

Scouring Juventas

Preview

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Prelude – Tertiary Duty: Initiation

Bekomdef awoke, took a few long seconds to survey its environment, and immediately imposed a new, third duty upon itself.

On the positive side, Bekomdef was stronger now. It could act decisively and with deadly force. Yet, its intervention could not forgo the strictures that bound the actions of its people.

Bekomdef's primary duty long ago had been the resolution of the Latasulain infringement. After the failure of the opening formal intervention stages, Bekomdef volunteered to undergo a one-way transformation to impose the ultimate sanction. It was rare for a race to proceed to the final stage, but the Latasulain were particularly stubborn.

Once it was over, Bekomdef rested. As it had no way to return home within the lifetime of this universe, it chose to enter a deep sleep. With its senses cast lightly across the local system to intercept any Latasulain stragglers, it allowed the remains of its destructive potential to fade away over the centuries without noticing the passage of time.

That was a mistake.

An aeon later, Bekomdef was jerked awake by the arrival of another vessel into the system. Two things were quickly apparent: this was a different race, yet they also routinely contravened the same fundamental law as the Latasulain.

As much as Bekomdef yearned to strike out decisively, it was too weak. It also had to follow its own rules. There was no choice but to self-impose a secondary duty to handle this incursion, opting to observe while rapidly absorbing energy.

It intercepted their internal communications to try to size up the threat. This new race referred to themselves as human and did not yet appear to have been contacted by others from Bekomdef's race. That was a state of affairs that would not last long given their actions, but Bekomdef could make first contact once strong enough.

Before Bekomdef had a chance to act, the ship jumped away from the system, leaving only a smaller automated vessel behind. That was something it could handle without contravening its laws. Once complete, Bekomdef waited for more humans to return, all the while regaining strength.

No more came.

A century later, Bekomdef decided its second duty was complete. It opted to slumber, ensuring it would awaken if the humans visited the system again.

When they did eventually return, Bekomdef missed the new vessel's arrival at first, sailing slowly and serenely into the outer system. The ship was massive. Six gigantic rings rotated around a central spindle with engines fitted at one end, currently pointing towards Bekomdef's planet. The rate of deceleration would put it directly into orbit.

It was a large enough craft to be carrying a viable population of these people, arriving an order of magnitude below light speed. It must have taken generations of their fleeting lives to arrive. They clearly intended to form a human colony on the planet where Bekomdef currently resided.

A third duty was required, but first Bekomdef had to ascertain the scale of the threat. That was when things became complicated.

The human race had seen the error of their ways. They no longer transgressed the fundamental laws policed by Bekomdef's race. Perhaps they had realised for themselves, maybe another of Bekomdef's people had persuaded them. No matter. There was no need to begin a four-stage intervention, at least not yet.

That suited Bekomdef fine. Negotiation and persuasion came naturally before its transformation to enact stage three of the Latasulain intervention. Afterwards, it was only suited to one task: destruction. Starting back at stage one would be difficult, but it would have had no choice.

Although there was a residual concern, Bekomdef resolved to hold this third duty in abeyance. There was no need to commence stage one of an intervention yet. It would continue to observe the humans.

After the colonists arrived in orbit, shuttles made their way down to the surface, landing near the south of the single huge continent. That wasn't a surprise, as that had been the primary location visited by the scout ship. They proceeded to start work.

The humans were industrious, spreading out from the original landing area and clearing a large, circular region. After digging deep around the circle's edge, they laid the foundations for a solid, perfectly flat, ring-shaped floor.

Bekomdef guessed what it was for, but it was still impressive to watch as it happened. The first indication that something was about to change was when it noticed that no life forms remained inside the habitation ring furthest from the ship's engines. The massive ring gradually detached from the spokes connecting it to the spine, small thrusters firing to guide it gently away from the rest of the craft.

The next part surprised Bekomdef. The ring tilted until it lay parallel with the planet's surface. Then it shimmered, a sudden shift in the gravitational field changing space around it. It lowered into the atmosphere slowly, floating as if the planet's gravitational well no longer existed. The ring hovered down and settled perfectly over the circular foundations without any fuss.

Having observed their technology, Bekomdef was convinced that this level of local gravity manipulation was way beyond the humans' other capabilities. It implied they truly understood how gravity propagated into this universe from the substrate.

There was one likely explanation. Bekomdef's people had taught them this technique as an incentive to change their behaviour, and if so, it was a fair exchange. Similar deals had been made with other species. If only the Latasulain had been so reasonable.

After the ring descended to the surface, there came a period of consolidation as it was reconfigured internally given the shift in its direction of gravity. Once complete, more people shuttled down from the ship to take residence in the ring before the pace of change picked up.

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They cleared tracks from the first ring to a river coursing from the northern mountains down to the ocean. Another circular foundation was prepared, this time bridging the stream itself, and the second ring was lowered into place. Things rapidly accelerated from there, preparing foundations and building tracks between them until all six rings had been brought to the surface, spread evenly across the local region.

Accommodation began to be built on the land within the rings, then alongside the roads and beyond. Even the shuttles were repurposed as buildings. The whole region was cleared within a few decades, with much of it given over to agriculture, providing a sustainable basis for the colony. The ship in orbit was abandoned.

Bekomdef's interest began to wane. The colony's behaviour became surprisingly conservative, not straying beyond the initial region, nor expanding the population significantly. Perhaps they wanted a prolonged period of stability before expansion; maybe they'd designed a small, static society from the outset.

Whatever the reason, Bekomdef no longer saw anything of concern. There was no need to intervene for the foreseeable future. Bekomdef relocated nearby to monitor the situation.

With the third duty remaining in abeyance, Bekomdef configured its senses to alert if the colonists spread closer, returning to a vigilant sleep.

Part One

The Outage

Chapter 1 – A Fresh Start

Jess Kimber let her mind wander as the Senator droned out the expected platitudes. Jess knew she'd been good at her job; she knew she'd be missed. She could predict everything else he would say. The passive-aggressive banality would skirt around his disapproval of her departure, all leading up to the big send-off where things would be fine without her in a leaner and meaner operation. Yada yada.

It had been quite a year.

At the start, she was married, at the pinnacle of her career running the Juventas colony's premier development, and had just been nominated for the Senate. Now she was divorced, out of a job, and had no purpose in her life for the first time.

