

1

Piper visualized the thing inside him, wound through his skeleton and his guts, ready to uncoil and snarl at the world at the slightest provocation. Whenever it occupied him fully, his eyes seemed to become a sick yellow, and claws threatened to break from his fingers. It was as if he had donned it like a suit, or perhaps it had donned him. Anger was what it evoked in him mostly, but also excitement, excess, often clarity and certainly brilliance. He called it his reptile, because surely it was some expression of his reptile brain. Although in reality it was him – just a facet of his being – he always envisioned it as something separate, to try and exert control over this aspect of himself. For here, on Founder’s World, the punishments for not controlling your organic self could be severe.

I have too much imagination, he thought.

He had no clear recollection of when it had first started manifesting, though its influence had increased when he went into puberty. This was longer ago than he cared to remember, and it was only briefly ameliorated by the customary drug implant to suppress his equally raging hormones. The anger had been very evident to his teachers at the time too, which led to the addition, at age fifteen, of a behavioural modifier – a device commonly used in Cyberat society to control their weak organic emotions. Unlike others, he hadn’t been able to have it removed in the ensuing five years. After surgery in a Cyberat ‘progression’ hospital, and then subsequent adjustments in his father’s factory, the reptile, as he thought of it, had started waking up more often. It ignited aberrant thoughts and impulsive behaviour which, of course, the modifier punished. And following a new surgical adjustment recently, it had become even worse. Perhaps that was because he still felt sore, wooden and slightly clumsy after this final upgrade to match the data channels running through his bones to his adult frame. Whatever the reason, the only option the state had left was to put him to work hard enough to exhaust him of this malevolent energy. And so he’d spent the last five years

working on building sites.

‘Why are you standing there gaping, boy?’ Mallon snapped.

Mallon was one of the Old Guard who’d recently taken charge of the site, and she controlled the swarm of robots which were digging the foundations for the new houses. Silhouetted against lavender sky, she floated on a sphere over the tanks containing the foamstone mix – three cylinders five metres long and two wide running pipes to mixer drums then to the injector bots. She was a Cyberat rumoured to be over a hundred years old – her upper torso that of a wrinkled old woman with an oversized head. He resented her pointed comment, reminding him he wasn’t regarded as an adult yet, even though he was twenty-five Founder World years old. The necessity of the implant had stalled his progression.

‘I’m waiting for more girders,’ Piper replied.

Mallon waved a mechanical arm, the end of which terminated in a bayonet fitting. This could be inserted into a variety of hands and other tools.

‘Very well,’ she said, unable to find another reason to berate him.

Piper winced a smile at her as she swung away to look at something else further across the site. With her gaze no longer on him, he took the chance to study her more closely. Various grey metallic protrusions and interfaces studded her upper body, while snakes of shiny ribbed metal ran up, stitched through her back, to draw together into the horseshoe of the cerebral linkage and support unit wrapped around her skull from behind. Her wrinkled torso, below flaccid breasts, transitioned below into a blockwork tech of interfaces, which itself extended down in a cone. He couldn’t see that portion of her since it was currently plugged into the floating control sphere. This object measured two metres across and was covered in squared-off spirals and emitter protrusions of other kinds. On its side sat the tube of just one weapon: an ionic stunner – meagre armament for one such as her.

Piper lowered his gaze as she swung back, feeling his inner reptile writhing for expression, then turned his attention to her walking body, which she’d left squatted over to one side of the building site. This was a quad form, with blocky legs folded in below the main body, which itself sported heavy assortments of weapons tubes on either side. On top a chain-glass dome folded back to reveal the socket she would later plug herself into when she occupied the thing. No doubt Mallon could control it remotely if she needed to. She was also able to summon Enforcers to her command, or even a huge war body to occupy. Fifty years had passed since the rebellion in which she’d taken part, yet, apparently, these visible displays of power remained necessary to maintain order, especially now.

Things had become more tense lately too, with the arrival of interstellar visitors from

a civilization grown out of old Earth – a world the Cyberat had abandoned long ago to its own, supposedly inevitable, destruction. Piper gave Mallon a second glance then quickly lowered his gaze again, still baffled as to why his reptile anger always seemed to increase in the presence of Old Guard. Perhaps it was just a hatred of authority figures. Whatever. He needed to get his mind onto other things while he waited, or the modifier would soon be giving him a jab. So he looked out across the site and thought about the visitors from the Polity instead.

Their technology was highly advanced – this much at least the citizens of Founder’s World had learned through the netlinks they’d provided over the last year. Their augmentations were much smaller, and their nanofibre connections to the brain, as well as the neural meshes there, didn’t need skull expansions, cooling, cell hardening or an increased venous system. And though Polity citizens did incorporate some tech inside themselves, they mostly retained their full human bodies intact. Most importantly, however, they were ruled by AIs. Such things were a matter of heated debate among the Cyberat, and political infighting had now reached hysterical levels. The arrival of the Polity, with its new technologies, had created a schism between the old established cyborgs and a large contingent of those still *progressing*. Because maybe, just maybe, their thesis that artificial intelligence should only be allowed to develop in conjunction with the human brain had actually retarded Cyberat development. The worry that AI, rising independently, would result in human extermination had certainly been proved wrong, and that belief had been a founding principle of the Cyberat.

