## THE PIONEERS

Vol. 6

The Survey

## Western Shore

It was awkward to attend a City Council meeting the night before departure for the western shore, but Chris knew it had to be squeezed in. It was too important. Right after supper he went to Wɛranolubu's office.

"This is a pretty short meeting, I think," Mayor Weranolubu said, once John Miller, Yimu Miller, Chris Mennea, and Saréidukter had gathered. "Perku has now resigned from the City Council and we officially have a vacancy. I gather we will hold an election, though that is not official."

"I don't like the idea," said Miller. "But everyone expects it. I don't think it'll be any more controversial than the idea of elections."

"And the Réjé clearly has agreed to condone it," added Chris. "That's what amazes me. We have tacit approval."

"But I don't think we should do this when you're away," said John to Chris. "That would worry me. This could bring social disorder."

"Alright." Chris pulled out a little leather appointment book. "I'm not away every day for ten weeks. I'll be here two days a week for seven weeks out of ten."

Miller shook his head. "Not good enough. I'd rather see you here for emergency meetings of this Council. I think we should set the election for twelve weeks from now. That gives plenty of time for educating the public, for campaigns to develop, if any, and to see what else happens."

"That's fine," said Weranolubu. "Chris, twelve weeks is what; 7 Abelménu?" "Indeed."

"Then I have a motion; that we hold an election for one vacancy on the city council on 7 Abelménu," said Weranolubu.

"Second," said Saréidukter.

"So, we really are doing this?" asked Chris.

"Are you getting cold feet?" asked John.

"No, I'm happy."

"All in favor?"

They all raised their hands.

"Then I will note it in the minutes that we have set the date; I'll write it up for the *Melwika Nues*, too. The second and last item in the agenda is a new budget. The Queen has agreed to give the Lords 30% of the tax revenues, and the Lords have agreed to give the city five sixths of that. Three days ago, Perku turned the tax records over to me. It shows that Melwika's tax revenues are continuing to increase; they may reach 600,000 dhanay this year. This council's share is 150,000 dhanay. But our budget is for 35,000 dhanay, and our plans to strengthen child care and schools would barely double that figure. We need to appoint a committee to plan our bigger budget."

"Does that take into account the new tax exempt status of the génadema and hospital?" asked Chris.

"I think so. The génadema only generated five thousand in taxes two years ago, anyway."

"We don't have to spend the surplus," exclaimed Miller. "Remember that I am the source of most of it, and I could use it. As fancy as my industrial complex is, it's nothing compared to what it has to be. I have had to spend thousands on training because Amos isn't enough; I need a lot of people with expertise. And then I've had to spend thousands more to keep them working here, so the experienced ones don't move to Ora, where they're being offered large salaries. Now with the big harvests, people are grumbling that they can make more as farmers than as workers for me, so I have to raise salaries; and that's on top of a raise to cover the new head tax."

Chris looked at him. "Are you trying to change the percentages again?"
"I said if the city can't spend it, I can."

"Maybe the city's spending can be a partnership with us, but aimed at assisting everyone."

"That's fine. For example, last fall and part of the winter the city graveled farm roads over in Ménwika. But I'd also like to see us spend money to concrete the road to Southbridge and at least as far as Nénaslua. I'd like a gravel road up the Arjakwés for at least thirty dekent because it would help us move timber much more easily, it would help hunters, and it would open a lot of land to farming; I've already had people ask me whether they can farm the land right above the reservoir."

"It's good land, but there's no irrigation water," said Saréidukter.

"There are two glubas upstream that can be dammed, and that would increase our storage even more. The city can pay for them as well."

"Or the army," said Weranolubu. "Why are you in favor of concreting the road to Deksawsuperakwa?"

"And toward the capital. Very simple. First, I want the army to start concreting, but they say it's too expensive. But if we pay to develop the techniques, and if the city pays to buy lots of concrete, then I can invest in the equipment to make more of it, and the cost per ton will drop. The army can learn the techniques and buy the cheaper materials from us, and we'll be in the road-building business big time. Second, a steam wagon can pull about twice as much cargo on a concrete road as on a gravel road, and can pull it faster. That means Mitru can move cargo more cheaply and can make more profit. Third, if the concrete roads come here, people will use them to come here, so our business will increase."

"Then Meddoakwés will pay for concreting roads toward the capital," said Chris, with a smile.

"And buy the concrete from me," added Miller, with a smile.

"That makes a lot of sense," agreed Weranolubu. "I like the idea of a road up the Arjakwés, so we can use the resources in the foothills and mountains."

"And we might be able to bargain with other Lords to get partial road-building funds from them," added Chris. "Let's say Mɛlwika devoted fifty thousand a year to road building. We can go to the new Lord, Sarélubé, in Béranagrés and say 'we'll either concrete the royal road through Nénaslua and Béranagrés or to Dɛksawsupɛrakwa, and if you can contribute a partial amount, we'll build it through your township instead.' We could approach the Lords of Yimuaidha and Mɛgdhuna with a similar plan to gravel our new road to their villages. We could even approach Lord Kandékwɛs and the army and propose a partnership of some sort; maybe splitting the costs three ways to upgrade the roads in the Arjakwés Valley significantly."

"That's great!" said Miller. "And Chris, you're the kind of man who could pull that off! If we each devoted thirty thousand, we'd have incredible roads in a few years."

"Well, Lord Miller, I'll consider it, if you could consider a few ideas I have. The city should save some of the money because we don't know what the tax revenues will be until we actually have them. The bank could use the deposit. The city could also help develop some institutions that otherwise are hard to fund, like a museum."

"A museum? How about a school of engineering?" asked Miller.

"I was hoping the 'John Miller School of Engineering' would receive private donations."

"Oh," said Miller, struck by the idea that a school could be named for him.

"Write up a proposal for a museum," replied Weranolubu. "It sounds like there are plenty of ways to spend the money. By the way, I discreetly inquired how Lord Kandékwes spends money on his city. He gets about 210,000 dhanay of taxes a year from Meddoakwés; not that much more than we get. But he has to spend 100,000 on the temple, and the temple in turn spends 60,000 on widows, orphans, and cripples. We don't have to spend practically anything on those services."

"But our temple could use more," replied Chris. "This is a good chance to move some of the temple's expenses from Miller and me to the city."

"Here here," agreed John. "That's six thousand that each of us don't have to spend."

Weranolubu made a note. "Okay. Yimu, will you help me with this budget? Chris, will Estanu help, too?"

"Sure, and I'll write you a letter."

"Okay, that's the task force. We can have a budget by next month. That's all our business, so we can adjourn."

"Wait, I want to hear about the Consultative Assembly," said Yimu. "I know you briefed dad and Lord Mennea, but I didn't hear, and neither did Saréidukter."

"Here, here," she repeated.

"Okay." Weranolubu nodded. "I think it was a pretty good session. You heard about the head tax and the law establishing non-profit, non-taxable organizations.

Theoretically any charity can apply, not just génademas and hospitals. We also officially chartered Prosperity Bank and wrote the law so that it can be easily applied to other banks later. We passed a law of incorporations, important because until now it was vague what constituted a company and what did not. That helps regularize things for a company to build the power and phone lines to the western shore. And best of all, the Réjé authorized the Assembly to budget 100,000 dhanay for the next year. She let us spend about 30,000 during the last half-year, so this is a substantial increase, and most of it is a real increase, since half the 30,000 went to hiring staff! The result will be a big boost to génademas and hospitals, especially the smaller ones."

"Though even the big ones benefit," added Chris. "It looks like the hospital will get three thousand to upgrade its medical equipment, and anything we design and build can then be duplicated for others."

"You can't get more from the aliens?" asked Weranolubu.

"They're providing medications and inkjet cartridges, but little else," replied Chris. "Sometimes we ask for special tools for the two industrial centers and they provide them. They are even willing to provide prototypes of things we can take apart and copy;

that's how we developed the electric motors, pumps, and turbines. But we're now doing most of the work ourselves."

"Of course, with two computers and inkjet printers producing books from the web, we now have a library of over a thousand titles," said Yimu. "And we have fifty people who can read some English. That has changed the situation drastically."

"When is the next Consultative Assembly?" asked Saréidukter.

"Next spring. It won't meet for a year. It'll meet every year for two months before the Grand Court, with a week of discussion after the Grand Court if needed."

"Good; we need you here!" she said emphatically.

The three days between the end of the Grand Court and their departure for the Western Shore demanded every ounce of Thornton's strength and every second of his time. Planning for a ten-week expedition was fraught with difficulty, the first of which was knowing how many people to plan for. The estimated attendance was twenty-five geologists, sixteen biologists and ecologists, twelve census workers, six medical people, and four cooks and other support personnel, mostly spouses of the others; a total of 62. To be on the safe side, he planned for seventy. Everyone had to bring clothes and blankets, but he had to provide twenty tents—he crossed his fingers they would be enough—which he set a team of students to make from abundant parachute material. A large eating and gathering tent was also made from a parachute. Furnishing the kitchen with kettles and pots took quite a lot of planning, but Rudhisuru stopped by to help; the army was expert at such details. The expedition would need a dozen axes, picks, shovels, and hammers, several boxes of nails, some hoes, machetes, and hatchets, and even a few

pruning saws. Thornton rented a portable icebox, since ice was now available all the way up to Néfa. He had ten picnic tables made that could be easily taken apart and moved. He also ordered from the blacksmiths twenty rock hammers; the results were fairly good. Then there were odds and ends: the photographic equipment, thirty copies of the *Good News of Widumaj* to sell (if possible), a dozen copies of the new dictionary, fifteen copies of Lébé's new book of fairy tales, and Behruz's latest invention: matches. They brought a hundred boxes to give away or sell for a dhanay each.

Most complicated of all was the fact that there was no place to put the stuff. Every passenger wagon that existed was carrying a hundred passengers rather than thirty. Mitru had been going sleepless, planning dozens of direct trips to specific places in order to get everyone home from the Grand Court as efficiently as possible. The steam engine and passenger trailer to take them out of town at 7:45 a.m. showed up at 6:15 a.m. As people arrived they had to be pressed into a huge moving team to load the passenger trailer's roof and floor with all the stuff. The drivers disappeared to eat and get a bit of rest before going out again. When they returned at 7:40 they were irritated that there was a lot of packing left, and did not offer to help.

The crowd needing to fit into the thirty-passenger wagon was almost seventy-five; way too many. Chris hunted around and found Mitru, but he couldn't offer much of an alternative. "I have nothing to spare; even the local farm co-op steam wagons are pulling passengers today. But there's a steam wagon leaving in a half hour for the western shore via the northern shore. People heading for Néfa and Ora can crowd into it. They'll be the first on board; the people getting on in Mɛddoakwés will have to stand."

Chris went back and reported that to everyone. Twenty decided to take the alternate route, since they were heading to the génademas in those cities, not to the geology camp. That reduced the crowding somewhat, to fifty-five. Thornton assured them that at Endraidha another steam wagon would join them on the trip.

But when they rolled into Endraidha, no steam wagon was waiting. "They're all moving troops back to their posts, or recruits to Meddoakwés for training, or other recruits to the construction areas on the western shore," Chris explained. "We have permission to requisition the first army steam wagon doing construction on the road, though. The problem is getting our passenger wagon and gear to that steam wagon."

"I guess our steamer will have to pull two trailers," replied Thornton. He went to talk to the driver.

Half an hour later they set out from Endraidha with two passenger wagons and almost seventy passengers, though at least the passengers were now spread out between two compartments. The ride was slow; steam wagons had the power to pull two passenger wagons at a pretty good clip—faster than a passenger wagon and a freight trailer—but the curved road and the lack of brakes on the trailers required caution and slower speeds. As a result, they no longer kept up with the sun. The steam wagon with one passenger trailer could have arrived in Ora, maybe Néfa, at the same local time as it had left Mɛlwika. Now they would arrive in the afternoon.

The stops in Tripola and Mcddwoglubas were not swift, either. At both places, geology and ecology students had to get on with their gear. They were accompanied by

some medical students and support personnel. The two passenger wagons grew crowded again, the roof was piled even higher with gear, and movement was even slower.

The army road-building teams proved unable to help, too. The first one consisted of a steam wagon that was running a gravel sifter, an Ora steam wagon running a steam shovel—very slowly but impressively—digging gravel and dropping it on a wagon that hauled it to the sifter, and a third steam wagon that moved the gravel to the road where it was used. None of the three wagons could be diverted without causing the entire process to collapse. When they encountered a fourth wagon they stopped to requisition it and discovered that it was the steam wagon for the electrical and telephone pole project and was not army property. At least the route was undergoing rapid improvement—ruts had been filled in, two bridges were being replaced, and gravel was being added—and the approach to Ora was lined with poles that even had some wires strung between them.

At Ora, much to everyone's relief, a dozen engineering and science students got out. When they passed the steam wagon coming the other direction—also towing two passenger wagons—they realized that the other choice had been just as crowded. In Néfa center twenty more people got off, humanities students coming to the classes at Néfa Génadema. There they had to wait for Lord Albanu to give them a letter of permission to operate on his land and a guide to take them to their first camping spot. Instead, Lord Estodhéru of Meddwoglubas appeared.

"Hail, Lord Estodhéru," said Chris as he saw his friend approach. "I'm surprised to see you here! How are you?"

"I am well. I left Meddwoglubas yesterday and took a steam wagon to Ora to talk to Lord Mitru, that bastard, who wants to marry off his youngest son to my daughter. This morning I waited for your steam wagon to arrive in Ora, and when it didn't I decided to catch the regular passenger steam wagon to Néfa, because I wanted to get out of that place." He glanced at the two wagons. "I'm glad I didn't wait, too; it looks like you're pretty crowded."

"Indeed. We're waiting for someone to arrive and guide us to the campground for the geology and biology expedition. The rest of us are waiting for Lord Albanu or someone to escort us to our quarters here in town."

"Well, don't wait for our friend Albanu." Estodhéru emphasized the word "friend" a bit sarcastically. "I stopped by the palace for some food—he's a third cousin—and found that he had gone to his farms outside the city for a few days."

"What?" said Chris, surprised. "That's not possible."

"I'm afraid it's true. But Awskandu is there and he told me he was anticipating your arrival, so I'm sure he'll be here as soon as he hears the steam wagon has arrived."

"We sent someone over."

"Good."

"How am I to work, without Lord Albanu's permission?" asked Bidhu, the census coordinator. "I was counting on a letter of permission from him. It'll make the local Lords much more cooperative."

"I can imagine," agreed Chris. "We were expecting a similar letter for the geology and biology teams."

"Awskandu can write, as head of the génadɛma," replied Estodhéru. "But admittedly, it will carry less weight." He sighed. "I suppose that's what's going on, too."

"Probably," agreed Chris. "There's opposition to us, especially to the census, and Albanu wants an out."

"The Réjé will hear from me about it," exclaimed Bidhu, angrily.

Chris looked at his friend. "How long will you be in Néfa, Lord?"

"On and off for five weeks; I plan to attend your classes on reading, writing, counting, and maybe English," replied Estodhéru. "I want to learn the new knowledge. When you hold science classes in Mcddwoglubas, I will attend them as well."

"Really? I had no idea."

"Mitrané has been a different woman since attending some of your classes. This is both good and bad; she is self-assured, confident, shows leadership, but is uninterested in marriage. Mæddwoglubas and all of Læwéspa is changing as a result of the classes as well. So I want to know. How else can I govern?"

"Is that why you stopped in Ora?" asked Thornton.

"No." Estodhéru answered rather abruptly. Seeing Chris's puzzlement, he gestured at the clock tower that was being built close by. "Let me show you the marvelous workmanship of the craftsmen of my city." He started toward the bell tower and Chris followed.

"We've been very pleased with our tower in Mɛlwika," he said, to make conversation.

"Lord Albanu seems pleased. When our men are finished here, they have to go to Tripola, then Bɛllɛdha, then Anartu, then Morituora, and maybe then I'll let them go to Ora." Estodhéru turned to face Chris, now that they were out of reasonable earshot of the steam wagons. "Lord Mitru is launching yet another campaign to subjugate Lɛwéspa to

him. Asking for the hand of my daughter in marriage was a rather bold move; it would have made his son the husband of the heir to the most important Lordship in the southwest region. But when I mentioned the letter to Mitrané, she laughed.

"More seriously, a group of settlers have crossed the Trinénasisér, the river that is commonly acknowledged to be the border between the Ora region and the Lewéspa region. Their fields have been flooded by the rising sea. I understand four villages have now been completely displaced and four more will be displaced in the next year or two. I also understand Lord Mitru talks about setting up new village sites in the inland valley, where the land is fairly rich, but that in actual fact he has set up only one such village, and the people are expected to work as timber men cutting trees for the foundry. He has also encouraged many to settle in Ora in order to make it the world's largest city and to provide the foundry with more labor; cheap labor. As a result, a group of people from a village moved upstream and settled on the Lewéspa side of the Trinénasisér. They are clearing forest and planning rich paddies and yam fields, and there are already 600 people there.

"I went to visit them a week ago, when I got back from the Grand Court, to tell them they were welcome to be added to the southwestern shore. They told me they were settling across the border intentionally because they wanted to be out of Lord Mitru's control, that he was taking too much tax from them and returning too little, that they saw no reason to contribute to Ora's 'supposed glory,' etc. I thought nothing of the situation until last night, when Lord Mitru told me he regarded the new village as still under his jurisdiction and said he would 'appreciate my assistance to help the settlers realize this.' When I pointed out that the river had been the boundary for two centuries, he replied that

it served as the boundary downstream, but no one had discussed whether the boundary continued upstream or not because the land was unsettled, and now that his people were on it, it was his jurisdiction. He also noted that the Citadel had enough soldiers to enforce the taxation owed to him as regional Lord. I left furious. Lord Mennea, we need your help. I think a lot of this has happened because Meddwoglubas has begun to build factories."

Chris nodded. "I think you're right. Mitru wants to dominate manufacturing and he is throwing a lot of money into the effort. Mɛddwoglubas not only is a potential competitor; if taken over, it's a huge reinforcement. But this is the sort of matter that must go to the Réjé. She decides the boundaries of regions."

"I know. And the fact that she recognized us enough to grant us representation in the Consultative Assembly is encouraging."

"Have you thought of inviting her to Meddwoglubas?"

Estodhéru's face brightened. "No! That's an excellent suggestion. But she never goes farther south than Ora."

"Maybe it's time, then. Her old summer route was to take a caravan of retainers and soldiers to Anartu, Ora, Néfa, Isurdhuna, then Néfa, Belledha, and home to Meddoakwés. But the land route to Anartu flooded so she took the next best route, coming and going via Belledha. Now we have the best road in the world from Melwika to Tripola, right past Endraidha, the army colony. And this summer the road from Néfa to Tripola is being extensively upgraded. It's now time for her to go around the sea, north to west to south."

"Yes, you're right! Maybe I should write Gugéndu, and maybe Roktekester himself."

"You'll also be able to talk to Roktekester; he'll be supervising the road construction part of the summer. But even better, write the Lord of the Kwolone—Staurekester—and suggest he issue an invitation to the Réjé, and ask Gugéndu to write Staurekester as well, because he has some influence on the Kwolone. It would be a major step in normalizing their relationship with Her Majesty to invite her to Mɛdhpéla, and for her to accept. And it would guarantee that she'd go around the sea through Mɛddwoglubas."

"Yes." Estodhéru nodded. "Of course, it will cost a lot. Hospitality for the Réjé and her party is not cheap. But if the settler village contributed via the rest of Lewéspa, it would strengthen their membership in the southwest. And it would be impossible for Mitru to send troops; that would be too obvious."

"It may be impossible anyway. Communications are now too good; the Réjé now wants to know what is happening everywhere and wants to make decisions herself. I'd start writing to her right away."

"Indeed, I will. Can you talk to Mitru and Roktekester?"

"I'll try. I have some ideas."

Just then they saw Awskandu approaching the steam wagons. They walked over to greet him. "Hail, Honored Awskandu," said Chris. "How are you and your illustrious father?"

Awskandu looked embarrassed. "I greatly apologize, Lord Mennea, but my father was called out of town on urgent business. He—"

"Oh? I hope no one is ill?" inquired Chris innocently.

"No, nothing like that. Urgent business. So he asked me to greet you and see to it that you are accommodated. I have a guide to take the geologists to their campsite, and I will personally assist those staying here in the city to settle into their quarters. Rather than cram you in the palace, which does not have a lot of space for classes, we have managed to rent a new building in the bazaar area. It will be the new home of one of our merchants; he has consented to remain in his old home an extra month while you use it. I think it will be much more comfortable."

"Thank you; I'm sure it will be," agreed Chris, knowing the palace had plenty of extra space. The temporary génadema wouldn't have the prestige of the palace behind it; on the other hand, the bazaar was a more convenient location.

"Will we get letters of introduction for the geology and census work?" asked Bidhu.

"I can write you letters, but did not have time today," replied Awskandu. "Perhaps it's better to wait for father's return."

Bidhu smiled and bowed slightly. That basically meant no, unless Bidhu could raise enough of a stink with the Réjé to get the decision reversed.

"This is Weranosunu, brother of Sarésunu," said Awskandu. "He'll guide the geologists to their campsite. Meanwhile, maybe we should help those who are staying to move their property to the new building."

That mobilized the crowd on the two passenger wagons to action. About a third of the people were staying; two thirds were heading for the campsite. There were plenty of hands for moving everything to the temporary génadema site. The new house was indeed beautiful, though it was still receiving its finishing touches, such as extensive tile work on the walls. It had a large garden where one class could meet and two large rooms where other classes could be held, and plenty of bedrooms.

It was another hour before the expedition was on its way to its campsite, which was an excellent location on the edge of the Néfa Bowl. It was well after sunset when the camp was set up, but Skanda was full right after sunset and shed its incredibly bright light everywhere. Thornton much preferred a bright Skanda after sunset rather than right before sunrise; on the western shore, one could easily work outside until after midnight. On the other hand, in Mɛlwika many went to bed when the eclipse began and rose at midnight to work in the bright Skanda light and the coolness of the wee hours of the morning.

Thornton had his work cut out for him. Once the camp was set up, they held a large gathering to talk about plans. The forty-one geologists and ecologists were divided into seven groups, each of which would do its first day-long hike the next morning. With only one steam wagon, only three groups could be given rides to a distant starting point; the other four would fan out from the camp itself. It was hoped the next day two steam wagons would be available and would allow five groups to initiate their hikes from more distant points. Each group was assigned a fifty dekent or twenty-five kilometer route, and many were to end up at another road where a steam wagon would pick them up and bring them back to the campsite after sunset. The census and medical workers divided into three teams, each of which planned to visit two villages the next day, even if they didn't have letters of introduction.

