

Part 1: Provener

Extramuros: (1) in Old Orth, literally “outside the walls.” Often used in reference to the walled city-states of that age. (2) In Middle Orth, the non-mathic world; the turbulent and violent state of affairs that prevailed after the Fall of Baz. (3) In Praxic Orth, geographical regions or social classes not yet enlightened by the resurgent wisdom of the mathic world. (4) In New Orth, similar to sense 2 above, but often used to denote those settlements immediately surrounding the walls of a math, implying comparative prosperity, stability, etc.

—THE DICTIONARY, *4th edition, A.R. 3000*

“Do your neighbors burn one another alive?” was how Fraa Orolo began his conversation with Artisan Flec.

Embarrassment befell me. Embarrassment is something I can feel in my flesh, like a handful of sun-warmed mud clapped on my head.

“Do your shamans walk around on stilts?” Fraa Orolo asked, reading from a leaf that, judging by its brownness, was at least five centuries old. Then he looked up and added helpfully, “You might call them pastors or witch doctors.”

The embarrassment had turned runny. It was horrifying my scalp along a spreading frontier.

“When a child gets sick, do you pray? Sacrifice to a painted stick? Or blame it on an old lady?”

Now it was sheeting warm down my face, clogging my ears and sanding

my eyes. I could barely hear Fraa Orolo's questions: "Do you fancy you will see your dead dogs and cats in some sort of afterlife?"

Orolo had asked me along to serve as amanuensis. It was an impressive word, so I'd said yes.

He had heard that an artisan from extramuros had been allowed into the New Library to fix a rotted rafter that we could not reach with our ladders; it had only just been noticed, and we didn't have time to erect proper scaffolding before Apert. Orolo meant to interview that artisan, and he wanted me to write down what happened.

Through drizzly eyes, I looked at the leaf in front of me. It was as blank as my brain. I was failing.

But it was more important to take notes of what the artisan said. So far, nothing. When the interview had begun, he had been dragging an insufficiently sharp thing over a flat rock. Now he was just staring at Orolo.

"Has anyone you know ever been ritually mutilated because they were seen reading a book?"

Artisan Flec closed his mouth for the first time in quite a while. I could tell that the next time he opened it, he'd have something to say. I scratched at the edge of the leaf just to prove that my quill had not dried up. Fraa Orolo had gone quiet, and was looking at the artisan as if he were a new-found nebula in the eyepiece of a telescope.

Artisan Flec asked, "Why don't you just speel in?"

"Speel in," Fraa Orolo repeated to me, a few times, as I was writing it down.

I spoke in bursts because I was trying to write and talk at the same time: "When I came—that is, before I was Collected—we—I mean, they—had a thing called a speely...We didn't say 'speel in'—we said 'cruise the speely.' "

Out of consideration for the artisan, I chose to speak in Fluccish, and so this staggering drunk of a sentence only sounded half as bad as if I'd said it in Orth. "It was a sort of—"

"Moving picture," Orolo guessed. He looked to the artisan, and switched to Fluccish. "We have guessed that 'to speel in' means to partake of some moving picture praxis—what you would call technology—that prevails out there."

"Moving picture, that's a funny way to say it," said the artisan. He stared out a window, as if it were a speely showing a historical documentary. He quivered with a silent laugh.

"It is Praxic Orth and so it sounds quaint to your ears," Fraa Orolo admitted.

"Why don't you just call it by its real name?"

"Speeling in?"

"Yeah."

"Because when Fraa Erasmus, here, came into the math ten years ago, it was called 'cruising the speely' and when I came in almost thirty years ago we called it Farspark. The avout who live on the other side of yonder wall, who celebrate Apert only once every hundred years, would know it by some other name. I would not be able to talk to them."

Artisan Flec had not taken in a word after Farspark. "Farspark is completely different!" he said. "You can't watch Farspark content on a speely, you have to up-convert it and re-parse the format..."

