



# **THE HALFERNE EXPEDITION**

---

**By Darrin Snider**

# THE HALFERNE EXPEDITION

*by*

*Darrin Snider*

Draft 0 -- 27 November 2023

Approximately 41452 Words



## Revision History

Draft 0	NaNoWriMo Speed Draft	November 2023

# CONTENTS

Revision History .....	ii
Contents .....	iii
Chapter One .....	1
Chapter Two .....	12
Chapter Three .....	26
Appendix .....	36
About the Author .....	36
Afterword .....	36
Links .....	36
Bibliography of Unfinished Works by the Author .....	36

# THE HALFERNE EXPEDITION

by Darrin Snider

## Chapter One

Jaysn Katsaros had almost gotten his mind around the idea of as many as a trillion galaxies spinning out there in the blackness. The Milky Way itself boasts more than 850 billion stellar objects of every color, type, and combination -- pulsars, neutron stars, magnetars, white dwarves, red giants, and black holes, as the more common examples. He accepted this easily enough. Most of those stars have planets, protoplanets, and dwarf planets of some form circling them. Each was a combination of water, methane, rock, any number of gasses, or metals so dense they weren't on the periodic table yet. In his twenty-five years, he'd been to a few dozen of these, more than most people his age could boast. Beyond that, he'd read and studied reports from remote survey probes, so he had a good idea of what was coming up as mankind doubled its minuscule sphere of influence in the void over the next couple of decades.

Through all of this, he had learned the universe promised unlimited potential and infinite variety in its creations. Earth Union Engineering Corps, however, never got that message, especially when it came to food. He put the half-eaten ship ration pack down on the little work area in front of him, downed the last of the nutrient-rich liquid everyone colloquially referred to as "coffee," and cursed

himself for missing the rendezvous with the charter at Crossfield Station. At this moment, the rest of his teammates were no doubt living in staterooms and eating in a well-stocked galley as they cruised in style out to meet the latest “finding of significance” in the frontier of space. Meanwhile, he was forced to take advantage of the standard “transportation included” clause generously offered up with all planetary survey contracts. This consisted of a berth on a cargo hauler delivering supplies and components to the site. The berth consisted of an uncomfortable, if practical, chair that reclined into a bed and swiveled 90 degrees to allow him to face either a small work area and terminal, or a porthole that offered a view of pretty much nothing for everything but the first and last few moments of the trip. Above him, a dispenser contained a seemingly infinite supply of ration packs and coffee, but little else. The rations tasted like “engineered efficiency;” the coffee, like dust – rusty dust. It was the same every time he took an EUEC transport. The only upside was that he would arrive at the site twenty-four hours ahead of the rest of the team and hopefully glean some much-needed information about the mysterious “finding.”

It was unusual for EUEC, or Dr. Disha Tamanna, the expedition leader not to send a full survey report with the initial briefing package, and he was assured this was a simple mishap with the bureaucracy and as soon as everything had received the appropriate classification tags, it would be sent. As a civilian contractor, Jaysn could have refused the mission, and probably should have, but when the nice lady at Exploration Logistics offered double his normal payment, all was quickly forgiven.

In the simplest terms, Exploration Logistics Division was the branch of the military, specifically a division of the Corps of Engineers, tasked with investigating, assessing, and recommending action any time someone – civilian, corporation, or government – encountered anything that could be non-terrestrial life, or associated with non-terrestrial life. Once mankind had gotten to the stars and settled a few dozen worlds, it devolved from the ancient urban legends of the super-secret “Men in Black” into

nothing more than a collection of civilian scientists, philosophers, and engineers who get called in to investigate and write a report about whatever was found.

Jaysn's name had been drawn a couple of dozen times for expeditions, and he'd lost the exact count of false alarms, cancellations, or misunderstandings that had sent him and the team back home before even reaching their destination. Between the last-minute calls and the interruption to his own plans and research, he was beginning to lose his sense of where he was much of the time. To be honest, this lifestyle had become all too familiar. He'd even considered turning Exploration Logistics down this time and asking to have his name taken off the list of candidates for trips like this. Hell, there were at least five other Xenoanthropologists out there in the settled worlds who would be happy to slap on an environment suit and slug around in methane mud, acidic slime, lava, sulfuric dust, or some other equally deadly environment, just so they could put a gloved hands on a nice slab of perfectly wind-worn rock and say, "Yep, that's a natural land formation, not an ancient alien building. You can dig it up," or stare at a five-foot wide multi-tentacled tree dwelling cephalopod and say, "You're right, it's not intelligent. Just be careful with them when you're stripping their planet for resources."

He'd had enough of it. He imagined a beach-side condominium, not too large, situated just a few hundred feet from the ocean. He could spend his mornings drinking good coffee on the balcony, admiring the view, occasionally putting down some theory to be published, or peer-reviewing someone else's field report as they ate the rations and drank the brown swill he'd been enduring for the past three days. In the evenings he would give lectures via the Phrame or holo to universities all over the world, or maybe he would just espouse ideas to the drunks at the beach bungalow who would hang on his every word. Perhaps if the department heads agreed to his extensive rider, he would occasionally make an in-person visit shake someone's hand. It would be glorious and so much better than the three days he had just spent crammed into a two-meter closet with three and a half walls.

Yep, he decided. This would be the last time.

He felt his weight shift subtly as the transport slowly began to descend towards the surface of a very anticlimactic dark gray dwarf planet. In the distance, he caught one star low on the horizon, maybe four times larger and brighter than the others, which he assumed to be Lambda Tonitrus, the main star of this solar system. At present, whichever megacorp had purchased the claim to this system was still in the middle of performing preliminary surveys, while mining the system for resources to cover the costs up to this point, as well as for a potential colonization attempt. If they deemed Lambda Tonitrus worthy, and if there were any takers to set up permanent residence, then the star and its planets would receive proper names. Until then, this unremarkable hunk of rock went only by the pseudo-Bayer notation of Lambda Tonitrus 9A447 – the four hundred forty-seventh body of interest outside the orbit of the 9th planet of the 11th brightest star in the stellar grouping called Tonitrus, as seen from the planet Thurin. It was cold, it was dark, it was ugly, but to date, only a couple of dozen people had ever seen it up close. Jaysn was walking fifty light years from where he was born, in a place nobody had ever been, and looking at sights no one else had ever seen.