Everyone collapsed from exhaustion and slept until sunrise, when they got up feeling like they had overslept well into the next day. Thornton led his team out soon after breakfast. They entered a village with a census and medical team and watched the latter teams explain themselves to the skeptical Lord, who nevertheless allowed them to operate; then he agreed to ferry Thornton's team across the river for a pittance. They crossed the Ledhalisér or "Rocky River," a tributary of the Rudhisér, and hiked westward toward the latter's gluba, which cut through the highlands and into the Snowy Mountains. They stopped periodically to observe local plant species, check out rock outcrops, measure their latitude and longitude, and write notes; Thornton took digital photos with his camera. The day-long hike took them twelve kilometers up the Rudhisér on the northern side of the gluba, then a diagonal hike to the next village northeast on the Ledhalisér, where at sunset they arranged a ferryboat crossing and found the steam wagon waiting for them on the dirt road. It took them quickly back to camp. A few team members gathered around a blazing fire to eat a hearty supper and swap stories about their day.

"The gluba's pretty amazing," said Thornton. "Twenty-four dekent upstream it's 600 doli deep; spectacular! The highlands there are rolling, forested land. Very pretty. But we didn't see any animals; it must be heavily hunted. No minerals, but when we passed the edge of the Néfa Basin we spotted some shatter cones in an outcrop."

"So did we," agreed Sarésunu. "It's definitely a crater; that would explain its circular shape. We crossed from the Ledhalisér road to the royal road and walked through fifty dekent of rolling woods and grasslands. Beautiful, uninhabited land, begging to be settled. We spotted a few deer and bison, but little else. Geologically we saw shatter

cones, some basalt outcrops, and lots of conglomerate bedrock; this area seems to have a bedrock made of eroded highland sediments."

"There are shatter cones in the rock outcrop below us, on the south side of these hills," added Dwosunu, the geologist in Tripola. "We found them in ten minutes, this morning. This bluff is part of the crater rim, isn't it? I think if we explore the outcrops along the river we'll see the ejecta blanket."

Rudhisuru nodded. "My group went that way and we saw quite a few outcrops. I think some were ejecta."

"We should make another trip that way tomorrow," suggested Thornton. "Because I think we should study ejecta more carefully, so that we can identify it better. We've read the text from the book, but that's not the same thing as seeing." Thornton looked at Bidhu. "How did the census teams do?"

He smiled. "Pretty well. The first village I visited basically expelled us, but even there we were able to walk along the different alleys and count buildings. It gave the team more time at the next village—Rudharudha—and they welcomed us. We made a complete census."

"Rudharudha?" asked Thornton, amused. He had never heard of a place named "red red" before.

"Yes; unusual. It's on the Néfa road, and behind the village are three or four small, red hills. I suppose they're sandstone; a good reason to have a geologist on each of our teams! They're out of the basin, so they raise wheat instead of rice. The place has about 900 people and had someone who could read and write, who does some classes. That's why we were welcomed; the literate person was thrilled to have us visit and called

together quite a group to meet us. They asked us questions for about three hours about absolutely everything, and then they were willing to let us ask them questions."

"What about the medical team?"

"They were able to stay at the first village; we weren't welcome, but they were.

They had started a meeting with village women about ways to protect their children from illness, especially diarrhea. I suspect they then had lots of mothers willing to bring their children in with problems. I gather they came straight back here an hour or two early because there was no time to go to Rudharudha. It's a shame; that's a place where we know they'll be welcome."

"Another time," said Thornton.

"So, what's the plan tomorrow?" asked Rudhisuru.

"I think we should pursue the plan we had agreed on," replied Thornton. "I'm sore, but I think I can manage a half-day hike tomorrow. So we'll sleep a bit late, spend the morning hearing reports from each team about what they saw—Bidhu, could we have at least one report from a census team, too?"

"Sure."

"Then we'll head out for a long afternoon hike. I have at least one man on my team who's a city-slicker and utterly exhausted; he should stay here or go with a census team."

"I think we all have one of them," agreed Sarésunu. "Do we know how many participants we'll have the day after?"

"I think half," replied Thornton. "Dwosunu, you have to go back to Tripola, right?"

"Yes, and my men."

"Same here," added Weranyunu, the Ora geologist. "But when you bring the tents to our area, we'll be available full time."

"That's what I thought. We'll leave the camp here for the rest of the week, since the census workers, some medical people, and some of the geologists and ecologists will be here. Rudhisuru, you're still planning to stay here and supervise?"

The army officer nodded.

"I'll be in Néfa with my wife, but I plan to come here every day, or at least go for a short trip, except the days Sarésunu and I are pulling together the results of the previous week's trips," said Thornton. "I'm going to *beg* my father for a rover; we need one to get around an area fast. I want to see the next campsite ahead of time, for example, so we can anticipate some of the problems that slowed us down here. Next week we'll be on the south side of the Néfa basin, and the week after that we'll be half way between here and Ora. Bidhu, that gives you two and a half weeks in greater Néfa; will that be enough?"

"It should be, especially since we'll be traveling by steam wagon from here four days a week. The Néfa region has 36 villages, and we'll have 10 working days here with four teams. We should be able to visit everyone at least once. And we can always come back in the fall for a few days if we have to."

"Good," said Thornton, with a smile. "I'm glad you joined this expedition."

"So am I! We never would have had the courage to do this by ourselves. But being part of a team of over sixty, having army officers along, having tents and steam wagons; it's the only way! I don't know how we'll do the rest of this world."

"Kerda will be easy; it's one valley and every village can be reached by daily

steam wagon from Isurdhuna," said Thornton. "The four villages in the Sumiuperakwa

area also should be easy, and the Lepawsa folks will cooperate if Roktekester sends a

letter or comes along for the first day or two. So that leaves Belledha."

"And the Tutanes!" exclaimed Bidhu. "They'll be impossible. Sumilara may be

tricky, but we can probably hire Sumi interpreters and get some letters. I don't know how

we'll do Belledha."

"Eventually," said Thornton. "Gentlemen, thank you for getting this expedition

off to a good start. This historic expedition."

"And it is historic," agreed Rudhisuru.

March 30, 2001; reread and edited 5/16/13, 7/25/17; 11/2/24; 14-18 Kaiménu

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## Conflicts

The new mansion of the House of Sulu was large enough for Néfa's richest merchant family, but it quickly proved too small for the summer génadema. The various rooms for the family and guests proved barely enough to accommodate the guest faculty from Melwika and other places. The bathroom proved way too small for that number of people, day after day; Chris soon arranged to purchase additional plumbing equipment for Sulu as a gift to reciprocate his generosity. As a result, Néfa got its first flush toilet.

At least the house was equipped with a telephone, one of Nɛfa's thirty. Within a few hours of arrival, Chris pulled out the two large batteries they had brought from Mɛlwika, installed them in a room in the back of the house, and wired one cellular phone to them; the phone's rechargeable battery had gotten too old to keep much charge and the large rechargeable batteries could operate it for a week at a time. He then wired the cellular phone into two telephone wires; the house had four altogether. Once that task was finished—simple because he knew how to do it—the city operator could call the house's telephone or the cellular telephone separately. Whoever answered could activate the cellular phone and call the army offices in Mɛddoakwés, who in turn could connect a call to the Mɛddoakwés and Mɛlwika phone systems or even Anartu. All of Néfa now had free long distance service. Chris soon found it was easier to leave the cellular phone on than to turn it on and off as calls came and went. If he wanted to make a call, he had to pick up the house's telephone and ask to be connected to his own cellular telephone; if he wanted to call the other cell phone, he had to close the connection to Mɛddoakwés first

and dial. The only time long distance service was unavailable was 2 p.m. to 7 p.m. in Néfa, which was midnight to 5 a.m. in Meddoakwés and Melwika; during that period two specially designated graduate students could surf the web using Thornton's laptop and the cell phone, downloading many items—including entire books—that could be printed out the rest of the day. They kept the equipment busy printing out books and articles for the western shore's libraries.

A problem that could not be so easily solved was the lack of space for classes. With so many faculty in town and students coming by steam wagon every morning from Ora—or going to science classes there—six advanced classes were being offered, and four daily free literacy classes as well. Anyone with any aspirations to be a teacher scraped together cash and got into the advanced classes, even if they were short. Hundreds of Néfans responded to the possibility of literacy classes because the summer génadema was *big* and exciting. The house was trampled underfoot by the masses. Guards had to be hired to keep people out of the private areas and the public areas had to be emptied of anything that could be stolen. Lord Albanu came down to see, was shocked by his people's interest in learning, and fled, mumbling under his breath. Chris and even Awskandu were very pleased.

When Thornton arrived the morning of the third day, he took in the scene right away. "Wow!" was his comment.

Chris laughed. "Exactly. Néfans aren't dumb; they're tired of seeing newspapers, hearing rumors about their shocking stories, and not being able to read them! We hauled in a hundred copies of *Melwika Nues* and *Tripola Bédhe* yesterday morning and they were gone by late afternoon. Groups were clustered together, reading the text together; it was

quite something to see. I guess we can thank Kameru for something, because his articles fascinate and anger, so people read them. We need a newspaper published somewhere on the western shore, so that it uses their dialect."

"It can't make money though, right?"

Chris shook his head. "No, both papers lose money."

"Dad, can we get a rover here? It doesn't look like we're getting that second steam wagon, and it really hampers the expedition. A rover would be much faster and more nimble."

"But the co-op's using both of them a lot."

"Can't they use horses? It's not like Mɛlika doesn't have any! A rover would make it much easier to recharge the phones. We wouldn't have to haul in recharged batteries every other day. And it would mean that you and I could get around much easier on the days the expedition isn't in the field."

"That's true. I need to go to Ora and I would rather not have to spend the entire day waiting for the returning steam wagon." Chris thought. "I'd rather the rovers be used for transportation than farm work, too; the engines require a lot more maintenance for the latter. I'll call Behruz and ask him to send a rover in the next day or two. He might drive it himself, since Lua's here now."

"Good. The Néfans are responding very well to the health teams."

"So I hear. Albanu has been talking a lot about a medical school and a major hospital, and the idea has seeped out to the villages. People have heard about the 'new healing knowledge.' I doubt greater Ora will respond as well. How's the census going?"

"Overall, Bidhu's pleased. Some villages turn the teams away, others are suspicious, and others are very open and welcoming. They'll have to come back later if they can get better support from Albanu. But they're getting enough information. Above all, Bidhu took the chance to do this and he's thrilled he did it. It's a psychological breakthrough for him."

Chris smiled. "Good. I've got a business class and have to get ready, but let's talk more tonight."

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Chris had not managed to find Lord Albanu for the first four days he was in Néfa. On the fifth day he went back to the palace and arrived just as Albanu was leaving.

"I'm very sorry to miss you again; I have been traveling a lot to my farms, as you can see," said Albanu. "I assume you can ride a horse; would you like to come along?"

"Where?"

"My farms north of the city; just a few dekent."

"I can ride," agreed Chris. "I'd love to see."

"I'd love you to see, too, since you are a farmer as well." Albanu called for another horse and Chris was soon mounted and riding with the Lord and two assistants out the north road, then between rice paddies sprouting their second crop of the year. In less than an hour they reached a hillier edge of the basin where the rice paddies were on long, thin terraces. The first crop was harvested and cotton was sprouting in its place. A steam wagon was pulling a plow nearby to prepare a field right above the basin.

"All of this is mine," said Albanu, waving his hand broadly. "I actually own almost a quarter of the basin; the farmers give me half their crop to cover rent and taxes.

We usually raise one crop a year; only a few areas have been double-cropped, and only areas where farmers have small lots. But now we're systematically double-cropping much of the basin. The rice paddies will double with cotton; the highland areas that are not irrigated will have wheat or corn."

"Good. You should rotate crops, as you know, since different crops make different demands on the soil. What do your people think of the demand that they raise two crops?"

Albanu shrugged. "They don't have a choice; the alternative is to lose their land. But I'm phasing it in gradually—there isn't enough seed and equipment to start all at once—and as I get more steam wagons, their total work will drop anyway. The market for rice doesn't look good this year."

"No, the crop at Mɛddoakwés was very good, and they represent most of your sales market, right?"

"Tripola and Bɛllɛdha buy some as well, but you're right, Mɛddoakwés is the big market. Lord Estodhéru has placed a huge order for cotton and the price of cotton went up, so I'm planting a lot of it."

"It is a good choice. People can't eat too much more food, but they can buy more clothes."

"Estodhéru said they can weave cloth using the power of falling water. I can't imagine what he means, but he is beginning to sell very good cloth and it is not very expensive. My people are complaining already; many women weave cloth between seasonal demands on their labor, and they can't make much money if the price of cotton

cloth drops. But I'll make more on cotton. Estodhéru told me they are trying to make a machine to remove the seeds from the cotton."

"Yes; we are showing their engineers the designs."

Albanu shook his head. "I wish you had given that machine to me, Lord Mennea.

Néfa raises more cotton than any other region, so we need the machines the most."

"I am sure Estodhéru will sell them, once he can make them. The problem, my Lord, is that Néfa doesn't have the mechanics and other people with experience to build these machines. Meddwoglubas has many artisans and mechanics, so they have the foundation for making all sorts of things. I see you are buying a clock."

"Yes; the merchants want it and are paying for part of it. Between steam wagons for my crops and the new harbor, I don't have a lot of money left over for clocks. I've employed several hundred men on and off for almost a year and now have a very nice shipping channel all the way to the sea." He pointed to the green line that represented the route of the Rudhisér; one could just see the expanse of blue representing the city's artificial harbor.

"And regular runs to Anartu."

"Yes, we have a monopoly on trade with Sumilara, since we have the only decent harbor on the changing shoreline. But steamship construction is going to Ora, and no one else is making steamships that we can buy. So Néfa is technologically disadvantaged once again."

"My Lord, it would not be hard to take one of your steam wagons, mount the engine on a wooden ship, and power a propeller or paddle wheel. I think Mɛlwika could

do it for 5,000 dhanay, and we could have done it a year ago if someone asked Miller to do it."

"Really? I'm asking now!"

"You can telephone Lord Miller. Or you can wait until Amos is in town—he comes here every few days because May is here teaching right now—and you can ask him first."

"Why didn't you tell me?"

"My Lord, I am under the impression we did. But above all, we talked to the army. And the army was talking to Lord Mitru, and thus was ignoring our offers. The army was talking to you about harbor facilities and to Mitru about steamships, but had no intention to bring them together."

"I see. A year ago, the notion of a steamship would have meant little to me, but now I have a steam wagon for my own travel and Mitru's steam wagons seem to be everywhere, moving people and goods constantly."

"That's because no one would buy them in the fall, so Mitru had to figure out what to do with his father's wagons as they came off the assembly line. No one understood how to use them efficiently, so he set up a system of local and intercity steam wagon trips that captured most of the transportation. It could have been the House of Sulu instead, but it wasn't. My Lord, there is still time for me to set up a series of classes on agriculture, if you want. Send me a dozen men who work for you to run all the farms and I'll train them for you, and it won't even cost much, since I'm already here."

"A dozen? I don't have a dozen. I have almost a thousand farmers working land for me, four steam wagon operators—for two steam wagons—and a man who runs my granary. Otherwise, I'm coordinating everything."

"Well, send the man who runs the granary to my business class, and I'll teach him how to set up a system to coordinate the farmers."

Albanu's eyebrows went up. "That might be helpful. Right now I go to each one and tell him what his second crop will be, and steam wagon operators struggle to keep up with the resulting work."

"You need to establish a system, Lord. We're establishing systems in the Arjakwés area and the result is happier farmers who work harder. They also keep more money, though."

"I suppose that's inevitable," groused Albanu. He waved a finger at Chris. "Lord Mennea, in many ways you are very lucky you ended up where you did. Lord Kandékwes is notoriously easy with his people and the Lords under him. Anywhere on the western shore, you would have been forced to work for one of us and would not have had land of your own. Furthermore, the people around you would not benefit so much, either."

"Well, Lord, I guess we must all live with the consequences that result from the fact that my family and I were set down on the eastern shore. And one consequence is that ten percent of the population of Mɛlwika is from the Néfa area. Now that a one way ticket costs two dhanay, you can expect many people from here will head to Mɛlwika, if our wages remain higher."

"My Lord, raise your profit so they won't have the extra money, don't you see?"

"Then Lord Estodhéru won't be coming to you to order lots of cotton, because the people wouldn't have the money to buy more clothing. The money goes round and round, you see?"

"I understand that idea; that isn't new knowledge. What worries me, my Lord, is that the people taking literacy classes and learning business will be the first ones to leave for Mɛlwika. I feel no obligation to pay for the education of the people who will work in Miller's factories."

"Then offer them reasons to stay here; jobs as teachers, for example. Because the surest way to lose your trained people is to train only a few of them and then fail to offer them work."

"I think we've already discussed teaching peasants how to read!"

"Yes, we have. I'll tell you my fear, my Lord. My fear, fifty years from now, is that half of this world will be based on industry and agriculture; its people will be educated, comfortable, healthy; while the other half will be based on subsistence farming and will be poorer and less healthy than ever before because the farmers don't own the land or machines used to till it. And those poor farmers will blame their Lords for it."

"Don't be so sure of that!" snapped Albanu. "My fear, Lord Mennea, is also of a world in fifty years split in half, but not between wealth and poverty; rather, between stability and instability. Your experiment cannot succeed; it can only cause the peasants to resent their Lords and desire to overthrow them, and then any wealth they have temporarily gained will be destroyed."

"Perhaps, in a few years, there will be signs indicating which theory is likely to be right."

"I'm sure there will be."

Chris considered the conversation. "I still don't understand your concerns about the census and the expedition, though."

"Very simple. The Réjé and her ancestors have been exploiting this world for centuries, and the army is their instrument for doing it. I don't want them to know what I have; either people, fields, animals, or minerals and 'ecology.' I am less concerned about the medical teams; I don't want my people to suffer, and the medicine is being supplied for free. With Mitru's steam wagon, everyone can get to Néfa quickly and easily, even the sick. I want a hospital in town so they can come here. Indeed, if it were practical, I'd close the villages and move everyone here."

"So you can exploit them better?"

"Put it any way you want. From the beginning of time, people have exploited people. I'm sure that is true on Gɛdhéma as well. If I exploit them, as you say, the Réjé can't."

"Is that what Widumaj wanted?"

Albanu flushed. "Don't *you* raise *my* prophet's name. What right have you? Widumaj understood the nature of human society. He condemned the extreme behaviors, including extreme exploitation. At least, that's how I read the Hymn to the Sumis. But he lived in this society and knew the Lords personally. He didn't order them to surrender their wealth and become peasants. He called on them to lead the people."

"He did call on them to lead, and he didn't demand surrender of wealth; but he called on everyone to help everyone else, to feed them if they are hungry, to clothe them when they are naked, to cure them when they are sick, to house them when they are

homeless. My Lord, I lead my people and I amass wealth for myself, but I also try to follow these commands to help others. Indeed, to carry out those commands, I have to have wealth. Cannot gedhémus serve Esto as well?"

Albanu glared at him. "Perhaps in your own way, but you do not have the right to question how I carry out the commands of my prophet." He turned his horse around. "We'll ride back to Néfa now."

The sixth day of the week was busy with classes; then on the first day of their second week in Néfa, everyone rested. Behruz, Lua, and Amos arrived with the rover; the first two had driven it from Mɛlwika, while Amos had been in Ora all week. Thornton grabbed it after the big family dinner and drove out of town to check out two possible campsites, and was able to select one for the expedition, which began its second two-day trip the next day. When he arrived back in Néfa a bit after sunset he saw a steam wagon pulling into the main square at the same time as he.

"Dhoru!" shouted someone in the passenger wagon. Thornton rolled down the window and saw Stersejiu, head of the génadema in Isurdhuna.

"Hail, Stersejiu! What brings you here?"

"The entire génadema is here! We thought we'd come and study here for a few weeks, assuming we can find a place to stay."

"A place to stay; we had better talk to father. How many are you?"

"Fifty."

"Fifty! Do you have tents?"

"No."

"You'll have to stay in the classrooms tonight. Come on, follow me; the house we're renting is down this alley." Thornton rolled up the window and turned the rover down the alley, parking it at the very end where it wouldn't block anyone's access to their houses. The entire Widi Génadɛma followed on foot; the alley was too narrow for the steam wagon. Thornton was surprised by how many Sumis there were; at least twenty.

"You have paying customers, I see," Thornton said to Stersejiu.

"Yes, they pay the bills for all of us; them and our new book *The Good News of Widumaj*. It is making hundreds of dhanay for us and the demand can only increase every year. Which door?"

"This one." Thornton pointed, then knocked. A servant opened it immediately and they all trooped in. The students and other professors looked distinctly embarrassed and stopped when they reached the garden, which was large enough for them to sleep in.

Chris came out of the dining area. "Stersejiu, hail to thee!"

"Hail, Lord Mennea. Honored Yusbéru is here with me."

"Greetings, Lord," he said.

"Honored Yusbéru, you are welcome. How is your grandfather?"

"Well, and slowly warming to ideas about development. The coal has proved immensely popular and is making money. He willingly loaned us the steam wagon and did not charge for the crew or the coal. We have much to thank you for, Lord Mennea."

"It is a pleasure to assist." Chris looked toward the garden. "It sounds like you brought the entire school, as we discussed at the All-Génadema Council meeting."

"I have brought almost all of it; your friend Werétrakester remained with a few philosophy students only. I hope we can stay two weeks, maybe three. We can get our food from Isurdhuna or buy it in the market here. But we need a place to sleep."

"And a place for classes; these rooms are full almost constantly during the day."

Chris considered. "Thornton, you don't have spare tents, right?"

"No, I'm afraid not. In fact, we could use a few more."

"And so could our friends from Isurdhuna. In another hour it'll be dawn in Mɛddoakwés and Mɛlwika and I can call. We have tents and there are more in Mɛddoakwés that can be rented. Of course, Lord Albanu must have tents we can rent, but first I'll try to get them from Mɛlwika."

"How long will that take?" asked Stersejiu.

Chris smiled. "Assuming everything goes smoothly, there are two steam wagons leaving Mɛlwika in the next three hours, one coming here via the north shore and one via the south shore. The tents can be here by morning."

"Amazing. But I'm not sure we can pay."

"You will be my guests, Honored Stersejiu. What classes can your people teach?"

"Andrunu and I have been teaching a course on the Life of Widumaj, using the new book. We can continue that course and add a few introductory classes for those who have missed the first half. Kérdu, who is a student, has been teaching the Aryan myths; he and Estoibasu have been editing a book of them as well. He's been organizing a play and the students can perform it. Then we have a Sumi student, Ramalu, who is incredible with math. He's been reading calculus and other advanced mathematical texts in English and explaining them to us."

"And you have plenty of students able to teach literacy and arithmetic."