Fraa Orolo was as bored by that as the artisan was by talk of the Hundreders, and so conversation thudded to a stop long enough for me to scratch it down. My embarrassment had gone away without my noticing it, as with hiccups. Artisan Flec, believing that the conversation was finally over,

turned to look at the scaffolding that his men had erected beneath the bad rafter.

“To answer your question,” Fraa Oroló began.

“What question?”

“The one you posed just a minute ago—if I want to know what things are like extramuros, why don’t I just speel in?”

“Oh,” said the Artisan, a little confounded by the length of Fra Oroló’s attention span. *I suffer from attention surplus disorder*, Fraa Oroló liked to say, as if it were funny.

“First of all,” Fraa Oroló said, “we don’t have a speely-device.”

“Speely-device?”

Waving his hand as if this would dispel clouds of linguistic confusion, Oroló said, “Whatever artifact you use to speel in.”

“If you have an old Farspark resonator, I could bring you a down-converter that’s been sitting in my junk pile—”

“We don’t have a Farspark resonator either,” said Fraa Oroló.

“Why don’t you just buy one?”

This gave Oroló pause. I could sense a new set of embarrassing questions stacking up in his mind: *do you believe that we have money? That the reason we are protected by the Sæcular Power is because we are sitting on a treasure hoard? That our Millenarians know how to convert base metals to gold?* But Fraa Oroló mastered the urge. “Living as we do under the Cartasian Discipline, our only media are chalk, ink, and stone,” he said. “But there is another reason too.”

“Yeah, what is it?” demanded Artisan Flec, very provoked by Fraa Oroló’s freakish habit of announcing what he was about to say instead of just coming out and saying it.

“It’s hard to explain, but, for me, just aiming a speely input device, or a Farspark chambre, or whatever you call it...”

“A speelycaptor.”

“...at something doesn’t collect what is meaningful to me. I need someone to gather it in with all their senses, mix it round in their head, and make it over into words.”

“Words,” the artisan echoed, and then aimed sharp looks all round the library. “Tomorrow, Quin’s coming instead of me,” he announced, then added, a little bit defensively, “I have to counter-strafe the new clanex recompensators—the fan-out tree’s starting to look a bit clumpy, if you ask me.”

“I have no idea what that means,” Orolo marveled.

“Never mind. You ask him all your questions. He’s got the gift of gab.” And for the third time in as many minutes, the artisan looked at the screen of his jeejah. We’d insisted he shut down all of its communications functions, but it still served as a pocket-watch. He didn’t seem to realize that in plain sight out the window was a clock five hundred feet high.

I put a full stop at the end of the sentence and aimed my face at a bookshelf, because I was afraid that I might look amused. There was something in the way he’d said *Quin’s coming instead of me* that made it seem he’d just decided it on the spot. Fraa Orolo had probably caught it too. If I made the mistake of looking at him, I would laugh, and he wouldn’t.

The clock began chiming Provener. “That’s me,” I said. Then I added, for the benefit of the artisan: “Apologies, I must go wind the clock.”

“I was wondering—” he said. He reached into his toolbox and took out a poly bag, blew off sawdust, undid its seal (which was of a type I had never seen before), and withdrew a silver tube the size of his finger. Then he looked

at Fraa Orolo hopefully.

“I don’t know what that is and I don’t understand what you want,” said Fraa Orolo.

“A speelycaptor!”

“Ah. You have heard about Provener, and as long as you are here, you’d like to view it and make a moving picture?”

The artisan nodded.

“That will be acceptable, provided you stand where you are told. Don’t turn it on!” Fraa Orolo raised his hands, and got ready to avert his gaze. “The Warden Regulant will hear of it—she’ll make me do penance! I’ll send you to the Ita. They’ll show you where to go.”

And more in this vein, for the Discipline was made up of many rules, and we had already made a muddle of them, in Artisan Flec’s mind, by allowing him to venture into the Decenarian math.