It was hard to describe how happy that made her.

When younger, Jess had no problem dealing with the stress of continual feature delivery deadlines, all part of her never-ending daily grind. Every election was particularly fraught, with demands for even more secure infrastructure from her development team. Indeed, she thrived under pressure and rapidly rose to the top. Then everything changed.

A coincidence of events left her disillusioned in the role as the end of her forties loomed. Increasingly, there was rarely anything radically challenging to develop, merely another turn of the wheel to churn out yet more pointless enhancements to keep politicians happy. Jess needed a change. The trouble was, she had no idea what came next. Something would turn up.

It had proven impossible to reinvent herself while stuck in the daily routine, her motivation spiralling ever downwards. So here she was at her leaving presentation, desperately wanting the ordeal to be over so she could begin to recharge herself and rebuild her life.

It sounded as if Senator Dajun Chang was drawing to a close, having bored himself to a halt, so Jess stopped playing with her bracelet and focused back on his words.

'As much as we'll miss Jess, life goes on,' said Dajun. 'The project will be safe in Andy Lester's hands. I couldn't have been more delighted when he agreed to take on the role.'

Her good friend and deputy, Andy Lester, nodded sheepishly as Jess mimed clapping her hands at him in approval. At least that was one positive outcome from all this. Andy deserved it, not that she'd given Dajun any choice but to appoint him.

Jess had been grooming Andy to replace her for years, although she'd expected to move upwards, not out. Life was full of surprises. Still, knowing Andy would take over had made Jess's decision easier. The team would have a smooth transition under the guidance of someone she trusted.

Dajun looked directly at Jess for the first time since starting his monologue to the disinterested team. They were all waiting for the free drinks once this was over.

'Thank you for your years of service, Jess,' said Dajun. 'You'll be missed. I hope your talents don't go to waste for too long.'

And that was it from the Senator, finishing off with the disapproving dig he'd given Jess several times recently. Despite behaving distantly since her resignation, the Senator hadn't been a bad boss over the years. He didn't deserve her public disapproval. She'd dial back on the sarcasm a little.

'Thank you, Dajun,' said Jess. 'I promise not to let all my copious spare time go to waste.'

Jess rose to her feet, smiled, and looked at her team. There were only a dozen of them now, down from the twenty of a couple of years back when they had more to do. Perhaps she should have prepared a speech, but that wouldn't have come across as natural. Her team – ex-team – wouldn't respond well to anything that wasn't genuine.

'Honestly, it's as much a surprise to me as you that I'm standing here right now,' said Jess. 'I never thought anyone would ever say the words I'm about to utter, especially me, but it's true: I was inspired by Ravi Antic.'

That got chuckles all around the room. Ravi Antic was one of her former team members who'd resigned a few months earlier without having anything else lined up. He was an odd fellow, a brilliant engineer, knew the system's security inside out, just never got on well with humans. Technically, he'd been a great loss, although the atmosphere was more cooperative once he'd left.

What else should she say? Everyone was crammed into the testing facility – the largest room in their office – finding space to stand in between the desks and terminals. She'd spoken to them all individually over the past couple of days, and it was clear they were getting restless.

'Look, I've already told you why I'm leaving,' said Jess. 'I'm going to miss you all, but you know Andy will do a brilliant job, and let's be honest, you'll have forgotten about me by this time next week. So let's get this over with. The drinks are on me!'

That was a guaranteed way to get a round of applause. Everyone knew where to go and started filing out of the room, eager to get to the bar first. Unfortunately, that left Jess at the back with Senator Dajun Chang.

'No last-minute regrets?' said Dajun, as they edged forwards. 'It's not too late to change your mind.'

'Definitely not,' said Jess. 'Besides anything else, I couldn't do that to Andy. He deserves this chance.'

It had caused her second thoughts when turning down the promotion to the Senate. Andy Lester had never said anything, but Jess realised how disappointed he must have been. She was the roadblock to any advancement for him – another reason for her to stand aside now.

Dajun's thoughts must have gone in the same direction.

'You never did satisfactorily explain why you turned down the Senate,' said Dajun. 'Not in a way that made sense to me.'

That was a difficult one to answer without saying that it was the prospect of working more closely with him and his ilk every day that was the final straw. Luckily there was another reason, although cause and effect were somewhat muddled.

'I couldn't say at the time as it was still falling apart,' said Jess. 'You know what's happened with my marriage since then. There was too much going on for me to do justice to the role. It was better that I pass and let someone who could focus properly take on the challenge.'

'Very professional,' said Dajun. 'I may suggest your name again when the next suitable vacancy arises.'

There was zero chance she'd accept it. The more she'd gotten to know Dajun and the other Senators over the years, the less the role appealed to her. The Senate fulfilled a vital role in the community – a group of selected experts in every field who scrutinised, revised, and ratified laws passed by the elected Council, acting as a brake on their occasional excesses – but it wasn't for her. She needed creativity in her life, though this wasn't the moment to point it out.

'Thank you,' said Jess. 'That's very kind.'

Jess knew she wasn't being fair to Dajun. She couldn't complain about his performance overseeing the Node development. As her effective boss, he acted as an advocate for her team in the Senate, shielding them all from shit when something inevitably went wrong. She owed him a lot. He was also one of the few people at work around her own age.

But damn, he was dull.

As the weather was fine for the afternoon, she'd chosen the outdoor bar in the centre of the Unity ring for her farewell drinks. A bad storm was forecast for later, but it shouldn't affect lunchtime, and Jess fully intended to be home before it arrived. Descending the stairs from the development labs, they made their way through the ring's inner wall into the open air.

Unlike the built-up centres of the other habitat rings of Juventas, a green park had been created within Unity, the main admin and government facility. It was the perfect place to spend lunchtime, wandering through the trees, lazing on the grass, staring across the lake. Dotted tastefully here and there were all the cafés, bars and food stalls the Unity workers needed.

Jess loved it. It was the main thing she'd miss about working here. It could have been claustrophobic under the towering walls of the ring, but the sheer scale as it curved away to either side was dwarfed by the expanse of sky above. It was hard to see the wall opposite, given the trees breaking the sightline and the ring's breathtaking diameter.

Dajun broke the pleasant silence of their walk.

