

READ IT FIRST

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HOW FIRM A FOUNDATION

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.1.
Castaway Islands,
Great Western Ocean;
Imperial Palace,
City of Cherayth,
Kingdom of Chisholm;
and
Ehdwyrd Howsmyn's Study,
Delthak,
Kingdom of Old Charis

Nights didn't come much darker, Merlin Athrawes reflected as he stood gazing up at the cloud-choked, stormy sky. There were no stars, and no moon, through those clouds, and although it was summer in Safehold's southern hemisphere, the Castaway Islands were almost four thousand miles below the equator on a planet whose average temperature was rather lower than Old Terra's to begin with. That made "summer" a purely relative term, and he wondered again how the islands had come to be named.

There were four of them, none of which had ever been *individually* named. The largest was just under two hundred and fifty miles in its longest dimension; the smallest was barely twenty-seven miles long; and aside from a few species of arctic wyverns and the seals (which actually resembled the Terran species of the same name) which used their limited beaches, he'd seen no sign of life anywhere on any of them. He could well believe that any ship which had ever approached the barren, steep-sided volcanic peaks rising from the depths of the Great Western Ocean had managed to wreck themselves. What he couldn't figure out was why anyone would have been in the vicinity in the first place, and how there could have been any surviving castaways to name the islands afterward.

He knew they hadn't been named by the terraforming crews which had first prepared Safehold for human habitation. He had access to Pei Shan-wei's original maps, and these miserable hunks of weather and wind-lashed igneous rock, sand, and shingle bore no name on them. There were still quite a few unnamed bits and pieces of real estate scattered around the planet, actually, despite the detailed atlases which were part of the *Holy Writ* of the Church of God Awaiting. There were far fewer than there'd been when Shan-wei and the rest of the Alexandria Enclave were murdered, though, and he found

it fascinating (in a historical sort of way) to see which of them had been christened only after dispersion had started shifting the colonists' descendants' Standard English into Safehold's present dialects.

He wasn't here to do etiological research on planetary linguistics, however, and he turned his back to the howling wind and examined the last of the emitters once more.

The device was about half his own height and four feet across, a mostly featureless box with a couple of closed access panels, one on each side. There were quite a few other similar devices—some quite a bit larger; most about the same size or smaller—scattered around the four islands, and he opened one of the panels to study the glowing LEDs.

He didn't really *have* to do it, of course. He could have used his built-in com to consult the artificial intelligence known as Owl who was actually going to be conducting most of this experiment anyway. And he didn't really need the LEDs, either; the storm-lashed gloom was daylight clear to his artificial eyes. There were some advantages to having been dead for a thousand standard years or so, including the fact that his PICA body was immune to little things like hypothermia. He'd come to appreciate those advantages more deeply, in many ways, than he ever had when a living, breathing young woman named Nimue Alban had used her PICA only occasionally, which didn't keep him from sometimes missing that young woman with an aching, empty need.

He brushed that thought aside—not easily, but with practiced skill—and closed the panel with a nod of satisfaction. Then he crunched back across the rocky flat to his recon skimmer, climbed the short ladder, and settled into the cockpit. A moment later, he was rising on counter-grav, turbines compensating for the battering wind as he climbed quickly to twenty thousand feet. He broke through the overcast and climbed another four thousand feet, then leveled out in the thinner, far calmer air.

There was plenty of moonlight up here, above the storm wrack, and he gazed down, drinking in the beauty of the black and silver-struck cloud summits. Then he drew a deep breath—purely out of habit, not out of need—and spoke.

“All right, Owl. Activate phase one.”

“Activating, Lieutenant Commander,” the computer said from its hidden cavern at the base of Safehold's tallest mountain, almost thirteen thousand miles from Merlin's present location. The signal between the recon skimmer and the computer was bounced off one of the Self-Navigating Autonomous Reconnaissance and Communications platforms Merlin had deployed in orbit around the planet. Those heavily stealthed, fusion-powered SNARCs were the most deadly weapons in Merlin's arsenal. He relied on them heavily, and they provided him and the handful of human beings who knew his se-

cret with communications and recon capabilities no one else on the planet could match.

Unfortunately, that didn't necessarily mean someone—or something—*off* the planet couldn't match or even exceed them. Which was, after all, pretty much the point of this evening's experiment.

Merlin had chosen the Castaway Islands with care. They were eleven thousand miles from the Temple, eighty-seven hundred miles from the city of Tellesberg, seventy-five hundred miles from the city of Cherayth, and just over twenty-six hundred miles from the Barren Lands, the closest putatively inhabited real estate on the entire planet. No one was going to see anything that happened here. And no one (aside from those arctic wyverns and seals) was going to get killed if things turned out . . . badly.