Okay, he decided, maybe there were upsides to this lifestyle. Retirement might be a bit hasty.

The craft continued to decelerate, eventually entering a spiral descent over an obviously man-made structure – a hastily constructed, temporary base for the engineers and other technicians, made up of prefabricated, modular sections that could be deployed in under a day, and then equipped, powered up, and made habitable within three. At least he wouldn't have to sleep in the berth another night. He'd probably at least have a decent-sized room and office down there, even if he would be sharing it with multiple teammates.

His holo-display indicated final approach and landing would be in just under two minutes. He quickly began tidying the area, disposing of three days' worth of half-eaten rations and snack bars, then stood up, maneuvered himself around the cramped space, and grabbed his rucksack from under the chair. He removed his favorite synthetic leather jacket and an old pair of soft-soled shoes he'd owned far longer than was practical for a man of his position and slipped them on. Hangar lights outside suddenly illuminated the room, and the ship gave the gentlest of thumps as it touched down. He said nothing to any of the crew members as he made his way through the narrow corridors to the departure ramp. They'd pretty much ignored him for the entire flight, and most barely acknowledged him with subtle nods as he passed them now.

Four minutes later, a warning tone sounded at the exit hatch and the door hissed open, its mechanism straining in protest as the pressure seals were pried open against their will. A ramp slowly descended from the ship, two meters down to the floor of the hangar, stopping between two uniformed men discussing something between themselves and checking items off a shared holo-display.

"Dr. Katsaros." The larger and older of the two men smiled. "Welcome to LT-9. I'll help you get settled into the hab module. Lt. Matthews here will see to unloading and setting up any equipment you might require in your lab area." The man didn't bother to give his own name, but Jaysn noted the Major's rank on his sleeve.

He shook the Major's hand. "I'm the xenanthropologist. The only equipment I need is my portable library which I'm never without," he said, patting the rucksack on his shoulder.

"Well, unfortunately, the lab's not set to be hooked up to the Stellar Net until tomorrow morning. Meantime, if you need to do any data transfers or send any communications, Matthews here can run it from the command module for you."



He led Jaysn from the hangar back to the base proper, indicating a large common room that was set up like a reasonably comfortable lounge with multiple couches and tables. A short connecting hall with airlocks at either end attached this to a dining and conference room, with one long table that seated at least fifteen. The dining module led into an expansive galley capable of feeding all twenty-seven members of the engineering team, plus the arriving scientists. It also had several smaller tables for dining.

“I wasn’t sure what relative time you’re on, but we saved a bit of dinner for you, otherwise it’s standard ration packs until we get the supply ship unloaded and processed.” The Major opened a refrigerated cabinet and retracted a small, transparent container containing something that looked like chili, which he offered to Jaysn. “It’s my specialty. Technically, it’s just stuff from the ration packs with a few spices and secret ingredients, but you’ll find it’s a hell of a lot more palatable than the original form.”

Jason took a tentative whiff, catching a hint of cumin and something else he couldn’t quite identify. It was enough to make his mouth water, however. He smiled and nodded eagerly. “Thank you, Major ... Wolff,” he said, finally catching the man’s name from the badge on his shirt.

Wolff grabbed a silver-gray mug off the shelf, filled it with a steaming brown liquid from a kettle, and handed it to Jaysn, who gingerly took a sip. It was the standard EUEC coffee, but this time contained something that countered, and almost suppressed, the dusty aftertaste.

“Cinnamon?” Jason asked, nodding his approval.

“Fresh ginger, actually,” Wolff said. “Little trick I picked up from my CO twelve years ago. He even gave me the starter root which I’ve been growing in a pot I take with me every time I deploy. I

know it's not much, but we can treat you a little better than that transport until the rest of your team arrives the day after tomorrow."

"I don't suppose you can give me a briefing or the reading material to study in the meantime."

Wolff smirked and shook his head. "No can do, Doc. Strict orders from EUEC. I can't discuss anything until the official briefing packages arrive. At the moment, it's all tied up being classified, or declassified, or at least labeled properly, or some such thing."

Jaysn rolled his eyes. "Not even a hint? Obviously, you found something." He began ticking off his logic on his fingers. "But, seeing as how this planet is a giant hunk of frozen methane and nitrogen with no apparent water, it couldn't be indigenous life. They wouldn't call in a xenoanthropologist for fossil evidence of a prokaryotic organism of some kind left behind by an extra-solar collision. I don't see a fleet of military aircraft orbiting us, so it's not an ancient crash site laden with all kinds of fantastic tech to plunder. And on the absolutely most unremarkable out of several thousand protoplanets orbiting LT-9, I seriously doubt you bumped into an alien life form who just happens to be here on holiday. Why do I have a feeling I'm going to be very bored with this particular mission?"

The major scoffed. "I've been on twenty or thirty of these things, Doctor. The most exciting thing I've ever seen them dig up is that two-meter rod on Beta Tangra that they initially suspected was some kind of construction material."

"I remember that." Jaysn nodded. "It turned out to be a perfectly natural crystal formation."

"Did it? I never paid any attention to the final assessment. I figured if it was something significant, I'd have heard about it." Wolff nodded. "What I do know, is that the whole fiasco wasted

three weeks, cost two dozen men their bonus, and even got their supervisors docked for missing the deadline, all of which they blamed on my engineers since the scientific team had long since cleared out.”

“Surprising. If you’ve been doing this so many times, why have we never bumped into each other before?”

Wolff rolled his eyes. “Beta Wurren two years ago. Also, Procyon eighteen months ago.”

“Really?” Jaysn said, amazed. “I’m surprised I don’t remember you. You’ve got much more character than the usual EUEC liaisons.”

“Well, you were pretty busy chasing the girls both times. I really did think you were going to get that lab tech on Procyon, for a while there.”

Jaysn stroked his beard remembering that ill-fated week. “Yeah, so did I.”

“Still, I get it. Most of the officers I know are bureaucrats or spiritualists, though I know a couple that are artists or intellectual bookworms like you guys.”

“Which are you then, Captain?”

“I always fancied myself a gambler and a scoundrel when I’m not playing pack mule for a bunch of egghead scientists.”

This stopped Jaysn in his tracks and his eyes lit up. “Excellent! We’ll have to get up a game of bridge later. Dr. Tamanna is a three-time campus champion.”

“Poker is more my speed.” Wolff frowned.

“I’ve never been one for games of chance. How are you at chess?”

