

INCANDESCENCE

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Excerpt: Chapter One

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“Are you a child of DNA?”

Rakesh was affronted; if he'd considered this to be information that any stranger wandering by had a right to know, it would have been included in his précis. After a moment's reflection, though, his indignation gave way to curiosity. The stranger was either being deliberately offensive, or had a very good reason for asking. Either way, this was the most interesting thing that had happened to him all day.

“Why do you wish to know?” he replied. The stranger's own précis contained extensive details of its ancestry and sensory modalities, but Rakesh wasn't in the mood to acquire the necessary skills to apprehend it on its own terms. By default, he was already perceiving it as human-shaped, and hearing it speak in his own native tongue. Now, in place of its declared chemosensory label, he assigned it a simple phonetic name chosen at random: Lahl.

Before Lahl could reply, Viya had risen to her feet beside Rakesh and gestured toward an empty spot on the annular bench that surrounded their table. “Please join us,” she said.

Lahl nodded graciously. “Thank you.” Lahl's actual gender didn't map on to Rakesh's language neatly, but the arbitrary name he'd given her was grammatically female. She sat between the other two members of the group, Parantham and Csi, facing Rakesh squarely. Behind her in the distance, water cascaded down a jagged rocky slope, sending a mist of fine droplets raining down on to the forest below.

“I couldn't help overhearing your complaint,” Lahl said. “Everything has been done. Everything has been discovered.” To Rakesh, they were seated in the open air, near the edge of a mesa that rose above the treetops of a vast jungle. The murmur of multilingual conversation from the tables around them might have been the sound of insects, if it had not been for the occasional translated phrase that Rakesh allowed himself to hear at

random, in case anything piqued his interest. Perhaps to Lahl his words had come across as a distinctive aroma, standing out from a jumble of background odors.

Csi spread his hands in a gesture of apology to this stranger unfamiliar with their customs. “That’s just Rakesh’s way of talking,” he confided. “You should pay him no attention. We get the same speech every day.”

“Which makes it no less true,” Rakesh protested. “Our ancestors have sucked the Milky Way dry. We were born too late; there’s nothing left for us.”

“Only several billion other galaxies,” Parantham observed mildly. She smiled; her position on this subject had barely shifted since Rakesh had met her, but for her it was still a worthwhile debate, not the empty ritual it had become for Csi.

“Containing what?” Rakesh countered. “Probably more or less the same kinds of worlds and civilizations as our own. Probably nothing that would not be a hideous anticlimax, after traveling such a distance.” A few thousand intrepid fools had, in fact, set out for Andromeda, with no guarantee that the spore packages they’d sent in advance would survive the two-million-light-year journey and construct receivers for them.

Rakesh turned to Lahl. “I’m sorry, we keep interrupting you. But what exactly does my molecular ancestry have to do with this?”

“I could be mistaken,” Lahl said, “but it might have some bearing on whether or not I can offer you a cure for your malaise.”

Rakesh hesitated, then took the bait. “I do come from DNA,” he said. “But I warn you, I think that’s a strange way to pigeonhole people.” His human ancestors had fashioned descendants in their own image—who in turn were largely content to do the same—but membership of the broader DNA panspermia implied no particular cultural traits. Entirely different replicators had given rise to creatures more similar to humans, in temperament and values, than any of their molecular cousins.

Lahl said, “I don’t mean to judge you by your ancestry, but in my experience even molecular kinship can sometimes lead to a sense of affinity that would otherwise be lacking. The DNA panspermia has been extensively studied; every world it reached was thought to have been identified long ago. Adding the first new entry to that catalog in almost a million years might well hold more interest for you than it does for me.”

Rakesh smiled uncertainly. This was not exactly the kind of momentous discovery that people had made in the Age of Exploration, but in his blackest hours he had often imagined contributing far less to the sum of knowledge than this modest footnote.

It was a pity he’d been beaten to it. “If you’ve found such a world,” he

said, “then you’re the one who has extended the list.”

Lahl shook her head. “Strictly speaking, the crucial evidence was obtained by a third party, but that’s not the point. We can quibble all day about the formal attributions, but at present only a fragment of the story is known. Almost everything about this world remains to be discovered, and until someone is willing to pursue the matter vigorously, the few scraps of information I’m carrying will mean very little.”

Viya said, “So you’re here to trade what you do know?”

“Trade?” Lahl appeared startled. “No. I’m merely hoping to find someone who can do justice to this, since I don’t have the time or inclination myself.”

Rakesh was beginning to feel as if he was being prodded awake from a stupefying dream that had gone on so long he’d stopped believing that it could ever end. He’d come to this node, this crossroads, in the hope of encountering exactly this kind of traveler, but in ninety-six years he’d learned nothing from the people passing through that he could not have heard on his home world. He’d made friends among the other node-dawdlers, and they passed the time together pleasantly enough, but his old, naive fantasy of colliding with a stranger bearing a surfeit of mysteries—a weary explorer announcing, “I’ve seen enough for one lifetime, but here, take this crumb from my pocket”—had been buried long ago.