Not that it looked that way to the recon skimmer's sensors at the moment. Indeed, according to *them*, there were thousands of moving, human-sized thermal signatures scattered around the islands in half a dozen "towns" and "villages." One of those towns was centered on the device he'd just examined twenty-four thousand feet below the skimmer, which had just come to life as Owl obeyed his instructions. No one looking at it would have noticed anything, but the skimmer's sensors picked up the new heat source immediately.

Merlin sat back, watching the thermal signature as its temperature rose to approximately five hundred degrees on the Fahrenheit scale Eric Langhorne had imposed upon the brainwashed colonists almost nine hundred Safeholdian years ago. It held steady at that point, and if there'd still been any human (or PICA) eyes to watch, they would have noticed it was beginning to vent steam. Not a lot of it, and the wind snatched the steam plume to bits almost more quickly than it could appear. But the sensors saw it clearly, noted its cyclic nature. Only an artificial source could have emitted it in such a steady pattern, and Merlin waited another five minutes, simply watching his instruments.

"Have we detected any response from the kinetic platforms, Owl?" he asked then.

"Negative, Lieutenant Commander," the AI replied calmly.

"Initiate phase two, then."

"Initiating, Lieutenant Commander."

A moment later, additional heat sources began to appear. One or two of them, at first, then half a dozen. Two dozen. Then still more, scattered around the islands as individuals and in clusters, all in around the same temperature range, but registering in several different *sizes*, and all of them "leaking" those cyclical puffs of steam. The cycles weren't all identical and the steam plumes came in several different sizes and durations, but all of them were clearly artificial in origin.

Merlin sat very still, watching his instruments, waiting. Five more minutes crept past. Then ten. Fifteen.

“Any response from the kinetic platforms now, Owl?”

“Negative, Lieutenant Commander.”

“Good. That’s good, Owl.”

There was no response from the computer this time. Merlin hadn’t really expected one, although Owl did seem to be at least starting to develop the personality the operator’s manual promised he would . . . eventually. The AI had actually offered spontaneous responses and interpolations on a handful of occasions, although seldom to Merlin. In fact, now that he thought about it, the majority of those spontaneous responses had been directed to Empress Sharleyan, and Merlin wondered why that was. Not that he expected he’d ever find out. Even back when there’d been a Terran Federation, AIs—even Class I AIs (which Owl most emphatically was not)—had often had quirky personalities that responded better to some humans than to others.

“Activate phase three,” he said now.

“Activating, Lieutenant Commander.”

This time, if Merlin had still been a flesh-and-blood human being, he would have held his breath as two-thirds or so of the steam signatures on his sensors began to move. Most of them moved fairly slowly, their paths marked by twists and turns, stopping and starting, turning sharply, then going straight for short distances. Several others, though, were not only larger and more powerful but moved much more rapidly and smoothly . . . almost as if they’d been on rails.

Merlin watched the slower moving heat signatures tracing out the skeletal outlines of what could have been street grids in the “towns” and “villages” while the larger, faster-moving ones moved steadily between the clusters of their slower brethren. Nothing else seemed to be happening, and he made himself wait for another half hour before he spoke again.

“Still nothing from the platforms, Owl?”

“Negative, Lieutenant Commander.”

“Are we picking up any signal traffic between the platforms and the Temple?”

“Negative, Lieutenant Commander.”

“Good.” Merlin’s one-word response was even more enthusiastic this time, and he felt himself smiling. He leaned back in the flight couch, clasping his hands behind his head, and gazed up at the moon that never looked quite right to his Earth-born memories and the starscape no Terrestrial astronomer had ever seen. “We’ll give it another hour or so,” he decided. “Tell me if you pick up anything—anything at all—from the platforms, from the Temple, or between them.”

“Acknowledged, Lieutenant Commander.”

“And I suppose while we’re waiting, you might as well start giving me my share of the flagged take from the SNARCs.”

“Yes, Lieutenant Commander.”



“Well,” Merlin said, several hours later as his skimmer headed northwest across the eastern reaches of Carter’s Ocean towards the city of Cherayth, “I have to say, it looks promising so far, at least.”

“You could’ve told us when you started your little test.”