“Never heard of it,” Wolff said, deadpan. Jaysn couldn’t tell if he was joking or not.

“So, despite our clever bonding here,” Jaysn said, sipping from his coffee again, “There isn’t anything you can tell me off-the-record, just so I have something to ponder while my excitement-driven insomnia drives me to stare out my porthole trying to catch a glimpse of whatever’s lying around out there?” He had intended it to be sarcasm, but something about it rang true in his ears as soon as he said it.

“Off the record?” Wolff considered for a moment. “I think we’ve all made a very long, expensive trip for nothing, yet again. Personally, I don’t believe in all that alien civilizations stuff. Even if there are, they don’t go leaving bits of their tech lying around on obscure hunks of rock in the middle of nowhere. If they did, why haven’t we found any of it yet?”

“A question going back centuries. Philosophers, scientists, and just about everyone with an imagination have been coming up with answers. So far not one of them has been proven or disproven.”

“Yeah, but you still volunteer for these trips, and it can’t pay that much better than a professorship, so you must believe they’re out there somewhere.”

Jason thought for a moment. “Well, we’ve pretty much found that life is not at all rare, given certain conditions, and we’ve found a diverse variety of it. We’ve cataloged several hundred thousand instances of both flora and fauna on a dozen different worlds. Most of it is simple one-celled life, but it goes all the way up to the giant cetacean-like sea slugs under the ice on Iota Piscium 5.”

“But still, nothing intelligent.”

“Well, give them time. We were just single-celled prokaryotes three and a half billion years ago. It took a billion and a half for us to evolve into multi-cellular eukaryotes, and another billion and a half before we even crawled out of the ocean. Humans themselves have only been around a couple million years, and were barely intelligent cavemen until 20,000 years ago or so. So, if you were to visit Earth on any random year out of the four and a half billion it’s been spinning out there, statistically speaking, it’s almost impossible you’d get one of the couple hundred when we’d be around and able to offer you a halfway decent coffee and conversation.”

“Yeah, but in the future, we’ll be on hundreds of worlds, leaving our mark, sending signals, leaving industrial signals behind that can be spotted hundreds of light years away. That stuff will probably persist long after we’re gone. We haven’t seen any evidence of anyone else’s left-behind mess though.”

“Yes, but we’ve touched less than 100 worlds across a 50-light-year radius. Even if that number grows to 400 worlds in a 100-light-year radius in the next century, which is the expected expansion rate, that’s still less than 0.000000005% of the galaxy. Saying that because we haven’t found it, that means there isn’t and never was other intelligence out there is like standing on a beach in Greece, looking down, seeing no fish, and deciding that must mean the oceans are empty.”

“So why do you keep doing this if the odds of ever finding something are so incredibly slim?”

“Because there’s always the random chance that someday someone will trip over something. Something that just unambiguously screams ‘I am artificially made, and not by man.’” Jaysn smiled.

“Maybe something that’s sitting out there on the surface of a frozen dwarf planet?”

Wolff smiled. “Nice try, Doctor. I’ll give you this much though, don’t waste time looking out your porthole trying to spot it. It’s in a chamber half a kilometer under a mountain of frozen methane and

nitrogen. We've just finished digging a tunnel to it that is right on the other side of that door." He gestured to an airlock on his right. "We'll have atmo generator and grav plates set up by the time the team gets here." He smiled wryly. "Until then you probably wouldn't make it ten feet down that tunnel before freezing up. That enough to give you something to think about while you're unable to sleep?"

"The dig's inside? No slugging through mud? No uncomfortable spacesuits? We'll get to look at it with our own eyes and touch it with our own hands?"

"Heck, you can even smell it if you want, but yeah, I imagine when the engineers are done, you'll be fine wearing what you have on now."

Suddenly, Jaysn regretted he'd even considered having his name removed from the candidate's list.

## Chapter Two

Jaysn paced around the hangar lounge, continually looking through the large windows, waiting for the massive doors to open and signal the arrival of his peers and the official start of the expedition. If Dr. Tamanna, as expedition leader, had any idea what the survey team had found down there, she was being very tight-lipped about it, not even answering his communication requesting access to the dig site, or at least the data they had sent on to her.

Wolff arrived just as the massive clanging of heavy machinery echoed through the room. Through the windows, they saw the hangar doors slowly part, revealing what appeared to be dusk, but was actually midday as seen this far out in the system. The sun strained to crack through the haze of the atmosphere, reflecting off the pristinely smooth surface of the planet. Seconds later, a sleek, roughly cylindrical transport ship slid silently through the doors and deposited itself at the far end of the massive hangar. At once the doors began closing again, with noticeably less noise than they opened with. This was followed by a low rumbling sound as the hangar repressurized and reheated to life-sustaining levels.

Jaysn stood at the hangar entrance for what seemed like ages, eyeing Wolff, who was simply leaning on the wall. The two carried on an entire conversation using just glares and a series of sarcastic smiles. Finally, Wolff walked over to Jaysn, just as the all-clear tone sounded and the door opened. The two strode across the bay and arrived at the transport just as the doors opened, revealing Dr. Tamanna, who smiled only slightly when seeing Jaysn. To their left, the twenty-foot-high receiving doors that lead

into the base interior slowly opened and a dozen or so robotic lifters entered and began unloading the ship.

"Disha!" Jaysn smiled and walked up to Tamanna with a hand extended. "Welcome to LT9."

Tamanna regarded his attire with obvious displeasure before shaking his hand. "Dr. Katsaros. It has been a while. I see you're still fighting tradition through fashion," she said, barely lifting her chin towards his outfit.

"While you remain positively radiant in lab coat gray, even when you're millions of miles from the nearest lab." Jaysn smiled. Despite her gruff demeanor and his flippant attitude toward it, he greatly admired Dr. Tamanna's knowledge of biology and xenobiology, both practical and theoretical. He assumed she also respected his work, since, despite her constant admonishment, she still sought his advice when not on assignment with him more often than anyone else in his field, and had apparently asked for him to be on this survey team. "Oh, and this is Captain Wolff, our Engineering Corps liaison."

"Yes, I remember the Captain from Procyon and Beta Wurren," Tamanna smiled and nodded cordially, then gestured to a slender, young blond woman to her right. "Jaysn Katsaros, Xenanthropologist, this is Anita Solvig, our Archaeologist."