As a general rule, Piper tried to avoid thinking about these things. Although he of course agreed with those on the opposite side of the schism from the Old Guard, his concerns were more personal, focused on his difficulties with self-control and the modifier. He reached up and touched the lump at the base of his skull where it resided, and grimaced. The device was, in essence, a temporary version of the permanent modifier usually installed in criminals – something that identified aberrant thought processes by neurochem profiles and then administered punishment by stimulating afferent nerve pain.

‘Your girders are coming,’ Mallon called, pointing with one bayonet fitting.

‘Thank you,’ he replied politely, teeth gritted.

He looked out to the construction road winding in from the city through undeveloped land. Either side of the road, indigenous lichens smeared the rocky ground with pastel shades of red, purple, blue and green, scattered here and there with spore spikes and fans reaching five metres tall in some places. The sled came into sight – just a floating slab heaped high

with bubble-metal girders. It was time to get back to work.

Piper turned to the four construction robots he'd been controlling. They were similar to Mallon's walking body, with their blocky limbs, except they had six of the legs, terminating in heavy grabs. He lowered his VR band over his eyes, to give him a holographic overlay running projected movements for the robots, schematics of the site and scrolling subsidiary data in Cyberat code. Touching a code sequence invisible to others, he activated the robots. With a whining, rumbling sound they rose from their squats in readiness. This method of control was laughably antediluvian, for both Polity and Cyberat technology, but why waste resources on exterior body tech when it would be steadily displaced during *progression* into a full Cyberat? This process, which saw the human body ultimately discarded and internal data channels linked to more *efficient* machines, was something he should have begun seven years ago. Gazing down at his arms, and then his torso, he recognized that billions of years of evolution and selection had created his body. But, as was the Cyberat way, he also understood it to be grossly organic and full of redundancies, and he knew that he could be better.

Piper frowned in concentration and set the construction robots into motion as the sled arrived. He could only manage the four – those that Mallon had allowed him – but he'd been getting the job done. Over the next hour he directed them to unload the sled and move the girders into position, inserting cross-connections too and blobs of foamstone to secure them in the foundations before the final pour. His intense focus on this task banished any other thoughts, except a brief realization that perhaps the state had been right to put him here, calming as this work was for him. After positioning most of the girders from the sled, he ran laser measurements, ensuring they were precisely where they should be according to the schematic he'd called up in virtual reality. With that finally done, he then released the four robots back to Mallon, raised his VR band, wiped away the sweat and took a look around.

House construction was proceeding apace. Robots swarmed around stacks, tanks and drums of materials. In many cases they were difficult to distinguish from the older Cyberat, whose secondary bodies were essentially just robots with Cyberat insertion sockets. And those plugged into them were sufficiently *progressed* to have little in the way of a human body remaining. From the various castes of Cyberat, it was mostly Builders and Engineers who worked here, though he did see a scattering of Medics and one or two Bureaucrats. Among them all were iterations of the various stages that led to the likes of Mallon. There were people with cyber limbs, extra limbs, or metal torsos, but also with smaller additions ready to take something larger. All of this was part of the usual Cyberat *progression*, and

their bodies would continue to be steadily stripped away until only a core of humanity – a plug form – remained, wrapped in interfaces.

There were also many who looked similar to the way he'd been seven years ago: apparently completely human but likely possessing internal additions in readiness for their progression. This struck him as odd since they'd be as inefficient as he was. He then turned his attention back to Mallon and saw her watching him. Like many Old Guard, Mallon was a puzzle. She seemed to have gone far down the accepted route, elevating herself to the perfect amalgam of human and machine, and then stopped. Why had she retained the upper half of her human body – that wrinkled, ineffective flesh? This had been a matter of debate among Piper's contemporaries, especially since the arrival of the Polity. In hushed tones it was proposed that perhaps many of the older Cyberat no longer truly believed the dictums of the Founder, but just enforced those tenets as a way of retaining power. Piper, always painfully aware of his modifier ready to stamp down on his every bad thought, didn't take part in these risky whisperings, though he did guardedly ask his parents about them. As usual, they'd been didactic and parsimonious with information, telling him to think through the matter himself. Another conundrum about Mallon was why someone who was so high up in the Old Guard hierarchy would concern herself with overseeing the construction of Cyberat homes.

Feeling uncomfortable under Mallon's attention and the resultant uncoiling of his anger, Piper turned away. He then suddenly found himself faced with a construction robot, heading straight for him, fast. Before he could do anything, the end of the girder it was transporting struck him at the waist, sprawling him across it, then carrying him along with it. It ran him straight into another upright girder, one set in ready for the pouring of the foundations, and crushed him against it. The horrifying impact had surely shattered his pelvis, though thankfully he felt nothing at first. He glimpsed a split in his side with his intestines poking out – all that soft organic ephemera – and then the pain hit. He hung there screaming as Mallon quickly descended. The construction robot abruptly drew back, leaving him stuck to the girder end for a second, before dropping heavily to the ground. There was blood everywhere, now jetting from severed arteries, and with a surge of adrenalin the reptile erupted within him, ready for fight or flight. But then the massive drop in blood pressure released him from the agony and into the dark.