Cayleb Ahrmahk, Emperor of Charis and King of Old Charis, sounded more than a little testy himself, Merlin thought with a smile. At the moment, he and Empress Sharleyan sat across a table from one another. The breakfast plates had been taken away, although Cayleb continued to nurse a cup of chocolate. Another cup sat in front of Sharleyan, but she was too busy breastfeeding their daughter, Princess Alahnah, to do anything with it at the moment. Depressingly early morning sunlight came through the frost-rimed window behind Cayleb’s chair, and Sergeant Edwyrd Seahamper stood outside the small dining chamber’s door, ensuring their privacy.

Like them, Seahamper was listening to Merlin over the invisible, transparent plug in his right ear. Unlike them, the sergeant was unable to participate in the conversation, since (also unlike them) he didn’t have any convenient sentries making sure no one was going to wander by and hear him talking to thin air.

“I did tell you I intended to initiate the test as soon as Owl and I had the last of the EW emitters in place, Cayleb,” Merlin said now, mildly. “And if I recall, you and Sharleyan knew ‘*Seijin* Merlin’ was going to be ‘meditating’ for the next couple of days. In fact, that was part of the cover plan to free me up to conduct the test in the first place, unless memory fails me. And in regard to that last observation, I might point out that *my* memory is no longer dependent on fallible organic components.”

“Very funny, Merlin,” Cayleb said.

“Oh, don’t be such a fussbudget, Cayleb!” Sharleyan scolded with a smile. “Alahnah was actually letting us sleep last night, and if Merlin was prepared to let us go on sleeping, *I’m* not going to complain. And frankly, dear, I don’t think any of our councilors are going to complain if *you* got a bit more rest last night, either. You have been a little grumpy lately.”

Cayleb gave her a moderately betrayed look, but she only shook her head at him.

“Go on with your report, Merlin. Please,” she said. “Before Cayleb says something else *we’ll* all regret, whether *he* does or not.”

There was the sound of something suspiciously like a muffled laugh from the fifth and final party to their conversation.

“I *heard* that, Ehdwyrd!” Cayleb said.

“I’m sure I don’t know what you’re referring to, Your Majesty. Or, I

suppose, I should say ‘Your Grace’ since you and Her Majesty are currently in Chisholm,” Ehdwyrd Howsmyn replied innocently from his study in far-off Old Charis.

“Oh, of *course* you don’t.”

“Oh, hush, Cayleb!” Sharleyan kicked him under the breakfast table. “Go on, Merlin. Quick!”

“Your wish is my command, Your Majesty,” Merlin assured her while Cayleb rubbed his kneecap with his right hand and waved a mock-threatening fist with his left.

“As I was saying,” Merlin continued, his tone considerably more serious than it had been, “things are looking good so far. Everything I could see on the skimmer’s sensors, and everything Owl can see using the SNARCs, looks exactly like a whole batch of steam engines either sitting in place and working or chugging around the landscape. They’ve been doing it for better than seven hours now, and so far neither the kinetic bombardment platform nor whatever the hell those energy sources under the Temple are seem to have been taking any notice at all. So if the ‘Archangels’ did set up any kind of automatic technology-killing surveillance program, it doesn’t look like simple steam engines are high enough tech to break through the filters.”

“I almost wish we’d gotten *some* reaction out of them, though,” Cayleb said in a far more thoughtful tone, forgetting to glower at his beloved wife. “In a lot of ways, I would’ve been happier if the platforms had sent some kind of ‘Look, I see some steam engines!’ message to the Temple and nothing had happened. At least then I’d feel more confident that if there *is* some command loop to anything under the damned place, whatever the anything was, it wasn’t going to tell the platforms to kill the engines. As it is, we can’t be sure something’s not going to cause whatever the anything might be to change its mind and start issuing kill orders at a later date about something else.”

“My head hurts trying to follow that,” Sharleyan complained. He gave her a look, and she shrugged. “Oh, I understood what you were saying, it’s just a bit . . . twisty for this early in the morning.”

“I understand what you’re saying, too, Cayleb,” Merlin said. “For myself, though, I’m just as glad it didn’t happen that way. Sure, it’d be a relief in some ways, but it wouldn’t actually prove anything one way or the other about the decision-making processes we’re up against. And, to be honest, I’m just delighted we *didn’t* wake up anything under the Temple with our little test. The last thing we need is to throw anything else into the equation—especially anything that might decide to take the Group of Four’s side!”

“There’s something to that,” Cayleb agreed, and Sharleyan nodded feelingly.