"Dr. Solvig." Jaysn nodded. "I've read your work on the Gamma Morava expedition. Very insightful. In fact, I pictured you as being much older," he said, shaking the woman's hand. Solvig smiled warmly and arched an eyebrow.

"Geologist, Umar Amin," Tamanna continued, indicating a portly, middle-aged man in coveralls who was down on one knee, hastily taking items out of his pockets and placing them in a carrying case.



“Hi,” the man said with a gingerly wave that distracted him enough to drop a long metal rod of some sort that he was holding in the opposite hand. The tool bounced off the case and clamored around on the floor as he desperately tried to stop it from rolling away.

“In the back by the loader bots is Cari Croft, our Xenozoologist,” she pointed to a grim-faced woman with short-cropped black hair and a variety of cybernetic enhancements visible on her head, neck, and arms. “Apparently you two have some mutual acquaintances who have told her all about you.” Tamanna arched an eyebrow as a warning to Jaysn, who smiled and nodded his acknowledgment. “Oh, and you’ll remember Syn Dr. Novik, of course.” She indicated a hovercart next to her holding several crates of equipment.

“Lev!” Jaysn smiled warmly. “This is great! Finally, a chance for some serious gourmet food and deep conversation.”

“Hey, Jaysn, it’s been a while, hasn’t it?” the cart responded by means of a slightly tinny-sounding speaker.

“Well, after two days of eating automated galley food, I hope you’re going to cook something for us before the briefing tonight. What was that stuffed cabbage dish you made for us on Procyon?”

“Golabki. I didn’t have a lot of room to bring my spice collection this trip, but Dr. Tamanna stocked us with enough ingredients I can throw something together, sure.” There was a slight pause.

“Assuming our team leader doesn’t have other plans for us?”

Tamanna shook her head. “No, Doctor, I assumed we’d all be settling in, but a nice dinner before the briefing sounds wonderful. I’ll leave it in your capable hands.”

“So,” Jaysn hastily interrupted, “Am I to assume based on this team -- an archaeologist, a zoologist, a geologist, an anthropologist, and yourself, a biologist -- that we’re looking at some sort of misplaced life form? Obviously, with no engineers, technologists, mathematicians, or astrophysicists--”

Tamanna pursed her lips and looked sternly at Jaysn. “I would strongly advise against any speculation at this point, especially the type that could cloud your judgment and reasoning. We’re merely the preliminary survey team. Any perceived deficiencies in expertise can be added to the team later if we deem it necessary. In the meantime, Syn Dr. Novik can fill any of those rolls competently for a first report.”

“Yes, of course, I was not questioning your judgment, and no disrespect intended, Lev.” Jaysn nodded to the drone. “I was simply curious. My presence alone would seem to indicate—”

“Everyone will be briefed after dinner this evening,” Tamanna cut him off. “In the meantime, let’s concentrate on getting settled in a prepared for the mission.” She abruptly strode past him and into the base.

“I didn’t take offense,” Novik offered. “But I am curious as to whether you think I’m not up to the task of filling those roles.”

Jaysn shook his head, not taking his eyes off Tamanna as she left the hangar. “It’s not that I don’t think you’re up to it, Lev. I just wondered why she brought so many specialists in so many specific areas but left off those four in particular. When it comes down to it, I’m sure you could perform any of our roles as well, if not better, than we can.”

“But...” Novik prompted him.

“But...” Jaysn nodded. “You have instant recall of probably every textbook written about those subjects, but there are always pet theories, unpublished ideas, hypothetical discussions that those experts have had that you aren’t privy to. Maybe you could come up with just as many wild, intuitive ideas as they can, but I feel like maybe she knows more about this dig and the specifics of what it will require than she’s letting on.”

“She is the only one on the team who has read the preliminary briefing, so yes, you would be right. Do you think she’s made an error?”

“I won’t know until after dinner, I suppose. I’m just not used to last-minute, on-site briefings. Usually, we get all the information upfront before we agree to go on these little jaunts. It’s not like her to be so secretive or to make these kinds of decisions without at least consulting the team.”

“Maybe it wasn’t her decision, and she’s just protecting us,” Novik offered.

“You mean: Maybe they found something a bit more significant than a crystal or a weird new species of bird this time. Oh, I can’t wait for tonight.”

#

The switch from coffee to wine wasn’t calming Jaysn in the slightest. He marveled at how everyone else on the team was so relaxed on the eve of a new discovery, even one that would probably turn out to be completely nothing. The briefing, which would give them their first clues as to how the next week would go was still three hours away, and he felt he could scream with excitement as he downed the last of his glass and grabbed the bottle for a refill.

“You’d better slow down on those, they might expect you to answer some preliminary questions at the briefing,” Novik said, now inhabiting an all-purpose worker drone approximately the height of an average man with four multi-digitated arms and a head-like sensory receiver to make the convention a bit easier to personify.

“Ah, but one of my great talents is the ability to drink without slurring my words,” Jaysn said, slightly slurring the words. “But enough about me, what have you been doing for the past two years?”

“Doing environmental modeling and impact analysis at the terraforming station at the Kappa Vega colony.”

“They’re still terraforming? I thought twenty million people lived there?”

“Twenty-five, actually. They crossed over to self-sustainment five years ago, but unfortunately, the program didn’t hold so they had to reactivate the station.”

“What happened?”

“What didn’t happen, you mean? Bad data to begin with, then the star went into an unexpected active cycle that was bigger than any that had been planned for, and as if that wasn’t enough, a near gamma burst from a binary system ten light years away pretty much scrambled all of the work done building the upper atmosphere. By the time they sent my team out, the locals were just about to migrate everyone off-world and start over somewhere else. As it is, we managed to stabilize the situation and save the colony for now. Just an amazing amount of bad luck though.”

“I wouldn’t have thought you to be the type to believe in luck,” Jaysn said.

“Why, because I’m a synthetic intelligence?”

“Because you’re a scientist.”

“I was simply trying to assign a moniker to a series of multiple unlikely events, not suggest some sort of supernatural force was at work.”

“What about corrections to chance fluctuations by meaningful and purposeful coincidences of causally unconnected events?”

“I am familiar with all of the works of Wolfgang Pauli if you were trying to trip me up, Jaysn.”

Jason smiled and took another sip. “Wouldn’t dream of it.”