'You should be proud of your legacy,' he said. 'You've turned a rushed, archaic project from the colony's foundation into one that will stand the test of time.'

'I am,' said Jess. 'To be honest, that's part of the reason why I'm leaving too. Yes, there's always something to do, but we've completed the challenging stuff. It's all variations on a theme now, nothing fundamentally new, and I know Andy can keep things moving forward just as well without me around.'

Jess had been responsible for the ongoing development of the prosaically named Nodes. By law, every home in the colony had a Node – a wired connection to the central Nexus. As

well as providing access to information systems, news and entertainment services, it also formed a mesh network for reliable wireless access across the entire region.

Most of these capabilities had been added or significantly enhanced under Jess's tenure, building upon the original purpose of the Node: voting. All the colony's five-year elections and occasional referendums were carried out exclusively using Nodes with built-in biometric scanners for security.

Having upgraded the hardware and significantly extended the feature set, it was now mainly in maintenance mode, with minor new features added at the request of the Council. Nothing exciting was on the horizon. Jess was more interested in its history, not its future.

She'd come across intriguing references in the oldest codebase to events surrounding the creation of the original personal voting system. In her copious free time now, she fancied digging through the old records to see what she could find out about those times a century earlier. It would only be a part-time distraction while recuperating from life, but it could be fascinating.

'You're looking for a fresh challenge then,' said Dajun. 'Do you know what yet?'

'No clue,' said Jess. She didn't want to mention her side project yet. 'I'll know when I see it. I hope.'

The conversation seemed to have exhausted Dajun's small talk. The rest of the walk along the lakeside passed quietly. The wind had picked up slightly, presumably a harbinger of the forecast storm, but the early afternoon sun made it a pleasant stroll, despite the company.

They arrived at a wooden footbridge leading across to the small island where the outdoor bar was located. Jess was wondering how to make her excuses from Dajun to talk to other people when Andy Lester solved her problem. He was waiting on the far side of the bridge, holding a couple of beers.

'Here you go,' said Andy, proffering her one glass. 'Thought you'd be thirsty after that walk.'

'Cheers,' said Jess. 'Just what I needed.'

Andy grinned.

'No problem,' he said. 'I put it on your tab.'

'You're so generous.'

'Last chance I'll get,' said Andy. 'Sorry, Dajun. Only had two hands.'

'I'll get myself one then,' said Dajun.

'Put it on my tab too,' said Jess. She waited until he was out of earshot. 'Quick, let's get more people between us and the bar. I don't want to spend my leaving do talking to him all the time.'

'Hey, that's my new boss you're insulting,' said Andy. He laughed. 'Can't say I blame you.'

Jess would miss working with Andy Lester every day. His light-hearted nature helped relieve many stressful meetings. Even his continued friendship with her ex-husband hadn't put a dampener on things.

They made their way to the far edge of the island to look out across the water.

'Dajun's not too bad,' said Jess. 'You'll find him a pretty good boss, but I just want to relax now. It's over at last.'

'No regrets?' said Andy.

'You sound just like Dajun.'

'How dare you!'

'Sorry.'

'That was funny what you said about being inspired by Ravi,' said Andy. 'Outsiders might have thought it was cruel, but we all knew him. For all his talents, being a source of inspiration wasn't one of them.'

'Oh, I intended to be a bit cruel,' said Jess. 'But it was the way he left that gave me the idea in the first place. You know how rough things have been for me in the last year. This is just what I need.'

'I know,' he said. 'Things must have been bad to turn down the Senate role.'

'That was when I knew I had to change my life,' said Jess. 'I mean, can you imagine working with Dajun every day?'

'Brave move,' said Andy. 'Toby wasn't impressed, was he?'

Jess snorted involuntarily. Toby Price, her ex-husband, seemed to take it personally. It had been the final nail in the coffin of their already decomposing marriage.

'I never told you his exact words,' said Jess. She mimicked his gruff voice. 'I'm worried about your loss of influence and earning potential.' Jess shook her head. 'I mean, who says something like that? That put me in my place. Let me see what was important to him in our marriage. All he cared about was the money I brought home.'

'What did you say to that?'

'It included the word *off*,' said Jess.

Andy smirked briefly, nodded, and fell silent.

'Sorry,' said Jess. 'I know you're still friends. I'm not going to ask you to take sides.'

'It's fine.'

Andy tactfully changed the subject.

'Did you see Ravi's going on Till Bullen's expedition? They finally announced his crew today.'

'No, really?' said Jess. 'That's a surprise. Then again, he always did like going on wild goose chases.'

'Yeah, he did go down a few rabbit holes,' said Andy. 'Mind you, I'm interested to see what they find, even if the Council don't seem to be keen.'

Jess hadn't particularly been following the story, but it was hard to miss. Philanthropist Till Bullen had financed a small, private mission to explore the nearby regions, based on orbital pictures from a century ago. The Council didn't see it as a priority but hadn't gotten in the way.

The colony was located at the southernmost point of the single massive continent on the planet of Juventas, surrounded by an ocean and impenetrable mountains to the north. The only navigable way northwards was via the valley of the River Hebe.

'Looks like Ravi had something lined up after all,' said Jess. 'Guess he couldn't talk about it until now.'

Andy smirked.

'If you're still taking inspiration from Ravi, you'll have to run along and see if you can get on the boat,' he said. 'You'd better hurry. They're leaving tomorrow.'

Jess poked out her tongue.

'Wonder if they realise what they're getting with him? If it's the same as us, he'll be all friendly and cooperative at first, then start suspecting each person in turn of trying to undermine him behind his back. Or maybe some critical coding misdemeanour, which was even worse in his eyes.'

'He was a nightmare in code reviews,' said Andy. 'They've started being useful again since he left.'

'Remember when he accused you of deliberately putting in security backdoors?' said Jess. 'You should have seen your face. Never seen you go purple before.'

'As if I could forget. Mind you, he was partly right, but it was only diagnostic code to be compiled out of the production build. I think he thought I was going to sneak it in while no-one was looking.'

'I know,' said Jess, rolling her eyes. 'Mind you, he should have known you could never have slipped your perfidious plot past me.'

'Damn, I should have tried while I had the chance,' said Andy. 'Too easy now I'm in charge. No challenge.'