"Of course; all of them. We can even teach the reformed old system of writing.

This is a project Gawéstu encouraged all winter. Budhéstu, son of Isurdhuna's chief priest and quite a bright man, spearheaded it with Andrunu. They drew up rules for reforming the old spelling system and added accent marks to clarify the meanings of symbols that could be taken several ways."

Chris frowned. "Why have they revived the old system?"

"There's nothing wrong with the old system if it's clarified. The priests regard it as the sacred way of writing the hymns and some find the new spelling system your family developed to be fine for secular matters, but blasphemous when used to write the hymns."

"Really? I've never heard that before!"

"It's a new position of theirs, I think. It's a position in Isurdhuna, anyway."

"Which means it'll spread. I'll have to think about that. I gather, then, your relationship with the priests has improved somewhat?"

"Indeed. Gawéstu devoted the winter to bringing all of us together and he was able to establish some reconciliation. We are not afraid the priests will drive us from the Steja any more."

"That is progress. I suggest, Honored Stersejiu, that you offer a class on Widumaj every evening; a free one. I think you will have many people attend, and some will buy the book. I could use help from about ten of your students to teach reading, writing, and numbers. They could help tutor students and make the entire class go faster. If we hold

your other classes in the late afternoon, they'll fit in a hole in our schedule. Math will be a welcome addition because some of the city's students have to go to Ora right now."

"We have three Sumi students interested in geology and ecology who can only study so much in Isurdhuna. Can they join the expedition?"

"We can ask Rudhisuru, head of the army's génadema. He'll have to give permission."

"Very well. I assume that a few of our Isurdhuna students who want to learn a bit of science and engineering can go to Ora on the morning steam wagon?"

"Yes, of course, unless they're Sumis."

"And there is no possibility you can spend time in Isurdhuna?"

"Next year. This year we are here for three weeks, Ora three weeks,

Mɛddwoglubas two weeks, and Tripola three weeks. Then we have to be back in

Mɛlwika for the autumn term. But next year we have to plan a summer génadema that

will travel to Isurdhuna and I hope even Bɛllɛdha. We'll see."

"I guess that's the best I can arrange," said Stersejiu. "Has Albanu proved to be a welcoming host? You know we would welcome you."

Chris looked around. "Lord Albanu has his concerns with the new knowledge, just like Lord Gnoskéstu. Do you know whether Gawéstu plans to come this way any time soon? I think he might be able to assist the Lord to continue developing his perspective."

"I'll write a note to the widu tonight," promised Stersejiu.

"Then we can talk further about this privately," suggested Chris.

The next morning the geology expedition—including three Sumis, who obtained Rudhisuru's permission to go along—headed to its camp on the south bank of the Atranisér, the river that traditionally marked the border between Néfa and Ora. They arrived before the steam wagon from Ora came through. When it arrived, it stopped to let off more expedition members and their equipment. In another half hour the camp was set up. Two teams walked southeast and southwest respectively on a semicircle that would take them back to the royal road about fifty dekent farther south, where a steam wagon would meet them to bring them back. Three more teams headed due east, northeast, and northwest respectively on loops that would take them to other pickup points on dirt tracks. Finally, Thornton took two teams in a rover and trailer up the Isurdhuna road past the area they had already explored. A survey team accompanied them; they would watch the rover, and a driver amongst them would take the rover farther up the royal road to pick up the teams about sunset.

Thornton led the team that explored the area north, toward the Rudhisér gluba. They headed to the gluba first and marveled at the view, for the walls were sheer and smooth, with practically no trees growing on them, for over seven hundred doli to the river. They pushed a boulder over the edge and watched it roll down the near vertical cliff, then bounce off it, fall straight down until it collided with the cliff again, bounce off it again, and repeat the process until the boulder was smashed into a thousand pieces and the bits plunged soundlessly into the river far below.

They headed eastward along the gluba top; the clear space it made in the trees provided an easy view of Skanda, now almost on the horizon. They made frequent stops to look at the rocks, measure their position, and photograph the gluba. Faint coloration in

the walls revealed thick, crude layering in the highland rocks, and the "beds" were tilted and rising to the surface as they walked east, so they were able to take samples of each. The strata probably represented successive impact deposits from countless cratering events that formed Éra's uncharted history from before its collision with what Philos had called a "condensed matter" body. The collision, Thornton speculated, caused the condensed matter to tear through an originally chondritic rock body as if it were made of butter until it ended up at the center, giving Éra a core of immense density. The immense heat released from the collision and from the compression that resulted from the instant thousant-fold increase in gravity melted most of Éra's interior and compressed and folded its crust; and the condensed matter body was attracted toward Skanda, producing a body with a low side facing the mother world and highlands on the back side. The escaping heat, steam, and gasses thermally transformed the crust into a material Thornton dubbed metachondrite, a grayish silicate rock full of rocky chondrules and debris altered by layers of steam-deposited minerals and lavas. The resulting rocks were often filled with veins of valuable minerals.

The landscape was also pocked by numerous rolls and basins suggestive of old craters, and some of the basins had stagnant ponds or marshes in them. If a brook flowed into the depression, a small gluba might carry it out. Most likely the original landscape was devastated by the massive quakes accompanying the condensed matter body's collision and the aliens later melted glubas through the collapsed rims of the larger craters to drain off the resulting lakes.

They stopped for lunch to rest and discuss what they had seen. Afterward they continued higher into an alpine area just now touched by spring. Patches of snow were

scattered under the pines and firs. The gluba grew wider and deeper; though one thing that amazed them was the fact that it was blemished by very few landslides. The Glugluba, in contrast, had dozens of them.

Soon the trees grew short and scattered and snow became almost continuous underfoot. In spite of the warm sun, a strong, cold breeze sprang up that blew straight into their faces. They were close to the peaks of the Snowy Mountains, which were about as far as they could get that day. The sun was sinking toward the western horizon behind them and the time came to turn south and hike to the road. Skanda was halfway below the horizon at that point.

They followed a gully full of snowmelt upstream, which formed one of the countless waterfalls pouring into the Rudhisérgluba. Thornton was in the lead and saw a basin ahead of them. He stopped to consider whether it was easier to walk down and across the basin, or around it. But when he looked down into the basin, he saw a recently killed mountain sheep with a carnivore feeding on it.

"What's that?" he said, grabbing his binoculars.

"Megdente," said Marku. "You don't see them very often."

"That's a megdente?" Thornton looked closer. The name meant "bigtooth" and in an instant he saw why. The carnivore heard the human party approach and looked up at them, revealing two enormous upper teeth.

"It's a sabertoothed tiger!" exclaimed Thornton, in English. "Where's my camera?" He handed the binoculars to Marku and pulled the digital camera from his pocket. He aimed carefully and shot a picture.

Then the cat turned and streaked away, so quickly he was startled. He had heard they were fast, but not that fast!

"Wow!"

"That's only the second time in my life I've seen one," exclaimed Marku.

"They're reclusive animals; fast, private, and scared of humans. Seeing one is supposed to bring luck."

"Then we've been blessed," said Thornton.

Thornton's story made an excellent dinner conversation two days later, after the expedition was over. He was also able to describe some Irish elk with their huge three-meter antlers; another extinct species on Earth that was still surviving on Éra. His team saw three of them the next day. But minerals proved quite elusive. Other than a single small deposit of lead not far from the Isurdhuna road, they did not spot anything of use.

The expedition also had lengthy and fascinating sessions on the mornings of the second and third days, when each team gave a report about what they had spotted the first week. The intervening days had allowed them to talk about the hikes thoroughly, interpret what they had seen, develop explanations of the technical terms, and draw up maps.

Three teams had hiked across a fold in the highlands and all three had detected it; it gave them a thrill to see that the lectures in class related to facts on the ground. Thornton would have a very busy next three days, because he wanted to check some observations and had to prepare a big map with as many of the details as possible.

But the next day he had no access to the rover because his father needed it to drive to Ora. Chris left at the same time as the steam wagon and arrived almost half an hour before. Amos and Behruz—who were still on the western shore—went with him, because they both had classes to teach. May went along as well because she had a day-long English class in Ora; three other days a week, a local English student ran the course quite well. After parking the rover behind the génadema, Chris walked to the palace.

"Lord Mennea, greetings," said Lord Mitru, after he invited Chris into his office.

"How long did it take you to get here by rover?"

"An hour, in spite of the herd of goats blocking the road at one point," replied Chris. "The army has already graveled the entire Néfa portion and in two more weeks they will have the Ora portion graveled as well. Of course, they want to double the amount of gravel, so they will be busy quite a while. The road surface they've prepared won't last long, otherwise."

"So fast. I'm still used to thinking of it as a two-day trip. Our steam shovels are making quite a contribution; Roktekester was here yesterday and he was telling me how pleased they were with them. The army wants three more. Even Mɛlwika has ordered two."

"We can appreciate quality anywhere it is found. The classes in Néfa are going very well, with great numbers flocking to them. Most of the Widi Génadema has come."

"I heard. My son gets reports every day from several students and passes them on to me. Everyone is pleased with the arrangement because all of us have larger classes than we would otherwise have. We've even been getting students from Mcddwoglubas. They have good mechanics and engineers down there. But of course I won't let them tour our factories."

"They'll reciprocate when the engineering and science classes are down there."

"My good Lord, are you sure you have to visit that little village? It is not worthy of the attention of your génadema. If you hold all the science and engineering classes here, you'll have more students."

"Why? It's an hour from here, and the steam wagon's free. We have some students coming to weekly classes in Néfa from Tripola. Perhaps you should see the little village yourself before you dismiss it. They will have better génadɛma facilities than Néfa"

"Really?" Mitru frowned.

"I've heard of the dispute between you and the southwestern shore. I hope it can be resolved quickly and I don't want the génademas dragged in. If anything, we can be a part of the solution. The expedition, when it comes through, can plan the location of new villages, so that the flooded villages can be moved."

"We already have places for new villages in the central valley, but we have not resolved the problem of who owns the land and how to pay for it. The villagers won't move to the new sites without ownership of the land, and I can't give that to them. So they're settling in Ora and in two new villages where they can own land, at least for their houses."

"And they're coming to Mɛlwika. Not to mention the village that has crossed the Trinénasisér."

"That's not important. Only the Lewéspans think the river is some sort of border. That whole area has been ours by right of conquest since Ora became an Eryan city over a thousand years ago. The old Sumi city near Meddwoglubas was sacked and burned right after Ora fell and my ancestor—Kandékwu Maj—took them both, but chose Ora as his capital. He could have rebuilt the old Sumi city down there instead."

"Meanwhile, Tripola has occasionally lodged a claim, and Estodhéru is the head of a bunch of villages that have never paid you taxes."

"They will in the future," said Mitru emphatically. "My advice to the geology and ecology expedition is to explore the highlands and mountains east of my current villages or possible village sites. I don't need for them to tell me where I have rich soil in the lowlands; I already know that. I want to know whether there are minerals in the hills and mountains. There are a few very crude roads they could use to drop off exploring teams. I think a rover could handle them."

"I'll bring Thornton here next week after his field trips, and someone can point them out to him. He'll probably want to quickly explore them first." Chris looked at Lord Mitru. "May I speak frankly to you, friend Mitru? I hope we are friends."

Mitru nodded. "I have great respect for you, and I sense you respect me as well."

"Lord Mitru, Ora was rebuilt quickly and successfully—and beautifully—two summers ago because of generosity. Generosity made land available to people whose land was washing into the flood. It was a catalyst that helped others in town feel generous and help each other. I fear that as the sea rises and floods one third of your villages, the result will be terrible poverty, displacement, and resentment for most of your people, unless generosity is demonstrated. People cannot be expected to give up land they have

lived on for generations and move to Ora, or to a timbering village, where they have no land to farm or other way to make a living. Not everyone wants to cut timber or work in a foundry. Some want to be farmers. There is plenty of unused land in your region, especially along the inland valley. Ownership is not really a serious problem. Give them land and they will do the rest. You don't even need to build them a road; they'll do it themselves."

"You make an elegant plea. I can't afford to be as generous as I was two years ago because I don't have access to the royal treasury, and because the foundry, shipping canal, hydropower tunnel, and suspension bridges have cost me dearly. My Lord Mennea, I need workers to build more things to make Ora strong. I don't need more rice paddies and banana orchards."

"My Lord, your most precious resource is people. The policy you are pursuing will provide you workers, but at the cost of driving half the displaced people away completely. They will cross the Trinénasisér hoping that means they are beyond your taxes, or they will go to Mɛlwika where good-paying jobs are constantly becoming available. You need to enrich your people, not impoverish them; that way you can keep them. That's my advice to you, for what it's worth."

Mitru raised his eyebrows. "Tell you what, Lord Mennea. We could use advice from the geologists on where to place more villages along the inland valley and what areas are good for agriculture. I do want and need workers in the city, but you are right about losing them to other areas, especially Mɛlwika. If I could enforce a law against out-migration, I would, but you can't bind peasants to the land, not on a world as empty

as this one. Tell your son to find locations for a string of villages and maybe I can make them happen."

Chris smiled. "I'll tell Thornton tonight."

After talking with the faculty and students in Mitrui Génadema's refectory, Chris drove back to Néfa. It was remarkable how much traffic the royal road had; he passed two steam wagons on the route and several horse-drawn wagons. Clearly, the economy was being stimulated.

Chris spent the afternoon meeting students informally, handling paperwork, talking to several people in Mɛlwika—when he could get access to the telephone line—and thinking about his next class. Talking to students was always the best and they enjoyed his attention.

The family—including May, Amos, and Behruz, who returned from Ora a bit before sunset—ate a big supper in Néfa with the other faculty and some students, as was the custom. Then they retired to their rooms and the children were put to bed. Chris's room, the largest in the private part of the house, served as a living room of sorts as well. Chris, Thornton, Lébé, Lua, May, Behruz, and Amos settled down for a cup of mint tea before heading to bed.

"So, how's everything going?" Chris asked. "We haven't had much time to talk, lately."

"You start; you always have the best stories," said Lua.

"Okay." Chris considered. "Lord Albanu is pursuing a course that will result in impoverished serfs with few rights and less money, working on large industrialized

farms. And I haven't been able to dissuade him the least bit. I'm hoping Gawéstu can help."

"Stersejiu told me this afternoon that Gawéstu's coming," said Thornton. "He sent a message with the morning steam wagon."

"Good. I doubt he can change Albanu's mind, but he has the best chance. Lord Mitru is pursuing a similar course, but today he agreed we could recommend a string of village sites to him in the highlands along the inland valley." Chris turned to Thornton. "So we need to have as detailed suggestions as possible, and we want to keep a copy of the information so that the Consultative Assembly can be asked to provide financial assistance. That may embarrass Lord Mitru, but the money will assuage the embarrassment. He's willing to be generous, but needs to be reminded steadily. I think Gawéstu can help as well." He looked around. "So, who's next? Thornton?"

"Okay. We've completed two two-day field trips, each of which has involved seven geology and ecology teams. The various teams, together, have walked over 1,000 kilometers."

"Wow! That much?" said Lua.

"Over eleven hundred, to be exact," replied Thornton. "Each team has made a map of its route. They stopped briefly every 2 or 3 kilometers to measure their position with a sextant and make observations, including noting the compass positions of various hills and mountains. With so many observations, we can use the compass positions to triangulate the exact locations of hills and mountains on the map, which is taking a huge amount of time, but producing very good maps. We will have all of greater Néfa finished next week, and the border zone to Ora as well; the week after we'll tackle the northern

half of the Ora region. We haven't found many minerals, but we are locating areas in the hills that could be the sites of future villages, as the Néfan population expands. We've also been exploring the area that will eventually be the sea bottom or the future seashore. It's been quite something."

"Any trouble with the local people?" asked Behrouz.

"Not really. We stick to dirt tracks and stay off of fields when we can."

"Okay. Lua?"

Dr. Lua smiled. "I think Néfa hospital will be set up pretty well after we leave here; of course, we're staying here five weeks, not just two or three. Albanu built a fairly nice building for it last year and he has agreed to wire it for electricity and pay for a telephone. They also have a lot of nurses and doctors in training here; he has invested in medicine, thank God."

"Amos."

"Not much to report. In spite of rivalries between some towns, we're off to a good start in the science and engineering classes. By taking our act on the road we'll have more students taking advanced courses than ever before, and they'll be distributed around the world better. We'll strengthen all the génademas on the western shore, including Néfa."

Chris nodded. "Behruz?"

"I echo Amos; I'm amazed how many are taking chemistry in Ora, and I'm told to predict similar numbers in Tripola. It'll give me quite a few new candidates for jobs in our chemical plant. And taking our act on the road is taking us away from some problems; Mɛlwika, as of last week, began to experience blackouts every day during the

eclipse. It turns out most of the new houses in the north addition of Mɛddoakwés are wired for electricity, and a lot of middle class folks in Mɛlwika—if I can use the term middle class—have been installing electric lights in the last few months. Too many people are switching on lights during the eclipse, and they can't open up the penstocks and let out enough water to make enough power for them all! And of course we don't yet have electric use meters, so people pay for the electricity when they buy the bulbs. They hope to fix the problem in another few weeks by getting better control over the hydropower at Mɛgdhuna; right now there's no phone line to Mɛgdhuna, so they can't tell the man controlling the turbines to crank up the output."

"They should tell him to open the penstocks and make more power right before the eclipse starts," quipped Chris.

"The problem is cheaper wire," added Amos. "The projects to extend wires to Gordha and all the way around the sea to Néfa require huge amounts of copper wire, so the Dwobergones have stepped up production and Miller has expanded wire production. The price of wire has been cut almost in half. It was supposed to drop to a quarter, but it has already dropped enough. It costs three dhanay to buy enough wire to light a house, and most people have seen how to nail a wire along a wooden ceiling beam using special nails they can buy in the market, so they install the wires themselves. They can buy the light fixtures for a dhanay each, and the electric company now charges only two dhanay to run a wire from the street to your house and to install a little fuse box inside your front door. They'll even inspect your wiring or finish the wiring of the light fixtures for you for no extra charge. Each light fixture comes with a pull string and a plug, making it easy to

add second lights to a line. So it costs only ten dhanay to set up a house for electric lights, and it's prestigious."

"Of course, each light bulb costs two dhanay, so people usually buy only three or four for their entire house!" added Amos.

"But these sales aren't bringing in enough cash to cover the costs of expanding the system," added Chris. "Behruz, what about demand for gas?"

"Installing gas heat and light costs a lot more than electric lights, but it's much simpler and cheaper than wood or coal, and the light works during the eclipse. So we're building another, larger, gas generator to accommodate winter demand. By then we'll be supplying gas to Mɛddoakwés as well; Kandékwɛs and some merchants are paying to install gas pipes under one of the main streets and Yimu's designing a big gas tank that can be filled, towed to Mɛddoakwés at night, and attached to the line, then towed back when it's empty. If it works we may be able to export gas to the western shore, too!"

"Fantastic," said Chris. "May, you get the last report."

"Not much to say," she replied. "Except there are more people clamoring to learn basic literacy and numeracy than ever before. We may give basic classes to a thousand people this summer in these four cities on the western shore, plus Mɛlwika and Mɛddoakwés. Néfa is a good place to get news from Anartu, too, and it sounds like literacy efforts there are reaching hundreds."

"Lébé, anything to add?"

"Just that my novel and my book of children's stories are both selling well, which shows that people want books and can buy them. The mobile génadema comes with a

bookstore, and that has caused a lot of book sales, including *The Good News of Widumaj*."

"Stersejiu is pleased," agreed Chris. He smiled and looked at his family. "And we should be pleased, too. This trip is indeed working out very well."

April 2, 2001; reread and edited 5/17/13, 7/25/17, 11/2/24; 3d/4th weeks of Kaiménu.

## The Prophet

The clocktower in Néfa rang out 12:30 p.m. for the third time ever when the steam wagon from Isurdhuna pulled into the city's central square. Lord Albanu's palace was on the south side, the bazaar on the east side, the temple on the west side, and the Rudhisér flowed swiftly and silently on the north side of the city's heart. South of the bazaar and behind the palace lay the new Sulu household, which served as the temporary headquarters of the génadema.

Gawéstu slowly climbed out of the passenger wagon with the other passengers, systematically stretched both legs, looked around very briefly, then headed over to the bank of the Rudhisér. He began to walk westward along the river bank—there was a narrow dirt right of way he could follow—until he came to an opening along the bank with several large, venerable old trees. There he stopped to pray. Soon children, then adults came to see him.

As Chris was finishing up lunch, the telephone rang. He hurried back to his office. "Hello?"

"Chris, this is Yimanu," said a voice at the other end from above the static. No one said telephones worked well; just that they were adequate.

"Yimanu, greetings to you! I'm surprised to hear from you now; it's what, 10 p.m. in Mɛlwika?"

"Yes, the clock just struck ten, in fact," replied Yimanu. "I understand you plan to be back in three days; is that correct?"

"No; the steam wagon will leave here at 3 p.m. tomorrow, arrive in Tripola by 9 p.m., but rather than stopping for the night, it'll take advantage of the full Skanda and head for Mɛlwika overnight, arriving there at 8 a.m. Of course, I may not have gotten practically any sleep, so it may be noon before I can do anything. Why?"

"Another banking emergency; I need your help. Not enough dhanay to cover everything."

"Where?"

"Probably Ora, this time; the army's been depositing lots of cash there lately and withdrawing it elsewhere, leaving us stuck with cash imbalances. Without telephone connections, it's hard for me to be sure."

"I can send a message to Ora in about half an hour and will get a reply five or six hours later."

"I'll be sound asleep then, but you can leave a message with the Mɛlwika operator."

"I'll do that. Should I oversee a shipment of cash to Mɛlwika?"

Yimanu considered. "No, I'd rather ride this one out, somehow, because the army will be withdrawing lots of cash in a few weeks and I think they'll need it mostly on the western shore. We'd just have to ship it back. There was another attempted robbery of a steam wagon, you know."

"No! Where?"

"Outside Belledha. The army is sending ten soldiers on every run around the north shore, but the robbers will just wait two weeks for the soldiers to be dropped and will try again. The driver refused to stop when a robber stopped his horse in front of the steam

wagon. The horse was killed but the steam wagon was not damaged enough to have to stop."

"That's terrible! But thanks for the news. I'll give you a call as soon as I'm home and able to meet with anyone."

"Thank you, I appreciate that. Bye."

"Bye." Chris hung up, wondering how they could fix this problem of cash imbalances. Every week, one branch bank or another was in danger of running out of cash; then a few days later it was swimming in it when a payment was made to someone for something. Meddwoglubas had been particularly complicated, because as soon as someone bought a clock tower or a dozen bolts of cloth the money went into an account for Meddwoglubas, and it was soon transferred on paper to an account in another city to pay regional taxes. As a result, Meddwoglubas was leaving cash at one bank branch and spending it at another. Melwika was even worse, because it exported more than it imported and was accumulating money in branches all around the world, which it then wanted to spend in Melwika. Once every week or two they had to transfer cash among the branches, a worrisome procedure that risked theft.