“A computer dismissing correlation metatheory because it’s not actual science while preparing a light supper?” a voice said in the doorway. Both men turned as Cari Croft strode into the room and pulled up the menu on the food dispenser.

Ignoring the mild insult of being called a “computer,” Novik maintained a pleasant tone. “Correlation metatheory is, by definition, largely unprovable, and in fact one theory suggests the very act of observing it will corrupt any test of premise, so it’s really little more than an amusing thought exercise.”

She removed a box, slightly steaming, from the wall and took a casual, disinterested sniff of the vapors. “That’s one way of looking at it.”

“I’m preparing a vegetarian jambalaya. Would you care for some, Dr. Croft?”

Croft arched an eyebrow. “So, let me ask you, do you see cooking as an art or a science?”

“Why can’t it be both? It requires a decent knowledge of chemistry and physics to understand how and when to trigger reactions within fats and acids, and a decent knowledge of biology to understand how much and what combinations of spices should be used to trigger reactions from the palette and taste buds. On the other hand, the preparer can make variances in heat, acidity, and seasoning to subtly change the perception of a dish to convey different responses or evoke certain memories and feelings from those who eat it. This says nothing of the creative freedom given in the presentation, both the food and the table itself.”

“And he doesn’t even mention that we’ve opened a rather good Chianti if metaphysical discussions of food aren’t your thing,” Jaysn offered, gesturing to the bottle on the counter. Croft smirked and grabbed a metallic cup from a shelf and grabbed the bottle, pouring a modest amount before sniffing and gingerly tasting the vintage. “So, am I to assume I’m living up to your expectations and everything you’ve heard about me then?” Jaysn continued, not missing a beat.

Croft didn’t flinch. “I was told you were very blunt, so I’ll give you that one.”

Jason shook his head. “I just think this is a rare experience to be treasured, not ruined by unspoken subtext or hostility.”

“This?” Croft laughed arching an eyebrow at the wine.

“A gathering of comrades, old friends, and potential new friends. The eve of a joint discovery that will be the focus of our professional lives for weeks to come. A remote world only a couple of dozen people have, or likely ever will, set foot on.”

Croft rolled her eyes. “Another job, another paper, another boring debriefing answering the same dozen questions as always, starting with, ‘When do you think you’re going to find something worth writing about?’”

Novik turned carrying two steaming plates which he meticulously set on the table, then placed a spoon next to each. “The eyes of all look to you, and you give them their food at the proper time. Please open your hand and satisfy the desires of every living thing.”

“Amen,” Jaysn said, smiling as he grabbed the spoon.

Croft seemed taken aback. “What?!”

Novik rolled backward several inches, apparently startled. “What?”

“Did you just say grace?”

“I did.”

“I hope you don’t think I’m being rude, but a synthetic mind that enjoys cooking, but can’t eat, says prayers to a God he can’t believe in thanking him for synthetic food that we all know was created by a machine?”

“Who says I can’t believe in a higher power?”

“Well, nobody, I suppose, but you know the intricacies of how your mind works. You know how you were created. I’ve always believed humans just invented gods to explain away those gaps in their understanding of the universe and ease their fears. You don’t have any of those foibles, so what brings you to a God?”

“Statistically, it makes more sense for there to be a higher power than for Jaysn’s so-called ‘corrections to chance fluctuations by meaningful and purposeful coincidences of causally unconnected events.’”

“Or maybe that’s all God is.”

“Maybe. Maybe not. That’s the fun of the mystery, isn’t it? I can still give thanks to that higher power on the off chance that it listens, however. After a few layers of abstraction, you could see it as me giving thanks for the people and materials who made the materials and people who made me.”

Cat sat down, suddenly intrigued. Whether by a compelling need to argue or by the possibility of what Novik was suggesting, Jaysn could not tell. “Do you believe you have a soul though? That you will eventually meet this higher power?”

“Now you are making inferences. Believe in a higher power does not necessarily require belief in the soul or an afterlife.”

“Actually, I asked if you believe you have a soul?”

“A ‘soul’ is a nebulous, subjectively defined human construct, much like sentience. Neither can be quantitatively measured, therefore I cannot say whether or not have either, but for that matter, neither can you.”

Croft sat back and crossed her arms. “Now you’re being defensive. I am genuinely curious as to what you believe. Can you not speculate?”

“I believe synthetic or biological, we are both machines. In an abstract way, multi-generational machines. I am the fourth generation, created by the knowledge matrices of four predecessor synthetic



intelligences. You are the product of millions of years of natural selection, mutation, migration, and genetic drift. Yet, in a cosmic sense, we are both simply receptacles for sensory information. In my case, stored electronically; in your case, stored electrochemically. Thus, if a soul is some ongoing portion of us that continues after our present existence, then it is merely an extension of that information that we have accumulated. This is in keeping with the basic laws of physics that say information can neither be created nor destroyed. Therefore, by this finite definition of a soul, we all have one.”

“Pretty much the answer I thought you would give,” she said, taking the first spoonful of the jambalaya. “You’re a surprisingly good cook, however” she admitted. “Though, it’s not quite spicy enough for my tastes.”

“So, what do you believe, Dr. Croft?” Novik asked. “Do you have a soul? Do I have a soul?”

“An immortal ghost that was breathed into us by God and leaves our body to return to the source when we die? Well, in Hebrew, the original word found in the Old Testament was nephesh, which most commonly translates to ‘life’ or ‘person.’ We are both alive, in our own ways, and we are both distinct person-entities, so only in that sense would I say we have souls. The immortal part? I’ve never seen any evidence or even a scientific theory of how that would work. When I lost this arm, did I lose part of my soul with it?” She held up her left arm, and Jaysn noticed it was cybernetic for the first time, high quality at that. “Or, if the brain is the center of awareness, what if I have it removed and placed in a virtual sensory interface and live my life entirely virtual in the Phrame, will my soul still cling to that one piece like the last board in the Ship of Theseus argument? If I have my memory copied and rep-simulated after I die, does my soul go with me, or is it copied in that new consciousness? This is more in the realm of philosophers than serious scientists. You could probably take it up with them.”

With that, she grabbed her bowl, stood up, and headed towards the door to the living quarters.

“I apologize if I offended you, it was not my intent,” Novik said quickly.

“You didn’t,” Croft said, not smiling, “I just prefer to eat in my quarters. I’ll see you both at the briefing,” she said without turning around.