Piper woke in a surgery, but definitely not a Cyberat one. A large chrome and white plastic autosurgeon was folding itself up on top of its pillar, cleaning its sparkling instruments as it did so. Meanwhile, a subsidiary pillar was also folding up its arms on the other side, as it

retreated on a mobile pedestal back to an alcove in the wall. He at once recognized Polity technology and a thousand speculations arose in his mind. A surge of anxiety ensued as he feared how his modifier might react to these thoughts. He then realized that his clarity of mind was stunning. He'd taken a hit that nearly cut him in half, leaving the organic, replaceable machine of his original form severely damaged. How was it that he could feel so well, so sharp, when other recent surgery had left him sore, angry and out of it for weeks? Preparing himself for the worst, he raised his head and looked down at his body.

He couldn't see his feet because a thick metal cylinder, with numerous tubes and wires running into it, was wrapped around his torso and blocked the view. He wondered if, as was usual when people suffered such accidents on Founder's World, the organics below his waist had been removed. It wouldn't be before time. However, although he couldn't move them, he could still feel his feet and legs. Perhaps that was due to nerve memory. Many Cyberat struggled with 'limb ghosting'. His gaze strayed to a viewing window in the room, with a clean lock beside it; through the glass he could see his parents. He felt his usual rush of mixed emotions about them.

Doge, his father, was a plug-form Cyberat, slotted into the top of a cylinder carrier, so it looked as though he consisted of this cylinder topped by a human head. Multiple arms, similar in style to those of the now-inert surgeon, were folded up against the cylinder, while below the whole thing moved on two caterpillar treads. This was one of the bodies Doge used for visual factory inspections and repairs. Otherwise he plugged into the control centre of the factories, where he manufactured the hardware interfaces for plug-form bodies. He did not favour antigravity carriers, though he still had that option. He expressed a preference for connection to the ground, which was an opinion almost heretical to the establishment. He gazed at Piper with watery eyes, his long beard spilling over the edge of the cylinder and his mouth moving as if he was chewing something tough and unpleasant.

Piper felt a rush of irrational fear, but no reptile anger response, which he strangely never did feel in the presence of his father. Instead the thing was watchful, wrapped around his mind and seemingly covered by an overlay – one of the information and control holograms used for VR control of external machines. His father had always been a dark and dangerous presence for him, until he was moved to the building work crews. However, though Doge was a disciplinarian, Piper had actually received more of that from his mother Reema. She was the one who'd slapped him across the face when he showed a lack of control. And she was the one who'd enforced his mental exercises and supplementary education, even now still pushing him to do them. Yet it had been Doge, just watching him,

and occasionally expressing disappointment, who had scared him the most.

At fifty years, Reema was much younger than Doge and not so far along in her progression. She still retained a human shape but one seemingly patched with metal and composite. Piper had learned that when she'd had her womb removed to the birthing facility at the age of sixteen, something about her had changed. She'd not been so eager to continue losing her weak organic components after that. Her attitude, just like Doge's, was frowned upon by the hierarchy. However, having lost her eyes and part of her face in a factory accident, her face was now mostly pink enamelled metal, while her eyes were blue sapphires in dark pits. It had been considered a strange and unnerving choice by many. Maybe it was a kind of rebellion that nobody could fathom. She didn't explain the matter and managed to stay clear of any tribunal set up by the Old Guard to investigate such things.

Alongside them at the window were two more individuals. One appeared to be a perfectly human male. He was a dignified-looking man with cropped grey hair, grey eyes and a beak of a nose, with a boosted physique under an Earth Central Security uniform. But he wasn't human at all. This was Albermech or, rather, a Golem android avatar telefactored from the AI of the Polity ship which was in orbit above. The number of these Golems scattered about Founder's World were all the same and instantly recognizable. The other individual, whose spider carrier body tilted him close to the glass, was a Cyberat. He retained all of his human body up from his waist, including his arms, in a similar format to Mallon. He looked incredibly old and wrinkled, his severe black eyes glaring at Piper from below a jutting brow that was etched with cubic sensory tattoos. It took a moment for Piper to recognize him as Castron – perhaps the highest up of all in the Old Guard – and he felt an unusually intense flash of sick rage. He immediately visualized this rage as the reptile, gaining substance under overlay and leaping forward to occupy his body. In this way he managed to get a handle on it and worked to suppress it. Weak emotions such as simple dislike or anger usually escaped the notice of his modifier, but Piper was sure this would garner punishment.

That he disliked this Cyberat, just as he disliked all the Old Guard, might again have had something to do with a hatred of authority figures, for Castron was the ultimate of those. Yet, even as Piper thought this, he knew he was rationalizing. The sick rage felt too personal – and it scared him.

