

THE GRASS BOWS DOWN, THE PILGRIMS WALK LIGHTLY

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My mother kept an old faith, and when I was young she would tell me stories of the Aesir. She explained how, each day, Odin sends his ravens into the world. Huginn and Muninn, Thought and Memory, scour the globe for what they may learn. Perhaps they will help him uncover the secret to preventing Ragnarök, the death of all he has worked to build. Until the ravens return, the god sits motionless as a statue. For without them, what is he?

#

We crest the ridge, and the grasslands stretch to the horizon, each lavender blade as tall as my shoulder. The wild fields ripple in the wind, mottled by cloud-shadow. If I could, I would stay and watch the light and dark play over the wilderness, but Korvach starts down the slope immediately, and I must hurry to keep up. I am the guest of honor, or possibly the subject of a trial. Behind us extends a line of Klevish pilgrims. Once or twice I have looked back to see dozens of them, dressed in slate-gray robes, their angular faces dominated by protrusions that strike me alternatively as a nose or a raven's beak, though they are neither. The effect of the whole is to make them seem like a line of plague doctors. An ominous association, but they have been polite and welcoming in their formal way.

At the bottom of the ridge, the rocky soil gives way to rich grassland. Korvach turns to me, though he does not break his stride. "You commune with us, Erika-Negotiator, by joining our pilgrimage. Now you may see something you have never seen before."

The briefing documents I'd read commented on the Klevish tendency toward understatement and noted that it was "most pronounced among devotees of the Known Path." Even so, I am not

prepared for what happens. Korvach gestures casually with his hand and before us, the grass bows down.

There is no other way to describe it. The stalks all around sway gently in a light breeze, but the ones right in front of us each bend at the tuft that makes up the base of the blade and lie flat before us.

"We begin," Korvach says as he steps forward. For yards before each footfall, the grass in front of him ripples and bends down. We walk easily on the path created for us, long grass on either side standing tall.

I have come to Kleva to seek the continued aid of the Klevish. They are more than happy to share their technology with humanity, giving us access to the stars, to advanced terraforming techniques, and much more, all at a very reasonable price. But in each negotiation, there is always a demand. Through some method I do not understand, they choose a Negotiator from among human volunteers who must complete a task to seal the agreement. Our xenosociologists haven't solved the riddle of what, if anything, connects the Negotiators they select, nor the tasks. One negotiation involved playing and winning an elaborate game played with tiny, exquisite moving figures. Another time a Negotiator was tasked with maintaining

the health of a pond for a full year. One Negotiator composed poetry.

We have walked for kilometers when Korvach, moving at the same unyielding pace as ever, breaks his silence. He does not take his eyes off the folding path before him.

"Erika-Negotiator, I speak to you now as Korvach-Negotiator, not Korvach-First-Walker. Do you understand?"

"I think so. You now speak not for your religious order, but of our negotiation."

"So it is. I have a task for you. Should you fulfill it, we will share with you the genetic reclamation technology your people request." In typical fashion, he does not say: and if you fail, we will deny it to you. What else should I expect? The Klevish are the most advanced species humanity has encountered, and yet they also prioritize such things as pilgrimage across uninhabited islands and cryptic, puzzling negotiations.

"I understand," I say.

"Your task is to discover why the grass kneels before our passing." He walks on. For the first time in many years I feel a spark of excitement, and the desire to solve a mystery, to learn

something new. I am surprised by joy. That joy pulls me forward, and brings with it echoes of the past.

#

I was packing for Venus when Maebh poked her head into the bedroom and laughed. I flushed with embarrassment.

"What?" I asked. I was sitting on the bed, surrounded by stacks of clothing, shoes, research notes, bio-scanners, transmitters, packing and unpacking them as I tried to make a year's worth of gear fit into just one suitcase. Maebh had only a sturdy backpack braced against her shoulders.

"I'm laughing at you, silly," she said so sweetly that I couldn't hold it against her. "We're not headed to one of the Far Colonies."

"It's always wise to be prepared," I said, defensively.

"That's one philosophy," she said. "And it's useful when putting together a research grant. But when it comes to the actual trip, I prefer a different one."

I arched my eyebrow. "And what's that?"

"Travel light," she said.