Now that it was being resurrected before his eyes, he felt more wary than excited. He addressed Lahl respectfully, but chose his words with care. “I can’t promise you anything, but if you have the time to tell us what you’ve learned, I’d be honored.”

Lahl explained that she belonged to a synchronization clan. Its members roamed the galaxy, traveling alone, but had agreed to remain in contact by meeting regularly at prearranged locations, and doing their best to experience similar periods of subjective time between these reunions. She was on her way to the next such event, in a planetary system twelve hundred light years outward from this node. Given that the meetings took place just once every hundred millennia, travel plans could be made well in advance, and there was no excuse for tardiness.

However, for reasons she did not wish to detail, when the time had come to begin the journey Lahl had found herself on the wrong side of the galaxy, with no prospect of fulfilling her appointment by any conventional means. The communications network run by the Amalgam skirted the crowded sphere of stars that formed a bulge at the center of the galactic disk, adding several thousand lightyears to the journey compared to the straight-line distance. So she had weighed her options, and her sense of obligation, and placed her fate in the hands of the Aloof.

Viya gazed at her wonderingly. “You’ve been through their network?”

“Yes.”

“You would have been encrypted, though?”

“That’s the usual practice,” Lahl said. “But I came at a bad time. There’d been an unexpected surge in traffic a few decades before, and there were no encryption keys available for my destination. Keys have to be distributed the long way around; shortages can take centuries to fill. So I had no choice. I traveled in plain sight.”

“Yet you emerged unscathed?”

“I believe I’m intact,” Lahl replied. She added mischievously, “Though I would think that, wouldn’t I?”

Three hundred millennia ago, certain brash citizens of the Amalgam had studied the Aloof’s data traffic, deciphered its basic protocols, and constructed links between the two networks. This unilateral act of bridge-building had apparently been tolerated by the Aloof, albeit with only a trickle of data passing through, since few people were willing to trust the short cut. The Amalgam had tried many times to extend its own physical infrastructure into the same territory, but the Aloof had calmly and methodically reversed the trajectory of every spore.

Csi said, “I think I would have arranged for a suitably located backup to wake, and attend the reunion on my behalf instead.”

“That would have been grossly discourteous,” Lahl explained. “And to have the slightest chance of pulling it off, I would have needed to start planning about sixty millennia ago. If I’d had that much foresight, I would never have ended up cutting things so fine in the first place.”

The table fell silent as the four of them contemplated the risk she’d taken. The Aloof had never been known to act maliciously—even the insentient engineering spores they’d swatted back out of the bulge had been left unharmed—but their stubborn refusal to communicate gave them an aura, if not of danger, at the very least of unaccountability. Worse, the part of their network accessible to the Amalgam did not carry quantum data, so the Amalgam’s standard protocols—which rendered it physically impossible for an eavesdropper to decipher a transmission, or to alter it without detection—could not be employed. That problem had been addressed, in part, by distributing matched pairs of quantum keys around the edge of the bulge via the Amalgam’s own network, creating stockpiles that could be used to encrypt the classical data of travelers taking the short cut. If demand for the keys outstripped supply, though, it could take a while for the stockpiles to be replenished.

Rakesh said, “The explorer you mentioned: did she take the same route? Is that how you met?”

“Explorer?”

“Didn’t you say that a third party found this uncatalogued DNA world?”

“They found evidence for it,” Lahl said. “Not the world itself, as far as I know.”

Rakesh was perplexed. “As far as you know?”

“The Aloof embodied me,” Lahl explained, “deep inside their territory. I was shown a meteor, which appeared to be a fragment of a planetary crust ejected by an impact event. Inside, it was riddled with DNA.”

“So you’ve met them?” Viya asked, incredulous now. “You’ve met the Aloof?”

“Of course not,” Lahl replied. “They kept me at arm’s length. They woke me in a small interstellar habitat, well suited to my customary embodiment, alone with this rock and the instruments needed to examine it. The short cut had bought me five thousand years’ grace, so I had no qualms about spending a few days obliging my hosts, and satisfying my own curiosity. The cells inside the meteor were all dead, but there was enough intact genetic material to reveal that it hadn’t been blasted straight off the surface of any of the known DNA worlds. It was from a mature divergent branch of the panspermia. It must have originated on a world of its own.”

“Do you know where they collected it?” Parantham asked. “They would have had to travel out of the bulge, surely?”