Chris walked out to the dining area, where some family members and faculty were still eating.

"Troubles?" asked Thornton.

"Nothing unusual." Chris had to be careful what he said about the bank in front of faculty and students, because they didn't know the context. "The usual temporary cash flow problems. Too much in some places and not enough in others."

"There seems to be less money around, generally," said Sarésunu. "You go to the bazaar to buy something and the merchants want exact change; they don't have it."

"I've noticed that, too," said Lébé.

"Hum." Chris thought for a moment. "I think I know why, too. Sarésunu, if your grandmother had an extra ten dhanay, what would she do with some of it?"

"What would she do with some of it?" He frowned and thought. "She'd put some of it under the bed."

"Exactly." Chris smiled, pleased that his theory was validated. "People are a bit wealthier, so they're saving, and they save by storing dhanay in hiding places in their houses!"

"How many people have bank accounts?" asked Lébé.

Sarésunu laughed. "How many do you know, other génadema people?"

"Very few," agreed Chris. "It'll take a generation for most people to trust banks.

Even in Mɛlwika maybe five percent of the people have bank accounts, and that's higher than anywhere else."

"I thought everyone working for us and for the Millers have bank accounts," exclaimed Lébé.

Chris nodded. "They do; *retirement* bank accounts. We put a certain amount in them every month, and the workers can't take the money out until retirement, severe illness, or disability. But most don't believe the money's really there. They have to see more co-workers use the accounts before they'll believe they exist. They automatically have a checking account and a savings account, but they don't put anything in them. I wish they did; all those dhanay sitting under beds are not in circulation!"

Just then Rudhisuru came into the room. He greeted everyone and took a bowl of soup and some bread. "Gawéstu has arrived," he announced. "I just saw him, down by the river."

"Really?" said Chris. "I wonder whether he'll come visit us."

Rudhisuru shook his head. "I doubt it. People go to him; he doesn't go to them."

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The next afternoon Chris took the 3:00 p.m. steam wagon from Néfa to Tripola. When he reached Tripola three hours later, it was night. The steam wagon crew got off and was replaced by another one. Various people got on as well, and the steam wagon headed for Mɛlwika.

Chris closed his eyes and tried to sleep, but the hard seat and the bumpy road made it almost impossible. He dozed fitfully, on and off, as Skanda waxed brighter and brighter. The eastern horizon began to glow, then the sun rose. The sun was just above the horizon as they pulled into Mɛlwika; it was 7 a.m. there and 10 p.m. in Néfa. The trip had lasted just 7 hours. Chris would have marveled at the efficiency of the trip—something utterly unthinkable even a year ago, unimaginable three years ago—but he was exhausted. He staggered home.

"Hello!" he said as he entered the main door, bags in hand.

"Chris!" Liz jumped up from the breakfast table she and Mary had set in the garden. "How are you! You look exhausted!"

"I am; I got an hour of sleep on the trip here and my body thinks it's now time for bed. How are you?"

"I'm fine; I just miss you."

"I've missed you terribly." They kissed, a long, tender moment together.

"Come in and rest, at least. You probably should go to bed for a few hours."

"I plan to." He walked into the garden. "Hello mother."

"Hello, Chris." Mary rose and kissed her son-in-law. "How's the family? The house is deserted without them, especially the little ones."

"Everyone's fine. Jalalu's running now, and falling constantly and skinning his knees. Skandé told her first joke the other day."

"I heard about it from May over the phone. Sit with us. How long was the trip?"

"Seven hours from Néfa; just four from Tripola. The 'red eye' you could call it."

"And you have red eyes," added Liz. "You couldn't sleep."

"Impossible on wooden benches; the pads are thin. I think I got a hemorrhoid, in fact. Mother, could you design a hammock? They might work."

Mary reflected. "Sure, that would be easy. The widows could make them." "How's the work?" asked Liz.

Chris picked up a piece of toast and nibbled. "Pretty good, but exhausting. Everyone wants us to do all the work and pay for everything, and they get the profit. I've been tempted to pull us out of Néfa twice and Ora once. I'm trying to draw up clearer and more elaborate agreements with Lord Estodheru and Gugéndu, so we can avoid this mess when we move south." He ate a bit more. "I guess you've held down the fort here."

"Thanks to Estanu and Estodatu, yes," said Liz. "The dozen graduate students teaching basic science, basic math, reading, writing, and basic business seem to be doing fine. May was here last week and sat in on a lot of classes and said they were fine, and

you'll be able to check out the business class yourself. Of course, usually Behruz is here to help, too."

"It's good he's in Ora now; chemistry is proving popular. But he'll be back next week." Chris looked at Liz. "The telephone's just not good enough."

"No, it isn't; I'd rather be able to see you, too, dear."

"Exactly."

They talked for a few more minutes, then Chris did indeed go to bed. When he rose at noon—3 a.m. Néfa time, a manageable hour—he washed, had lunch/breakfast, and called Yimanu. The banker came over right away.

"I see you asked everyone for reports," he said. "While you recovered from the trip I reviewed the numbers. The Mcddwoglubas branch is just about out of cash and Tripola has just 3,000 dhanay, but Ora has an extra 15,000 dhanay and Néfa has 25,000 extra. Néfa has so much because they just bought three steam wagons and a clock tower."

"So, they have it. I'd send it to Tripola and Mcddwoglubas, 1,000 dhanay per trip. The run between those two cities should be perfectly safe; the army's all over the road rebuilding it and there are a lot of people and steam wagons moving on it. Let it accumulate in Tripola, then we hire ten or even twenty soldiers and haul it all here once a month."

"Okay, but meanwhile we have to pay the workers building the lines to Gordha, and even Miller has cash shortages for paying his workers."

"What about the army? They have to pay three or four hundred road builders on the western shore."

"They are using the banks there; the army now has accounts in all the branches. Roktekester opened them a month ago. But the army is part of the problem, not part of the solution. The reconstruction of Meddoakwés and the canal system is costing so much, the army wants to use the bank system to transfer cash here to pay for the work here. The road building in the western shore can be paid by the taxes there."

"So, we will need to move tens of thousands of dhanay here in the next few months." Chris shook his head. "That's a big risk. We can either move it a little every day and risk small losses, or wait and move big amounts under heavy guard. The army should help us; it's their problem, too."

"Not according to Roktekester; I talked to him the other day."

Chris nodded. "Well, there is an alternative." He walked over to his desk and pulled out his old wallet. He hadn't bothered to carry it in his pocket for months. He pulled out paper currency. "On Gedhéma, we make paper money. Once upon a time, these were certificates that could be exchanged for silver or gold. Then people acquired so much confidence in them, they didn't ask for the gold and silver any more."

"I remember you told us about them in business class."

"I should take these to Néfa and show them to my class. They'll enjoy looking at them."

Yimanu took an old Italian 10,000 lire bill, a 5-euro bill, and a 100-dollar bill. Chris had quite a mix. "This is not ordinary paper."

"No, it's thicker and tougher."

"And very hard for someone to copy."

"Of course, it has to be. Copying is the big danger."

"I wonder what would happen if we made paper money that could be exchanged for coins. If we made 10 and 100-dhanay bills, many merchants might like them. It's hard to carry around more than fifty; they're heavy."

"We could ask Sajéku to make something that has a very complicated design, and I think Modolubu could produce a much stronger, tougher paper. Do you think people will accept them?"

"Let's start by talking to the partners. There's a meeting in two weeks. If they agree, they'll be able to convince other merchants. If the merchants honor them, the workers will accept them."

After the conversation with Yimanu was finished, Chris headed out of his house to walk around town. He stopped at Modolubu's first.

"More printing presses, Honored Modolubu?" he asked, surprised. A second one was operating and space for a third one had been made.

Modolubu smiled. "Yes. We've had too much work for one press for months, and sometimes presses break. It's cheaper to make two at once than two at two different times. We're actually making three at once; I'm guessing I can sell one."

"Maybe Lord Mitru will want one," said Chris. "Where have you put the paper making?"

"The back half of the building; it's now full. I've even had to rent space in another building nearby to store plates."

"Gone are the days when you had no employees and you were making paper faster than anyone would buy it. How many grades of paper do you make?"

"Three; standard business paper, newsprint, and heavy cardboard. We're looking at a light cardboard and a high-quality paper."

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"High in rag?"
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"Yes."

"Good. Can the presses run thicker paper?"

He shrugged. "Sure. Why?"

"I'll tell you later." He saw a pile of books in the corner. "Medical texts?"

"Yes; May and Lua have been translating stuff from English for a long time. Dr. Dɛkéstu made the selections and edited them for content, and Estodatu cleaned up the Eryan. It's not a bad book; I helped typeset it. They plan to use it as a basic text."

"That'll help the medical school. I've got to run. I'm in town for two days, then back to Néfa."

"Maybe tomorrow evening I can stop by."

"That's good; I'll tell others to come for dinner. Goodbye."

Chris headed out the door and across the street to Rudhu's glass-making facility.

Rudhu had no time to talk; he was busy. But Chris invited him to supper as well. Demand for glass was skyrocketing as merchants and Lords in other cities discovered glass windows, and new glassmaking operations were opening to make standardized glass bottles and window glass. Optical glass was the new and growing business segment.

Chris visited with Sajéku, their commercial artist, for a half hour. He had more time, though even he was pretty busy; the idea of paying someone to prepare a blueprint or conception of a building had caught on, especially with the expansion of the capital. He had also found a woman with an uncanny eye; she had a corner of his studio and was

painting portraits for hire, and landscapes in her spare time. Chris made a note to introduce the woman to May, who would be thrilled to meet her.

He walked to the marketplace to see what was new. It was thriving, as always.

The heaps of Ora tropical fruits, Médhela dates, Tutane cheeses, Belledha maple sugar,

Anartu rubber, and fish from Moritua and even from the sea—for productivity had picked up—reflected the power of the steam wagon to bring items from everywhere. Jars of jams and yogurt, dried pastas, and now sausages spoke of Melwika's food exports.

He walked past the bank, which looked pretty busy, and visited the temple for a cup of tea with the priests Sarébejnu and Lukolubu. They were both pleased to be helping people recover from misfortunes and were giving free classes on the hymns of Widumaj, where they also taught reading; Chris was intrigued that adults were going to the temple for literacy. Then he headed to his offices, which had been recently moved to fill the entire top story of the classroom building.

Estanu was there waiting for him. He was busy designing and overseeing the construction of the Ménwika main canal, which would take water from the Péskakwés to most of the township, and the gravel roads that would take farmers to the land. He had also been asked by the city to design the gravel road up the Arjakwés into the hills and several other gravel roads in the hill zone. Finally, he was overseeing the construction of a third apartment building of his own; his wife was good at collecting the rents and he had a team of people working for him. His high-quality clothing reflected wealth.

By the time they were finished talking, Kérdu had arrived. After they exchanged greetings, Chris said, "how is the Nénaslua Grange doing?"

Kérdu rolled his eyes. "They're costing us money, cutting into our productivity, and causing a lot of stress. Dengéstu is better as a canal builder than as a coordinator of farming. The canal extensions are mostly finished. They started farming the land as quickly as they could because of the lateness of the season. Our steam wagon and the one rover we have access to have spent half their time helping the Nénaslua Grange. We've been running both machines twenty hours a day; their only rest is the dark hours right after sunset."

"Dengéstu may be popular, but he's not a planner. He's good at inspiring people, but can't coordinate their labor very efficiently," added Estanu.

"That's to be expected," said Chris. "We'll help him do what he can. Are their farms doing alright?"

"They will be if we get another rover back by the end of summer, or can rent another steam wagon," replied Kérdu. "Because the harvests will demand more than our equipment can handle. We're going to have a crop like you wouldn't believe. Really huge."

"How are crop prices?"

"They've dropped ten percent."

"Not bad. I thought they'd drop a lot more than that. I suppose people are eating more."

"A lot of people can!" exclaimed Estanu. "Certainly, everyone in Mɛlwika eats more than they did in their home village, and they're sending gifts back home. Of course, they're working harder."

"How much does Nénaslua Grange owe us?"

"I don't know," replied Kérdu. "But we can figure it out. Probably three or four thousand. They'll be able to pay."

"Good."

"They're planning a grange building like ours, too," added Estanu. "And even though I don't think much of Dengéstu's skills, Sarélubé has done worse. She has not helped the grange at all. The polarization between Nénaslua and Béranagrés is worse than ever."

"The Réjé's away, so people will not be discreet and will play their tricks," said Chris.

Just then they heard footsteps outside the door. They looked up and saw Mayor Weranolubu standing there. "Come in; we're just talking," said Chris, rising. "Would you like tea?"

"Coffee; coffee," replied Weranolubu.

Chris jumped up and poured a cup of coffee, then handed it to Weranolubu, who had seated himself with Kérdu and Estanu. "So; the city's building gravel roads in the hill zone."

"Definitely. It's rich land, a lot of it can be irrigated, the higher land gets enough rainfall and doesn't even need irrigation, it has forests to cut, the hunting is still pretty good; it'll help our city grow. We're also concreting the royal road through Béranagrés; Kandékwes has agreed to throw in some money, Roktekester might help a little, and Sarélubé has agreed to contribute from her town's tax revenues. And we're graveling the road from here to Megdhuna. There may even be a power and phone line installed on it, because right now Megdhuna power has to go through Meddoakwés."

"Good. How's the election?"

Weranolubu looked at the other two men. "They can tell you as well as I can. Everyone knows the date of the election. Everyone's talking about the idea of voting. The idea isn't controversial any more because it's been talked about for months. No one dares run because no one knows whether it is appropriate or what behavior would be appropriate, and they know you don't think running is such a good idea, though Miller is in favor."

"I think we should hold a series of public meetings the last four weeks before the election, let everyone talk about what the city needs, and publicize the meetings in the newspaper. Let the people see who is concerned about what and who has what ideas.

Then the people vote based on what they saw."

"That would work," said Estanu. "People who want votes could speak their mind at the meetings."

"You expressed that idea to me before," agreed Weranolubu. "And I've already started thinking about days and topics for the four meetings. I'll bring that to the City Council tonight."

"Good. Any other news?"

Weranolubu shrugged. "No, not really. The elections, the roads, and of course the electrical blackout every afternoon. The electric company is splitting the city into more zones so they can rotate the blackout, because we can't get more power until at least the end of summer."

"I heard about that," said Chris. "It doesn't give me much confidence that we can ship power from here to Néfa and back without blowing the entire system." Weranolubu laughed. "That's what I've been saying for weeks!"

No sooner had Chris adjusted to Mɛlwika's time zone than he headed back to Néfa, catching a steam wagon at 10 a.m. that took him to Néfa by 8 a.m. the same day; a seven-hour trip across nine time zones. He struggled for two days to adjust to the changed times of daylight.

Thornton left for the third expedition—to the southern end of the Néfa region and the forests between Néfa and Ora—then returned. Their time in Néfa was coming to an end, with many of the faculty moving to Ora over the next week (some of whom would be commuting back to Néfa, including May). Chris began to wonder whether Gawéstu would ever visit him, his family, or the génadɛma. One afternoon he saw Widumajbédhu, one of the Bahá'í students from Isurdhuna, and pulled him aside.

"Widumajbédhu, what do you know about Gawéstu?" he asked.

"Well, the other Isurdhuna students go see him every day at 4 bells and he gives a talk to them. Many other students come along as well. He has mostly talked about the life and hymns of Widumaj and the importance of following Widumaj's wisdom, but it is interesting to see what implications he hints at or draws out. The Isurdhuna students have pretty much concluded that Ora and its Mitrui Génadema are incarnations of Werétra."

Chris raised his eyebrows. Werétra was the old Indo-European primordial dragon; the Eryan name was so old it still had an old –a ending (in modern Eryan it would be "Weréto" or Werétru"). Widumaj used Werétra as a symbol of evil; he had become the Eryan Satan, essentially. "Why do they say that?"

"Because the génadema, and the city in general, has no interest in Esto. The classes there start without hymns and never mention any hymns at all. Here, at least, the first class of the morning and the afternoon almost always begins with a hymn, and hymns are woven into many lessons. There is a sense that the new knowledge and the old knowledge are complementary. But in Ora the feeling is that the new knowledge replaces the old. And as we know, that is impossible."

"What you say about Ora is true. I don't know what we can do about it, either.

Lord Mitru is not a religiously minded man and the school there stresses science, not history and literature. There's an arrogance there that is hard to overcome."

"True. I'm taking a course in science there right now and feel it. Gawéstu also spends some time indirectly criticizing the Bahá'í Faith. He never mentions Bahá'u'lláh by name, he never says the word Bahá'í, but he makes it clear that the Eryan are lovers of the hymns, and he implies that is ultimately incompatible with following any one else's wisdom. He knows I'm a Bahá'í and has criticized me for accepting Bahá'u'lláh in front of others. He has also commented on the declaration of Néfans. Maybe you haven't heard, but the other night two Néfan students—one studying to be a nurse and another one studying to be a teacher—declared. Gawéstu heard and dismissed it."

"How did this happen? Who taught them?"

"I did, and they asked Lua and May lots of questions. Three or four more are interested in the Faith, too. Lord Albanu, I suppose, will not be happy if he finds out."

"He won't be, but I doubt he'll express anger to me. He's rather neutral about religion," said Chris. "Thank you for telling me. Should I seek out Gawéstu?"

"Indeed, you must. Someone asked him why he does not come to some classes and he replied 'when one receives divine guidance, one cannot flaunt it or cheapen it by making it too readily available.' So he waits for people to bring questions to him, rather than spreading around unrequested answers."

"There's wisdom in that," said Chris. "Then I'll seek him. I should have sought him days ago." Chris headed into his office/bedroom. He stared at the piles of uninspiring paperwork, then glanced at his watch, which was still working after three years. Two p.m. It might be a good time to find the prophet.

He knew roughly where the prophet's garden was. He walked to the river and followed it upstream along the bank. The first garden he came to opened onto the river, separated from it by a low rail fence. Sitting on a simple straw mat under several closely planted trees and bushes was a small man with a very long beard, wearing an old, worn, but very clean, white robe. Gawéstu.

Chris stopped. "Hail Gawéstu," he called out.

The prophet looked at his visitor and smiled. "Hail, Lord Mennea. I am very happy to see you."

"And I am happy to see you, Honored Gawéstu. May I enter?"

"Yes, you are welcome." Gawéstu stood, waiting for Chris to come to him. Chris approached and he offered both hands, first shaking them, then embracing him. "Thank you for coming. Would you like bread?"

"I would be honored."

Gawéstu picked up a loaf sitting on his mat. He broke off a piece for Chris and both sat to eat their pieces. "You and your family are well?"

"We are all very well, thank you. All of my children are married and have children; I have four grandchildren. Even my mother in law, who is as old as Yusdu, is still healthy. And all of us are happy to serve Esto; that is even more important. Are you well? Are you comfortable here?"

"Esto has provided health, and He has provided me with a beautiful setting to stay in. I am grateful."

"But it rained a bit last night; did you stay here?"

"Yes, of course." Gawéstu looked amused at Chris. "Many have no houses, you know, and the summer is a pleasant time to live out of doors, like the birds. This fine mat, under these thick trees, is nearly waterproof; what more could I ask for?" He reached out to feel Chris's sleeve. "This is fine cloth, of a very uniform weave. It is a privilege to have such things, is it not?"

"It is; you are quite right about that. This is machine-made cloth. In Meddwoglubas they have built machines that allow one man or woman to make five or ten times as much cloth as was possible on a hand loom. The cloth is also very uniform."

Gawéstu was surprised and stared at the cloth. "And what is the reason we need five or ten times as much cloth?"

"Perhaps we don't. But if clothing costs less, perhaps fewer will be naked or almost naked. If beds are covered with clean sheets, women will get sick much less when they give birth."

"Less sick? This is something your daughter, the doctor, says?"

"Indeed, it is known to be true."

"Then cheaper cloth and bed sheets are good. But how, Lord Mennea, will we prevent the people in Mcddwoglubas from making five times as much and selling it for half as much, thereby becoming rich?"

"Most Honored Gawéstu, you should visit them and help them understand this concern. I have talked to Lord Estodhéru often; he is here two days a week. He wants his people to be comfortable and he wants to serve all."

"He is a good man, and principled; Lewéspa still has no priests. How is Lord Miller? I suppose he is rich."

"He is rich, and he is enjoying it. Three years ago there was barely one weru for each child; they were quite poor. Now his adult children are prosperous. And Lord Miller is trying to be generous, in his own way."

Gawéstu laughed. "I would like to see what that means!" He took a bite from his bread. "Lord Mennea, tell me why you are in Néfa, and then I will tell you why I am here."

Chris nodded. "Very well. I am in Néfa, Ora, Mɛddwoglubas, and Tripola this summer, two or three weeks in each place. We have a traveling génadema this summer. Half my advanced students and about half of Wɛrétrakɛstɛr's are either here or Ora. The latter is where science, math, and engineering are being taught, while we are teaching Eryan, English, poetry, the hymns, the life of Widumaj, basic science, and business here. There are steam wagons taking people either here or Ora every day from as far as Bɛllɛdha and Tripola. The last half of the summer, the classes move to Mɛddwoglubas and Tripola. We also have sixty people traveling two days a week around the western

shore, looking at the rocks, the plant and animal life, the villages, and providing people with free medicines and treatment."

"Really? How can you afford that?"

"The treatment is provided by a doctor and his students, and we have them traveling as part of a class, for which the Lords or the Réjé have paid tuition. Why should the class stay in one place to heal, when they can go to the people needing the healing?"

Gawéstu smiled. "Esto loves them for their service. This is truly a great thing. Do you think I would be able to go with them?"

"Of course, I'm sure you would be welcome."

"Are you here to spread the hymns of your prophet?"

"No, Most Honored, that is not our goal. Our goal is service. But as you know, one serves because one believes it is right. We believe service is right because of the teachings of Bahá'u'lláh. Otherwise, we would be sitting at home and wearing clothes much fancier than this. When we serve the people, they ask why, and what are we to say?"

Gawéstu nodded. "I understand. I will tell you why I am here, then. I had a dream a few weeks ago about an anthill set in the middle of a big, circular green lowland, rather like Néfa, whose basin is this world's néfa or belly button. The anthill was populated by black ants. Soon, another tribe of black ants came, and rather than attacking, they came to help the first tribe make their anthill bigger and more prosperous. But then red ants came and tried to tear the hill down. Rather than attack directly, they disguised themselves as black ants and damaged the hill from within. Then I awoke, and I was unable to

determine whether you and your family were the second tribe of black ants, or the red ants."