I grunted. "Easy for you to say. You're not responsible for the equipment, the logistics--"

"I know, I know." She sat down next to me, put an arm around me. For all her talk of travelling lightly, her pack was heavy enough that the bed sank down where she sat, pulling everything, including me, toward her. "You are thorough and rigorous, and I appreciate it. But when we're dealing with the storms on the equator, you won't want to be lugging around extra weight."

"I just want the necessary amount of weight," I said, and offered what I hoped was a playful pout.

"I can help," she promised. "We just focus on what's essential and leave the rest." Her grin was an admonition and a tease and a promise all at once.

"Focus on what's essential," I said, cupping her cheek in my hand. "I like that."

Eventually, we finished packing.

#

Odin sends his ravens out into the world to gather knowledge, for he is an old god, and wise, and he knows that he must learn much if he is to prevent Ragnarök. Among the things he knows is that he likely cannot prevent it. The end is coming for him, for all the gods. But he continues to seek a way to change the future. While the birds are flown from him, it as if

he is dead or never-born. When they return, his fate is one day nearer.

#

Korvach walks on through the bowing grass. I follow along with him as best I can. He never hurries, never shows any sense of urgency. He is implacable. I suspect that he could walk day and night across the entire pilgrimage if he had to do so. He stops promptly at sundown, though, and the pilgrims at the back slump to the ground. I join them, for I am even more exhausted than they are. They have no need to perform tests on the grass, then rush to catch up with him repeatedly as I do. I suspect their sleep is not haunted, as mine has been, with dreams of the past.

My bio-scanner develops analyses of the grass, the soil, the entire biome. It is of little use until I find the right questions to ask, however. Korvach must know this, just as he knows the answer to the riddle he has posed me. And I think he knows I am struggling. On the third day, when I catch up with him again from examining another sample, he does not speak until I catch my breath.

"How is your progress, Erika-Negotiator?" he asks, his stride never slowing.

I reflect on my struggles before answering. "Each day I test hypotheses," I tell him. He tilts his head slightly. I am beginning to recognize the Klevish facial expressions. I think this means the answer suits him.

"If you wish to discuss what you have learned, I will always listen," he says.

Currently my scanner is tracing the product of microprocessors I injected into a stalk, to see if there is some subterranean connection between individual plants I haven't detected. If the signals spread to other plants, I will be close to an answer. In the meantime, I find myself happy to talk.

"First I checked to see if all the stalks are part of a single organism, as with some plants on Earth," I told him.

"I see," he says, inclining his head; he suspected I would try this.

"They are not. Next I checked pheromone signaling."

"And?"

"Nothing I can detect."

"Ah, the smell of the fields," he says. "Each year for a hundred and fifteen years I have made this journey, and each year the smell is a connection to my past." The afternoon is

thick with the scent of cut apples and roasted peppers. It is a smell to hold on to.

"I've never seen anything like it," I say. "There's no macroscopic fauna I can find on this whole island, and no other flora, either. Just the grass stretching endless."

The place is impossible to discuss without slipping into something approaching poetry. As though it is opaque to science, I think grimly. But the Klevish chose me from among many volunteers; surely they picked a biologist for a reason. Perhaps they know of my work with dolphins.

"It is the practice of our faith," he says. Such a strange way to put it.

"I will run more tests," I say. "If fortune is with me, each failure will bring me closer to success."

"Each step takes us closer to the coast," he says, and I wonder if he is chastising me, or urging me on.

#

A year after we returned from Venus, I came home to find Maebh staring out over the sea. The view was spectacular, each Manhattan high-rise resting on reclaimed junk turned into a home for coral. Two hundred feet beneath us, life bloomed in the once-dead seas.

She looked out over the water, and for a moment I was completely content. The view was a daily reminder of the work we had done, the painstaking but rewarding process of healing the seas. Each day I taught enthusiastic students at the flotilla, and each night I came home to Maebh. What more could I ask?

That's when I caught sight of her reflection in the glass. Her eyes were red, her cheeks slick. She paced away when I met her gaze, but I hurried to her. "What's wrong?"

"A letter came for you," she said. I rushed to the table. There was only one reason anyone would hire a courier to deliver a physical document. Sure enough, the letter was emblazoned by the seal of the flotilla. I felt Maebh watching me as I broke the seal and read.

When I looked up at her, she had twisted her hands into tight knots, and was working ineffectually to keep her face neutral.