Finally, having managed to shove the reptile into abeyance, and surprised his modifier still hadn't reacted, Piper studied the four of them and wondered what the hell was going on here. Why had he been operated on by a Polity surgeon and not taken straight into a Cyberat

progression hospital? And why was such a senior Cyberat here? Perhaps they could hear him.

‘I don’t understand why I’m here,’ he said out loud. His voice was surprisingly clear and easy, considering the circumstances.

Castron swung round to face Albermech. At first Piper couldn’t hear him but then a microphone kicked in. ‘. . . should be able to move him to progression soon?’ he was asking. Piper felt a surge of emotion, but couldn’t tell if it was gratitude or fear.

Albermech urbanely replied, ‘As you are well aware, the accident would have killed him had not one of our observers been nearby. Our medical technology saved his life, but it’s not so advanced that he can be moved just a few hours after being under the knife.’

Castron remained expressionless as he folded his wrinkled arms. Piper sensed his deep disapproval.

‘How are you feeling?’ asked his mother, quickly adding, ‘Not so good after what happened to you, I imagine.’

Piper stared at her for a long moment. Because of her rigid face and generally bland way of addressing people, it was difficult to read anything beyond what she was actually saying. However, since the Cyberat hadn’t yet managed to complete their full suppression of the nuclear family, he’d been able to spend a great deal of time with her before the state intervened. So now, along with the strange new clarity he seemed to possess, he was able to see the implied warning in her words. He put his head back, closed his eyes and coughed, wincing a little, then replied in a lower, weaker tone. ‘I feel like I was crushed by a beam end. It’s like I’m going to fall apart.’

He closed his eyes again, as if fighting back tears, but was actually preparing himself for a jolt from his behavioural modifier for the lie. Under this facade, his mind began to race, and a stark memory suddenly came to him: the image of Mallon watching him just prior to his accident. He speculated on just how many young Cyberat recently put to work on the sites had been taken in for progression in the last year. What he had previously uncomfortably assumed to be a conspiracy theory started to take on new weight.

‘I want all your data on him,’ said Castron, still facing Albermech. ‘It should be sent to me now, and I want regular updates. Hourly.’ Castron unfolded his arms and moved towards Albermech as though he was about to launch into one of his lectures about Polity interference, but then he jerked back, reaching up to clutch at his skull.

‘There, you have it,’ said Albermech. ‘As you can see . . . Oh, sorry, was that a bit too fast? But you should be able to take apart the information packet in time – it’s in your required format.’

Castron glared at him, eyes watering and obviously in some pain.

Albermech continued, 'I can give you the highlights. We repaired bone structure, sealed all the bleeds and, as instructed, haven't tried to reconnect his legs since you'll be removing them. We have saved his testicles, since you asked for that. However, the massive blood loss has caused tissue damage throughout. His body and brain are full of dead spots, so we injected a temporary nanosuite to break down any dead matter and allow regrowth. The process may take weeks. If we move him to a progression hospital now, he will probably die on the slab.'

Castron looked in at Piper, and Piper got the impression the man was weighing up the value of this. He then swung his gaze back to Doge and Reema and held it there for a long while.

'Keep me updated,' he finally said, before moving away abruptly and departing. Piper felt some tension seep out of him – the rage within had been mollified. The remaining three stood silently until Castron was gone, then Doge turned to Albermech.

'Why was he here?'

'More demands. Another inspection.' Albermech waved a dismissive hand.

Reema now interjected, 'My son . . . you said "bone repair"?''

'Of course not,' Albermech replied. 'It would take more than that to break his bones. I wasn't lying about the tissue damage, though, just how long it'll take to repair. It's nearly done now.'

Piper was shocked at the blatant lies given to such an important figure as Castron, then puzzled over their content. He'd felt sure his pelvis had ended up in splinters from the accident. Before he could think on this further, his mother continued, 'We are going to have to speed things up. It won't be long till they start taking more control.'

Albermech nodded and looked to Doge. 'How many factories now?'

'Fifteen,' Doge replied. 'But we're starting to get Old Guard interference. Demands and inspections there too.'

'It's time to push distribution – we need at least sixty per cent before we go online.'

'I hope that will be enough,' said Doge. 'I need to go back there. Maybe distribution of the upgrade interface and cerebral components could now be done by micro-drone. The rumour is already going around that they're Polity tech.' Doge swung back to face into the surgery room. 'Piper,' he said, and Piper found himself frantically trying to think what he might have done wrong, 'we'd hoped for more space to prepare, and that you'd have the choices you deserve, but time is running out. Listen to your mother and Albermech.' Doge

then swung away and disappeared the way Castron had gone. Again Piper experienced a release – something sighing out of him. With Castron and Doge gone, he felt less on his guard.

‘What’s this all about?’ he asked.

‘It’s about keeping you from the butchers,’ Reema replied, heading over to the outer door of the clean lock and opening it. ‘Here, right now, it’s about personal considerations, though I swore I wouldn’t allow them to affect my decision-making.’

