothing.

Jon found Gates closed in her quarters. He was sure she would want some privacy, but he had to talk with her. Holding his breath, he rapped on the sliding door.

“Go away.” Her voice was solid, firm.

“Sorry, Jackie, but I need to talk with you.”

“Not now.” She sounded a little less firm.

“Yes, now.”

He waited a moment, and just as he was about to speak again, he heard the door latch click. The door slid open. She was standing there, but she didn’t look him in the eye. She just stepped aside, gestured for him to come in.

He was a little caught off-guard by the fact that the foldout bed was already down. He glanced at it, sat on the bench. Gates sat on the edge of the small bed.

“Look, I just wanted to see what’s up.”

“Nothing’s up, OK?”

“You had a pretty strong reaction to the news about Ling.”

She looked at him with defiance. “Yeah, and so will most of the human race.”

“Fair enough. I won’t argue that clones are a good idea. They’re not, for a whole bunch of reasons.”

“I’m glad that we see eye-to-eye on that.”

Jon nodded, slowly. “But I expect you to be able to set aside that emotional response and deal with Ling.”

Her eyes flared. “Why? Why do I have to have anything to do with her? It was a crazy idea to bring her along on this trip, anyway.”

“You’re right, it was crazy. And it may prove to have been a bad idea. But Gish was certain that she should be along, and I agreed to allow it.” He paused, looked at her. “So, I would appreciate your support. Just accept the fact that she’s here, and try to get along with her when you have to.”

Gates frowned. Then she looked at him, slowly scanning his face. “All right. I’ll do what I can.”

“Thanks. I’m sure that will help keep things smooth.” He looked around the room. “You doing ok?”

She didn’t look at him. “I’m fine.”

“You’re not acting like it.”

She gave him a dirty look. “As I said before, I don’t like spacetravel.”  
“Well, if you need to talk about anything, let me know.”  
She said nothing as he closed the door.

Jon next went to see how Gish and Chu Ling were doing. He found them, along with Klee, relaxing in their cluster of rooms, walls slid back to create a common space. One of Navarr’s marines stood a comfortable guard at the head of the hallway.

Ling looked up when he turned the corner into the hall. She was standing, playing with the holo projector. She smiled, eyes bright, and pointed to the projector, saying to Jon in English, “See! I find dragon.”

Jon peered into the hologram projected there. Indeed, in the middle of a large room, splendidly decorated with gold and jewels, was a black dragon, resting on a pile of cushions, reading. It lifted its head, and Jon was startled to see that it had Seth’s face, stylized, but still recognizable. Jon patted Ling on the shoulder and said, “Congratulations. Now do you get to keep the dragon’s gold and jewels?”

She looked at him as if he were nuts. “No keep gold. Now have cha and dragon tell Ling story!”

Gish laughed. “The difference between Chinese and Western traditions, Jon. Dragons were considered fonts of wisdom and learning. To encounter a dragon meant the opportunity for enlightenment, not theft.”

“Ah, well then, Ling, enjoy your chat with the dragon.” He squeezed her shoulder lightly, then sat next to Gish on the other side of the room. “Everything going OK here?”

Gish glanced down the hall at the woman standing guard. “Seems to be fine. Commander Navarr stopped by after the meeting, and said he would have female troopers here at first. He thought that might be easier for Ling to accept without feeling threatened.”  
“Makes sense.”

“Though I can’t say that she’s given the guard even the slightest attention, so I’m not sure that it would really matter. Uniforms don’t seem to bother her at all.”

“Well, who knows what the facility where she was . . .” Jon started to say ‘made’, decided the better of it, said instead “. . . kept was like. May not have had any sort of uniformed guards or anything. May not have even been a government institution, though that had been my assumption.”

“Mine, too,” said Gish.

Klee looked at the girl, but spoke to Jon. “Think we’ll have any problems with her and the others?”

“No. The only ones who will know are the members of our team, since they’re the only ones that she will have any substantial contact with. And I think that all of us will be able to keep a handle on our emotions regarding her.”

Gish just watched the girl, said nothing.

Jon studied the scientist for a few moments. At last he said, “I was thinking about resuming our discussions about the artifact tomorrow. When we left off yesterday, you said

that you had an idea that you wanted to work through.”

Gish didn't take his gaze off Ling, who was now sitting on the floor, face level with the holo dragon, listening to his story. “Yes, but I'm not quite ready to discuss it yet. Would it hurt to wait an extra day?”