"They've approved it." I fought to keep the excitement out of my voice. "The whole grant." I would be overseeing a team of students working on the next phase, the dolphin reintroduction program. That meant job security and a significant budget and a chance to play a major role in reshaping the whole of the Atlantic.

"Good," she said, and I was shocked to realize she didn't mean it. From the look on her face, she was, too. "I mean, I'm glad for you, Erika. I know how hard you've been working for it."

"We've been working for it," I say. Outside the sunset cast the sea in pink and gold.

She gave me a look that shatters me each time I think about it. "Anyway," she said, "Congratulations."

"What is this? I thought you'd be happy for me."

She hesitated. "I thought so too. I told myself I'd be happy for you. For us. But sometimes--sometimes the world doesn't unfold the way we hope."

I could feel my jaw hanging open. I forced it closed. "This is the opportunity of a lifetime."

"Yes," she said. "And it will be your life. It will open project after project to you. They'd be a fool to let you get away."

"What's wrong with that?" I felt anger bubbling up, anger I didn't understand.

"It's the endpoint," she said, and paced over to the window. The city's lights were burning against the last of the

day. "It means you'll never take a field assignment on Europa or a colony or..."

"We could never hope to get an appointment this good off world."

"Probably not," she said, and was silent so long I was surprised when she continued. "Do you remember that night on Venus when we watched the *Erinaceus venaeus* foraging?"

We'd watched it for close to an hour, its small nose exploring the undergrowth, rooting through the rich loam, looking so much like its cousins on earth, save that it was slightly smaller and its coat was a shimmering green.

"I could never forget it. It's the most beautiful thing I've ever seen." I said.

"You told me then that you never wanted to stop exploring."

Oh. "I--this is a kind of exploring. Rebuilding what we've lost."

She ran a hand through her hair and turned back to me.

"Earth's going to be okay," she said. "Even if you didn't take the grant, someone else would get it and reintroduce the dolphins. Why does it have to be you?"

"Because I'm good at it, Maebh, and because it's worth doing."

"Yes," she said. "And it means we're staying here forever, rebuilding what we've previously fucked up, when there's everything out there."

I was still clutching the delicate acceptance letter. My hands shook. I could see the shape things were taking, and I felt something awful curl itself within me.

#

When Huginn returns and Muninn is absent, Odin is lost. His mind is alive with Thought, but with no Memory to guide him, he cannot plan for Ragnarök. He cannot draw on the wisdom of the past. He is useless, incapable of action, for his mind is as blank as and shapeless as a block of stone.

#

On the fifth night, the pilgrims camp just beyond a rise. While they settle in, I backtrack and sit on the bare rock at its peak. I watch the sky as the stars come out in their unfamiliar constellations. This is my first trip outside of the Sol system. For a long time I had no wish for such a trip, until restlessness or regret changed my mind.

The night here is darker than any on earth, with no moon, nothing but the stars and the rustling of the grass. It is a

beauty as vibrant as any field of flowers, yet somehow as desolate as a desert.

I do not notice Korvach has come up behind me until he speaks.

"Is it a sight worth seeing?"

"Very much so," I say. "I wish--there is someone I very much wish could see it." Maebh would have loved it here. But if she were still with me, I would never have followed this path. Korvach is comfortable with silence. He does not press me, but neither does he hurry on. Finally I speak again. "There is no trace of a neural network, and no microfauna that would explain the grass's behavior." A team of experts with proper equipment would no doubt crack the case quickly. But whatever the Klevish want me to learn, I alone must discover it.

"I am told," Korvach says, and sits beside me, "that on Earth many people practice a meditation of stillness."

"It's true," I say. "More than one of our faiths teach such things." I do not see the connection, but it is a better topic than my failure to find answers.

"You would commune with me, Erika-Negotiator, if you would share whether you keep such a faith."

"I do not keep them. Once I thought I could never be still, and then the time for movement had passed before I realized I had already halted."

"A sad thing," he said. "I too could not keep a faith of stillness. I must keep moving forward, for movement is life. And how else will the Path know us?"

"I thought 'Known Path' referred to you knowing the path."

"One could not be true without the other," he says, and stands. "Good night, Erika-Negotiator. We resume our journey at dawn." It is a reminder of how little time I have left. In less than a day, the pilgrimage will be over, and I will have succeeded or failed.