She came through into the surgery room, with Albermech following. As they entered, the cylinder covering Piper’s torso parted along a castellated line and folded open, revealing the rest of him below. He expected to see further support hardware, but his lower torso, hips and upper legs were still perfectly intact, as if nothing had happened to him at all. A warm flush started at his chest and spread down, with full feeling gradually returning to his body. He twitched his feet and shifted his legs. He felt really good – even the ache in his bones was gone. But then he puzzled over his instinctive gladness to see the damage repaired. What he’d been about to have replaced, over in the progression hospital, with something machine-based and better, was still there. This wasn’t something he should be happy about.

‘Come on, get off there,’ said his mother. ‘We have things to discuss.’

He sat fully upright and swung his legs off the side of the slab. Albermech came over with a bundle from the Polity fabricator set in the wall, dropping a stack of clothing beside him. Piper gazed down at the garments, fondling the soft underwear and studying the ECS uniform. He had a momentary flash of distaste, since an organism shouldn’t be so pampered by comfort, or so he’d been taught. This disappeared as he started to dress and found he quite liked it, but then he expected another jolt from his modifier for entertaining such organic pleasure. As he put the pants on, he felt a warm surge in his groin and hurriedly pulled the trousers up on top of these – embarrassed about something he hadn’t felt since before his drug implant in puberty. Still no jolt, however.

‘How many have you managed to grab?’ Reema asked Albermech.

‘Just twenty-four, while over a thousand have gone in for progression. It’s not as disastrous as it might seem. While human tissue remains, a body can be reconstructed. Even Castron . . .’ Albermech waved in the general direction of where that individual had gone.

Piper finally slipped on comfortable boots that automatically closed about his feet. Standing up, he observed the perfect fit of the uniform. But of course, they would have known his measurements exactly. He wondered how he looked and recognized vanity as his mind strayed to how his contemporaries might see him. He ran his hands down the front of it,

his fingertips touching his penis through the cloth. No jolt again, but Reema stepped closer and slapped his hand away.

‘His hormone levels are rising,’ she said to Albermech. ‘I need him sharp. He’s not stupid and we’ve ensured he knows what questions to ask.’

Albermech dipped his head.

Piper, standing there flushed with embarrassment, felt something shift inside him. His intense awareness of his body began to diminish.

‘I’ve turned off his implant because his hormones are integral to proper healing. Of course, they also interfere with Cyberat indoctrination which is why they are suppressed. If they weren’t, the history of revolution here would be far more extensive than it is.’

‘Perhaps take it down gradually,’ his mother suggested.

‘I’ve set it for that. It’s presently down to the level of an elderly, base-format adult so won’t interfere with his thinking as much. The snap back, since he’s been under the implant for so long, would have been harsh.’ Albermech gave Piper a slightly amused look. ‘But otherwise, the hormonal effect on his brain will clarify his thinking, and is already doing so. I also shut down his behavioural modifier to allow breadth of thought.’

Shut down my modifier?

Piper reached up to the back of his skull and touched the nodule of the modifier under his skin – ready to be removed whenever his behaviour was judged sufficiently correct and adult. He felt a surge of what he identified as freedom to think any way he liked, quickly followed by a fear of that freedom. But he was soon able to quash the fear, deep anger from his shifting reptile pushing it aside as he suddenly felt very painfully alive.

‘Mother,’ he said, testing the modifier. Usage of that word would definitely have been punished, but the lack of reaction confirmed the thing was off. On having this proof, he suddenly felt an intense loathing of it. Whether that arose from the rational Piper or his reptile he couldn’t tell, but he would certainly be doing everything he could to ensure it remained off. He continued, ‘What the hell is happening?’

‘I’ll deal with this now,’ she said to Albermech.

The Golem avatar nodded. ‘Things to do,’ he said, then dipped his head and froze to the spot. Doubtless Albermech, Polity AI, had now shifted his attention through to other avatars and systems as he studied their world with his complete omniscience and omnipresence.

Reema reached out and took hold of Piper’s arm, guiding him towards the clean lock. They walked through into the viewing room, then through a sliding door into a corridor. Piper

inspected his surroundings with curiosity, wondering where he was. The Polity had numerous small installations scattered around Founder's World – perfectly enclosed and no interaction allowed outside of them. There was also the Embassy in Ironville. As she brought him to a canteen, he gazed out of the panoramic window to one side and saw that they were in the Embassy.

She led the way over to a table beside the window. Only one other of the meagre scattering of tables in here was occupied. He studied the four sitting at it. Two women wearing Polity monitor uniforms. A man, casually sprawled back in his chair, in a silvery grey suit seemingly copied from some old age of Earth. The fourth, in blue overalls, was a Golem android, made obvious by the fact he was sans skin on one arm and the side of his head. He turned to look at Piper, revealing his silver skull, white teeth and a bright blue lidless eye that matched the one on the skin side.

Piper and his mother sat at their table and the Polity people continued their low conversation. He turned to the view of Ironville, with its trapezoidal buildings, low factory blocks, and air buzzing with Cyberat and big grav-transports. Reema concentrated on the table top to work a touch screen, then sat back.