This was another thing Jess was going to miss, their good-natured ribbing. Indeed, she'd miss the people in her team more than anything. Despite becoming bored with the technical side of the job, she'd grown to enjoy the personnel management, getting to know and motivate everyone, and fostering their careers. Ravi had been one of her few failures.

Jess took a long final look across the water, over the trees and the artificial grassy hill to see if she could find her old office halfway up the ring wall. And there it was, an inconspicuous window that had been the centre of her professional world all these years.

It was hard to imagine that immense ring originally being part of the starship that had delivered the first colonists to this planet. The ship's size must have been incredible. The current walls had been the floors for the generations of people living in the vessel on its voyage from Earth.

Unity had been the first ring to be detached and brought down to the surface to form the colony. One by one, each was floated to the foundations below, culminating with the Sexton habitat near the coast. Jess's home was a kilometre from Sexton.

At first, it had been a struggle, but things had been stable for the last fifty years. Maybe Till Bullen was right, and it was time to start expanding, but Jess worried it might destabilise everything again. She'd rather have a safe, sustainable existence than an exciting one.

The rest of the lunchtime passed quickly. Jess did the rounds, chatting to everyone in turn, ending up back with Andy Lester again. Andy seemed surprisingly tense.

'Something wrong?' said Jess.

'I think it's just hit me,' said Andy. 'I'm finally in charge. All the shit I used to bring to you to sort out, that's what everyone's going to be doing to me now.'

'You'll do fine,' said Jess. 'You can call me anytime you need to talk.'

'I know, thanks,' said Andy, 'but I'll try to avoid it. I've got to find my own way through things. Nobody will respect me if they know I'm running to you whenever something gets difficult.'

It was nearly time for people to start making their way back into the office for the afternoon. Jess had no intention of returning with them.

'I hate final goodbyes,' she whispered. 'It's not like I haven't said it twice already to everyone. I'm going to sneak off while nobody's looking. Tell them I said I was going to the loo but never came back.'

'Sneaky,' said Andy. 'Sure you don't want me to fetch Dajun?'

'Bugger off.'

Jess snuck away and across the footbridge on the island's far side. To her delight, she managed to escape unnoticed. There was no need to go back into the office, having taken all her personal stuff home over the previous few days. The quickest way was to head out via the entrance near the main Council chambers and catch the train back to Sexton.

As Jess passed through the ring, an annoyingly familiar voice from behind put her instantly on edge.

'So it's true. You've really given up.'

Jess took a deep breath and turned to face the sickeningly perfect features of Toby Price, her ex-husband. She had no intention of acknowledging his jibe.

'What are you doing here?' said Jess. 'Daddy let you off the leash?'

'Here on business,' said Toby. 'Some of us have work to do.'

'If you can call being your Daddy's gopher *work*.'

Ryder Price, Toby's father, ran the premier fishing business in the colony. Based in the Sexton region, it spread along the coast beyond the Triax ring on the other side of the River Hebe. Toby and his sister, Helen, were officially his deputies but basically did whatever they were told.

'Nice to know what you think of me,' he said. 'Wish I'd realised it years ago.'

'What I think of you?' snapped Jess. 'That's rich. All you cared about was my salary.'

'That's not true,' said Toby, deploying the sarcastic smile Jess hated so much. 'I cared about your influence too. I told you that. It would have been handy for Dad's business to have a Senator in our pockets.'

Jess knew he was only trying to rile her, but it was too hard not to respond.

'As if I'd do anything he wanted,' said Jess. 'I'm not so weak that I'd submit to Ryder's whims, unlike you.'

Toby ignored her barb and changed tack.

'What are you going to do now? Are you just going to let yourself go further to seed?'

Jess finally decided to bite her tongue. She shouldn't sink to his level. He was only trying to wind her up as usual and spoil her final day.

'I'm going to catch a train, go home, and then have a long, hot bath. Put my feet up, enjoy life, and become a better person without you in it dragging me down.'

She turned and strode away.

'Is that all you've got to say for yourself?' shouted Toby behind her back.

Jess stopped. She wouldn't let him have the last word despite her best instincts. She turned to face him again.

'There is one more thing. Something I've meant to say for a while. Fuck off, and once you've done that, stay there. I never want to speak to you again. Go and do something useful, like jump off one of Daddy's boats.'

Not that he could swim.

She wheeled around and ignored whatever he was spluttering. That felt so much better.

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Jess was glad to arrive home early, just as the winds were picking up. The storm turned out to be a doozie, although not as bad as the big squall a year earlier. Spring storms were always turbulent. At least there was usually a settled spell after a big one like this, which would provide the chance for long seaside walks. Perfect.

The wind and rain battered against her bedroom window all night, accompanied by a particularly spectacular lightning display. At least she could have a lie-in after the disturbed night, so it was mid-morning before she dragged herself into the lounge. It felt strange to be hanging around her house on a weekday. She was sure she'd get used to it.

Jess started the day with a strong coffee. She had no specific plans other than to start making plans. There was no rush.

Her thoughts wandered back to the lunchtime drinks, feeling a minor pang of guilt. She shouldn't have blanked Dajun Chang like that. Leaving without saying goodbye was a little unfair after all the support he'd provided over the years. It wasn't his fault she found him dull. Then again, she'd only known his professional persona – maybe he was a party animal outside work.

Jess blurted out a laugh at the mental image. That would take a while to shake off.

Sitting on her settee, she glanced around the room at her new home. It was nothing special, just a standard, nondescript single-person dwelling, but it was all she needed: one floor, one bedroom, no Toby. Now she had time, she could finally put her stamp on the place, put a bit of character into the rectangular magnolia monotony.

Her eyes settled wistfully on the console attached to her Node. It felt equally strange to realise she had no influence there any longer. It had always been satisfying to come home and see something she'd been responsible for in action. Knowing everyone else in the colony was using it was quite a thrill, especially in the days when she'd been writing code herself.

You didn't need to use the console for anything other than voting or maintenance, but it was her favourite mode of interaction with the system. Despite being a manager for too many years, she'd never lost her programmer's instinct.

She tapped the keyboard to wake it up. Nothing happened. She pressed again, harder. Nothing.

It wasn't a power cut, as other things in her house were alive. Even the Node appeared to be powered from the flickering lights visible on its rear. It just wasn't working.