"An important question. What are the possibilities?"

"The people of Ora could be the red ants. Or perhaps Meddwoglubas is involved; I hadn't thought of that. Meddwoglubas built that tower in the marketplace that makes noise to mark the hours, does it not?"

"Indeed, they did."

"It wakes me up at night. Of course, it was just a dream. Reality can be so much more complicated. Maybe the red ants were partly black ants, and the black ants partly red."

"Most Honored, while our teachings about Esto differ in some details, both of us are concerned about very similar matters where neglect of the poor and ignorance of Esto are concerned. Lord Albanu and Lord Mitru are both pursuing paths that cause me much worry. Lord Albanu owns one quarter of the land in this basin and the people who farm it are landless. He is buying steam wagons with equipment and making the people work twice as hard for him. He is trying to raise far more food and cotton in order to grow rich, and his people will benefit little; they may end up poorer. Lord Mitru is more careless of Esto than Lord Albanu, I think, but is a little more concerned about his people. Almost one third of his people live on land the sea has flooded or will flood soon. He is not as generous as he could be where helping them is concerned. Rather, he is trying to make them move to Ora, to make it bigger, or to villages where they have to work for him and his friends cutting timber or digging iron. When I remind him of their needs, he promises to help, but he soon forgets. I need your advice about these matters."

"These are serious matters and I will talk to both of them. I appreciate your concern for the people, but my Lord, I am concerned about how the new knowledge is making them materialistic. I am told you actually teach your students that making money is alright and can be moral."

Chris nodded. "It is true, Most Honored. I teach that money is neither good nor evil, but becomes good or evil depending on how you desire or use it. Creating wealth for yourself is an opportunity to serve others and to make everyone more prosperous."

"I see your point of view. But do you know anyone who can make money and not lose their soul to it?"

"Perhaps everyone will lose their soul a little, Most Honored, but it is a price to pay for a more comfortable life for everyone. If we want healers able to fix our teeth before they must be pulled from our heads, or able to correct our eyesight with lenses so we are not condemned to a life of partial blindness, or able to heal us so we lived to be sixty rather than thirty, then we must create a society where there is far more wealth. There is no reason for anyone to be naked, yet right now you can walk through the Néfa market and see every part of the human body because people do not own enough cloth to cover themselves properly. Only a few people are partially naked, but even more people do not own a blanket to cover them at night. Even more do not own a change of clothes. Even more do not own a mattress to sleep on, and of the quarter of the people who own a mattress, few own a sheet to cover it or an extra blanket for a cold night. In Melwika the average person now has enough wealth so that they own spare clothes, a blanket—maybe even one spare for the entire family—and mattresses, soon with sheets as well. These are little things, but they make life more comfortable; they even make life longer. I desire a

world where everyone has these little luxuries and more. In a few years, most houses in Mɛlwika will have electric lights; we are surprised to see that a third already do. More and more have telephones; our city has eighty telephones now, more than Mɛddoakwés. More and more houses have cast iron stoves to heat them in the winter, and larger houses have gas heat and gas stoves. Right now, Mɛlwika has these things, but the day will come when almost everyone will have them."

"How many can read and write in Mɛlwika?"

"About half the adults can read and write a little. Maybe three quarters can write their names."

"Lord Mennea, many have said you will resist Isurdhuna's revival of the old alphabet, even in modified and regularized form. This is the system of writing the prophet himself knew and used. He himself wrote down a few of the hymns in it. The system when you arrived was already a little different from the system Widumaj knew, so we are not opposed to reforming it. But we see no reason to sweep away so many signs when simple improvements can make them much easier to learn and use. This is the system for writing sacred things, and it should continue."

Chris nodded. "That is fine with me. I am not opposed. I first heard about it just a few weeks ago. The system we are teaching is much simpler and makes writing easier, and I want to see as many learn to write as possible."

"Of course. I want to see that, too, because it means people can learn the Life and the Hymns easier. That is a great good. My Lord Mennea, I am even willing to see the Life and Hymns printed in the simple alphabet. *The Good News of Widumaj* was

published after the revised system was finished, but I encouraged that it be printed in the simple system as well. I want to see it available in both."

"And I have no objection to that, Most Honored Prophet. As more and more people learn to read and write the simpler system, it will be easier to teach a sacred system of writing as well. Why not?"

Gawéstu clearly was pleased. "Excellent. Lord Mennea, there are many things we disagree about, but I hope we will be able to work together."

"That is my hope as well. I respect you, Gawéstu. You are listened to by your people because you speak to their conscience. I was pleased and honored to help set up the Consultative Assembly, which never would have occurred if you had not demanded it and the new knowledge had not made it more necessary."

"And I was pleased, under those circumstances, to support the census, and I am pleased to support literacy and medical care. I just hope, my Lord, that our spiritual goals do not conflict too much."

"Perhaps the answer, partly, is how much we want to view them as conflicting, and how much we want to view them as complementary."

"Perhaps," said Gawéstu, though it was a very tentative response.

April 7, 2001; reread and edited 5/17/13, 7/26/17, 11/2/24

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Pélui

The royal caravan seemed to rumble through the city center forever. Chris counted the steam wagons as they slowly passed; twelve altogether, each pulling one long passenger wagon packed with people and their possessions. The Réjé rode in her own magnificent coach, pulled by its own steam wagon. Chris looked at the crowd; the populous was very impressed.

A group of soldiers rode along at the end of the caravan and General Roktekester was among them. Chris waved to him, so he came over.

"Hail, Lord Mennea! How are you?"

"Very well, and you?"

"Sore, from riding most of the day from Ora."

"Twelve steam wagons! How did the Réjé get that many?"

"The army loaned her all of its steam wagons; we have none to pull armored wagons or do agricultural work in Endraidha. Mitru had to rent her six, and he complained about it bitterly because he has so much work to do with them. The farmers are scrambling to harvest wheat using horses."

"Next year this won't happen; unless she wants to rent twenty."

"Which she will! Each one is pulling fifty passengers. They have to go very slowly. I talked to her a half hour ago in her coach and she admonished me about the roads; they're too bumpy and rutted and she wants them improved even more! It looks like the army will have the money to work on roads all year round."

"How long will Her Majesty be here?"

"She's staying a week, then she heads for Isurdhuna. Did you hear about Lord Estodhéru's petition?"

"That she return via Lewéspa?"

"That one. I think she'll do it; she asked me many questions about the roads and was pleased to hear they are even better than the route between Néfa and Bɛllɛdha. It's now our worst stretch of main road. Even the road to Kostakhéma's better."

"You need to fix it; everyone will start to avoid it once the route from Ora to Tripola's upgraded. I hope the Réjé won't mind that I leave town; I'm supposed to reside in Ora starting in three days. I'll be back here Primdiu and Tridiu, though."

"That sounds crazy; but then, with a good steam wagon, a light load, and the new gravel surface, Ora to Néfa's a bit more than an hour. Say, I heard a rumor that the bank plans to print paper silver receipts. Is it true?"

"The decision will be made by the Board of Trustees next week," replied Chris.

"We don't have enough silver everywhere all the time, so we want to issue silver receipts. I think merchants may find them more convenient anyway; why carry a hundred dhanay of coins when you can carry a 100-dhanay silver receipt? We're designing them now. They'll be on special tough paper that will last a long time and will be dyed a special green than is hard to copy. One side will have a portrait of the Réjé; the other side will have an engraving of the bank's main building in Mɛlwika. They'll look quite nice, I think."

"The Réjé asked me about the idea and was concerned, so you should talk to her about it."

"I'll try to arrange a meeting with her while I am here. Thank you for warning me. How's the road construction?"

"I was just inspecting the work. The new steam shovel is making graveling much faster and cheaper, especially when coupled with the sieves made in Mɛlwika. They've put down one coat of gravel on all the bad spots from here to Mɛddwoglubas and will soon have it finished to Tripola—"

"I've noticed; one can drive faster now."

"Yes, I've noticed that, too. I rode a horse here so I could inspect the entire route. The main rebuilding from here to Ora involves digging a ditch along one side of the road and throwing the dirt on the road, building up the surface at least ten centimeters, sloping the surface so that it sheds rainwater, then covering it with three centimeters of gravel, which will be renewed every year. Each team has 100 men. They've been at it almost a month and have ditched and sloped one third of the road, though the graveling is behind. The teams working northward from Mcddwoglubas and Tripola are the same size and have also sloped about ninety dckent, but they have added half as much gravel so far.

"But as of today, there's a new problem that may stop the graveling completely.

I'm glad to see you here; I was about to start looking for you. A man working on the road south of Ora died of pélui yesterday. Everyone fears an outbreak; many men want to leave. So I need a medical team right away."

"Lua will want to go herself; she'd been trying to study pélui. Can you send a guide?"

"I'm going back to the camp myself and can take them."

"I'm sure she'll want to take the rover, to get there fast."

"I can leave the horse here and ride with her. Let's go find her now, so I can make the arrangements."

Chris nodded. They both headed for the génadema, which was a few dozen meters away. There was a medical class in process; the students were in small groups, listening to each other's hearts with stethoscopes. Chris and the General walked in; Lua saw them.

"There's been a case of pélui at the road building camp south of Ora," said Chris. "How serious?" said Lua.

"He died," replied Roktekester.

"He died? That takes two to three days! How many more have been infected?"

"I don't know. The camp commander isn't sensitive to these matters. Can you come down and teach him?"

"General, will you come and back me up?"

"Yes; I think—."

Lua looked at him very seriously. "The camp must have well maintained latrines. The men must use them at all times; no peeing behind trees. The men must wash every day and they must wash their hands before all meals. The cooks must wash their hands before preparing food. The water for washing must be from a deep well, a fast-flowing spring, or it must be boiled—"

"All those things?"

"Do you want to stop pélui or not? It is spread through contact with contaminated feces or contaminated water. Rivers and streams can be sources of contagion because animals have pélui as well as humans. Do you know how many people died of pélui in Gordha and in Bɛllɛdha this year?"

"No—"

"Over 100. And do you know how many died during the project to dig a canal to Meddoakwés?"

"No—"

"None. Because we took proper precautions."

Roktekester raised his eyebrows. "Last summer twenty Kwolone died of it building the road through Kwoloneland, but they could not leave the camp. The summer before the work graveling the road to Belledha from Meddoakwés was disrupted frequently by pélui; I think thirty died at different times."

"Well, General, in three hours I'll have a team ready to visit the camp, and we'll visit it every week if you give permission; and no one else will die of it this year if our measures are enforced."

Roktekester looked at her. "They will be. No one got pélui on the Sumilara campaign."

Chris delayed his departure for Ora almost a week in order to attend the Réjé's daily audience. She had a huge tent set up in a field outside town amidst a small town of tents for the 600 soldiers, servants, and bureaucrats who traveled with her. The tent, complete with carpets, formed a fairly nice throne room. The daily audience was filled by Lord Albanu, the local Lords of the Néfa area, a few Lords from villages in the northern end of the Ora region, and—surprisingly—a fair number of Sumi Lords. Lord Mitru came up one day as well. The audience was a chance for local Lords to complain to the Réjé, to

Albanu, or to Réjé about Albanu; it also provided local people a chance to come and demand justice.

Listening to the complaints and requests was itself fascinating. Individuals complaining about miscarriages of justice were routed first to Judge Wérgéndu, who, Chris was surprised to see, was in charge of listening to all legal petitions, summarizing them, and rendering a tentative judgment. The Réjé then heard each individual—if he or she could return—two days later and rendered the judgments personally and publicly. Domestic disputes, however, the Réjé usually insisted on hearing personally, and she was quick to grant every woman a divorce who sought one (significant, since Eryan law made it difficult for women to pursue a divorce, and easy for a man to obtain one).

Economic complaints were another major category of petition. People who were destitute came asking for relief, and the Réjé granted them anywhere from one to fifty dhanay, depending on the story.

Finally, there were what Chris could only classify as "social complaints"; ways to make society fairer or richer, usually offered by local lords. A few complained about Albanu's dreams of huge mechanized plantations; the Réjé listened carefully, glared at Albanu, and said nothing. Two asked for teachers; she referred them to Widéstu, who was not around. Three asked for a steam wagon to visit their villages along the Ledhalisér River weekly; she ridiculed them a bit, telling them to start making something worth selling and fix up their own road. One of the same Lords complained about the census and she stood to make her point clear, forcing everyone else to sit: there would be no refusing to cooperate with the census. Bidhu was present and was clearly pleased.

After the audience ended, Chris walked over to him. "Her Majesty resolved the status of the census quite clearly, didn't she?"

"Yes; wasn't that marvelous?" Bidhu replied, eyes twinkling. "I'll be sending teams back to those villages tomorrow, and I will tell the teams to do a full study, not an overview!"

"A bit of revenge."

"Perhaps. We have found that everyone here is cheating massively." Bidhu glanced around; he was whispering. "One person told me confidentially they have not been cheating Albanu, though; they give him more or less his due, but give the Réjé half. I think that's true of everywhere, actually, except Meddoakwés; the army is mostly based in Meddoakwés, the bureaucrats who can check are all there, and Kandékwes has no intention of colluding to cheat his mother in law."

Chris raised his eyebrows. "No wonder your team has had trouble."

"One team was stoned yesterday. I haven't told the Réjé that. I mention it to you because I think the Consultative Assembly should ask for even more next year. Her Majesty will have more income than she knows what to do with."

Chris nodded. Then he spotted Wérgéndu. "I'll talk to you more later," he said, and hurried to the judge.

Wérgéndu was pleased to see Chris. "Lord Mennea, how are you doing?"

"Very well. This trip to the western shore is going well. I'm surprised to see you here. I thought you were in Mɛlwika."

"I am. The daily steam wagons from here to Mɛlwika are very reliable. You should see the crowd that's going back and forth between here and the palace; I think

Mitru had to put a second steam wagon on the northern route because there are so many of us! The Réjé's unhappy because if she wants someone, half the time they're in Mɛddoakwés!"

Chris chuckled. "Mitru must be making a lot of money, at least, and I'm glad the transportation system has become popular. Are you going back every week?"

"No; I spend four days in Mɛddoakwés and Mɛlwika, then come here for six or seven or however long the Réjé wants, then I go back. It's interesting that she asked me to serve as judge for these audiences. I think she wants to make the justice system more regular, and she knows she can't know the law as well as an expert, nor does she have the time to hear all the details of the cases. This seems to work pretty well."

"Good. We need more judges, don't we?"

"Oh, yes! I'm becoming exhausted, both here and at home."

"We'll have to work on that this fall." Chris saw out of the corner of his eye that a man had come up and was waiting to talk to him. "I'll see you in Mɛlwika, then."

"Indeed, Lord Mennea." Wérgéndu backed away and Chris turned to the dark-skinned man standing nearby.

"Lord Lamuno, Hail," he exclaimed.

"I'm flattered that you remember me, Lord Mennea. Hail to you as well. I trust you and your family are well?"

"We are all very well; and your family?"

"Health smiles on all of us. Life is good, my good Lord, and the blessings of Esto are showering upon us all."

"The Réjé's blessings have helped a few today as well," noted Chris.

"Indeed." Lamuno smiled. "And I would not seek the blessings of Esto alone, when on this world material blessings can be sought as well, for me and my people. My Lord, Sumilara is a prosperous land with intelligent and hard-working people, but we lack much that the rest of this world is acquiring. We have no steam wagons providing transportation between towns and villages. We have a small waterwheel making electricity for our telephone system, but we have no electricity for lights or machines. We have no wires between cities and villages, as this area will soon have. Our roads are mud, not gravel. And we have no génademas. These are grave limitations that we are anxious to overcome, and I would love your advice about the matter."

Chris shrugged. "I have no secret advice to offer, but I will offer public advice. If you ask, all the army can say is no, and perhaps eventually they will start to say yes. Obviously, Sumilara will not acquire a génadema where chemistry, physics, and engineering are taught. That won't happen. But if a génadema is established to train teachers, doctors, and people to improve the island's agriculture, I suspect they won't prevent it. I have heard you actually have two such génademas already. Your students in Isurdhuna are getting a good education on a wide range of subjects. So I suggest your génademas apply to join our all-génadema council."

"Do you think it is possible?"

Chris shrugged. "If the Council says no, apply again a year later and ask why they were turned down. Is this not your strategy already? Why else did half the Lords of Sumilara come to Néfa?"

Lamuno nodded. "I concede, Lord, you are correct. We made an effort to get them to come, as a demonstration that we want to be part of the world."

"Then you don't need my advice, Lord, for my advice would be more of the same. If you want a telephone system and electricity, determine how you will raise the money, contact the proper companies to buy the equipment, inform the army, and see what they do. Telephones and electricity can make it easier for them to control the island; they can intercept phone calls and threaten to cut off the power. If you want gravel roads, you have workers and gravel. If the army objects, remind them that roads move armies as well as merchants. Have you approached General Roktekester?"

"No; I haven't seen him."

"He isn't here now, but he will be back, so write him a letter and watch for his return. My advice is not original. Be yourselves and ask for what your people need. If the Réjé truly is just, you will get it eventually."

Lamuno pursed his lips, resisting temptation to object.

"I speak ideally, My Lord," continued Chris. "The Eryan are prejudiced against the Sumis. They have been unjust against them, just as the Sumis were unjust to their ancestors before the Great Drought. To break the cycle you cannot return unkindness with unkindness or injustice with injustice. All prophets say that, do they not? This world is on the brink of change. If we all strive for justice, maybe it will gradually be achieved."

"Perhaps. Or perhaps my people will see me as a collaborator."

"Surely, with Gilran out, you already run that risk?" asked Chris. "Bring your people improvements and they will at least see that you are effective."

"You are right about that."

"You are free to write to me, but remember that anything anyone writes to me, if the army asks for it, I will give to them. I have nothing to hide, Lord Lamuno. You can even tell that to Gilran and Rébu. I would welcome letters from them, but I will turn any letter over to the army that is disloyal to Her Majesty. So, you know where I stand: I am loyal to Her Majesty. But from that place, I will help in any way I reasonably can."

"Thank you, Lord Mennea. Your honesty is famous, and I now appreciate why. By the way, Rébu sends his greetings to you. He is well and Kostakhéma, in spite of the constant chill, is providing him a chance to write extensively."

"Excellent. Maybe one of the Sumi merchants should buy him a cast iron stove, so he is warm as well."

Finally, a week late, Chris was able to join the rest of the Summer Génadema in Ora. They took up quarters in the spacious new dormitory the Mitrui Génadema had just finished. The only exception to the exodus was Bidhu, who stayed in Néfa to complete the census, now that the Réjé had insisted on its completeness. Just another week later she was very pleased to receive the full preliminary census for the Néfa region, which showed it had 36 villages and a total of 30,179 people, of whom 4,877 lived in Néfa itself (a decrease from two years earlier, when the city had a military garrison of 400 soldiers and their families).

Chris was surprised to find Gawéstu had come to Ora as well, rather than returning to Isurdhuna when the Réjé's party departed for the holy city. The widu had started a daily dialogue in Néfa with him and they were able to renew it in Ora. Gawéstu tried to convince Chris that Bahá'u'lláh was a prophet for Gædhéma only, and that Widumaj was the only true prophet for Éra. Chris did not attempt to convert Gawéstu, but his explanations about Bahá'u'lláh carried a lot of information; it left Gawéstu with

plenty to think about. The two men also had more time to talk about the needs of the world, and found that they agreed on a lot, which was encouraging for both of them.

Gawéstu even agreed to go to Dr. Lua for dental work and glasses some time; when it was not clear.

Whether in Néfa or Ora, Chris was equally busy. He had conducted business classes twice weekly in both cities; now he switched from a weekly trip to Ora to a weekly trip to Néfa. The Mitrui Génadema gave him a large, almost luxurious room in the new dormitory and provided the phone lines so that he would have a local phone and a line for his cellular telephone to provide the city with long distance. Ora, not Néfa, now had phone service to Meddoakwés. But utility poles were on the march to the north and south and wires were following closely; there would be a single phone line to Néfa, with one amplifier half way between the two, in a matter of a few weeks, and by the time they moved to Meddwoglubas in two weeks a line to that city would be nearing completion. Changes were coming to the western shore with amazing speed.

Chris visited Lord Mitru every day or two to review the progress of the Summer Génadɛma; that was a welcome change from Néfa, where Lord Albanu had no interest at all. One day he found his host quite unhappy. "Lord Mennea, I have heard that you are helping Lord Albanu to build a steamship. Is it true?"

"Lord Albanu has decided to sacrifice one of his steam wagons—one of three—so that the engine can be moved to a sailing ship. It doesn't take much work to do it. There are three mechanics heading to Néfa from the Miller Works in a week or so to do it."

"Not much work? We spent six months to develop our steamship!"

"Maybe you did; I don't know what design you followed. All I know is that Albanu said three mechanics are coming to Néfa."

"My Lord Mennea, I will write a letter to Lord Miller about this. I was hoping we could establish separate spheres in certain manufactures; we'd dominate the western shore and you'd dominate the rest. Even in steam wagons. If Miller is going into the steamship business, I will be forced to retaliate and compete more directly against his steam wagons."

Chris shrugged. "You'll have to write Lord Miller about that matter. Personally, I am in favor of competition. If your steam wagon is better—which it certainly is in some aspects—let people buy it, even on the eastern shore. If Néfa wants steam ships, they can buy them from you or make them themselves. Have you considered selling a steamship to Néfa?"

"No; we had no plans to do so, except at extremely high prices. There is no reason to encourage them to compete with us in shipping. But I see the situation is not as simple as we thought and they will have steamships anyway. Maybe we should sell Albanu a real steamship; at a real price, of course."

"Perhaps. I don't believe Lord Miller has any plans to build steam shovels, and I'm sure Amos can list other things you will have a monopoly over, so I would not worry about your business too much. Have you heard of bulldozers?"

"With a blade in front to push dirt? Indeed. We're working on it."

"A slightly modified version can push snow. Your powerful steam engine would be ideal for keeping the road open to Isurdhuna all winter. I don't know who would pay for the plowing, but someone should. Maybe Honored Mitru can lease one of your steam wagons for the winter, use it to keep the road open, and charge higher freight and passenger rates."

Lord Mitru smiled. "That would make me very happy! I am not sure Lord Miller would be pleased, though."

Chris could see Mitru was happy that Miller would be perturbed. "I'll make the suggestion to Mitru, then. How are the engineering classes going, in your judgment?"

"Very well, and the science ones. I understand the humanities classes are picking up. My génadema might actually make some money this summer."

"How's the steamship doing?"

"Pretty well. It has broken down a few times, but it has sails, and we can pull it up the river with a steam wagon if we have to. It has passengers and freight on every trip."

"Good. I'm glad to hear it has started."

"And it will develop fast. How is the expedition doing? Any metals? Coal?"