‘What is the population of our world?’ she asked.

Piper dipped his head, remembering their times together before he'd joined the building crews. It was going to be one of *those* conversations.

‘Eight hundred and forty million, at the last count,’ he replied. The familiarity of being in one of her lessons pushed away the anger, but it worried him that his reptile now seemed permanently lodged under an overlay in his mind. As ever, he couldn't tell whether it was driving him or he driving it, but did that matter if the result was a clarification of thought?

‘That is a very low population,’ she told him. ‘When we departed, Earth had a population of twelve billion, with a further six billion scattered through the Solar system. Why is the population here so low?’

Piper blinked. This was a question she had never asked before, perhaps because she knew that he previously couldn't think beyond what was allowed.

‘Because we limit population to food production.’

‘Wrong. Try again.’

‘Solar radiation causes high DNA damage and selection—’

‘Wrong again.’

‘We are limiting our environmental footprint because—’

‘Wrong.’

‘Technological processing must match human increase because—’

‘Wrong, and of course these are all the answers you’ve been given through Cyberat schooling: the permitted answers. But, within the constraints of your modifier, I taught you to think, to question and to assess.’

‘Within constraints,’ he said. Yes, his constraints were off. He felt in some integral ways as if he’d suddenly jumped forwards to his true age. Without the pain, and threat of pain, would he still be able to partition and control that part of him which seemed to be utterly irrational and yet, on other occasions, also seemed to drive extreme rationality?

She nodded sharply. ‘I know you’re not stupid – you are in the highest percentile through birth genetics *and* genetic modification. I also used nootropic therapy and growth factors to increase this during your schooling.’ She flicked a hand up beside her head in a gesture he’d learned to read as an apology. ‘It’s because of your alterations you ended up under the behavioural modifier in the first place. An intended and beneficial corollary that in part saved you from progression until now.’

Piper gaped, the shock of her words tightening his guts and sending a hot tingling through his limbs. He fought to maintain the overlay and keep the reptile down. It was simply against the law for parents to intervene in any way like this – that was the purview of the progression hospitals. It was also criminal to delay progression. Right now, his modifier should have been repeatedly jolting him to report such infractions, for them to be punished severely. A person could end up with a permanent modifier installed, perpetually punishing aberrant thought processes until, with their minds shaped to the purpose, they eventually became Enforcers. Now, having found his body completely restored, he understood that his parents had already gone way beyond the law. There was a bigger picture here of which he was only just getting the first pieces.

Anger swirled up. He dipped his head to try and think carefully, then raised it as a floating tray crab drone settled in the middle of their table and began distributing dishes.

Distraction . . .

He goggled at the colours, shapes and textures of the food, doing his best to derail the anger. Food, like sex, was frowned upon by the Cyberat. Both were organic activities which, if they couldn’t be eliminated completely, were tightly controlled. His usual daily nutrition consisted of a slab of proteins, fats and vitamins and measured quantities of liquids containing similar nutrients. He took these in quickly and without pleasure, annoyed by the necessity of having to maintain his organic body in this way. And *apparently* looking forward

to the time he'd only need to top up an internal reservoir to keep his remaining organics functioning.

'Eat,' said Reema.

So Piper ate, expecting annoyingly organic gratification. At first he found the experience uncomfortable and his stomach seemed to agree. The textures weren't right and the tastes were strange. Then he tried something else that gave a sudden rush of incredible pleasure. It was so intense, and so good, his eyes filled with tears.

'What is that?' he asked, pointing at a piece of what looked like brown foamstone with white layers, soft and glutinous.

'Gateau,' Reema replied. 'You're experiencing this reaction because it's the first time you've tasted unencapsulated sugars. In the ancient past they caused all sorts of health difficulties. No problem in the Polity now though, especially with the nanosuites.'

'Nanosuites? I have one inside me?'

'A limited suite, because of other factors,' she said dismissively, then continued, 'You still haven't answered my question correctly. I taught you not to be distracted by ephemera when you have some thinking to do.'

He stopped eating and drank from the beaker provided. The liquid tasted bitter, pretty much on a par with usual Cyberat food. He put it down and turned his thoughts inwards, the anger having receded: the distraction had been sufficient. He'd always known that both his parents, like many mid-generation Cyberat, greatly disagreed with the dictums of the Founder and the way they were applied by the Old Guard. Now he realized their disagreement went further than just comments and attitude. Retrospectively, he could see that his mother's choice not to hone herself down to plug form reflected that. He also remembered his father's disparaging comments about his own machine body, and regrets about losing touch with the world, hence his dislike of using grav. This knowledge acted like a key to much he had learned on the sites. Now he again picked at the fragments of conspiracy theory and began to patch them together.

'The Old Guard want to keep the population low because a lower population is easier to control,' he said.

Reema nodded and her mouth twitched, which was the closest she could get to a smile. 'The failure rate in the birthing facilities is close to seventy per cent. Albermech has analysed this and informs me that even with the old technology they have, it should still be below twenty per cent.' She paused, perhaps feeling some emotion that simply couldn't show on her face. 'Now think about the mechanism of control. Think about how Old Guard have

died in the past, and that even the likes of Castron were not one of the first.'