Lahl said, “There was a map showing where they’d found it: not far from the place where I was examining it. Particle tracks in the outer layers of the rock seemed to bear that out; it looked as if it had been exposed to ambient radiation levels for about fifty million years. And as best as I could date the impact event, that was about fifty million years ago, too.”

Viya frowned. “That makes no sense. For ejecta to get from a typical DNA world down into the bulge would take at least half a billion years.”

“Exactly,” Lahl said. “So it can’t be from a typical DNA world. The planetary system itself must be deep in the Aloof’s territory.”

Rakesh felt a thrill of astonishment, though he was far from convinced that Lahl’s conclusion was the right one. All eleven panspermias were believed to have originated at middle radii in the galactic disk, between twenty and thirty thousand light years from the center. Certainly, the worlds on which the eleven replicators were known to have thrived were confined to that zone, where the galactic chemistry favored the formation of suitable planets, the radiation levels were reasonably low, and such biosphere-sterilizing calamities as supernovae were relatively rare.

The process by which collision ejecta had spread the replicators between star systems was supposedly well understood, and though nothing ruled out the possibility of debris carrying DNA-based micro-organisms all the way down to the galactic bulge, no one would have expected them to gain a foothold there.

“Perhaps the Aloof were showing you their cousins,” Parantham suggested. “Perhaps this was their first attempt to introduce themselves.” It was widely assumed that the Aloof had been born in the disk, like everyone else, and migrated to the bulge before any other civilization had traveled widely enough to encounter them.

Lahl shrugged. “If they’d wished to convey something like that, they could have made themselves clearer. They deciphered my transmission and embodied me; there was nothing mysterious to them in my nature to stand in the way of communication.”

Csi said, “I don’t doubt that they deciphered you, but are you sure you were embodied?” He spread his arms, taking in the five of them and the whole elaborate scape. The node, in reality, was a few cubic meters of processor, drifting through interstellar space. There was no mesa, there was no jungle, nor any of the alternatives that any of them were perceiving.

“Of course I’m not sure,” Lahl conceded. “And even if I was embodied, the meteor itself could have been a carefully manufactured fake, or the instruments I was supplied with could have been contrived to mislead me. But I can’t see the point in that kind of deception. Why spread misinformation about the DNA panspermia among people to whom you’re largely indifferent?”

“Why spread valid information, either?” Rakesh mused. “I’m surprised they didn’t just lob this out of the bulge, muttering about yet another incursion by those awful disk people.”

“Lob it where, though?” Csi replied. “And if the planet it came from really does lie in the bulge, this ‘incursion’ probably predates their own presence.”

Lahl regarded them both reprovingly, as if she considered these comments to be willfully obtuse. She said, “I believe they felt obliged to tell someone, to get the word out. In spite of their refusal to communicate with us on any other topic, I believe they considered it their duty to pass this information on to us, to make of it what we will.”

“As you considered it your own duty to hand the message on to a descendant of the appropriate replicator?” Rakesh suggested.

“Exactly.”

Rakesh was on the verge of pointing out that it was somewhat parochial of her to assume that the Aloof would share her sense of obligation, but

then it struck him that, out of all the travelers who'd taken the short cut, the Aloof might have chosen Lahl precisely because she was the most likely to understand, and act upon, their intentions.

Whatever the original cues being translated, Lahl's face had taken on a subtly challenging aspect, as if she was waiting for Rakesh to make clear to her whether or not she'd been wasting her time.

Rakesh was still unsure of the verdict himself. *Was this his calling?* He had never thought of the bulge as a place of genuine mysteries. Many individual citizens of the Amalgam were every bit as private as the Aloof; he had no idea what went on inside their homes, but his ignorance hardly transformed those places into unexplored territory. The higher the gate, the more manicured the garden.

That was the wrong comparison to make, though. The fact that the Aloof fastidiously repelled any physical intrusion into the bulge was no proof that they'd transformed, visited, or even catalogued every last one of the millions of worlds within their domain. If their refusal to engage with the cultures of the disk had its origins in paranoia, they might have adopted a policy of hypervigilance, scrutinizing every last rock for signs of life lest some interloper arise in their midst. Equally, though, stumbling across the DNA-infested meteor might have been sheer bad luck, an unwelcome find imposing obligations that they would never have actively sought.

He said, "If I took this on, where would I pick up the thread? I can't cross the bulge and simply hope to be singled out to be shown what you were shown."

"I have the habitat's address," Lahl said. "The Aloof appended it to my transmission. When you reach the bridge to their network, you could simply name that as your destination."

"With no guarantee that the request would be honored," Csi said. He was staring at Rakesh as if his friend had lost his mind.

Rakesh said, "I haven't come to any decision yet."