"They found a small deposit of copper the other day on the edge of the Ora region; definitely not in Néfa, it's in the 'buffer zone' no one claims. They also found a few deposits of coral reef limestone on the rim of the Néfa basin; you might be able to buy lime from there. In a few days the expedition will start exploring near your iron mine and will look for other iron deposits. But so far there is no evidence for coal. Even the Néfa basin, which should have had a lake in it at one time or another, has no coal."

"You have to have a lake?"

"Coal can form along the seashore. They haven't found any yet, but they're still looking."

"Good. Coal is a high priority. We're burning forest at an amazing rate; I can't believe how much wood our steel mill consumes. Did you know we're buying a gas plant? That will burn even more wood."

"It sure will." Chris rose. "My apologies to you, Lord Mitru, but I must return to the génadema. I will visit again in two days."

"You will be welcome."

They exchanged a few more pleasantries, and Chris headed back to his quarters. He had considerable paperwork to keep track of, not to mention personnel problems: making the summer génadema's finances work out was a perpetual problem, since the staff and students of several schools were combined together and it was never clear who was supposed to pay whom for what. This engendered either boisterous complaints or silent anger and then loud complaints. Either way, the whole project was exhausting to manage.

After two hours of reading letters, writing responses, and writing checks to pay various bills—and hoping the money would get replaced somehow—he heard Thornton, Lébé, and Jalalu in the hallway and came out. He was tired, it was after sunset, and he was hungry. His son and grandson were "running" in the corridor, though Jalalu, barely over a year old, was pretty unstable and rather slow. Thornton was busy catching his son to avoid scraped knees while Lébé was encouraging him.

"He's getting so big!" Chris said.

"He's not a baby any more," said Lébé. "It's hard to believe."

"Wait until your baby gets to be his size," said Chris, pointing to Thornton.

"When you are a grandparent you'll be even more amazed."

"I'm sure," she agreed. "You look tired."

"The usual paperwork. How was your class today?"

"Good. There are more people in Ora interested in children's stories than anyone thought, and I'm getting visits from people with remarkable folk tales, too. I need to write another book already."

"Are you collecting the stories?"

"Oh yes! And variants on the ones in the book. A lot of these so-called children's stories are the old Eryan myths. I'm amazed there is so much uniformity to the stories."

"I look forward to seeing more of them." Chris turned to Thornton. "I visited with Lord Mitru earlier this afternoon, and he asked about finding minerals and coal."

"I'm not surprised." Thornton picked up Jalalu and kissed him four times. "I just got back from three days of exploring the northern side of the Glugluba and we looked along about two thirds of the entire length of the thing. Back in the early spring Lord Mitru ordered a dirt road hacked through the forests all the way to Long Lake, and they're almost half way there. The road's really muddy, but they put the timber on the roadway—a corduroy road—and it's passable by steam wagon. So we drove a rover along it to the end, then hiked another forty kilometers, which took us three quarters of the way to the Lake. We didn't see any minerals, unfortunately, but we had spectacular views of the Glugluba."

"Did you see the burning?"

"No! The so-called volcanoes are gone! I think all the temporary blockages in the Glugluba have now been opened up and water is flowing freely down it, except the big blockage at the upper end. We almost got to it, but it got too late in the day and we had to

turn around and head back to the rover. In another year the road will be finished all the way and we'll be able to drive to the dam in a day."

"Why's Lord Mitru building the road?"

"To claim the territory and exploit its resources. A steam wagon runs along it every other day. This has opened areas to hunters from Ora that were never open before and allows them to haul out timber. The road goes over the Snowy Range and down to the forested area west of them, but not yet to the headwaters of the South Rudhisér. I'm sure it's a matter of time before Ora and Isurdhuna get in a fight over the land because the road has entered an area that only Isurdhuna hunters had ever used before. It also gives Ora a big advantage over Néfa in terms of exploiting the eastern slope of the Snowy Range."

"You're right; this would be a territory grab," said Chris. "I suppose the lumbermen are pulling enough timber out to justify the road."

"Oh, are they!" exclaimed Thornton. "They've begun to clear cut big areas along the road and the inland valley; choice timber areas where the ground is flatter and richer. Good areas for farming or pasture. But they've cut a few slopes and there's already soil erosion. I pointed it out to Weranyunu and he didn't seem to get the problem, so I gave him a lecture."

"We need to give the lecture to Mitru, though!"

"And soon; I hear they're thinking of building a similar road on the south side of the Glugluba. That would give Ora an advantage over Lewéspa. But we should suggest he not open up both sides of the Glugluba to environmental destruction; just one side for now!"

"Yes; we can encourage him to preserve the rest. Send out more teams to explore the lowlands, Thornton, where there's immediate value to any information."

"We're planning to," replied Thornton. "In fact, tomorrow I'm making a day-trip east of here to the sea. The bulk of Lord Mitru's clear cutting is of forest that will soon be drowned anyway."

"That's actually wise; all that decaying wood won't be good for the sea, either," said Chris.

Just then they heard footsteps on the stairs. They turned and saw Lua coming up. "The Doctor's back!" said Chris. "How did it go?"

Lua walked down the hall to them. "I'm utterly exhausted, but we stopped the pélui outbreak. Three more got sick, but they're recovering at the hospital in Néfa now. We also sent one man to Mɛlwika Hospital for heart problems. Where's Behruz?"

"Still at the chem lab. Jordan's with him."

"And Korudé still has Rostu. Okay. I'll get Rostu first, then head to the lab.

Father, I have a long list of things to ask the army about. Or for *you* to ask the army about. The road workers need boots; many are working barefoot and have bad foot injuries. They need uniforms, since some are almost naked. The tents need improvements, and they need some mats and blankets. The latrines need to be set up a different way, and the kitchens needs different procedures—"

"Did you mention the latrine and kitchen procedures to the camp commander?"

"Yes. He was exceedingly courteous and polite, and I think he doesn't intend to do anything."

"We can take those matters to Roktekester, then we'll tackle the boot issue. A good boot is almost two weeks' salary. They'll want to take the expenses out of the workers' salaries, and the workers don't think they need boots, so they would not support your idea."

"I know."

"But there may be ways to finesse the issue," continued Chris. "For example, withhold half the salary for four weeks and provide the boots after two. Uniforms won't be as much next year once the power looms expand output and prices fall. They'd be a few days salary and could be paid for over a few weeks. Sleeping pads are cheap and the army probably has spares. The tents already are spares, and the workers could repair them if the army provided cloth."

"Maybe you should come with me; you've thought this through," she said.

Chris nodded. "I think Roktekester will be back next week or the week after. We can talk to him then."

The next morning Thornton's geology field trip was delayed by rain, but soon he, some

of the geologists from Melwika, and some of the geologists from Ora were on their way

down the graveled road paralleling Banana Creek. Lord Mitru had spent an absolutely

huge amount of money and corvée labor to canalize the Banana, and the city's

hydroelectric tunnel added large amounts of water from the Delongisér, so what had once

been a winding, narrow, peaceful creek was now a straight, wide, deep canal. The gravel

road stayed close to the banks so that steam wagons could pull ships up the canal to the

city. The rover had to pull off the road briefly to let a steam wagon chug by, pulling a steamship whose engine had given out.

In twenty kilometers Banana Creek joined the Dɛlongisér. After three years of massive floods the river had scoured a wide, deep channel appropriate for its volume of water, sweeping aside portions of forest in the process and leaving bars of bare gravel and sand where the channel had wandered. The junction with the Banana was below the delta of boulders and rocks up to fifteen kilometers wide that had formed beyond the glugluba. It had destroyed some of Ora's prime farmland and had displaced all or part of six villages. As they continued down the Dɛlongisér on the gravel road they passed three new villages, rebuilt, unfortunately, on future sea bottom.

Finally they reached the point where the rising sea was literally lapping against the gravel road. They stopped to look around. The forest had been cleared within a hundred meters of the road, but beyond they could see that it was gradually drowning and slowly dying.

"If we had a boat, we could paddle fifty dekent more under this forest," exclaimed Weranyunu. "I've done it. The forest was over a hundred doli high before the flood and extended almost all the way to the Salt Sea along the river. You can still see the old shoreline, more or less, because there are treetops sticking up out of the water!"

"I'm amazed boats can get through."

"They have to follow the old river channel and can only navigate it during the day. As you can see, Lord Mitru ordered all trees along the river to be removed, starting about two years ago. So the channel is reasonably wide most of the way. Starting a year ago he sent out a boat with lumbermen to cut off the tops of drowned trees along the

channel, and now the sea has risen enough so that the tall stumps are under six doli of water. So the channel is reasonably wide and safe."

"You know, it occurs to me that this is Lord Mitru's future coal," said Thornton, waving his hand at the forest. "The water of the Delongisér has no oxygen in it because Long Lake's bottom waters are oxygenless; in fact, they have sulfur dioxide and hydrogen sulfide, as one can tell from the water's smell. So all these trees are going to rot in place very gradually, then fall over and make a pile of logs, stumps, and vegetation maybe six or eight doli thick on the seabottom. Eventually they'll get covered with sediment and get compressed into a coal bed one or two doli thick. Meanwhile, the rotting vegetation will poison the seawater in this area for several centuries."

"No fish?" asked Platanu, one of the students who had come along. The son of a Fish Eryan chief, Platanu had always been interested in geology and had asked Thornton many questions about the sea.

"No, I doubt it," replied Thornton. "Oxygen can't possibly get into the water fast enough to keep up with the decay."

"That's a shame. The eastern side of the sea has developed fairly good fishing in the last few months. But it's far from the hydrogen sulfide and the desert vegetation doesn't require much oxygen to rot, I suppose."

"And the Arjakwés/Majakwés spring flood has added a lot of oxygenated water," added Thornton.

"I suppose it would," agreed Platanu. "And I bet Behruz can help us figure out a way to measure the oxygen levels, too."

Thornton was surprised and pleased. "Yes, I bet he could suggest a way."

"What's the name of the science of study of the sea?" asked Platanu. He had already heard the word, but had forgotten it.

"Oceanography," replied Thornton, and then he added in Eryan translation, "Moragénto."

Platanu nodded and repeated several times "Moragénto, moragénto, oceanography." It all amused Weranyunu.

"I wish we could cut these trees more and the highland forest less," he said. "But the peasants being displaced by the flood need farmland, and it's hard to haul this wood against the current in the canal."

"If I were Lord Mitru, I'd hire as many extra men as possible and cut as much of this wood as he can. Cut a path parallel to the shoreline and as the sea rises, cut farther and farther inland, using the flooded clear area as a route to float the timber out. Float it up the Banana River every night when the current is weaker because less electricity is needed."

"That would help us track the changes in the seashore much better, too," said Platanu.

Weranyunu nodded. "That's a good plan. I've suggested we clear the sea bottom to him before. It's not as prestigious as clearing the highlands."

"But it's environmentally much more friendly!"

"Why should Lord Mitru care?"

Thornton nodded. "There's always the danger that the newspapers will write an article."

Weranyunu looked horrified. "He'd be furious!"

"I'm sure," said Thornton. "We had better write a clear plan and present it to him. Maybe we can solve some of the problems. Now that he's making big steam wagons, moving large logs should be easier."

"It is."

"Where is the possible coal you heard about?"

"We have to go back up the road a couple dekent to the last village," replied Weranyunu. "There's a fairly clear hunter's path from there northward toward the next creek. We can find a guide, too."

They all got back into the rover and drove to the last village. It was built on a hill above the river and was surrounded by newly cleared fields for sorghum and yams, and a few rice paddies. The houses were stoutly built of wood and nicely carved; Thornton felt sad to think that in a year or two the fields would be flooded and in three or four, the village.

Weranyunu talked to a few people in front of their houses and soon they had a guide. They paid two kids to watch the rover. They set out on a trail through the thick forest. Here, close to the sea and close to the equator, the temperature and rainfall was as high as it got anywhere on Éra; they were soon bathed in sweat, especially as they moved away from the tempering influence of the ice-cold waters of the Delongisér. The forest rose hundreds of feet over their heads, shutting out a large fraction of the sunlight. They all walked in silence, listening to the birds and monkeys overhead, contemplating the impending doom of the rainforest.

It took two hours before the trail turned abruptly to the east and headed down a steep embankment. A powerful forest fire had swept down from the north a few years

earlier and they suddenly entered the burned area, littered by the skeletons—standing or fallen—of a once proud forest, now rapidly regrowing. The trail pushed through brush. The guide explained that this area was prime hunting ground, so it was a common destination for men from several villages.

They descended the embankment, then turned off the trail to follow the base of the slope eastward. In a kilometer the embankment was bitten back by a meandering creek to form a cliff. The guide pointed; the cliff exposed sedimentary shales and sandstones, with two black beds in them.

"Coal," said Thornton, nodding. "Each one's about a doli thick; that's not much."

"Is it enough for Lord Mitru?"

Thornton shrugged. "Maybe." He reached down to examine fragments that had fallen on the talus slope at the base of the cliff. He took a big, weathered chunk of coal and broke it in half with his hammer.

"It's pretty good quality."

"Mahogany bark!" exclaimed the guide, pointing to a pattern in the coal. "Well, it looks like mahogany bark, anyway."

"It probably was," agreed Thornton. "It makes you wonder whether the sea hasn't dropped, the sea bottom became forest, then the sea flooded and the forest became coal, and then the cycle repeated itself."

They all scattered to climb around the cliff. Several climbed up it to the coal bed, which was fairly soft. They quickly found other fossilized wood specimens. They broke off big chunks and tossed them down, so they'd have specimens to take back to Ora.

Then they walked westward along the creek valley and found other outcrops of coal, some of which were higher and less likely to be flooded by the rising sea.

"Lord Mitru will be extremely happy," said Weranyunu, pleased. "This creek crosses the royal road about twenty dekent upstream; that's not too great a distance to build a gravel road."

"And there may be coal most of the way there, too," agreed Thornton. "There's no village that way, though."

"Across the royal road there was one," said Weranyunu.

"The main problem is that these beds are quite thin, and they're encased in shale that will have to be removed," said Thornton. "That will be expensive. In Mɛlwika and Isurdhuna the coal beds are not as hard as this, there's nothing over them, and they're thicker. I am sure Lord Mitru would be better off paying peasants to cut trees and reduce them to charcoal. The charcoal would be about the same quality and would be much cheaper."

"We should tell him that," said Weranyunu. "But we'll have to tell him about this as well. I bet he'll mine the coal anyway." He looked westward. "Thornton, why don't you and the guide go back to the village. I'll hike up the creek to the royal road, and you can meet us there and drive us back to Ora."

"Alright, that's a good plan," agreed Thornton.

April 13, 2001; reread and edited 5/17/13, 7/26/17, 11/2/24

Gold

Time flew by in Ora. The original plan had been to spend three weeks in Néfa and three in Ora, but the Réjé's visit to Néfa had delayed Chris's trip to Ora by a week, so he found himself spending only two weeks there. It was not possible to extend their stay because the two summer terms were each only five weeks long and the break between them a mere week; the "summer génadama's" classes in the second summer term were moving to Maddwoglubas and Tripola. So no sooner did they get settled in the Mitrui Génadama, it seemed, and they had to move to the old Sumi fort above Maddwoglubas.

Two steam wagons arrived in Ora from Mɛlwika, via opposite shores, soon after dawn and the packing began. By noon the wagons departed with fifty students, faculty, and census workers mostly from the Arjakwés region, and their luggage and equipment. When the wagons rolled into Mɛddwoglubas an hour later they were startled to see a field outside town covered with tents and makeshift shelters of branches. The two wagons had to roll through town very slowly because everyone came out to applaud them. The wagons carried them up the road to the fort and they were followed by thousands of people.

"Welcome to Mɛddwoglubas!" exclaimed Estodhéru as they stopped outside the gate. He had come out of the fort to greet them, followed by a delegation of local Lords and teachers.

Chris stepped out of the rover, which had been in the lead. He grasped both of Estodhéru's hands. "We are welcomed in Mɛddwoglubas like no other place on Éra," he replied. "Thank you, we are extremely happy to be here."

Mitrané will show everyone where they can stay," replied Estodhéru. "Since I visited Néfa many times, I know exactly how many rooms you need. We have rearranged the fort accordingly; I think you will be very comfortable. The fort now has running water; we just extended an iron pipe from the reservoir up here, and installed an electric pump."

"Really? Amazing!"

"The fort has two flush toilets, too; twice as many as the entire city of Néfa," continued Estodhéru, proudly. "Lord Mennea, could you and a few of your key faculty—such as Thornton and Amos—join me right now? We need to plan the classes that start tomorrow."

"Certainly. How many students do we have?"

Estodhéru looked at the men behind him, then back to Chris. "About three thousand."

"Three thousand! Meddwoglubas has half that many people!"

"Well, Lewéspa has almost three times as much. Half the adults in the area are here to learn. Six of our ten Lords are here. We are ready for the new knowledge."

"This is amazing. I'll get Thornton and Amos." Chris turned to get the two men and the three of them headed into the fort. He invited Bidhu along as well. Meanwhile, the others began to unload the steam wagons and move their items into the fort.

The interior was indeed renovated; the second time in as many years. The fort was square and about sixty meters across. On both the north and the south sides were twelve classroom-sized rooms five meters wide and twenty deep. The east and west walls had one ten by twenty meter classroom each; thus the fort had a total of 26 rooms. The central twenty-meter square of the fort, paved with smooth stones, could serve as one large open-air classroom as well. Most of the walls facing the square were open to admit light and air. Even more impressively, each room had a large number marking it. They headed into room number one, which had two light bulbs and a telephone. It was located in the corner near the postern gate.

Estodhéru, then Chris introduced everyone present while mint tea—the typical drink of the area—was passed around. Then Estodhéru got down to business. "This room, Lord Mennea, will be the common office for your staff. Room two, next door, will be your bedroom. Room ten is a series of latrine stalls; room eleven is a series of bath areas; room twelve is the kitchen. The other twenty-one rooms can be used for sleeping at night but will be classrooms during the day, so items should be brought here to room one if no one wants them disturbed or taken. I'm sorry we can't devote more rooms purely to sleeping, but with three thousand people we will need every classroom."

"How many can you put in a classroom?" asked Chris.

"We can seat fifty children on the floor of each one if we have to. My guess is that forty adults will be our limit," replied Estodhéru. "But if we use candles and electric lights to extend the night, we can hold ten classes of an hour and a half each in each classroom, so we can accommodate over 8,000 students. Some of our 3,000 will take one

class, some two, some three, so we should be able to manage. And if we need to put classes in tents and under trees, we can."

"Most want to learn the letters and numbers," said Gɛlé, Aréjé's sister and the only woman present. "That's two courses a day for them. We probably have two or three hundred who are ready for science, engineering, advanced math, teaching, or healing, and another hundred or two who want business or Eryan literature. The classrooms should be enough."

"But what can we teach?" asked Estodhéru. "Lord Mennea, I know you listed twelve courses, but this situation is perhaps not what you expected."

"Indeed," agreed Chris. "With so many students we can and must teach more subjects. Even illiterate students can take some of the more advanced classes if they are clever and can get notes from someone who can read and write, so that when they learn to read and write they will be able to read the notes."

"They won't be able to finish the courses in a formal sense, though," commented Amos.

"No; but they could be given oral exams instead of written ones," replied Chris.

"What about this field expedition?" asked Estodhéru. "How many new students can go along?"

"Not so many," replied Thornton. "It's fairly advanced. But it's two days a week.

The other two days a week our advanced geology and ecology students will teach introductory courses in geology and ecology."

"And we can arrange things so that those who need to improve their reading can receive tutoring from students who read well," added Chris. "So students can take a

course on geology, for example, and a tutorial right after it which we could call 'learning to read geology texts.' Basically, it's a reading course tied to whatever subject the student wants to focus on."

"That will help a lot," exclaimed Lord Bidhanu of Awswika, a village on the eastern side of the Mcddwoglubas Basin. "Many people in my village want to learn to read, but they don't know why it's useful to them."

"How are we paying for all of this?" asked Chris.

Estodhéru smiled. "Every village is contributing five hundred dhanay; five thousand total. That should cover the costs. In return, we have told every village to send as many people as they want. The harvests are over and the hunting season hasn't yet begun; this is the ideal time. Thus many have come."

"We want to learn," added Bidhanu.

"Here's one way to think about how to assign rooms," suggested Thornton.

"Geology needs a room where the advanced class can keep its gear and its rock samples.

The advanced class needs to use a classroom for most of one day, also, to develop maps and discuss field notes. We could also use that room for the introduction to geology course that we have planned to offer two days a week. That course would be held Dwodiu and Kwéterdiu once the steam wagons from Néfa, Ora, and Tripola have arrived; it would start about 10 a.m. and end about 2 p.m. I think the course will have 15 students from the other cities, mostly people who want to be village teachers; that means we can accommodate 25 more from here, since the room can hold 40. If 20 of those 25 basically can't read and write, then we need to plan classes on Tridiu and Penkudiu for them, also 10 to 2, where the ideas from the previous days' classes can be reviewed and they can be

assisted with their reading. The advanced class goes on its field trip Penkudiu and Suksdiu and needs the classroom Primdiu to meet and talk about the trip."

"So you can use the classroom part of five days a week," said Estodhéru. "And we could put literacy classes in the room, from dawn to 10 a.m. and 2 p.m. to 8 p.m.?"

"Yes. We can assign classrooms similarly to ecology, business, engineering, chemistry, Eryan literature, the hymns, English, teaching, medicine—"

"Not just engineering: mechanical engineering, electrical engineering, and civil engineering. I'm doing three," said Amos.

"General science and math should have their own classrooms, too," added Chris.

"That's fourteen specific classrooms. That leaves a lot for basic literacy."

"Which we will need," said Estodhéru. "Alright, now I feel I know what we will be doing. We need to assign classrooms to these subjects and set up something so people can recognize the room. We will need to describe all the courses tomorrow to everyone and start registering them, with classes starting the next day. I figure we'll need a day for that."

"And tomorrow will be chaotic," added Chris.

Estodhéru turned to Thornton. "Can you tell us where your expedition plans to go?"

"Everywhere. Lord Mitru asked us to search his region very thoroughly, so we are giving him an extra day. We are sending out seven or eight teams of four or five who make a fifty-dekent hike the first day and a thirty-five or forty dekent hike the next.

There's a road part way up the Trinénasisér that marks the border of your region with the Ora region, and one up the Namelisér flowing past Meddwoglubas, and the rivers are

about the right distance apart; so I think we will send all the teams to walk from the Trinénsaisér to the Namelisér in one day and make a loop to the south of here and back to the Namelisér the next. The next week we'll make more hikes south of the river. We'll also send some teams hiking westward into the mountains."

Estodhéru nodded. He looked at the other five Lords present. "We had no idea your effort was so extensive. I can see that you will be able to produce a comprehensive map of the region."