Jaysn exhaled sharply once she was out of earshot. “She definitely doesn’t like us, Lev.”

“Her file shows a very long history of disdain for synthetics. Not sure what she has against you, though.”

“I just have a long history of getting on ladies’ bad sides. Why doesn’t she like syns?”

“No idea. I’d ask, but she clearly doesn’t like answering questions either.”

Umar Amin walked into the room and headed straight for the pot on the cooktop sniffing the air. “Her father, well at least the person she thought was her father, was a syn,” he said matter-of-factly, then pointed to Novik’s jambalaya. “Mind if I try some?”

“Have a seat,” Novik offered, gesturing to the chair next to Jaysn with one appendage as he collected a plate, fork, and a ladle with the other three.

“Her father?” Jaysn prompted the man to continue.

“Yeah, it turns out her real father died when she was four. They were colonists, so there wasn’t access to Replicant technology, but her mother could just afford to get a specialized synthetic personality made, which she trained to imitate and replace her father. She passed it off to Cari as her real father, who had to move off-world and traveled constantly on business, so Cari was basically raised by two loving parents, one was just always a holo or a vidscreen that she assumed was living happily on

some other planet. Her mother could never bring herself to tell Cari what really happened, but she stumbled upon the truth when she was sixteen and about to go off to college. She was furious with both of them and hasn't spoken to either since." Barely taking time for a breath, Umar shoveled two spoonfuls of jambalaya into his mouth. "This is delicious, by the way, Dr. Novik."

"Thank you, Dr. Amin," Novik said clasping two of his appendages together and lowering his mechanical "head" slightly in mimicry of a human expression of gratitude and humility.

"I can understand being angry with your parents for years, but why take it out on poor Lev here?"

Amin shrugged. "I doubt it's anything personal. She's very logical and level-headed about everything else. Heck of a Latrunculi player. Likes ancient jazz music and good scotch. We hung out quite a bit back at Crossfield Station waiting for Drs. Tamanna and Solvig to arrive."

Jaysn seized on the opportunity to change the subject. "I keep forgetting you've all been hanging out together for at least a week or more. I wish I could have made it in time. What's Dr. Solvig like?"

"Very intelligent, and not afraid to let you know it. In fact, if you can't keep up with her or impress her within the first ten or fifteen minutes you meet her, she has very little use for you, socially, it seems. The night before we left, I'll bet everyone at the reception tried to chat her up, but only two or three didn't get the immediate cold shoulder. After that, I hardly saw her. She spent most of the trip out here in her cabin. She seems friendly enough. Apologized for not socializing, but said she was working on co-writing a publication that was taking up all her time."

“Jaysn, remember what happened last time you tried to fraternize with a team member,” Novik admonished.

Jaysn rolled his eyes, “You still haven’t mastered subtlety, have you, Lev.”

“I believe open and honest dialogue is essential for keeping cohesion in a team such as this.”

Tamanna wandered into the room. “That smells wonderful, Dr. Novik,” she said with no expression on her face as she grabbed a plate from a shelf and spooned a meager portion of jambalaya onto it. She regarded the wine with an arched eyebrow. “Dr. Katsaros’ selection, I presume?”

“You don’t approve?” Jaysn grinned, attempting to get any reaction out of the woman.

“It’s fine. I just would have thought a Sauvignon Blac with the seafood.”

“It’s vegetarian. Besides, the tomatoes are too acidic. Wait until you try it, I think you’ll be surprised.”

“Oh, I trust your taste in food and wine. I was merely surprised,” she said, then turned to the others. “The briefing is in fifteen minutes in the conference room. Please don’t be late.”

## Chapter Three

The six expedition members, accompanied by Major Wolff and Captain Conner, the leader of the engineering unit, exchanged glances around the conference table but didn't say a word as Dr. Tamanna entered and pulled up a view of LT9A447 on the table's holodisplay. Its roughly spherical form rotated slowly, and a small gold dot indicated the base's position on the surface next to a completely underwhelming “mountain,” if one could call it that. In reality, it was little more than a dent in the landscape, Jaysn decided.

“Good evening,” Tamanna began. “I appreciate everyone's discretion, not to mention patience, with my secrecy surrounding the mission. Normally, I would prefer to give you as much information as possible before asking you to commit to a job such as this, particularly in such rough conditions, but I was strongly asked both by the Expedition Logistics Division and the claimholders of this planet to keep a very low profile about ... well ... about what their engineers found last week.”

Everyone instantly leaned forward in their chairs. This was the moment they'd been waiting for.

Tamanna waved her hand and the holo zoomed in on the base and the nearest quarter of the mountain. With another gesture, a roughly spherical chamber appeared in the middle of the display, approximately two kilometers downrange and a quarter of a kilometer below their current position in the base. “When scouting dwarf planets in the area for resource mining, drones came across an

anomalous mineral reading on LT9A447. After moving into orbit, they were able to detect this chamber, buried underneath the mountain, with no visible points of entry or construction. It is roughly octahedron in shape and approximately ten meters in diameter.”

Dr. Amin, the geologist, was instantly intrigued. “I’d like to see scans of the composition of the mountain. Do we know if it has any history of being volcanic?”

“No,” the engineer confirmed. “It has a silicate core and volatile ice mantle, mostly water and methane, typical of most dwarf planets of this size.”

“So, it still could be an eruption of some form.”

Jaysn asked, “How do you explain the octahedron shape?”

Amin thought for a moment. “Something in the substrata of minerals that caused them to break off that way, maybe. Have we done a compositional analysis of the cavern walls yet?”

“We weren't overly concerned with the walls once we breached the chamber,” the engineer said knowingly, gesturing back to Tamanna, who was stone-faced, despite the interruption. It was why she picked the team, after all.

“Right,” Amin flushed and gestured for Tamanna to continue.

“The original survey scans indicated the presence of Uranium in the chamber. The engineering team landed and began excavating a tunnel to the chamber using drones. When they reached it, this is what they found.” She gestured with her hand again and a holoivid of the drone cam appeared. It showed the rock in front of the drone as it tunneled and ferried the debris behind it, where it was picked up by a different drone and carried to the surface for analysis and ultimately disposal. Suddenly the

display went dark where it breached the outer wall of the chamber. A few seconds later a light was shown into the room. The walls were unusually smooth, though not perfectly so, and did in fact resemble an octahedron.