Of all the days for it to break down. She'd have to go through official channels to repair it now rather than bring spare parts home from work.

Jess picked up her tablet to arrange the repair, which was when she started to get worried. Her tablet was working fine, but it had lost all wireless connectivity.

That made no sense. Yes, her local Node wasn't available as an access point, but the tablet should automatically connect to her nearest neighbour's Node. Getting the mesh network working reliably was one of her proudest achievements, and it had been rock-solid across the whole colony for many years.

She rebooted her tablet, but there was still nothing. Her phone was the same. That meant it wasn't just her Node that was down. All Nodes across the local neighbourhood must be disconnected from the mesh network.

That should be impossible. How localised was the outage? There was no easy way to find out.

That storm must have caused it, but she couldn't work out the failure mechanism. There should be surge protection and redundancy at every level of the system. Yes, the odd Node could be taken out, but a whole neighbourhood? And maybe beyond? Never!

Her first instinct was to rush into the office, but she reluctantly suppressed it. It wasn't her job anymore. This was down to Andy Lester, and she'd only be undermining his authority if she tried to take over.

Poor Andy. What a first day in charge.

Chapter 2 – Inspiration in Afua

Ravi Antic reckoned that if he could survive the next hour, the months ahead on the expedition would be a doddle. He'd always hated speaking in front of strangers, or even too many of his work colleagues. Now the whole colony would hear what he said.

If he'd known they'd be interviewed by the formidable Mikaela Uris for the official news service before departure, he might have thought twice about signing up. At least it couldn't go out live now. According to Mikaela, the Node infrastructure was down across most of the colony. There was no way anyone could watch it, even if they could transmit it.

The interview was to be held in a spartan meeting room in the Quinol ring to the north of the colony, nestled by the River Hebe as it emerged from the mountains. The expedition's two boats waited to depart outside. Ravi couldn't wait to get going.

The six explorers settled onto a curved row of uncomfortable upright chairs facing directly towards an empty seat. Mikaela Uris was still busy talking to the sound engineer and camera operator, so they had a few moments to discuss tactics.

The expedition's leader, Till Bullen, was a tall, muscular man in his fifties, with only a grizzled beard hinting at his age. He clearly noticed the nervousness amongst the ranks.

'Don't worry,' said Till. 'I'll do most of the talking. I'll only call on you if I need your expertise, but feel free to speak up if there's anything you want to say. Mikaela will ask you to introduce yourselves at some point. Keep it as brief as you like. You know: name, role, background, motivation, that sort of thing. Should be enough to keep her happy.'

Ravi mentally rehearsed the minimum words he could get away with, sure the others were doing the same. Only Jade Dardas spoke up.

'Should we delay our departure?' said Jade. 'You wanted everyone interested in what we're doing. Won't the outage screw that up?'

'It's not ideal,' said Till, 'but Mikaela's promised to repeat the interview as people get back online. As long as we keep sending back regular updates, I'm sure it'll be fine. Anyway, seems like a good time to get out of the colony while everything's falling apart.'

'I guess,' said Jade.

It was the first time Ravi had met Jade Dardas. She seemed the most confident of them all after Till. A brunette, probably in her mid-forties, Jade was a late addition to the team after sudden illness had caused her predecessor, Adjoa Anders, to drop out. As the six of them had been working closely over recent months to prepare for the expedition, Jade would have a lot of catching up to do.

'We all want the same thing,' said Till, looking around the group. 'To inspire people about our world and get expanding the colony back on the political agenda. As the election campaign kicks off, we need to keep our expedition in the news. Get the candidates discussing it. Jade being here will help with that.'

Everyone looked at her.

'My husband, Berg, is running for Council,' said Jade. 'It's a win-win situation. He gets free publicity from being associated with our expedition, and Till's agenda gets discussed during the campaign. Hopefully, it'll snowball for both of us from there.'

Ravi had wondered how she got on the mission at short notice. It made sense. Till had shown plenty of pragmatism through the recruitment phase, starting all those months ago with Ravi. Given the volume of technical development needed ahead of the mission, Till needed someone with both hardware and software expertise from day one. Ravi had jumped at the chance.

Till had asked them to keep their involvement secret until they were ready to leave, mainly to protect themselves from the publicity. Ravi had told all those idiots back in the Node development team that he was leaving without anything else lined up – and they'd fallen for it. They probably thought it was because he didn't like them, which admittedly was true. It's hard to enjoy your work when your colleagues show little trust and refuse to respect your expertise. Their loss.

'We ready to start?' said Mikaela Uris, taking her seat.

Till opened the document folder resting on his lap and flicked through the contents. With a smile, he looked up at her.

'We certainly are,' said Till. 'Let's get this show on the road.'

'I'll start with a brief intro,' said Mikaela, 'then I'll direct my first questions to you, Mr Bullen.'

'Sure, but call me Till.'

Mikaela nodded to her camera operators, glanced at the notes on her tablet, looked back straight at Till, and deployed a warm smile that chilled Ravi to the bone.

'Welcome, people of Juventas,' said Mikaela. 'I'm here with Till Bullen and his intrepid adventurers, about to set out on their expedition of discovery. Is it an inspirational adventure to presage the next stage of our colony's development or the foolish folly of a bored playboy? I'll let you decide.'

It sounded as if she already had. Till might have his work cut out.

'Till, tell me why you've decided to invest a sizeable portion of your inherited fortune into this folly and risk yourself and your colleagues in the process. Why should any of us care?'

Ravi bristled at the words, but Till was unflappable, chuckling before replying.

'I've never hidden that I'm a bit of a daredevil, but this is different. My colleagues are all professionals. They share the same passion as me. Yes, this mission isn't risk-free, but nothing good comes without a little danger, does it? That's part of the fun. Now tell me, do you want the real story? It might take a while.'

'Of course,' said Mikaela. 'You said you share a passion. What is it that gets all your juices flowing?'

'I need to set some context before I can answer that,' said Till. 'Humour me. Let me ask you a simple question: how many hours are there in a day?'

Ravi knew where this was going. He'd heard it before. Till often used this approach to get people to look at their world through fresh eyes.

Mikaela looked briefly annoyed at having the tables turned, especially over such a trivial question, but she played along.