'The Old Guard were the New Guard fifty years ago, during the last rebellion,' said Piper as he tried to keep his thoughts in order.

'A cycle that has been repeated many times here, though that reality has been removed from the education system,' she replied. 'Continue.'

'As we adopt more and more of the cyber and lose more and more of our human bodies, we come to think like the . . . Old Guard.'

She nodded sharply. 'It's actually a system that has operated throughout human history, and without any cyber technology involved. The new rebelling against the old, but following that rebellion becoming the old. The establishment. It's almost comedic when you see it that way. However, with us it's done by dint of eliminating numerous options for human advancement, and ways of living, confining them to the cyber and the acquisition of power.'

Piper didn't consider it comedic. He felt his reptile rising, seeking to lock on to something. The logical thread had led him here, yet it denied so much he'd previously accepted. He looked down at his body and still saw it as something inefficient – something that needed to be replaced by the machine.

'Surely the machine is best?' he said, looking up.

Reema shrugged. 'And that is what we have been convinced of ever since we first came here, and even before the Cyberat were building their colony ships to leave. The reality is actually perpetual loss of the whole to be replaced by inferior parts.'

'Inferior!' He felt a flash of anger, and yet rather than the inner anger of his reptile, it was something not so deeply rooted.

'Oh we can have stronger limbs and different limbs. We can control technologies as extensions of ourselves, and we can expand the processing of our minds. But then we get into the philosophy of it: to what purpose are we doing this? Do our lives have more joy in them? Do we gain greater satisfaction from our power? These desires, in the end, arise from our human aspect. Even Castron has recognized this and so keeps what remains of his body, while at the same time fighting to maintain the system. Because of his human need to cling onto power.'

This felt like too much of a stretch. Piper's intensive education had given him a deep understanding of the science. All Cyberat physical enhancements made them stronger, faster and more efficient than plain biological humans. They became perfect mentalities, with hugely enhanced control of their environment!

But to what purpose?

He reviewed what his mother had just said, now in the light of some simple experiences: how he'd felt seeing his organic body restored, the soft cloth against his skin, that brief surge of sexual feeling, and the taste of that gateau. Deeper memory played its part too. He looked back on brief joyful times in the past, of growing up between the constant lessons, before hormonal suppression and before they'd put him under the behavioural modifier. He remembered friendships, swiftly clamped down upon. And he remembered a repeated dream, arising out of memory, of a young girl by a river and how they'd spent many hours together there on bright sunny days. This had occurred just when he entered puberty, and he realized that once put on the drug implant, he'd never seen her again, or ever felt the same again. His mind catalogued these moments and then compared them to the arid, intellectual and mechanistic future of the Cyberat. It seemed his new mental clarity would allow no denials.

'Indoctrination,' he said, and felt another surge of that deep reptile anger.

Until that moment, he had simply perceived everything done to him as correcting his organic faults, in preparation for him becoming a full Cyberat and a productive member of society. He understood the displacement of the human as a way of being rid of his angry and irrational inner self. Now he saw it for what it was: suppression of the human to make individuals more malleable slaves of the ruling Old Guard. This mental transition felt radical – as if whole blocks of his consciousness had shifted round to different positions. Was this something of that 'snap back' Albermech had mentioned earlier? The reptile overlay broke and shifted, and it seemed almost as if elements of his identity were fading in and out of focus.

'Outstanding,' his mother replied. 'You have been taught from an early age to sneer at the organic human and place cyber enhancement on a pedestal. The Founder knew what he was doing when he first established our world. His vision of a cyborg future required complete suppression of the organic. We had to be prepared from a young age, so we would be willing to accept our integration with the technology calmly.' She reached up and touched her plastic face.

'So how is it you've *not* accepted it?' Piper asked, feeling daring in asking such a question.

'One moment.' She held up a finger. 'There is further information you need at this point. The original thesis of the Cyberat was to enhance the human through integration with technology, not to *replace* the human. Perhaps on other worlds this has happened, since the

Founder was only one leader aboard one colony ship from Earth, and subordinate to a ruling council.'

'What?'

'Why do you think you were kept from progression for so long?'

'Because I needed to learn how to control my anger issues before going through that process, otherwise I could become a societal danger.'

'No, not really. If you became a danger, the modification would have continued and you would have ended up an Enforcer. We were able to delay your progression by arguing the original thesis, and we only managed that because of your father's position in the hierarchy.'

'I see.' His mind started fizzing with this new input.

She continued, 'Throughout our history here, the original thesis has been distorted to show contempt for the human and the organic, and a need for its removal. The five rebellions we've had have all been by those who didn't accept this distortion. Even Castron and the present Old Guard rode on that idea, until they obtained power. Then they quickly abandoned it. But others, and I, still agree with the original, which is about enhancement, not replacement.'

'Five—'

She interrupted, 'In fact, much as they are doing in the Polity.'