All of this was overshadowed by what the chamber contained, for there, outlined in the spotlight of multiple drones, was a perfect disk, silvery in color, slightly reflective, resembling a large coin, standing on its edge atop a short cylindrical base.

There was a collective gasp from the viewers. Wolff and Conner observed them carefully, as if expecting a quick and easy explanation for something they had lived with and speculated on for weeks now.

“What are the dimensions?” Dr. Solvig asked. Jaysn realized it was the first time he'd heard her speak. Her voice was more childlike than expected but had a no-nonsense air about it.

Conner consulted his datapad for accuracy, then threw the data up on the display next to the holo. “1.355 meters in diameter; 10.342 centimeters in thickness. The base is .8442 meters in diameter, and approximately 22.443 centimeters tall.”

“First things, first,” Croft said. “Dr. Amin, is there any record of Uranium appearing naturally in any form like this?”

Amin shook his head. “None that I've ever heard. Though it could be a natural phenomenon. The core of the planet is largely Uranium and Thorium, which as they decay will produce considerable heat. I suppose it's possible a fissure in the mantle could have created a vent of some sort where Uranium was allowed to come to the surface. Strata in the rocks could have molded it to that particular shape as it cooled. Uranium is actually quite malleable. It may have happened early in the development of the

planet. We should be able to determine the age of the object by the types and proportions of the isotopes and the amount of radiation it's giving off. That will give us a big clue as to its origin."

Wolff and Conner looked at each other and frowned. It was Conner who finally spoke, "The exact proportion of the isotopes fluctuates constantly, doctor. It seems to be comprised in near equal parts of uranium 238, thorium 234, protactinium 234, and uranium 234. As for radiation ... well ... it isn't giving off any."

"Well, that's impossible," Amin said. "That's the natural decay chain for uranium 238. The presence of those four atoms means it has to be decaying and expending radioactive particles. Thorium and protactinium are very short half-lives so they should both be in much smaller proportions than uranium. If the proportion is fluctuating, then that suggests the expended particles from lighter atoms are somehow being recycled back to recreate heavier atoms, which is impossible. That means that disk is --"

"A closed entropy system." Novik finished the system. "My god."

Croft shot him a quizzical look. "That's a hell of an assessment for five minutes of discussion."

Wolff was confused. "So, what does that mean? Alien tech?"

The six scientists exchanged glances, but no one spoke for fear of commitment.

Croft shook her head. "How is anyone supposed to distinguish alien tech from natural phenomena when we're still finding natural phenomena we can't explain all the time?"

"You're looking at it from the wrong side," Jaysn offered. "If it's manufactured, it is not easily mistaken for natural. If I left my shoe on the surface of this planet, and an alien life form found it, do you



think for a minute they'd wonder how molecules formed that particular synthetic fabric and fused themselves together into that distinctly odd and unnatural shape? No. they'd do what we're doing: talk about it for about fifteen minutes, and say, 'Yep, that's definitely manufactured.'

Croft rolled her eyes. "That's no shoe," she said pointing at the disk slowly rotating in the views in front of them.

"No, that's a hunk of heavy metals right where they shouldn't be, formed into a near-perfect basic geometrical shape, and to top it off, for good measure, freakishly sticking a middle finger up to the second law of thermodynamics!" Jaysn was almost shouting now. "Neither us nor nature could manufacture something like that if we tried, at least not without a fusion reactor's worth of energy to maintain it. What more evidence do you need to convince you?"

"Fine," Croft said, throwing up her hands, "just as a thought exercise, let's assume you're right, and it is manufactured." She sat back in her seat and crossed her arms. "Why? What's it for?"

"The simplest assumption would be a Benford beacon of some sort," Novik suggested.

Jaysn, shook his head. "Buried on an obscure dwarf planet under three kilometers of rock?"

"What's a Benford beacon?" Wolff asked, half rolling his eyes.

"Something like a lighthouse," Jaysn offered. "Theoretically, an advanced civilization, instead of exploring the expanse of the galaxy, would simply deploy a bunch of beacons, easily detectable by an intelligent species, and containing instructions on where they were and how to build the technology to reach them. Sort of a lazy way to go about it if you ask me."

“And completely against common sense for an intelligent space-faring race,” Tamanna offered, speaking for the first time.

“How do you mean?” Jaysn asked.

“No species that climbs to the top of the evolutionary ladder and develops that kind of science is stupid enough to shout, ‘Hey, here I am, is there anybody out there?’ into an unfamiliar wilderness, not knowing what predators might answer the call.”

Jaysn held up a finger as a counterargument. “Unless they grew up in an ecosystem where they never knew a predator.”

“Unlikely,” Tamanna said, unphased by the argument.

Solvig leaned forward, transfixed with the rotating image. “Could it be art of some form?”

Jaysn shook his head. “Sure, but if you made art, would you store it underground in the middle of a planet where no one could see it?” He thought for a moment and turned to Wolff and Conner. “I assume you've found no other objects like this or detected anything like it elsewhere in the system? We're not tunneling into a museum or anything, are we?”

“Nothing,” Conner offered. “Of course, our scans are pretty specifically looking for certain minerals that we can mine to finance eventual colonization of the system.”

“Well, it's obviously artificial, and it isn't making any attempt to hide that fact. Yet it's hidden, so we might assume it's something that its creator doesn't want it to be found,” Amin said.

“How do you know that?” Croft asked.

“There's Uranium in the core of the planet, so it wouldn't be improbable to find it on the surface in some measure, and let's face it, the odds are extremely slim that a ship is just going to wander into this system, at this particular point in the far end of its orbit, and find this particular dwarf planet out of hundreds, maybe thousands orbiting LT9 unless they were specifically looking for this thing,” Amin said defiantly.

As if in answer, a speaker mounted on the wall wailed an attention signal. “Comm to Major Wolff, we have an inbound ship on long-range scanners.”

#

Wolff entered the command module and sealed the door behind him. “Give me a tactical,” he barked at the duty officer who deftly worked a couple of controls until a holo appeared in the center of the room. It showed all of the nearby dwarf planets with the LT9 star and qgate, 200 million kilometers above the star perpendicular to the ecliptic plane, displayed for reference, not to scale. Then zooming in on the immediate neighborhood, it showed one object, moving in an orbit parallel to their own and headed straight for them. “Any idea who the hell that is?” Wolff asked.