'Twenty, of course.'

'Was that the same on the starship that brought us here?' said Till. 'Or on Earth?'

'I assume so.'

'That's where you'd be wrong,' said Till. 'It's longer on Earth. When our ancestors set out, we adopted a new calendar on the ship to prepare us for the local conditions here on Juventas. We kept the same unit of a second, seven days a week, twelve months a year, but tweaked everything else based on the local day and year. That's why we have twenty hours of fifty minutes in a day. Our months are shorter too.'

'What possible relevance is this?'

'I'm trying to demonstrate that we take so much for granted about our world because we've forgotten our history,' said Till. 'Another example: what's the name of the region in which we all live?'

Mikaela realised it must be a trick question but still gave the obvious answer. It would have been Ravi's reply before attending the presentation by Till on that fateful evening that changed his life.

'Juventas, of course.'

'That's what most would say, but no. Juventas is our planet, not the little bit of it we occupy. It's a good indication of the parochial attitudes we've all fallen into.'

Mikaela wasn't going to take that lying down. Usually a stickler for detailed research before interviewing politicians, she'd probably thought she could wing this one.

'If that's the common use, then surely it's the right answer.'

'Not if we're going to expand the colony,' said Till. He handed her a sheet from his folder. 'This is a map of the lone continent on Juventas. It's massive, as you can see.'

Mikaela did as she was asked, then held it up to the camera.

'So?'

'Look at the top, where it straddles the pole, and work your way southwards. You'll see an active volcanic region that pours lava down to the icy plains beneath. Whenever we've had a cold winter, it's usually due to increased volcanic activity from there. It's where ice meets fire.'

'That's all very poetic,' said Mikaela, 'but is there a point to this?'

'Bear with me,' said Till. 'As we continue down, it turns to a desert before finally giving way to a mountainous region stretching all the way to the south coast. You can see how rugged the terrain is, only tempered by river valleys and lakes. Then right at the bottom, it's pocked by flat, green plains out of nowhere, small habitable havens of calm. That tiny region right on the southern coast is where we live. It's called Afua.'

'Never heard of it,' said Mikaela.

'Precisely,' said Till. 'We never think beyond where we live. As far as we're concerned, it's the whole world. That has to change if we're going to have a long-term future on this planet.'

'You think we don't?'

'We've adopted a high-risk strategy. Yes, it was a struggle to establish the colony at first, but we've had a stable society for the last fifty years. We're stagnating, still stuck in the mindset from our days on the starship. I mean, we've still got the default two kid maximum rule for a start.'

'As you say, it's kept our colony stable.'

'I don't disagree that it made sense to keep the laws going from the ship at first. They were designed to keep the peace while we were all cooped up together, and they had a lot of value when we started out on the surface. Now we just keep them out of convenience because we're constrained in Afua. We're limiting ourselves by choice rather than necessity.'

'So you want us to expand, but where?' said Mikaela. 'We're surrounded by mountains and water.'

'Look at this photo,' said Till, passing it across. 'It's taken from orbit when the starship arrived – a close-up of the southern part of the continent. I've annotated it with the names the first colonists chose when still in space. You can see Afua there, right at the bottom, with the River Hebe coming through the mountains and flowing down to the ocean.'

'I see,' said Mikaela. 'What are these other green regions? More habitable areas?'

'We believe so,' said Till. 'That's what we're going to investigate. The Hebe flows from a huge lake called Lake Hera. Other rivers head out from it to the coastal regions of Opo to the east and Nyimpo to the west. They'd likely be similar to Afua if we cleared and settled them, although I'm more intrigued by the tributary that flows into Lake Hera from the north.'

'Why?'

'It's only a short journey along it to the circular Sakomo region. You'd have the lake nearby for fishing, and another region, Akan, is not far on its other side. Those two together would be three times the size of Afua. Think of the possibilities if they were suitable.'

'That's where you're heading first?'

'Possibly,' said Till. 'We need to scout around Lake Hera first to check how navigable the routes are and ensure we're not missing anything. This is a science mission as well as exploratory. The geology of this world is weird. Nobody understands how it could have turned out like this.'

Geology was a subject Ravi had brushed up on immediately after attending Till's presentation. He didn't consider himself an expert, but he'd learnt enough for it to become one of his specialities on the team. Weird was an understatement about Juventas's geology, and plenty of other things too – like why there was abundant native marine life but nothing advanced other than vegetation on the land.

Having been schooled by Till on Juventas, Mikaela decided to change tack.

'The Council weren't very supportive, were they?' said Mikaela.

'Not really,' said Till. 'It would have been a lot easier if we could have used one of their precious helicopters, but at least they've not stopped us going. Our boats will do fine, even if it takes us a few months. Gives us more chance to explore the valleys along the way too.'

'I'm still not convinced,' said Mikaela. 'Is it worth the risk you're putting everyone through?'

'Nothing comes without risk,' said Till. 'Sometimes you have to stand up and fight for what you believe in. Life has to be more than just survival. We all need to aspire to something, to expand our horizons and knowledge of the world around us. If we want to be a permanent human presence on this world, we need to start growing again. Look how far we've already fallen.'

Ravi Antic had heard this speech before too. It's what had inspired him to sign up in the first place after attending that presentation on a whim one evening. He'd given up everything to be part of it.

'What do you mean, fallen?' said Mikaela.

Ravi admired Till's skill at turning the interview back towards the subjects he wanted to discuss.

'We lost so much of our history while travelling here on the Juno II.'

'Juno II?' said Mikaela. 'I thought there was only one Juno.'

'That's what everyone calls it,' said Till, 'but officially, it was the Juno II. You can see that in the old records in the archive.'

'I see,' said Mikaela.

'When it's the only starship our ancestors knew, it's no surprise they didn't bother with the number, but it's not the only thing we've forgotten. We can't even remember how long it took to get here. It's probably natural attrition in that restricted environment – systems were failing all across the ship by the time we arrived. Yet, there are things about technology back on Earth that we no longer understand. We're ignorant children in comparison.'

'Like?'

'From the Juno's records, we know Earth had a faster-than-light drive to take us to the stars. That's how Juventas was scouted in the first place, well before we set out – but we didn't use it to get here. We've no idea why. Perhaps the drive was too unreliable, maybe it didn't work on a ship as big as the Juno, but who knows? We've lost that basic information. Still, if it was unreliable, it might explain why nothing was waiting for us on arrival.'