Cloister: (1) In Old Orth, any closed, locked-up space (Thelenes was confined in one prior to his execution, but, confusingly to younger fids, it did not then have the mathic connotations of Senses 2, etc. below). (2) In Early Middle Orth, the math as a whole. (3) In Late Middle Orth, a garden or court surrounded by buildings, thought of as the heart or center of the math. (4) In New Orth, any quiet, contemplative space insulated from distractions and disturbances.

—THE DICTIONARY, *4th edition, A.R. 3000*

I'd been using my sphere as a stool. I traced counterclockwise circles on it with my fingertips and it shrank until I could palm it. My bolt had shifted while I'd been sitting. I pulled it up and yanked the pleats straight as I careered around tables, chairs, globes, and slow-moving fraas. I passed under a stone arch into the Scriptorium. The place smelled richly of ink. Maybe it was because an ancient fraa and his two fids were copying out books there. But I wondered how long it would take to stop smelling that way if no one ever used it at all; a lot of ink had been spent there, and the wet smell of it must be deep into everything.

At the other end, a smaller doorway led to the Old Library, which was one of the original buildings that stood right on the Cloister. Its stone floor, 2300 years older than that of the New Library, was so smooth under the soles of my feet that I could scarcely feel it. I could have found my way with my eyes closed by letting my feet read the memory worn into it by those gone before.

The Cloister was a roofed gallery around the perimeter of a rectangular garden. On the inner side, nothing separated it from the weather except the row of columns that held up its roof. On the outer side it was bounded by a wall, openings in which gave way to buildings such as the Old Library, the Refectory, and various chalk-halls.

Every object I passed—the carved bookcase-ends, the stones locked together to make the floor, the frames of the windows, the forged hinges of the doors and the hand-made nails that fastened them to the wood, the capitals of the columns that surrounded the Cloister, the paths and beds of the garden itself—every one had been made in a particular form by a clever

person a long time ago. Some of them, such as the doors of the Old Library, had consumed the whole lifetimes of those who had wrought them. Others looked as though they'd been tossed off in an idle afternoon, but with such uprightness that they had been cherished for hundreds or thousands of years. Some were founded on pure simple geometry. Others reveled in complication and it was a sort of riddle whether there was any rule governing their forms. Still others were depictions of actual people who had lived and thought interesting things at one time or another—or, barring that, of general types: the Deolater, the Physiologer, the Burger and the Sline. If someone had asked, I might have been able to explain a quarter of them. One day I'd be able to explain them all.

Sunlight crashed into the Cloister garden, where grass and gravel paths were interwoven among stands of herbs, shrubs, and the occasional tree. I reached back over my shoulder, caught the selvage end of my bolt, and drew it up over my head. I tugged down on the half of the bolt that hung below my chord, so that its fraying edge swept the ground and covered my feet. I thrust my hands together in the folds at my waist, just above the chord, and stepped out onto the grass. This was pale green and prickly, as the weather had been hot. As I came out into the open, I looked to the south dial of the clock. Ten minutes to go.

“Fraa Lio,” I said, “I do not think that slashberry is among the One Hundred and Sixty-Four.” Meaning the list of plants that were allowed to be cultivated under the Second New Revised Book of Discipline.

Lio was stockier than I. When younger he had been chubby, but now he was just solid. On a patch of disturbed earth in the shade of an apple tree, he was squatting, hypnotized by the dirt. He had wrapped the selvage end of his bolt around his waist and between his thighs in the basic modesty knot. The

remainder he had rolled up into a tight cylinder which he had tied at each end with his chord and then slung diagonally on his back, like a bedroll. He had invented this wrap. No one else had followed his lead. I had to admit that it looked comfortable, if stupid, on a warm day. His bottom was ten inches off the ground: he had made his sphere about the size of his head, and was balancing on it.

“Fraa Lio!” I said again. But Lio had a funny mind that sometimes did not respond to words. A slashberry cane arched across my path. I found a few thornless inches, closed my hand around it, jerked it up by its roots, and swung it round until the tiny flowers at its tip grazed Fraa Lio’s stubbly scalp. “Thistlehead!” I said, at the same moment.