Jon considered it. “No, I suppose not.”

“That might be best. I've had some thoughts, but I need to work through them more completely before I discuss it with anyone.”

“OK. Johan, how about you, anything you want to discuss?”

“No, I don't believe so. I still consider that the object is most likely some kind of probe. The fact that it made itself visible now is significant, I think. Beyond that, I guess I am of the opinion that we need more information.”

“Fair enough. In that case, gentlemen, I wish you a good evening.” He got up to leave, glanced at Ling. He found that she was watching him intently. “Goodnight, Chu Ling.”

She looked at him for a moment before responding, but he was unable to determine what she saw. Finally she responded simply, “Goodnight,” and turned her attention back to the holo dragon.

In that cool, soft moment of consciousness just before he was fully awake, the dream image of the ants crawling on his arm came back to Jon. He held it there, allowed it to play through, as his thoughts came into focus. What was it that Ng said? Something about alien motivation, dreams and passions. Jon thought about the behaviour of the ants. They were seeking something, frantically searching, until they looked up from the surface of their world and discovered him.

He opened his eyes to the dim glow of a night-light. As he sat up on the edge of his bunk and looked at the light, he realized just how much he identified with those ants from his dream. He and the others were just scrambling about almost blindly, looking at only those things right before them, at the only world they knew existed. Almost involuntarily, he glanced up at the ceiling of the cabin, half expecting to catch a glimpse of some alien giant looking down at him.

But there was nothing there. Just the indicator flashing in a corner of his field of vision. He had messages waiting. He lightly touched the control pad on the back of his hand. The files downloaded from the ship's expert, titles appearing for each. Routine communication from the Seth dup on Earth with status reports. Posts from Magurshak and Owen Roberts about the status of the other team, now en route. And the daily report from Susan Jakobs on Titan Prime.

Starting at the top, Jon went through handling his messages, sending replies when appropriate. Seth was managing the necessary office tasks with efficiency, reported that he was accumulating the requested information on unusual dreams, and that while he hadn't spent any effort going through the material, there was more than he expected. Bradsen's team had left Earth orbit on time, with some last-minute personnel changes being the only

minor hitch.

Susan Jakobs looked a little more tired than she had the day before. And Jon could hear some of the edge of it in her voice. “Sidwell has stopped talking to me. He hasn’t done anything to interfere with the monitors I have down there, but he has just started to ignore my messages. I had hoped that he would put his micros at our disposal to help search the area for any other possible artifacts, as per your request. But he hasn’t answered me about that or anything else for the last day or so. My people tell me that they rarely see him, though occasionally he goes into the temporary dome and just sits staring at the artifact. He’s left it completely alone, though.

“Other than that, things continue at their normal pace here. There are rumors circulating, but nothing to worry about. All communications are routed through my expert, who is handling censorship concerning it in reports back home, and so far I think we’ve managed to keep the secret on our end.

“The Hawking trials are continuing without interruption. Soukup has the AG drive working smoothly. Soon he thinks that they can solo and take off for deeper space. If you want him here for examination of the artifact, I suggest that you contact him. He’s enough into the Hawking project that I don’t think that he’s paid any attention to the rumors going around.

“That’s all for now. I’ll report in tomorrow, as scheduled.”

Jon considered. He didn’t like the idea of Soukup just hanging around Titan Prime, waiting for them to arrive, but he needed him at Titan Prime. He keyed the recorder.

“Soukup. Thompson here. Don’t know if you’ve heard, but we’ve discovered something on Titan that we may need your help with. Check in with Jakobs for details. We won’t be there for another five days, so no need for you to stop your current work. But do me a favor, and don’t run off with the Hawking for a long trial, eh? Contact me once you get a briefing on the situation.”

That would be enough to keep him near the station, at least for the short term. Jon finished handling the rest of his messages, uploaded all of them to Raffaello for encryption and transmission, then went to get some exercise and a shower.

He was reading when the message came in. Propped up in bed, the white page apparently hanging half a meter in front of him, was a selection from one of his favorite books: Mark Twain’s The Innocents Abroad. The low flash of the indicator came on in his lower-left field of vision. With a touch he saw that it was from Soukup, and began the playback.

Gregor Soukup was not a small man. He was built like a bear, with a barrel chest and massive limbs, hands broad and with stubby little fingers, a face round but with very little fat on it. His beard of grizzled grey was full, coarse, and almost hid the smile that was always lurking there. The corners of his mouth and eyes scrunched up as he said “Hello Jonathon, my old friend.”