'What was supposed to be waiting?' said Mikaela.

'Really?' said Till. 'Do they teach nothing of our history in schools these days? Thank you, you're proving my point nicely.'

'I was giving you the chance to explain,' said Mikaela. 'I'm sure you'd prefer to tell the story.'

'Very well,' said Till. 'After the survey was complete, they left behind an automated vessel to clear the land ready for our arrival. Set the foundations, so to speak. Hence its name: the foundation ship. It was also supposed to fabricate the technology we'd need for our initial infrastructure – but there was no sign of the ship when we arrived. That's why it took us fifty years to get fully established.'

'I remember the story at school,' said Mikaela. 'Still, we've not fallen since then.'

'Again, really?' said Till, trying to ameliorate the criticism with a smile. Mikaela didn't seem impressed, so Till elaborated. 'When we arrived, the starship's rings were floated down using some sort of anti-gravity technology. Do we know how that works now? Do you see it in use around the colony?'

'I see,' said Mikaela.

She was ready to move on, but Till hadn't finished.

'That tablet you're holding. Our manufacturing systems print its parts on request, but we could never design anything that advanced from scratch. Indeed, we've only got working manufacturing systems because they can make copies of themselves. We hold our heads above water because we're standing on the shoulders of giants.'

'That's interesting, but it's not actually causing a problem, is it?'

'We're barely standing still, at best. Our current level of technology is basic. When we left Earth on the Juno, it would have already been a couple of centuries out of date. Imagine how far the human race has advanced back home since then, yet here, we're still forgetting things. We need to get back in the habit of making fresh discoveries, of growing as a species. The human spirit needs more than mere survival.'

'But we have survived, and we've established a stable society,' said Mikaela. 'Isn't that achievement enough?'

'We should definitely be proud of it,' said Till. 'Yet, we can't be complacent. All the time we're static, we risk that our society is only metastable. I mean, look at the chaos a simple network outage has caused in the last day. What would happen if there were a bigger natural disaster here? A hurricane? A major earthquake? We've not been here long enough to be sure that won't happen. Everything could unravel quickly. The wider spread geographically the colony is, the more resilient we will be.'

That caused Mikaela to pause and change tack again.

'Very well,' she said. 'You say your team shares this vision. Can we have introductions?'

'They can speak for themselves,' said Till. He looked to the end of the row. 'Tasha, you start.'

This was the bit Ravi had been dreading. Tasha seemed to take it in her stride, her expression as dispassionate as ever.

'Tasha Kelso. I was the captain of a fishing vessel. I'm responsible for our ships, navigation, and I'll probably do most of the cooking. I'm a fussy eater. I agree we should expand the colony. That's why I'm here.'

That was probably the longest speech Ravi had ever heard from Tasha. She tended to keep herself to herself, which was perhaps a good thing on this sort of cramped voyage. Still, she seemed exceptionally competent at her job, even if you couldn't tell if she enjoyed it.

Till nodded at the person sitting next to Tasha.

'Jamie Makula. I'm the head medic for the mission. My other specialisation is botany, largely picked up on my parents' farm. I'll be foraging and fishing for our food along the way. Till's an inspirational man. As soon as I heard about the expedition, I knew I wanted to be part of it.'

Ravi liked Jamie so far, with their warm smile and great bedside manner, although he wasn't sure how they felt about him. Still, they seemed interested in what he said, which was unusual. Jamie was in their late twenties, the closest to Ravi's age, and had adopted a short-cropped black haircut for the mission, likely much more practical than Ravi's brown curls.

Jade took up the introductions.

'Jade Dardas. Bit of a jack-of-all-trades. I'll be sharing comms duty back to the colony with Till. Will help with navigation, planning, anything I can. I'm an amateur botanist too, hoping to discover new plants and name them after my family. I was inspired to join the mission as my husband's running for election, and I want to keep out of his hair.'

At least Jade seemed to have a sense of humour. Ravi looked forward to getting to know her better, if not too much. He was sad about Adjoa missing out on the mission though. He'd liked her.

The introductions were getting perilously close to Ravi.

'Lenita Tang. I was a nurse at the hospital, with a speciality in mental health care, and I'm here as a backup for just about everything. Backup medic, comms operation, and will probably help with the fishing, foraging and cooking. Needed a change in my life, and Till came along to provide it.'

Lenita was Ravi's deputy at maintaining the comms equipment, a bit slow at picking it up but took direction well. She went out of her way to be friendly with everyone. There was something almost maternal about her approach, but Ravi admitted that was probably just his perception, given the age difference. She was the oldest in the group, other than Till – a slightly greying redhead with an even temper.

Heart pumping loudly, Ravi took a deep breath and tried not to let his voice squeak.

'Ravi Antic. Former Node programmer. In charge of the comms system to Afua, general IT support, plus some expertise in geology. You know why I'm here. Till's hard to ignore. Should be fun.'

'Thank you,' said Mikaela. To Ravi's dismay, she held his gaze. 'You mentioned the comms system. How will you keep in touch with Afua without any wireless access?'

Till stepped in before Ravi found the words.

'That's where the Council have actually been helpful,' said Till. 'They provided the communication protocols to talk to the Juno in orbit. There's not much working on the spindle of the old ship, but it can still act as a comms relay. That's why Ravi here was the first person I recruited. He's spent the last few months developing our comms system. I have to say, it's exceeded my expectations. Besides audio, we should be able to send the occasional picture. I hope you'll be able to share them with your audience.'

'I'd be delighted,' said Mikaela.

'Anything you'd like to add, Ravi?' said Till.

Did he have to ask that?

'Um.' There must be something. 'Well, we can't stay in touch all the time, just every few hours whenever the spindle goes overhead. Better than nothing.'

'Will you be able to vote in the elections?' said Mikaela.

'No chance,' said Ravi. 'Not secure enough, trust me. I wouldn't even try, and I hope they wouldn't let me try. It would be a terrible lapse in security. It... um... no, we can't.'

Embarrassed at spurting out a garbled response, Ravi fell silent.

'Sorry hubby,' said Jade. 'I won't be voting for you, but hopefully everyone watching this will vote for you in my stead.'