Lio tumbled backward as if I’d smacked him with a quarterstaff. His feet flew up and spun back to find purchase on the roots of the apple tree. He stood, knees bent, chin tucked, spine straight, pieces of dirt trickling down from his sweaty back. His sphere rolled away and lodged in a pile of uprooted weeds.

“Did you hear me?”

“Slashberry is not one of the hundred and sixty-four, true. But neither is it one of the Eleven. So it’s not like I have to burn it on sight and put it down in the Chronicle. It can wait.”

“Wait for what? What are you doing?”

He pointed at the dirt.

I stooped and looked. Many would not have taken such a risk. Hooded, I could not see Fraa Lio in my peripheral vision. It was believed you should always keep Lio in the corner of your eye because you never knew when he might commence wrestling. I had endured more than my share of headlocks, chokeholds, takedowns and pins at Lio’s hands, as well as large abrasions

from brushes with his scalp. But I knew that he would not attack me now because I was showing respect for something that he thought was fascinating.

Lio and I had been Collected ten years ago, at the age of eight, as part of a crop of boys and girls numbering thirty-two. For our first couple of years we had watched a team of four bigger fraas wind the clock each day. A team of eight suurs rang the bells. Later he and I had been chosen, along with two other relatively large boys, to form the next clock-winding team. Likewise, eight girls had been chosen from our crop to learn the art of ringing the bells, which required less strength but was more arduous in some ways, because some of the changes went on for hours and required unbroken concentration. For more than seven years now, my team had wound the clock each day, except when Fraa Lio forgot, and three of us had to do it. He'd forgotten two weeks ago, and Suur Trestanas, the Warden Regulant, had sentenced him to do penance, in the form of weeding the herb beds during the hottest time of the year.

Eight minutes to go. But nagging Lio about the time wouldn't get me anywhere; I had to go through, and out the other side of, whatever it was that he wanted to talk about.

"Ants," I said. Then, knowing Lio, I corrected myself: "Ant vlor?"

I could hear him smiling. "Two colors of ants, Fraa Raz. They're having a war. I regret to say I caused it." He nudged a pile of uprooted slashberry canes.

"Would you call it a war, or just mad scrambling around?"

"That's what I was trying to figure out," he said. "In a war, you have strategy and tactics. Like flanking. Can ants flank?"

I barely knew what that meant: attacking from the side. Lio worried

such terms loose from old books of vlor—Vale-lore—as if pulling dragon’s teeth from a fossil jaw.

“I suppose ants can flank,” I said, though I sensed that it was a trick question and that Lio was flanking me with words at this very moment. “Why not?”

“By accident, of course they can! You look down on it from above and say, ‘oh, that looked like flanking.’ But if there’s no commander to see the field and direct their movements, can they really perform coordinated maneuvers?”

“That’s a little like Saunt Taunga’s Question,” I pointed out (“Can a sufficiently large field of cellular automata think?”).

“Well, can they?”

“I’ve seen ants work together to carry off part of my lunch, so I know they can coordinate their actions.”

“But if I’m one of a hundred ants all pushing on the same raisin, I can feel the raisin moving, can’t I—so the raisin itself is a way that they communicate with one another. But, if I’m a lone ant on a battlefield—”

“Thistlehead, it’s Provener.”

“Okay,” he said, and turned his back on me and started walking. It was this penchant for dropping conversations in the middle, among other odd traits, that had earned him a reputation as being less than intact. He’d forgotten his sphere again. I picked it up and threw it at him. It bounced off the back of his head and flew straight up in the air; he held out a hand, barely looking, and caught it on the drop. I edged around the battlefield, not wanting to get combatants, living or dead, on my feet, then hustled after him.

Lio reached the corner of the Cloister well ahead of me and ducked in front of a mass of slow-moving suurs in a way that was quite rude and yet so

silly that the suurs all had a chuckle and thought no more of it. Then they clogged the archway, trapping me behind them. I had alerted Fraa Lio so he wouldn't be late; now I was going to arrive last and be frowned at.