I stay some time on the rise and then push my way toward camp through the grass: it has already risen behind us. When sleep takes me, I dream of Maebh, and of Ravens.

#

I did not need to check the time to know that Maebh's ship would be leaving soon. Beneath me, the Earth spread like a familiar face. Each year she grew more beautiful, each year a bit more green. In my lifetime she would be as green as in the old images. And long after I am dead, perhaps Maebh will look

down on a world so verdant one would not know it was the work of many generations to salvage it.

I turned away from the viewport to find Maebh watching me. For once, she stood still, her backpack thrown over her shoulder. The strap was ragged around the edges, and the seams were caked with dirt.

"The Captain wants me on board in five," she said. Her eyes shone, though with sadness or excitement I couldn't say.

On impulse, I took her hands. The last moments, the last of us, and I couldn't find anything to say.

"It's not too late, you know," she said. "You can still come with us." The colony ship would take a qualified biologist in a moment. They'd take almost anyone who was willing to head four hundred years to the ragged edge of human exploration.

"Or you could stay." I expected anger, I think. I was so miserable I would have picked a fight just to be sure she felt something. But she looked at me with pity.

"There's a whole universe out there, worlds where humans have never set foot. I can't turn my back on that."

"But you can turn your back on me?"

That did it. "After all this, I thought you'd want me to be happy."

"I want us to be happy." Behind her was the embrace of the Milky Way and a moon-bright lance--a vessel accelerating toward relativistic speeds.

"We don't want the same things anymore," she said, as though I didn't know it keenly.

"You could be happy with me," I insisted. "You don't have to throw away everything we've built together."

"I'm not throwing it away, Erika. The past is always there. It's a tool for discovering the future." It took me a very long time to make sense of that. "I have to go," she continued after a moment.

We kissed, and she turned away. When she was almost gone down the corridor, I shouted after her. "Will you think of me?"

She glanced over her shoulder, flashed a smile. "You'll always be part of me." Then she turned the corner. I wasn't right for a long time after that.

#

Huginn does not return, but Muninn does. Odin's consciousness has fled, but guided by memory, he follows the path laid out for him. Each step enacts the promise of the one before, and each enables the next. Thus he faces the future.

#

Ahead of the pilgrims, a single point of light: a ship in the bay, ready to collect us and take us to civilization. I rush through the high grass, holding the sensor high above my head. I find Korvach keeping his steady pace. We will reach the bay hours from now, as the sun dips behind the waves.

"Korvach," I shout, then hold my side as I try to catch my breath. He does not slow.

"Yes?" His tone is serene, but his face tilts in what might be a smile.

"When you take this pilgrimage--do you set out and finish at the same time each year?"

"We do." Definitely a smile.

"Down to the minute, I believe."

"Yes, Erika-Negotiator, we do. Why do you ask?"

"Because I think I've solved it."

"And what have you discovered?"

"It's prions."

He does not stop, but he shifts his whole torso to face me as he walks, reminding me of a curious corvid. I push on. "Prion folding, specifically. Proteins that pass on their shape to other nearby proteins. In fauna, prions can be deadly--mis-folding proteins in the brain, for example. It

creates a cascade. A similar process in plants on Earth can allow them to react to changes in their environment. But nothing on earth rises to the level of information retention in your grass."

"I see." Of course he knew all this already; the test was to demonstrate what I had learned.

"The prions solve the problem that the plants don't have brains or nervous system. They don't need them--they don't need to interpret, to understand. The prions function as their memory, so they react based on past stimulus. They don't think, but they remember."

"It is as you say, Erika-Negotiator," Korvach says. "May I ask how you arrived at this insight?"

"I've been thinking," I say, "of stories my mother taught me. And of words--words of wisdom from someone I love. About the use of memory. And then I realized plants could have a kind of memory, too."

"Your insight communes with the grass, and with me," Korvach says.

We walk on together for some time, toward the beach. I have been lost for so long. It feels good to know where I am heading. The stars come out one by one.

"I think I would like to know more of your faith, Korvach,"
I say.

He tilts his face up to the sky in a gesture I have never seen. "I very much hoped you would, Erika-Pilgrim. Let us walk together."

The grass communes with us by bowing down; we commune with it by following its path into the future, by moving forward.

END