His eyes twinkled. “Your message got my interest. I have spoken with Susan. This

seems to be quite an adventure you have going, eh? I will stay here on Titan Prime and wait for your arrival, the Hawking is running so well that she does not need me. In truth, I think her captain will be glad to be rid of me, for at least a few days. These spacers, they do not like to have meddling engineers on board all the time. Unless something goes wrong, and they need you. But the Hawking, she is ready, does not need me any longer.

“So, yes, I will be here. You, me, and Gish . . . we will have a drink together, and figure out this mystery, yes? See you in a few days. Gregor out.”

Jon smiled. The man was a bit of a lunatic, and loved to play up to the old stereotypes of Russians whenever he could. But he was a brilliant engineer who had an almost intuitive understanding of the Apparent Gravity phenomenon, and was the first to propose that it could be adapted for use as a propulsion system, contrary to all experience with stationary field generators. He figured out a way to trick an AG field into thinking that it was in a stable inertial reference by projecting it in front of a ship, and thereby essentially have the ship - and generator - continuously ‘fall’ into the field. An AG drive system would require only energy, not reactive mass, which would make it ideal for long-range exploration and colonization. The Hawking was the first ship equipped with the new drive system.

Now, the Hawking was about ready to go on a deep-run solo trial. And had Jon not asked him to stay behind, he was certain that Soukup would have gone, complaining captain or no. He drifted off to sleep, pleased to know Soukup would be available.

Jon looked around the room, studied the faces for a moment. Everyone looked fairly well ready to begin. “When we left the discussion last time, Gish had suggested that the artifact might be responsible for the existence of tholin gel on Titan. That, in fact, the artifact might be creating the gel as part of a pre-colonization effort to make the moon more habitable for another species. I believe that he has more to say on that topic this morning. Robert?”

The rumped little scientist ran a hand through his hair, glanced quickly around the room. “It’s not xenofarming Titan. Can’t be.”

Gates snapped her head up. “Why the hell not?”

Gish smiled slightly. “Bailey gave me the clue. Last time we talked he asked ‘Where are they?’, meaning the aliens that built the artifact.”

Bailey thought back for a moment, said, “Yeah, but I was talking about the idea of them mining gel from Titan.”

Gish nodded. “Yes, but the question still applies. If they were coming to settle Titan, they’d be here already.”

“I don’t follow,” said Bailey.

“Neither do I,” said Jon. “Why can’t they have just sent the artifact to prepare the way?”

“Well, it is possible, but I think extremely unlikely. Think of it like this: if the aliens required a lot of gel for colonization, they’d have sent a lot more than this one machine. No

one else has come across one of these things. If they didn't need a lot of gel, if the amount that was already created was sufficient, then they'd be there already."

"Well, what if we're just at the right time, between when the conditions are right for colonization and when they actually arrive?" asked Jon.

Gish shook his head. "Statistically, unlikely. Such a window would have to be very small . . . you'd either spend most of the time preparing the planet for colonization, or colonizing it. The time period between the two would be very small, relative to the time of either preparation or settlement."

Navarr nodded. "He's right. From a strategic point of view, you wouldn't want to just leave a prepared territory unoccupied. You'd move in and take advantage of the work you had put into preparing it in the first place, before someone else moved in, or natural forces degraded the environment."

As Navarr spoke, Jon spent a little time hunting through his database. He found what he thought he remembered, and said, "That makes sense. There's another aspect of this that fits in with Gish's conclusion. Last century, during one of the flare-ups of 'UFO' activity, one of the leading physicists argued that if there were extraterrestrials capable of interstellar travel, they should be everywhere. But they're obviously not."

"Yet we have proof that such extraterrestrials exist," said Gates. "And that artifact didn't just grow there on Titan. It was left, or sent, by someone who does indeed have the capability of interstellar flight."

"Exactly," said Gish. "But that just proves that it wasn't sent for xenofarming Titan. To send such a device is relatively easy. We've sent probes toward neighboring star systems. It just takes a very long time. To travel to those systems is a very different matter altogether. We may be able to do it, if the Hawking proves successful, but it will still take a very long time. Conventional physics means we are limited to speeds significantly slower than light, and even then you have to deal with relativistic effects. You wouldn't send just a lone machine in advance of a colonization effort, the risk of failure would be too great.

"On the other hand, if you have a technology which is very greatly beyond ours, and you have figured out some way to cheat and travel faster than the speed of light, then you would be able to colonize the planet as soon as it was ready."