She winked archly at the camera. Mikaela laughed for the first time.

'Nice try,' she said. 'Any final words, Till?'

'We'll keep in touch whenever we have something interesting to impart,' said Till. 'We want to inspire everyone back home to look at this world anew. Do we just want to be here for a few generations and then peter out, or do we want this to be a permanent home for humanity? The more spread out we are, the less fragile our grasp on this world will be. Let's not let humanity's presence here come to an end.'

'On that cheerful note, I'll let you be on your way,' said Mikaela. 'Till Bullen, thank you. Bon voyage.'

*

Their two boats were moored beside the river. While Till and Jade were saying their final goodbyes inside, Ravi, Jamie and Lenita stood on the jetty, taking the chance to savour their last moment ashore in the colony. Tasha had gone aboard to prepare for departure.

The boats were kitted out identically. If they lost one for any reason, they could make it back home on the other, even if it would be a squeeze. All possible outdoor surfaces were covered with solar panels to help keep the batteries topped up, supplemented by hydroelectric turbines deployed beneath the boat when tethered in the water overnight.

An enclosed cabin dominated the front third of each wooden vessel, containing seats, a meeting table, and all their technical equipment, including Ravi's comms system in one corner. There was plenty of space to sleep in the cabin if conditions were poor, although they planned on camping outside whenever possible. The wood inside had a fresh coat of varnish, the odour still lingering, accentuating how pristine everything was. It wouldn't stay that way for long.

The open rear had a walkway around the outside. A raised platform ran down its centre, doubling as a seating area and concealed storage partially sunk below the deck. Inside was everything needed to get them through the voyage. The bulkiest items were long-life food provisions, although they intended to supplement it as much as possible by catching fish and foraging for indigenous fruit and vegetables along the way. Fishing gear was stored at the back.

Ravi had duplicate geology equipment on each boat, mainly small items like picks and drills to see what he could uncover. There was a ladder strapped to one side. Till had insisted it might be useful, maybe for Ravi investigating a rock face or accessing higher branches of trees when fruit-picking. They'd even brought a small supply of explosive charges along, mainly in case an obstruction needed removing, although Ravi intended to deploy some to unearth any potentially interesting geology.

'Looks like they're nearly finished,' said Lenita. 'That man never wants to stop talking.'

Till had reached the door leading to the jetty but was still chatting to someone on the other side. Jade was with him.

'You talked to Jade yet?' said Jamie.

'Briefly, with Till earlier,' said Lenita. 'She seems confident. Till's pretty shrewd. I'm sure he knows she's got her own agenda with her husband's election, but as that helps his campaign, it's a sensible move.'

'Guess we were lucky to get anyone at short notice,' said Jamie. 'Poor Adjoa. She's gutted.'

'How is she?' said Ravi.

Ravi found it relatively easy to talk to Lenita and Jamie while the others weren't around. He knew he had to make an effort to get on with everyone, so he had been practising his small talk with the most bearable of his colleagues – another reason he'd miss Adjoa.

'Adjoa's on the mend,' said Jamie. 'She said I could let you know the details. She had a bad case of salmonella, which triggered reactive arthritis. She'll get over it but will be in no condition to travel for a while.'

'Awful,' said Lenita.

'Hope Jade's as friendly as Adjoa,' said Ravi.

Tasha had been the only one Ravi hadn't managed to have a decent conversation with on the original crew. Now Jade was a new unknown quantity to face.

'Guess I'll start finding out today,' said Lenita. 'I'm travelling with her and Till. You're both with Tasha.'

'May as well get aboard then,' said Ravi.

'Let's say hello to Jade first,' said Jamie. 'Only polite. Looks like they're finished.'

Till waved as they approached.

'What ho, crewmates!'

Lenita rolled her eyes at him.

'There're no cameras here,' she said. 'No need to put on a show.'

Till chuckled affectionately, then noticed Ravi and Jamie standing patiently.

'Ah yes, I haven't formally introduced to you to Jade yet. Sorry for springing this on you in there. It's all been a bit of a rush.'

Jamie stepped forwards and held out their hand, which Jade shook lightly.

'You're the medic, aren't you?' said Jade. 'I'll make sure I stay well.'

Unsure what to make of that, Ravi offered his hand, which Jade shook with equal disinterest.

'And you're the techie,' said Jade. 'Doubt we'll have much to talk about either.'

Ravi dropped his hand, at a loss how to reply. It quickly became moot as Jade turned away and climbed aboard their ship. Till raised one eyebrow and followed.

'Is it my imagination,' said Jamie, 'or was she just rude to us?'

'She's not wrong,' said Ravi. 'I don't think I'll want to talk to her either. Not if she acts like that.'

'She might just be nervous,' said Lenita, sounding like she didn't even convince herself. 'Don't worry, I'll have a quiet word. Now hurry up, or Tasha will leave without you.'

Ravi put it to the back of his mind. They were quickly underway, with Tasha's boat taking the lead. It was only a short distance to where the River Hebe emerged between sheer cliffs into the plain of Afua.

They'd traversed the short passage between the cliffs a couple of times when familiarising themselves with the boats and the landscape. After about a hundred metres, it would open

back out into a broader valley. The cliff faces were still there, but they were set back away from the river from thereon, as far as they could tell from the orbital photo.

Ravi turned back to get one final look at Afua as they slid between the cliffs. Before learning about the geology of Earth to get himself on this mission, he'd never considered how weird this place was. From their location, Afua was an almost flat plain that led all the way to the ocean in the south. Yet, all around to the east, west and north, it was surrounded by sheer cliff faces leading to a raised upland covered by impenetrable mountains.

Ravi had no idea how it could have formed like that. The photos indicated that it was similar in the other regions they intended to visit, as it was down the valleys they'd be travelling. He was determined to come up with a viable theory before they returned.

The boats slid serenely into the gloom between the cliffs. Till's voice crackled over the ship-to-ship radio.

'This is it, folks,' said Till. 'We're leaving Afua. In five minutes, we'll be beyond the point we reached on our last excursion. It'll be new territory from thereon – not just for us, but for humankind. We'll be the first people to set eyes on this land. I'm proud to be sharing this moment of history with you all.'

That was quite a thought. Ravi only hoped he was up to it.