Piper sat there absorbing another blow to his past thinking. He felt he couldn't encompass all this properly – it was too contrary to his Cyberat education. However, the more he turned over these facts in his mind, the greater his acceptance. At first, he felt oddly relieved. When he realized he was being presented with the truth, not political expediency, that reaction wasn't so strange.

'How do you know this?'

'Albermech has given me access to much information not available in the netlinks the Polity has provided more widely to our population. And you might be interested to know that the limitations on that information do not come from the Polity, but have been imposed by the Old Guard's censorship.'

'Fuckers,' said Piper, teeth gritted and suspicions confirmed.

His mother's arm flicked out and she slapped him across the face. The education she'd provided had often been as harsh as general Cyberat education. She didn't frown on profanity, but on loss of control, and Piper had just displayed the angry thing constantly boiling inside him. He noted the four at the other table briefly look over. The guy in the suit

looked amused as he turned back to their conversation.

‘I apologize,’ said Piper, feeling embarrassed.

‘Do you now understand why I taught you not to show your emotions?’

Piper struggled with the anger, again using the mental technique of attributing it to the reptile and distancing himself from it. He finally dipped his head and the anger hardened into a cold exactitude; it was the clarity he felt from the reptile overlay on the rare occasions he countered an argument or expressed an opinion. Only now it was much stronger.

‘Because you were preparing me for the truth about the Cyberat, and needed me to conceal that truth inside me. You tried initially to help me avoid getting a behavioural implant, but that failed. And you were preparing me for . . . rebellion?’

‘It was a long game. It could have led to you becoming a teacher just like me, and rebellion would still lie sometime in the future. But now, with the arrival of the Polity, things have changed.’

Piper understood this, but cycled back to his previous question again: ‘How is it that the indoctrination didn’t work on you?’

‘The information about the original Cyberat thesis can never be completely erased. There are those who maintain it but keep their heads down, and it’s available for anyone who’s prepared to look. I was one of them, and I found your father, who had long known how things are. We connected to others and I’ve steadily learned the truths of our society. This is how it’s happened every time, leading into the previous rebellions too.’

‘And yet they’ve all failed.’

‘Old structures reasserting, as I said before.’

‘And now the Polity . . .’ he prodded.

‘The Polity is prepared to intervene, but only if certain circumstances prevail. A high percentage of the population needs to be aware of what has been happening here, and to that end your father is distributing secret software in the latest upgrades and tech replacements. When he has distributed a sufficient quantity of these items, the Cyberat in receipt of them will be presented with the data you now have, and more.’

‘Why is that necessary for intervention?’

Even with her enamelled face Piper could see the question made Reema uncomfortable.

‘When it reaches a certain number of recipients, the information will spread to all, and everyone will know the original Cyberat thesis, how they’ve been indoctrinated, what has been taken away from them, and what the true aims of the Old Guard are. For most of them,

it will just be confirmation. But they'll also learn what they can gain from the Polity – how much can be restored. The paradigm will change and the Old Guard will fall.'

Piper noted that she hadn't actually answered his question. He tilted his head and gazed at her in query. She remained silent for a moment, then snorted.

'I taught you well,' she said. 'Rebellion and intervention. If eight hundred and forty million Cyberat think they are under attack from the Polity, many will respond. However, with the right information, most will not respond and a portion will join the rebellion. These matters are always decided by the minorities of major populations.'

'But the Old Guard is powerful, and they have their Enforcers . . .'

'They are already responding. Why do you think that accident happened to you?'

He again remembered Mallon looking at him, and understood.

'Deliberate,' he snapped, then leaned back to avoid a slap that didn't come.

'The accident rate has always been high here,' she said. 'At one time I simply accepted that, until Albermech pointed out that it shouldn't be so. It's been mostly deliberate, to hurry Cyberat into progression from their youth. Now, knowing just what a threat the Polity poses to them, the Old Guard has accelerated the programme. In the past, the accident rate was thirty per cent and it has gone up above sixty. And there have been many full deaths. Yours would have been one of them, without the Polity's intervention.'

'It seems illogical,' he said. 'By pushing people into progression, they're not necessarily creating supporters.'

'Except, of course, they've decided that newly progressed Cyberat will receive modifiers for the duration of the *emergency*.'

'What emergency?'

'They have classified the Polity as a potential threat, since it arises from the artificial intelligences of old Earth, from which the Cyberat fled.'

'That's ridiculous.'

Her shrug was eloquent.

'What can I do?' he asked.

His mother stood up abruptly. 'I would rather you did nothing, but unfortunately we've reached the point where inaction is no longer an option. Being protective of you would simply be a selfish act on my part.' She turned to the suited man, who'd also stood up and was approaching their table. 'Inster here will show you some things . . . I must go and prepare the others for what is to come.' She walked off with no further word.

Piper stared at her retreating back. A stray thought then arose: Mallon was a powerful

Cyberat of the Old Guard, yet she had visited and taken control of a house construction site. The one where Piper had been working, and he was the son of rebels . . . how much did they suspect?