"And this is important," added Trisunu, Lord of the new village of Orans called Lewéspadéma. "We have to know what resources we can exploit."

"We'll be able to give you quite a complete map," replied Thornton.

"We have one other matter to discuss," exclaimed Estodhéru. He reached down and picked up a letter, which he waved. "I wrote the Réjé over a month ago and invited her to return to Mɛddoakwés around the southern shore via Lɛwéspa. Lord Gugéndu wrote as well, and the Generals invited her to visit to ɛndraidha. She has accepted and will be here in three weeks."

"Really?" exclaimed several Lords at once.

"Yes. The Réjé will visit Lewéspa for the first time ever."

"Congratulations," said Chris.

"This will change everything," exclaimed Bidhanu.

"It may force us to change our class schedule for several days," added Dontanu, one of the city's chief mechanical engineers.

"It may raise the issue of Lewéspadéma," noted Trisunu.

"Let it," replied Estodhéru. "Lewéspa has been a distinct region of this world since the Eryan settled here. Lord Mitru says it is part of the Ora region; Gugéndu sometimes has claimed it as part of the south shore. It's time we are recognized officially, and this will do it."

"The Lords must meet to discuss this," Bidhanu said to Estodhéru, who nodded.

"We need to unpack," said Chris. He rose, as did Thornton, Amos, and the others who weren't Lords. They headed out of the fort.

"Three thousand people," said Chris, shaking his head in wonder. "Only in Lewéspa! These people have such a hunger for knowledge!"

"And we have to provide it," said Amos. "It is a great challenge for us."

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The next few days were absolute chaos as half the adults of the southwest shore, in their ignorance, sought to sign up for and sometimes attend classes for which they had no preparation at all. Chris found the business classroom swarmed by over 100—they were packed, standing shoulder to shoulder, to the classroom's door—and he had to divide the group in half by assigning those who could not read and write to a different business class. Thornton and Amos had to do the same. All the introductory classes bulged incredibly and larger classes had to be moved to tents outside the fort. Every student who had taken two or more classes was pressed into service to lecture or tutor students, which provided an excellent reinforcement of their learning. The entire Mennea family took on the task of overseeing extra classes. Over all, most people proved patient as a system of classes emerged. The result five weeks hence, no doubt, would be of the sort to make everyone proud.

Thornton took the advanced students on their first geology and ecology expedition in Lewéspa, to which an extra twenty locals were admitted. Rather than seven teams, twelve were possible with the extra eyes, especially since the forty who had been on the expedition for the last six weeks now were quite experienced. With twelve teams, the expedition was able to explore every nook and cranny in the northern part of the southwest shore in two days, thanks to a road up the Namelisér, the main river in Lewéspa. The road ran from Meddwoglubas past its fort and past three other villages for twenty-five kilometers, then continued as a dirt path navigable to a steam wagon another twenty-five kilometers almost to the river's headwaters in the South Snowy Mountains. Thornton came back from the trip immensely pleased by the results.

The next day, Primdiu, Chris had nothing he had to do in Mɛddwoglubas, and an important meeting of the bank's board of trustees was scheduled in Mɛlwika. So the night before he took the overnight steam wagon home, slept to noon, then walked to the bank for the meeting. The entire Board was there: Chris, Yimanu, John, Saru from Néfa, Brébéstu from Tripola, Mitrɛjnu from Mɛddoakwés, and Adar, the great Sumi merchant. In addition, General Roktɛkɛstɛr and Wɛranu of the Exchequer were invited, since the subject—issuing silver certificates—affected the palace.

Yimanu presented two sheets of paper to everyone. "This is the design of the ten dhanay certificate," he said. "We also propose a one ledhay or 144-dhanay certificate as well. We could easily issue other notes as well if they proved popular."

"Why two designs?" asked Mitrejnu.

"Front and back," replied Yimanu.

"Oh, of course."

"We thought we had to put the bank on the center of one side and the Réjé in the center of the other. One has to include the Réjé, after all, but without the picture of the bank building people might think these certificates were issued by the royal exchequer instead."

"You're right," agreed Weranu. "And you'd use this special thick paper, and green ink?"

"Yes. The paper is unique; Modolubu has agreed he would only make it for the certificates and nothing else. The ink relies on chemicals Behruz makes, so no one else can duplicate it. But if we printed one hundred thousand of these certificates, representing a million dhanay altogether, they will cost us less than two thousand dhanay in paper, ink, the art design, everything."

"But why so much?" asked Weranu, scowling. "If you can only issue as many as deposits in the bank, you need half a million at most."

"We need to plan for the future and we need extras for those branches where the silver goes out and does not come back right away," replied Yimanu.

"So if I take one of these and go to the bank, I might not be able to get ten dhanay instead?" asked Roktekester. "What's the point of that?"

"Think of it as an IOU," replied Yimanu. "Let's say the bank has fifty thousand dhanay in Ora, but needs them suddenly in Mcddoakwés. We can issue fifty thousand in silver certificates and tell people the silver itself will be available within a month, and meanwhile the certificates are as good as the silver. Once the silver arrives, they can exchange silver for certificates."

"I see," said Roktekester. "I can get the silver later. But will I be able to take the certificate to the marketplace and buy anything with it while I wait for the silver to arrive?"

"That's the key question," replied Yimanu. He looked at Saré and Mitrɛjnu, whose trading houses were the two biggest.

Sulu scowled. Mitrɛjnu sighed. Yimanu was his nephew; he had always been sympathetic. "I think these silver certificates can be very useful and helpful," he said. "As long as we are careful to issue them to cover silver shortages and not to issue extra ones to create money. Then we will always know the silver exists to cover them, and they will have credibility. They won't be money; they will be receipts for money."

"But that's the problem, isn't it?" asked Sulu. "People will want to issue a few extra certificates here and there to cover losses, and then when we see that not all the certificates come back immediately we will decide to issue ten percent more certificates than we have deposits, then twenty percent. . . and then something will undermine everyone's confidence, there will be a run on the bank, and everything will collapse!"

"It doesn't have to work like that," disagreed Miller. "You *can* issue a few extra certificates because there is a certain natural length of time they will circulate before they are returned for cash. I'm willing to use them in pay envelopes. I now pay sixty employees more than ten dhanay a week. Counting eleven or twelve or more dhanay coins is time consuming, and they don't fit well in envelopes. I'd rather give those employees a ten dhanay certificate and a few coins. They can change the note at the bank, but I hope some merchants will accept them, especially merchants in the marketplace

across the street from the bank; many of them go to the bank every day anyway for change or to cash checks."

Adar shook his head. "This is not a legitimate way to make a profit; though it may be the only way for this bank ever to make us money!"

"The books are looking better," replied Yimanu, calmly. "The costs of training the staff and building—and renting space in other cities—were high. We knew they would be and they were higher than expected. We now have 110,000 dhanay of deposits other than the partners' and that keeps going up. I think we'll make a profit this year."

"It'll still be more than the intercity phone and power company," quipped Mitrejnu.

"It'll do alright," replied Miller, who was in charge of watching the books of the phone and power company. "I think we've got the problems with providing the poles under control. The price of wire can go down a bit more; the factory problems are getting resolved. We had no idea that turning out ten times as much wire per month would cost so much. The delays won't be that much."

"This is another matter, though," said Yimanu, even though every man in the room was involved in financing the intercity power and telephone lines as well. He turned to Roktekester. "General, what is the army's view?"

"We will accept silver certificates. We have a lot of money in bank accounts on both shores and we are a major reason why there is never enough silver everywhere."

"But the Exchequer will want an accounting every three months," added Weranu.

"The bank has become important to us, too. Her Majesty has decided to deposit money in

all the branches as well even though we are not a partner, because it will make transfer of funds between cities much easier. We want to make sure the bank is responsible and reliable."

"How much will you deposit?" asked Yimanu.

Weranu thought a moment. "Twenty thousand each in Meddoakwés, Tripola, Ora, Néfa, and Anartu."

"Wow!" said Adar. "That will help transfer funds to Sumilara as well."

"It will double our deposits," added Yimanu. "And you will accept certificates?"

"Yes, if we get the quarterly report about your procedures and how much is circulating."

Yimanu looked at the others. "I think that is a reasonable request."

The others nodded.

"I think that helps this plan a lot," added Chris. "If the Exchequer, the army, Miller, and all of us are willing to accept certificates in our businesses, that should be enough to overcome resistance."

"To some extent," agreed Sulu. "The fact will remain that anyone who gets one will be mad, may refuse it, and if they accept it they'll run straight to the bank to get silver instead."

"Let's vote," suggested Yimanu. "How many are in favor of circulating the silver certificates?"

Six hands went up out of the seven members of the Board.

"Opposed?"

Sulu's hand went up, but he then added, "I'm not strongly opposed, though. I'm willing to be convinced."

"Then we'll try to make this work, so you will be convinced," added Yimanu.

"When will we have the certificates?" asked Miller.

"A month," replied Yimanu.

Chris had relatively little time left in Mɛlwika because he was going back to Mɛddwoglubas the next morning. The last half of the afternoon, after the bank's Board of Trustees meeting ended, he walked around town. That evening he took reports from various associates. The Grange was doing well, with harvests still rolling in, and most were large. The same was true of the Nénaslua Grange and, for that matter, the several large private farms established since the Grand Canal had been completed. The only problem: the large harvest was beginning to cause the price of crops to fall sharply. Grain prices were down thirty percent and still dropping. Even cotton had started to drop; demand in Mɛddwoglubas could not keep up. The mouse and rabbit infestation gripping much of the western shore was not a serious problem for the farmers because they were shooting the rabbits and Behruz was selling mouse poison to towns, who were training people to distribute it.

The Mɛlwika Génadɛma was very small that summer, but had a faculty of three graduate students and one or two members of the Mennea family—which ones changed all the time —and thus was doing fine. The same was true of the Gésɛlékwɛs Maj Génadɛma in the capital. Wɛrétrakɛstɛr sent a letter to Chris at his home—which for

some reason had not been forwarded—saying that he was enjoying his summer in Isurdhuna with his family, a city he had lived in for five years as a young man.

The next morning—Dwodiu—Chris headed back to Mɛddwoglubas on the morning steam wagon. He was accompanied by Liz and, to his delight, Mary, who decided she should make her first trip from Mɛlwika.

"Who can resist seeing Mɛddwoglubas?" she explained. "I've heard about it from Aréjé and Stauréstu for hours and hours. I must see it."

"They've been marvelous all summer," added Liz. "It's ironic that they would be here while we're there."

"They're coming, I think next week," said Chris. "Lua's here with Behruz and the kids for another week, then both of them are coming and May will return here with Skandé for two weeks. They're basically moving the hospital to Mɛddwoglubas for four weeks, to train the eastern shore medical students. In the last month and a half they've identified quite a few patients needing surgery."

"Apparently Stauréstu has been very good with surgery here," added Liz. "I'm looking forward to the chance to work with the widows' groups in Mcddwoglubas and Tripola."

The steam wagon started southward from Mɛlwika. It was quite remarkable to roll through farmland half way to Southbridge, then to roll through farms as one approached Southbridge. The hamlet itself had grown, too, mostly Orans and Néfans displaced by the rising sea; it now had forty houses laid out on several parallel dirt streets. Some were farming south of the Majakwés in a vain attempt to escape taxation. The river had dropped a lot in the last few weeks—making dam construction at Gordha much

easier—but it still had a significant amount of water flowing through it, and plenty for irrigation. The "Great Water," as it had once been called before it had become the "Dry Water," was flowing permanently again.

South of Southbridge they rolled through brush land now besieged by prairie grasses that completely overwhelmed the shorter bushes. The locusts last summer had devastated many bushes and the rain had fostered prairie grasses, so the character of the land had shifted from semiarid to savanna in less than a year. Locusts were common this year, but they seemed to be under better natural controls. Rabbits and mice, however, were shockingly common, no doubt a product of an unstable and shifting ecology. The rabbits were making a noticeable impact on the vegetation in some areas. The mild winter and abundant grass had favored antelope, deer, wild horses, and elephants as well, which seemed easier to spot than last year. Chris wondered how long it would take the carnivore populations to grow and compensate, and whether this would cause grazer and carnivore populations to fluctuate wildly for a few years. The population of the Arjakwés valley was another factor: longbows and steam wagons were making hunting easier over a much larger area. The Grange had even started a daily steam wagon run along the Médhela road, though never to the oasis, to make hunting easier for Melwikans. Several villages had approached Mitru asking for regular steam wagon runs into the northern mountains or southern grasslands if they could clear the tracks.

The steam wagon made a fast stop at Médhɛla—which was looking a bit more prosperous than last year—and headed south. Mɛdhpéla had new houses of stone and wood, and the Kwolonɛ chief had doubled the size of his compound. Next to the steam

wagon depot—where it could take on water and coal—was a warehouse and a small icehouse, fed by ice from Tripola.

An hour more through old prairie land—now looking greener than ever—brought them to Endraidha, which was rapidly becoming an attractive little town. It had agreed to settle some non-veterans—in order to build up its population faster—but they were being assigned house lots and farms north of the Swadakwés or "Sweetwater," and thus a new village, Swadlendha or "Sweetland" was born. The Kwolone were none too happy, but not in a position to complain; and the peasants, benefiting from some use of the army's farm equipment, felt safe a five-minute run from Endraidha's walls.

The run to Tripola from the army town was the longest segment of the entire trip, but as they headed southwest they crossed time zones faster and faster, arriving in Tripola soon after dawn. Thirty students climbed on to take the steam wagon to their classes in Mcddwoglubas, which was only a forty-five minute ride. The forty kilometers were crowded, but they kept their eyes looking outward: the forest of firs and deciduous was beautiful; crews were all over the road, adding gravel to bad spots and thickening the coat significantly in two spots as they worked from Mcddwoglubas and Tripola toward the middle; and utility poles lined the road almost the entire distance, though wire had been laid on only a few kilometers.

It was still close to dawn when they rolled into Mcddwoglubas, eight time zones earlier and seven hours later. The intercity drove straight to the old fort and stopped there for all the génadema students and faculty to get out. Mary looked at the building.

"Colleges come in all shapes and sizes," she said. "And you have 3,000 students for this term?"

"Yes, mother; it's quite extraordinary."

"It is. This is a special place. And how many Bahá'ís?"

"I haven't met with the local spiritual assembly yet, so I don't know. As you know, I have to be very careful because of my roles as Lord and school president."

"I understand. Then Liz and I will meet with the spiritual assembly and give you a report. I gather this whole trip has been good for the growth of the Faith on the western shore."

"Definitely. Néfa and Ora have ten and twelve Bahá'ís respectively, now, and many interested seekers. There are another eight to ten Bahá'ís in villages outside both cities. The village on the other side of this basin—Awswika—has six Bahá'ís, in addition to the fifteen we had in Mɛddwoglubas two months ago. Tripola has enough to form an assembly."

"What a blessing," said Mary. "Even though no new assemblies can form until next spring, we might want to go to those groups of Bahá'ís and encourage them to elect officers according to Bahá'í procedure. It will give them experience for Spiritual Assembly elections and if we set up electoral units, they will know how to elect delegates."

"That's a good idea," agreed Liz. "We need to form study circles with the Ruhi books, too."

"And establish children's classes," suggested Mary. "That's something Melwika doesn't have."

"Maybe while we are here, mother, we can get up to Ora and Néfa to set up elections and the core activities," said Liz.

"I'd love to. Fortunately, I feel pretty healthy."

Mary proved quite popular with the summer génadema. Eryan had an immense respect for older people, and she was clearly half as old as time; furthermore, after over three years she had picked up some Eryan and spoke partly in that language. Otherwise, May translated her. Grandmother began to give a short, informal evening lecture in the courtyard every night about Gedhéma, with plans to focus the last few on the Faith specifically.

As the second week wore on, the classes fell into a routine. The crowd dropped a bit as some, unwilling or able to study, left, and were sometimes replaced by people who enjoyed a crowd and a party every night. Almost two thousand people learned the alphabet in the first two weeks and began to read simple texts in it. Large, curious crowds gathered around anyone with a page of a newspaper.

Thornton took the expedition out on another two-day excursion. They were uncertain how far south it was to the Glaktakwés, but quite a few teams set out to find out. Thornton took his own team due west instead from the end of the dirt road that followed the course of the Namelisér.

"Namelisér" was often translated "renowned river" for "nam-" was an Eryan word that meant "name" and poetically also meant "named, well known, renowned." But the "ɛl" in the middle of the word was most irregular; an "al" suffix would have been adjectival, but "ɛl" did not exist. The more likely explanation was that the word was a

compound of "namel," the name of the old Sumi city whose ruins stood on the north bank of the river near the old seashore, and "iser," Eryan for "swift (flowing) one," the western shore word for river. Thornton tried to convince the Eryan of this, but they preferred to cling to the false etymology.

But even the false etymology made sense. It was a beautiful river. The peaks of the Snowys, 70 kilometers to the west, were 2,000 meters high. The river started at the snow line as a series of creeks, which crossed a series north-south ridges, usually flowing through glubas; behind each gluba was a small lake, the creeks gradually gathering together to form the main river. At lower altitudes, where the villages were, the Namelisér passed through a land of groves and meadows, with neither forest nor savanna dominating. At higher altitudes fir trees took over, virgin forest that had never been cut before. The forest grew shorter and shorter as they hiked toward the snowfields, and eventually yielded to tundra. Even in late summer there was considerable snow melting.

They managed by mid afternoon to reach the peaks of the Snowy Mountains, which meant they barely had a half hour to rest, catch their breath, and enjoy the breathtaking view before turning around and heading down. They had walked so far west that Skanda was below the horizon. They were counting on the more rapid down-hill hike to get them into the Skanda zone before sunset, where the full Skanda would provide plenty of light for the rest of their trip.

They headed down about 2:30 p.m., hiking about two kilometers north of the river in order to cover new territory. The valleys and peaks, carved from metachondrite bedrock, showed ample signs of ancient glaciation; extremely steep valley sides, flat

valley floors, and old glacial deposits. Rather than walking along the floor, this time they were walking above the glaciated zone, taking lots of pictures as they went.

They were soon back in the forest zone, crossing tributaries flowing into the Namelisér, catching glimpses of the river valley periodically to ensure they stayed parallel to it. As the sun dropped close to the horizon they turned southward to follow one of the tributaries, which entered the river just above the Lake Number Six, which in turn was just a few kilometers beyond the end of the road.

When they reached the valley floor, they splashed across the tributary. Thornton looked down into the water, curious about fish—the river had more than most—and a yellow flash caught his eye. He reached down to pick up the rock.

"Hey!" he exclaimed. "Look at this!"

The other four men stopped and walked over. "What is it?" asked one.

"Gold!" exclaimed another.

Thornton nodded. "Yes; gold. This is a gold nugget."

"Did you pick it up right here?"

He nodded.

They all began to look. Almost immediately someone else reached down. "Here's another one!"

The evenings in Mcddwoglubas followed the same pattern. About seven bells either Chris and his family went to Estodhéru's for supper, or Estodhéru and Mitrané came to them.

Tonight the Menneas were the hosts. As usual, other faculty and visitors were invited as well. Room one, the daytime office, became the evening dining room, with guests

slipping in and out of the postern gate and sitting on piles of blankets on the floor in a circle around two bright light bulbs. The varying demand for power in town made the bulb periodically brighten and fade slightly. Food was ample; there was no shortage of students wanting to serve as cooks and waiters.

Stersejiu had just arrived on the sunset steam wagon and was regaling everyone with stories of the annual festival in Isurdhuna. "This was the biggest one ever," he said. "Over a thousand pilgrims attended from all over the world, and the entire valley showed up; it was quite a scene! The Dhérdha was packed. Many saw our new book, *The Good News of Widumaj*, and some bought it."

"And the entire cycle of stories and all the hymns were recited," said Estodhéru, rather routinely. He was no friend of pilgrimages, as well as priests and temples.

"Yes, the whole cycle, of course. That's what kept the stories alive all these years. Her Majesty was in fine form this year. She sat in court for five days after the pilgrimage ended, dispensing justice and advice. I was very impressed; I think everyone who attended was."

"And she's coming here, you know," said Estodhéru.

"Indeed; she told everyone her itinerary at one point. A week each in Ora, Mɛddwoglubas, Tripola, ɛndraidha, then back to Mɛddoakwés. She's in Ora now."

"How many students do you have in Isurdhuna, now?" asked Estodhéru.

"Almost fifty. This summer we had Werétrakester from Meddoakwés and he brought about ten. But we had forty-two before he arrived."

"Where do they come from?"

"Two places: Chárda and Sumilara."

Estodhéru laughed. "Sumilara? How funny. But then you don't teach much science, do you?"

"Just basic science, and no chemistry at all. They are allowed to study basic science, geology, and astronomy."

"Understandable. I suppose biology would be alright, too; Her Majesty will want the equivalent of Thornton's expedition to visit the island, some time. Now, I hear you've revived a modified version of the old alphabet. Is that true?"

"Yes, my Lord, it is."

Estodhéru shook his head. "Why in the name of Esto would you have agreed to such a thing? I heard about it a month or so ago and I couldn't believe it."

Stersejiu leaned forward. "Why shouldn't we use the old writing system? With a few small changes it actually works very well! Besides, it is a sacred system, graced by Widumaj Himself."

"Sacred? 'Graced by Widumaj'? Now where does that come from? Does Widumaj ever say it is a sacred system? He used the best writing system He had, naturally. He was no fool. He also used the best transportation system He had. So are we to abandon steam wagons because He 'graced horses'?"

"We're not calling for abandonment of the new, simplified system. It's great for everyday use. But the hymns and the life of the Great Prophet; these are things that are worthy of the old writing system."

"Oh?" Estodhéru cocked an eyebrow skeptically. "This sounds like an argument from a priest, not a philosopher. Let the people learn 25 symbols so they can write

mundane things; but if they want to learn anything about Widumaj, they should ask a priest! I prefer to let the people read about Widumaj and *tell* the priest where he's off!"

"We're not opposed to using the new system for publishing the hymns and stories; we just want both to be used."

"Foolishness." Estodhéru shook his head. "I could read and write in the old system. When I was young my father sent me to Néfa to the mendha there—it's closed now, but it was quite an exciting place to study while it lasted. I lived in Néfa for eight years until he died and I had to hurry back to bury him and assume his position. I met my wife there. I was the only person in Lewéspa who knew the old system. When the new system came along, I learned it in less than a month and I've never used the old system again. And do you know how many people will be able to read the new system, in a few weeks?"

"Judging from the crowds in the génadema, over a thousand."

"My good Honored Stersejiu, over a thousand could read in Lewéspa *before* the summer génadema began, and 3,000 are attending classes; we are taking the letters to nearly half the adult population of this area! We can't do that with the old system. I think the priests have invented this new system to keep the people ignorant."