Everyone was quiet for a moment. Jon summed up, "So, we can rule out xenofarming as the artifact's function."

"Yes," said Gish simply.

"Then we're back to the original question: what is it, and what does it do?" said Jon.

Bailey frowned. "I've been thinking about that. I think it is the wrong question. While we may need hard information that we don't have to determine more about what the thing is and what it does, we can still learn a lot from what we do have about the entities that made it."

Johan Klee piped in, "Yes. We can think of this as a message. The way the message was sent, how it was crafted, contains a great deal of information about the creators of the message."

"OK," said Jon, "we have the basics . . . they are technologically sophisticated . . ."

“Which implies intelligence, curiosity, and the ability to manipulate matter,” said Bailey. “But let’s not get too far ahead of ourselves again. Start with the simple, move to the complex.”

Jon smiled. “Right. So, what else does this message tell us?”

“Something about size? The artifact is about a meter tall, does that give us some idea of relative size?” Klee looked around. “I mean, it’s not microscopic, and it’s not the size of Titan Prime. Doesn’t that tell us something?”

Bailey bit his lip. “Maybe. Maybe not. I think that it would be hard to draw any conclusions just based on size. I wish we had a better image of it to work from.”

For the first time Ng spoke. “I can help with that.”

“How?” asked Jon. “The reports indicate that they couldn’t get an image of the artifact, either photographic or holographic.”

Ng gave a slight smile. “We have the first mock-up to start with. And there are the initial reports, with their descriptions and what measurements they contain. I’ll talk to the people who did the original holo sketch, get impressions from some of the others who have seen the artifact. Give me a day.”

Bailey nodded. “Could be helpful.”

“I concur,” said Jon. “So, we’ll pick this up tomorrow. I’ll talk with the captain about reserving the recreation room for a couple of hours. There’s a fair-sized holo projector in there.”

“I’ve checked it out. It’s not great, but it’ll do,” said Ng.

“Sounds good,” said Jon. “So, before we break for the day, I want to remind you that tonight is the roll-over for deceleration. You might want to stow away loose items.”

He was standing at the top of a stone staircase, outdoors. Though the sun was bright, it had none of the harshness from Judith’s description of the desert scene. The stairs led down to a quiet riverside glen, filled with fruit trees in the solid green of June. A path led from the foot of the stairs to a nearby structure. It was the church from one of his other dreams, stonework with high glass windows all along the side, the blue rose in the window at the end. The church gleamed in the sun, beckoning. But he knew that he wasn’t to go to the church. Turning to see what was behind him, he saw that he stood at the start of a pedestrian bridge over a small river that was running quietly beneath him. There were no other people in sight, though some ducks swam lazily in the river along the near shore. The far shore was shrouded in a low-lying fog that seemed to hang close to the other side.

The bridge was perhaps three meters wide, and arched slowly up in front of him, so that he couldn’t see the other end. It had walls of stone about a meter high, and periodically along those walls he could see small sculpted stone vases in which grew roses. Blue roses. He went over and peered into one of the buds, could see it slowly opening, a clean blue light almost like a gas flame being revealed as the petals spread, until the flower was completely open, the heart of it glinting like blue diamond in the sun.

Turning, he started to walk toward the rise in the center of the bridge. After a few dozen paces, he stopped and looked back, could still clearly see the place where he had started, though it had begun to sink below the horizon of the bridge bed. That meant that he was at almost halfway across the bridge, but he couldn't see the other side. The fog seemed to rise up from the surface of the river, and there was just nothing there to see. The bridge just stretched off into a muzziness of grey. Then he noticed that the roses in a nearby vase were smaller, the light glinting out of the heart of each bud somehow more distant. Deciding to stay beside the wall, he resumed walking, into the light fog.

Another couple dozen paces and the end of the bridge where he had begun was almost out of sight. The roses had continued to shrink in size, and the light of each recede. It had grown darker, too, though the sun was still high in the sky, clearly visible. But it too had begun to shrink in size, as though retreating from him. He walked on. There was still no end in sight, just the bridge continuing into a growing dimness. The sun was smaller still, and had lost enough intensity that he could look straight at it without discomfort. The roses here were so small as to be hard to make out, the blue dot of light in each flower becoming pale. And he noticed that the walkway beneath his feet now felt spongy, like it was becoming insubstantial.

Tentatively taking a few more steps, at last he felt his foot sink into the bridge, and he started falling forward.