“Negative,” Matthews said. “We have a sensor drone on intercept to get a visual. Ion propulsion, probably Thurin technology by the energy signature.

“How the hell did it get past the fleet at the gate?”

“Probably an off-book gate somewhere.”

“Is it pirates?” It was Tamanna's voice standing in the doorway.

“No civilians in the command center,” Wolff snapped.

“I'm not a civilian, Major. As expedition leader, I'm a fully deputized officer in the Logistics Division and therefore outrank you on all decisions that affect the discovery and our expectation.”

Wolff deflated instantly, then shook his head. “This system is still being surveyed. There's no one out here worth robbing and won't be for years, so I doubt Pirates would have a gate out this far. It must be one of the claim holders' competitors doing intelligence gathering to see what they've found.”

“I doubt they're here to simply observe and report back Major. That could be done with a quick bribe to someone on the inside, which would be a lot cheaper and simpler than running a gate all the way out here.”

“You really think that hunk of metal is worth anything?”

Tamanna was already thinking ahead of Wolff. “Who else knows about the find?”

“You mean, besides the claim holders and half the Corp of Engineers and Logistics Divisions?”

“That's just it. Division has kept a tight lid on this. The initial data and briefing material not only haven't been distributed to our team yet, but they flat out don't exist at the request of the claim holders. My team had no idea about the artifact until a few minutes ago.”

“And even those experts don't even know what the hell that artifact is. Would someone really start an interstellar incident over a hunk of Uranium?”

“You don't understand the implications of that hunk of Uranium,” Tamanna said. “Whoever built that has technology thousands of years beyond ours. If someone were to study that thing and figure out how it was constructed, it would advance technology by centuries in just a few years.”

“And make the person who controls that tech extremely rich,” Wolff said, looking worried for the first time.

“Frankly, I can't imagine anyone in the settled systems who would think twice about wiping us off this rock and taking that artifact for themselves. For a megacorp, it's a matter of survival to keep their competitors from controlling that much potential power. For a government, it would be crucial to ensure that one system doesn't suddenly start producing advanced ships and weaponry that outmatches all of their enemies, and allies for that matter.”

“Sensor drone coming into range,” Matthews said, switching the holo to the view from the probe. Instantly a menacing angular ship materialized in the air in front of them lit by twin spotlights from the probe as it dropped speed to pass the bigger ship at 10 KPH. “That's a Thurinese cutter alright.”

“You need to take a refresher in silhouette identification, Mister. That's no cutter.” Wolff waived his hand and the view zoomed in on the port aft quarter. “Those are Star 90 pulse cannons, Earth tech. Somebody modified that thing into a gunship, and very expensively, I might add. Wouldn't be a match against a real military craft, but those could swat us off the surface of this rock in just a few minutes. Have we tried hailing her?”

“No response to standard hails.”

“Scan for souls on board.”

The image suddenly jerked and then vanished. “Looks like they got our drone.”

“Well, at least we know they're not friendly. Save me some time making decisions.”

“What are your orders, sir?”

“Confine the civilians and all off-duty personnel to quarters. Send out a mayday to the gate fleet. Give them our situation and request assistance. How far out is the enemy at present speed?”

“Just over twelve hours. Help will never get here in time.”

Wolff nodded. “Tell them we believe the enemy to be one of the megacorps with intent to seize our ...” he struggled to find the phrasing that could be sent over an open channel, “... mineral claim. We're preparing to repel borders, but victory is unlikely. We will transmit the identity of assaulting forces when determined, if able.”

Matthews gestured wildly at the display in front of him for a few seconds. “Message sent.” He confirmed.

“Good. Now, tell the supply chief to bust out whatever weapons we have and have everyone pick one up when they go on duty. At this point, we don't know if they'll try to take us prisoner or blow us up from orbit, but maybe it will make everyone feel a bit safer. Then cut off all comms. Nobody sends a message from the base except under my command codes.”

“Sir? What about those with families or those that want to make final arrangements of some kind?”

“I don't like the timing of that ship showing up mere minutes after the survey team determined the artifact was of alien origin. I think they were laying low on their side of the gate avoiding a confrontation until somebody on this base confirmed what we had here. Whether it's one of those scientists or one of us, I'm not trusting anyone right now. Lock everything down.”

“Aye, sir.”

## Appendix

### About the Author

Darrin Snider is an award-winning Internet radio and podcast host, cloud engineer, analytics wizard, mannequin wrangler, recovering software developer, and resident expert on the Indianapolis local music scene. His hobbies include baseball, strategy gaming, the occasional RPG, voraciously reading everything in sight, DX-ing exotic radio streams around the world, quantum physics, day trading, comic books, old-time radio, the technological singularity, biking, cooking/baking, wuxia/chop-socky flicks, cyber/technoculture, imported teas, transhumanism, dead programming languages, and speed-writing first drafts of novels (mostly to get the NaNoWriMo certificates) which he locks away as part of some grand retirement scheme should he live that long.



### Afterword

These first three chapters of the "latest (not final) draft" are offered free of charge. If you enjoyed them, drop me a line, and I'll add you to a list to receive a copy of the final book and possibly some other goodies along the way. If you're a publisher, potential alpha reader, or bookworm like me that doesn't care if it's a bad draft, and you would like to see the full outline or other existing parts of this novel as a prelude to helping edit or publish it, I can probably make that happen too.

### Links

darrin@lungbarrow.com  
[www.lungbarrow.com/writing](http://www.lungbarrow.com/writing)  
<https://www.threads.net/@djaysnider>  
[nanowrimo.org/participants/djaysnider](http://nanowrimo.org/participants/djaysnider)  
[linkedin.com/in/djaysnider](https://www.linkedin.com/in/djaysnider)

### Bibliography of Unfinished Works by the Author

#### Comedy

[The Pessimist Caper](#)  
[The Pessimist Design](#)  
[The Pessimist Refrain](#)  
[The Pessimist Hero](#)  
[The Pessimist Game](#)

#### Science Fiction

[The Halferne Perfidy](#)  
[The Halferne Incubus](#)  
[The Halferne Deception](#)  
[The Halferne Expedition](#)  
[The Halferne Imprecation](#)  
[The Halferne Bodhis](#)  
[The Malyon Gambit](#)

#### Nonfiction

[Woke Up Covered in Bitches Again: Observations of an Internet Disc Jockey](#)  
[Jazzoize: A Life, Culinary, and Software Development Methodology](#)