None of them felt the least bit happy about the energy signatures Merlin had detected under the Temple. The native-born Safeholdians’ familiarity with

technology remained largely theoretical and vastly incomplete, but they were more than willing to take Merlin's and Owl's word that the signatures they were seeing seemed to indicate something more than just the heating and cooling plant and maintenance equipment necessary to keep the "mystic" Temple environment up and running. As Cayleb had said, it would be nice to know that whatever those additional signatures represented wasn't going to instruct the orbital kinetic platforms which had transformed the Alexandria Enclave into Armageddon Reef nine hundred years before to start killing the first steam engines they saw even after it had been told about them. On the other hand, if whatever was under the Temple (assuming there really was something and they weren't all just being constructively paranoid) was "asleep," keeping it that way as long as possible seemed like a very good idea.

"I agree with you, Merlin," Howsmyn said. "Still, as the person most likely to catch a kinetic bombardment if it turns out we're wrong about this, I have to admit I'm a little worried about how persistence might play into this from the platforms' side."

"That's why I said it looks good *so far*," Merlin replied with a nod none of the others could see. "It's entirely possible there's some kind of signal-over-time filter built into the platforms' sensors. I know it's tempting to think of all the 'Archangels' as megalomaniac lunatics, but they weren't all *totally* insane, after all. So I'd like to think that whoever took over after Commodore Pei killed Langhorne at least had sense enough to not order the 'Rakurai' to shoot on sight the instant it detected something which *might* be a violation of the Proscriptions. I can think of several natural phenomena that could be mistaken at first glance for the kind of industrial or technological processes the Proscriptions are supposed to prevent. So I think—or hope—that it's likely Langhorne's successors would have considered the same possibility.

"For now, at least, what we're showing them is a complex of obviously artificial temperature sources moving around on several islands spread over a total area of roughly a hundred thousand square miles. If they look a little more closely, they'll get confirmation that they're 'steam engines,' and Owl will be turning them on and off, just as he'll be stopping the 'trains' at 'stations' at intervals." He shrugged. "We've got enough power to keep the emitters going literally for months, and Owl's remotes can handle anything that might come up in the way of glitches. My vote is that we do just that. Let them run for at least a month or two. If we don't get any reaction out of the platforms or those energy sources under the Temple in that long, I think we'll be reasonably safe operating on the assumption that we can get away with at least introducing steam. We're a long way from my even wanting to experiment with how they'll react to *electricity*, but just steam will be a huge advantage, even if we're limited to direct drive applications."

"That's for certain," Howsmyn agreed feelingly. "The hydro accumulators

are an enormous help, and thank God Father Paityr signed off on them! But they're big, clunky, and expensive. I can't build the things up at the mine sites, either, and if I can get away with using steam engines instead of dragons for traction on the railways here at the foundry, it'll only be a matter of time—and not a lot of that—before some clever soul sees the possibilities where genuine railroads are concerned.” He snorted in amusement. “For that matter, if someone else doesn't see the possibilities, after a couple of months of running them around the foundries it'll be reasonable enough for *me* to experience another 'moment of inspiration.' I'm developing quite a reputation for intuitive genius, you know.”

His last sentence managed to sound insufferably smug, and Merlin chuckled as he visualized the ironmaster's elevated nose and broad grin.

“Better you than me, for *oh* so many reasons,” he said feelingly.

“That's all well and good,” Sharleyan put in, “and I agree with everything you've just said, Ehdwyrd. But that does rather bring up the next sticking point, too, I'm afraid.”

“You mean how we get *Father Paityr* to sign off on the concept of steam power,” Howsmyn said in a considerably glummer tone.

“Exactly.” Sharleyan grimaced. “I really like him, and I admire and respect him, too. But this one's so far beyond anything the Proscriptions envision that getting his approval isn't going to be easy, to say the least.”

“That's unfortunately true,” Merlin acknowledged. “And pushing him so far his principles and beliefs finally come up against his faith in Maikel's judgment would come under the heading of a Really Bad Idea. Having him in the Church of Charis' corner is an enormous plus—and not just in Charis, either, given his family's prestige and reputation. But the flip side of that is that turning him *against* the Church of Charis would probably be disastrous. To be perfectly honest, that's another reason I've always figured keeping the emitters running for a fairly lengthy period doesn't have any downside. Now that we know—or if we *decide* we know—the bombardment platforms aren't going to kill us, we can start giving some thought about how we convince Father Paityr not to blow the whistle on us, as well.”

“And if it turns out the bombardment platforms are going to kill the 'steam engines' after all,” Cayleb agreed, “nothing but a bunch of thoroughly useless, uninhabited islands gets hurt.”

“Useless, uninhabited islands so far away from anyone that no one's even going to realize 'Langhorne's Rakurai' has struck again if it happens,” Sharleyan said with a nod.

“That's the idea, anyway,” Merlin said. “That's the idea.”

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