Now it was Parantham who was showing disbelief. She turned to Lahl. "If he won't take the address, give it to me! And none of this DNA bigotry. I can only trace my own ancestry back fourteen generations—to a *de novo* created by a rather hazily documented collaboration—so I can't promise you any mystical molecular affinity. But if the Aloof want someone to hunt down this lost world for them, I'll do it!"

"Hunt it down how?" Csi asked bluntly.

"They recorded the meteor's velocity when they captured it," Lahl said. "And they provided me with detailed maps of the region. I couldn't literally wind all the dynamics back fifty million years; the region is so densely

packed with stars that their motion becomes chaotic on that time scale. But it was possible to generate candidates for closer exploration.”

“How many?” Csi demanded.

“About six hundred.”

Csi groaned and leaned backward on the bench, as if to extract himself from the gathering. “This is insane!”

Rakesh could not deny that, but it was an increasingly enticing folly. Uncharted or not, the center of the galaxy was an exotic, bejewelled place, and if its self-appointed guardians really were inviting outsiders in for the first time ever, that alone was a remarkable opportunity. If the reason for the invitation turned out to be a wild goose chase, or even a complete misunderstanding, that need not render the voyage worthless; it was impossible to rule out danger and disappointment, but at the very least he’d be risking much less than the galaxy-hoppers. How many millennia might he while away before another prospect the equal of this came along?

He said, “I’ll take the address.” He glanced at Parantham. “I assume I’m not required to go alone?”

Lahl said, “Take an entourage. Take a caravan.” She held out her hand, the fist closed, then opened her fingers to reveal a glass key sitting on her palm, an icon for all the data she wished to convey to him. As Rakesh reached for it, she said sharply, “This is *your* duty now. Your burden. You do understand that?”

He hesitated. “What exactly are you asking me to promise? I can’t be certain that I’ll find this planet.”

“Of course not.” Lahl frowned, perhaps wondering what distortions her perfectly lucid chemical emanations were suffering in translation. “Succeed or fail, though, you’ll see it through?”

Rakesh nodded gravely, reluctant to press her for details lest they transform this reasonable-sounding commitment into some far more rigorous obligation.

He took the key from her, and she stood.

“Farewell then, Rakesh.” The scape drew her as almost literally unburdened, her bearing visibly more relaxed and graceful, as if she’d been freed of a physical load.

The four friends rose. As Lahl walked away across the mesa, Rakesh peeked at her version of the scape. A long, translucent, segmented creature pushed its way briskly through a dense carpet of decaying vegetable matter, beneath an overcast sky.

Csi called after her, “Enjoy the reunion!”

Rakesh restored his normal vision and looked around the table. Paran-

tham was jealously eyeing the key in his hand.

Viya smiled. “You’re not really going to do this?” She sounded as if she’d be unsurprised if he shook his head and casually pitched the key over the edge of the mesa.

“Of course I am,” Rakesh replied. “I gave my word.”

“To whom, exactly?” Csi asked. “For all you know, she was just some *de novo* that the Aloof created and spat out as bait.”

“*Bait*? If they wanted visitors, all they had to do was stop turning us away. We never needed luring.”

“We never would have gone in this way by choice,” Csi said. “With no guarantee of integrity. Once you’re in, they can send you wherever they like, and do whatever they want with you.”

Rakesh said, “Why would they want to harm me? Anyway, people taking the short cut have been checked, and there have never been any violations found.”

“What proportion have been checked?” Viya asked. “One in a thousand? And the data passing through the network is classical, remember. Even if the original transmission comes through intact, that doesn’t prove it hasn’t been copied. If you go in without encryption, there’ll be nothing they can’t do to you.”

“All right, it’s a risk, I admit it. The Aloof might be deranged sadists who clone travelers in order to torture them for eternity.” Rakesh was disappointed. He had no shortage of doubts about the wisdom of his decision, but he’d expected more from Viya and Csi than this timidity masquerading as sophistication.

None of them had come to the node with the intention of staying for a tenth as long as they had. Half their time was spent debating the best way to move on, inventing one fanciful scheme after another, hunting for ways to build up momentum lest they end up stranded, or worse: slinking back to their home worlds with nothing to show for the millennia, or simply drifting aimlessly on through the network.

He held up the key. “This is what I came here for. I’m not going to sit at this table for another century, waiting for something better.”

Csi adopted a conciliatory tone. “We all get bored, Rakesh. We all get frustrated. But that’s no reason to fall for the first scam artist who comes along.”

Parantham said, “If it’s a prank, what happens? We cross the bulge, the Aloof ignore us, and we end up on the other side of the galaxy. We lose fifty millennia, but we gain new surroundings, and the minor daredevil status that comes from having taken the short cut.”

“And if it’s a trap?” Viya asked. “If the Aloof really do mean you harm?”

Parantham hesitated before replying; Rakesh waited gleefully to hear her pour scorn on the idea.

She said, "That's what backups are for."