"Those are strong words, don't you think?"

"That's the way it is. Mɛddwoglubas hasn't got a temple, and it won't get one.

Esto is everywhere; we don't need a temple to bring Him to us, or a priest to sacrifice to Him on our behalf. Considering how much trouble the priests have been to you, I am amazed you are cooperating with them."

"Because Gawéstu wishes it."

Estodhéru was startled. "Gawéstu wants this?"

"It was his idea."

"I see. Perhaps he will come here and explain it to us, then."

"My understanding of this matter is very simple," said Chris. "That in the future, when everyone can read and write, the books about sacred things will be published in both the simple letters and the old system. The old system will bring dignity and prestige to the hymns and stories, but anyone wanting to read them in the simple system still can do so. I have no objection to that. Indeed, under those circumstances, we would publish the Bahá'í sacred writings in both as well."

"It's a waste of time," growled Estodhéru. "Impractical." He looked right at Stersejiu. "Religion should be practical. The hymns are practical. A little sacrifice is fine; it shows reverence. The new knowledge is practical. And the Bahá'í teachings are practical. They all go together."

Stersejiu leaned toward him. "The Bahá'í teachings are for Gedhéma, not Éra."

"The Bahá'í teachings are like the new knowledge; they fit the needs created by the new knowledge. Have you read *The Secret of Divine Civilization*?"

"No, I have not."

"Then don't say what they are or are not for."

The discussion ended then on an uneasy note. Chris changed the subject by asking Stersejiu what construction he had seen along the side of the royal road. He reported that poles had been put up all the way from Ora to Néfa and wires were going up as well.

The clock in the town below the fort chimed out eight o'clock. The mint tea came out and they began to sip it and talk about all sorts of things. Mitrané asked about the

women's college and whether others would be established, as she would like to study at it. Not long after nine o'clock they heard the rover drive up to the postern gate. A moment later it opened and the geologists and biologists trooped in. Thornton was the last one. He headed straight into the office carrying a sack.

"Hail, my Lords. Honored Stersejiu," he said. "We are late because when we were returning from the peaks, we walked to the Namelisér just past Lake Number Six, and there in the river we found this." He opened the sack and pulled out a dozen nuggets.

"Gold!" exclaimed Estodhéru. "Real gold! Is there more?"

"In the twilight we had little time to look. But we found that it was coming down a tributary creek; some of these nuggets were found in it. We followed the tributary for a dekent and never found the source. Then it got too dark, even with Skanda. So we came straight here."

"How much do you think there is?" asked Chris.

"I don't know. But if the source has been eroding for thousands of years, the nuggets would be deposited in the sediments above the lake. We can pan for them."

"Does the road go there?" asked Estodhéru.

"No; it stops before gluba number seven, which is the gluba just below lake number six. It needs another ten dekent; it has to be built over the ridge and past the lake."

Estodhéru nodded. "Lord Dianu is here; he's the Lord of Klenmara, which is the last village on the river. We should talk to him about this immediately."

Royal Visit

Few slept well that night. The Lords talked and speculated well past midnight, and then slept poorly. A big gold strike could be a huge benefit, and it raised the stakes on all other questions. The rumor of gold began to spread across the camp, and that raised many questions also.

It was before dawn when the rover set off with Estodhéru, Dianu, Thornton, Chris, and two geologists—Rudhisuru and Sarésunu—tightly packed inside. They reached the end of the road by sunrise and hiked part way until the eclipse fell. When it ended they hiked the last bit. Chris and the Lords dug in the creek with shovels and panned for gold with pans they brought while Thornton and the geologists followed the tributary creek, picking up nuggets and searching for rock outcrops. Finally they stopped to break loose silver ore and gold nuggets from an eroding intrusion. After a bit more exploring upstream, they could confirm that the stream had no nuggets above the intrusion, so it had to be the source. They hurried back down.

"Look!" exclaimed Thornton, holding up a blackish rock streaked by black veins.

"This is silver oxide. There's silver as well."

"A lot?" asked Estodhéru. He was bare-chested, muddy, and holding a shovel in his hand.

Thornton looked at the other two geologists. They were both well trained and experienced. "I'd say the ore body we could see was a hundred doli long and sixty wide,

and the creek has eroded a gully diagonally across it about twenty doli deep. That's a lot of cubic doli of rock and gold nuggets dumped into this stream, and a lot left to dig up."

"Panning for gold, in an hour we found this." Chris pointed to three neat piles on pieces of cloth. "I think each of us have half a ledhi! It's quite easy!"

"But it is easiest at first, and gets harder later," said Estodhéru. "Will we find silver here, too?"

"No; only up in the rock," replied Thornton. "It oxidizes and disappears quickly.

We found a few small nuggets in the stream close to the deposit. That's all."

"This is too far upstream to live comfortably in the winter," said Dianu.

"I think we should let anyone dig in the stream or down here in the valley floor," suggested Estodhéru. "But I think we should divide the stream into ten sections and assign one to each village in Lewéspa. Let each man dig in the section for his village.

And let him keep a third for his family; one third will be for the Réjé and one third for Lewéspa."

"Nothing for his village?" asked Dianu.

Estodhéru considered. "Then let one sixth go to his village and one sixth to Lewéspa."

"The arrangement could generate a lot of chaos," exclaimed Dianu. "That is my fear."

"Nuggets are easy to steal," said Chris. "You'll need soldiers to keep the peace.

But hired men will dig the gold and keep some of it anyway. This way, you don't have to worry about paying them, and every man has an incentive to work hard."

"And slavery is disagreeable," added Estodhéru. "Most of the slaves working the mines in Belledha are children sold into slavery by their poor parents. They suffer and die young. And children do not do this kind of work very well; it requires too much strength."

"The children sold into slavery probably would have died anyway," replied

Dianu. "A family must be very desperate to sell a child. And panning for gold is not too

difficult."

"No slaves," said Chris, shaking his head. "Let us help the families instead."

"What about the deposit of gold and silver?" asked Dianu, changing the subject.

"The rock requires the use of mining techniques, especially explosives, so it should be done by a company. The company can be owned by all the villages," replied Estodhéru.

"The army may want to participate in it; especially if you want to use explosives," said Rudhisuru, who was the army's chief geologist. "We do not sell or give out explosives. We provide men to set them off and charge for their labor."

"Really?" said Estodhéru, irritated. "I suppose you must keep the explosives away from the Sumis and the Tutanes. The company will need to be set up immediately, so the Lords of the ten villages will have to meet. When the Réjé arrives we want to have a complete plan she can approve. The company will also have to extend the road to here."

"That will be a lot of work, and it will be hard to hire men to do it," said Dianu.

"But if we get a hundred men it could be done in a month, I suppose."

"If there is as much gold here as we think, maybe the army will gravel the road," said Rudhisuru. "That is their job, and the Réjé will be receiving a lot of taxes."

"Good; let them do it!" agreed Estodhéru. He turned to Thornton. "Can you and your geologists divide the river from here to the deposit into ten more or less equally rich sections?"

"We can try," replied Thornton. "We can make some sort of division by sunset, but if you want something absolutely fair, we would have to dig trenches to evaluate the amount of gold near the river and under the ground. That could take a week."

"By sunset, then," replied Estodhéru. He turned to Dianu. "Can you find six or eight men from your village who can come here for a few days? They can find gold and watch the place at the same time. We'll give Klenmara the tenth closest to the source. We'll also need a small log building to weigh and store the gold."

Dianu nodded. "We can do that."

"Alright." Estodhéru looked up the stream. "Mɛddwoglubas gets the second section because it is largest. After that, the sections will be assigned by lot. We had better go back to the génadɛma to get the signs made and call the Lords together."

When they returned to Mcddwoglubas, they found that the news had swept the entire gathering and everyone was excited. Chris feared a gold rush, but there was no such thing. As advanced and innovative as Lewéspa was, there was no consciousness of being an individual in the sense of an individual, autonomous unit of society. Persons were members of families, families members of clans and extended families, which in turn were members of villages, which in turn were subjects to Her Majesty, Dukterésto. One could not abandon one's family or the génadema class to go dig for gold. There were too many expectations one had to fulfill. If many men went to dig gold, their relatives would

be expecting gifts and assistance. Consequently, it was difficult for a man to imagine that he could get rich quick. A woman could not contemplate the idea.

So the crowd took their classes while their Lords met. The crowd even grew in size because the Queen was expected in a few more days. The extra people partied or sneaked into classes of their friends; usually a bit of both. Some regulars stopped going to all their classes because their friends were partying. At Chris's suggestion, Mitru sent two steam wagons to Lewéspa just to move supplies and people from Meddwoglubas to the surrounding villages and back, twice a day. They were busy.

By and large, the Lords endorsed Estodhéru's plan for dividing the gold and silver. Then they discussed greeting the Réjé, hosting her in the region, and what to ask her and when. There was some delicate negotiating to do. Chris was invited to participate occasionally in the deliberations because he was representing the summer génadɛma, and he wanted the Réjé to see it.

Primdiu came around again—the beginning of the third week of the summer génadema in Meddwoglubas—and the entire town turned out to prepare for her arrival, which was scheduled for later that day. Chris sent the rover to Ora to bring the queen's advance party to town immediately, so that all preparations would be according to expectations. The rover returned with them at noon; the royal party was expected in two hours.

It was indeed about two p.m. when the lead steam wagon was spotted. The royal procession included thirteen steam wagons that day. Most slowly pulled two or even three coaches and trailers. The entire population of the town and all the visitors turned out to

line the main street and cheer. The Queen rode in a coach of gilded wood and occasionally waved through an open window.

The procession ended in a large field south of town, where the royal party—all six hundred—were to set up their tents. A large tent was already erected and a banquet for the Queen and the top hundred of her retainers was ready. Chris, Liz, Thornton, Lébé, and the ten Lewéspa Lords and their wives and successors were also invited. Notably present was Lord Mitru; he had no intention of letting Estodhéru monopolize the queen's ear.

The entire afternoon was consumed by eating and toasts. No official discussions were possible; it was a rather public event. When the banquet finally ended close to sunset—it ran long—the entire camp had been set up by the rest of the Queen's retainers. Estodhéru invited her to see the school and address the people, and she accepted.

She chose to walk to the fort on top of the hill, through town again and up the Namelisér road. High cirrus clouds in the western half of the sky glowed brightly, providing bright golden twilight. She was followed by Estodhéru and the Lewsépa Lords, then any others who chose to come along, as Lord Mitru did. Chris walked next to him in order to give Estodhéru the spotlight, and could see Mitru's jealousy at the size of the summer génadema. Ora had 250 students, less than a tenth of the turnout here. Furthermore, the Oran accents of a few who were present reminded him of the village of his own people who had crossed the so-called border and settled in Lewéspa. He was silently angry throughout the tour.

The fort's classrooms were packed with active classes. Each room was dimly illuminated by two electric lights. The lights also impressed the Réjé, who had no idea

that electricity had penetrated this far this quickly. Everyone marveled at the number of people studying.

She looked in many doors, startling those gathered inside, then headed back out of the Fort. Just then the clock tower in the town below struck 8 bells. Classes were over; everyone rose at once from their classes to head outside. Others were waiting to go in for classes as well, and many came just to see their queen. With the crowd around her growing, the Réjé—every practical—climbed onto the flat bed of a wagon parked against the fort's outside wall to address the crowd.

"My people," she began. "I have seen much of my Kingdom in my day, but I have never seen Mcddwoglubas; and of all the welcomes I have received, this is the warmest! I thank you!"

The crowd cheered. Most had never seen their monarch before and were thrilled. Her dignity was not above an effort to enthuse a crowd, and she was very good at it.

"This town—this city!—is one of the most beautiful in Éra, and certainly it is one of the most intriguing. It is smaller than Mɛddwoakwés, but has far more manufacturing. It is smaller than Ora, but has a much larger Génadɛma. It is smaller than Néfa but has more electrical lights. It is smaller than Isurdhuna, but shows far more energy. It is smaller than Tripola, but shows more devotion to learning. It may show more devotion to learning than even Mɛlwika!

"And learning is one of the things this Kingdom needs. The new knowledge is sometimes controversial, but consider the lights, the fast movement along the roads, the talking over long distances it has brought us! Think how we can now write down our

thoughts and ideas and make a thousand copies of them! Think of the new foods it has brought us! And then there is the elusive promise we all hope it can bring: prosperity!"

She stopped to let everyone cheer, and they did; Chris was surprised, in fact, that it was so enthusiastic.

"Prosperity, however, is not an easy thing to acquire, like the letters and numbers. Prosperity requires hard work by all of us. The new knowledge may help, but it can never eliminate the need to work. I have heard amazing stories about the hard work of the people of Mɛddwoglubas. I hear the bell in the clock tower you built in Mɛddoakwés every day. I have seen your new cloth, woven by machines rather than by women's hands. I salute your ingenuity and talents. And I am here to help this city and the villages around. You are getting a new gravel road, so the results of your work can get to the rest of the world. I want to hear about your problems, so that I can bring you justice. Perhaps there are other ways I can help as well. I thank you for your hospitality and look forward to receiving all of you."

She jumped off the wagon to cheers. Estodhéru climbed up instead and raised his hands.

"On behalf of all the people of Lewéspa, we want to welcome Your Majesty to our region. We are delighted you have come. This is a remarkable region of Éra, and you will see why we are so proud of being Lewéspans. We are honored to be your servants and look forward to serving you in the next week."

The crowd cheered again as Estodhéru jumped down. The Réjé turned to him. "We need to talk, do we not?"

"Yes, Your Majesty, we have much to ask you, and news to share with you."

"Very well. Come just before the eclipse; we can talk during it. Just the two of us. I don't need to meet with all the Lords of the area."

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The next morning Estodhéru went to the Queen's tent in the morning, just before the eclipse. He was ushered in just as the eclipse began. Estoiyaju was there to take notes, but otherwise it was just the two of them.

The tent was plush and comfortable. The Queen had a throne with her, on which she could sit, and a floor piled high with comfortable blankets of many colors and designs, topped with pillows. The disappearance of the sun did not leave them in the dark; a twenty-candle silver candelabra stood on the floor near the center of the tent, shedding light.

The Queen sat on her throne. "You have permission to sit before me, on the pillows," she said. "Estoiyaju, please offer Lord Estodhéru some mint tea."

"Thank you," he replied, sitting against several pillows. "Your Majesty, is there anything further we can provide you?"

"I think not, Lord Estodhéru, thank you. We are all very comfortable here. The food being provided to the cook is of the highest quality; he sent me a glowing report last night. Tomorrow night, my consort and I will entertain the local Lords in order to reciprocate your hospitality yesterday afternoon. Now let me ask you a question, Lord Estodhéru. What is the secret of Mɛddwoglubas? Why is this place so eager to learn, and why is it so inventive?"

"Your Majesty, you flatter us."

"No, I ask a serious question. Please speak freely."

"Your Majesty, I am not sure there is a simple answer to your question. First, we are not a superstitious people. We do not believe in trolls living under every bridge and little people in the hills, waiting to snatch our babies from their cradles. Perhaps it is because we have no temple and no priests; I mean no offense to wise priests, of course. We are a secure people; we have had no need for walls for centuries. We are a free people; our villages are equals and are not dominated by one place. Mcddwoglubas is the largest village, but it does not control everything. We are a free people in the way we chose our Lords, too."

"Yes, that is true. A month after a Lord dies I receive a messenger reporting the news and asking me to appoint someone who is a distant cousin, not the Lord's son or daughter. I send out queries—usually to you—and find this is the will of the people of the place. So I usually confirm their desire."

"And we are grateful for your willingness to let our people decide. Or perhaps I should say our elders, since they decide, of course. Finally, there is something we were not aware of until Lord Mennea visited over a year ago. We have loyally paid you your due, year after year, even though you have no garrison here. We have paid it willingly and fully. But because of our bad roads, it was not practical to haul grain to Ora or Tripola, so we made small items of quality or prepared furs of high quality, so we could move small but expensive items and sell them. In consequence, all our villages are filled with men of talent and skill. When Lord Mennea responded to our invitation, we found he had knowledge to offer and we had students eager to learn."

"Indeed you do. I am still surprised to see how many are studying. How many here know the letters and numbers?"

"Your Majesty, when this summer session ends, fully half the adults in Lewéspa will know the letters."

"Half?" she was startled. "By Esto, I am amazed. Even in the capital it is far less."

"We want to learn. There are dozens of men dreaming that they can create something that is completely new and is needed here, and that they will make that thing and make their family wealthy. Perhaps that is also unique about us: we do not fear money. It is not something dirty to us. For a long time we had to pay our taxes in dhanay, not bushels. So we are comfortable with the idea of earning dhanay."

"Interesting. Now, speaking of dhanay, I understand the expedition has found gold and silver. Can you confirm this rumor?"

"Yes." Estodhéru pulled a large sack from his belt and handed it to the queen, who looked in.

"Gold. And what are these black pieces?"

"Silver nuggets. There is native silver as well. It is located about one hundred fifty dekent upstream. We have a proposal to Your Majesty on how to remove the precious metal."

"Please explain it."

"There are two sources: the original deposit of rock with gold and silver in it, and loose gold in the sediments of the creek that flows through the deposit. We have divided the creek into ten sections, one for each village in Lewéspa. Men from the villages can go find the gold in their village's section as they wish; but one third goes to Your Majesty, one sixth to the entire region for improving its roads and schools, one sixth to the village for its needs, and the finder can keep one third. As for the original deposit, we need

explosives to loosen the rock, which fall under the domain of the army, so we propose to establish a company to mine the deposit, with one half going to Your Majesty's treasury, one sixth to the region, and the remaining third to the company to pay its men."

"Oh? A novel arrangement. Why not simply employ prisoners or slaves?"
"Your Majesty, this region has never had slaves."

"Never? I am surprised. But I doubt we have spare prisoners, anyway. Many young thieves have moved to Mɛlwika and settled to work. I will want a detailed accounting of your output at the Grand Court and in the fall. One third of the nuggets and one half of the mine output is fine. Will you draw up a charter?"

"That is our plan."

"Draw it up and we'll look it over. This mine will require a royal charter. I think we will need a special session of the Consultative Assembly this fall to debate it, too."

"Of course."

"Now, there is the matter of Lewéspa."

"Yes. Your Majesty, we have had the problem of rival claims over our lands from Ora and Tripola for centuries. But neither city has ever asserted its sovereignty over our area by force. Neither has ever obtained a regional tax from us; they have rarely done anything more than demand it. They haven't even demanded help from you or the army to force us to pay."

The queen looked at him. "Actually, I think the Lord of Ora—Mitru's father—asked my father for help, about thirty years ago. He laughed. You have usually paid your taxes via Ora."

"That is because the road was better in that direction, and Ora was a bigger market for selling our products."

The Réjé nodded. "I recognized the existence of Lewéspa when I gave it representation in the Consultative Assembly two years ago and last year. Lewéspa exists. The bigger question is, what are its boundaries. It includes nine villages."

"Now ten."

"That remains to be seen. The Trinénasisér is the boundary you claim. I suggest you talk to Lords Mitru and Gugéndu. The matter of the boundary of your region, first of all, is a matter of the regions."

Estodhéru was startled. "Your Majesty, the Trinénasisér has been the boundary for at least two centuries. The southern Oran villages all recognize it."

"Then all you have to do is convince Mitru. And if you can't convince him or come to a mutual conclusion, then I will get involved." She shook her head. "But most of the time, people regret it when they involve me. It is better that they resolve their differences mutually."

"I understand, your Majesty."	

After the meeting with the queen, Estodhéru headed straight back to his house, where the other Lords, including Chris, were waiting. He described the meeting.

"Mitru will never agree to the Trinénasisér," exclaimed Trisunu, the newly elected Lord of Lewéspadéma. "He has never accepted it, even though the nearby villages have always agreed that it marks the hunting boundary between regions."

"Exactly," said Bidhanu. "Everyone has always seen the river as the hunting boundary. We have had our hamlets on the southern side before, and there have been Oran villages on the north side before. But when the villages stopped using slash and burn agriculture and settled down, a century or so ago, neither side happened to have any villages near the river."

"Until now," said Trisunu. "But my people won't tolerate Mitru's claim of overlordship. We knew the river was the boundary. We were landless and homeless because of the rising sea and since he made our relocation more difficult, we saw no reason to stay in his region. Lewéspa has a reputation for independence; we wanted to join."

"And we welcomed you," added Estodhéru. "I will talk to Mitru, as the Réjé requests. She is quite right; the regions should at least try to resolve their differences. We may still need to call on her help, though."

"Be very careful if Mitru uses any violence," said Chris. "If he were to do so and came out as being in the right after a clash, you might lose all the Réjé's support. You must remain non-violent and insist on a public discussion of the matter. Then there will be public support for your position."

"We should get some newspaper articles," agreed Bidhanu.

"After I talk to Mitru," replied Estodhéru.

April 22, 2001; reread and edited, 5/18/13, 7/26/17, 11/3/24

Tripola

Thornton did not enjoy the next week in Mɛddwoglubas. The Réjé's visit provided a mass excuse to skip classes. While only 600 at a time could attend her public court every afternoon—that's all that would fit in the space—nevertheless more skipped classes than that. Thornton found himself having to repeat the geology information he gave in class. Fewer came on the two-day expedition as well; he could only form ten hiking teams.

But the ground the ten covered was quite significant. It was fifty kilometers from Meddwoglubas to Tripola; a long day's hike for the geologists and biologists. Both cities sat on rivers, so the hikers could start out at the first river and hike to the second. A steam wagon distributed the ten teams along the Namelisér shortly after dawn and then headed for the road running along the Glaktakwés to pick them up later that night. Thornton and one other team started from the farthest points upstream and spent two days hiking, carrying very basic overnight gear with them. The trip took them from 45 degrees south to almost 70 degrees south, through a mixture of firs and meadows the entire time. It was beautiful land, all unsettled. They found some small iron deposits and a fair number of peat bogs, but no coal, copper, or precious metals.

Thornton returned to Mɛddwoglubas two days before the Réjé was scheduled to leave. It was also two days before his family was scheduled to move to Tripola, where they had already been teaching literature (though all basic science had always been scheduled for Mɛddwoglubas, with Tripolans taking the steam wagon up every day). Thornton did not relish the thought of riding the steam wagon two days a week to

Mæddwoglubas, but that was the arrangement; meanwhile, Lébé had been riding it the other way, and the move would end her need to commute.

It was evening before they finally got home from the two-day expedition.

Thornton couldn't unpack the hiking gear and geology samples because the geology classroom was still in use. He, Lébé and Jalalu slept in the classroom at night, also. While waiting and walking around outside the fort he saw a tall, bearded man who looked familiar. It wasn't until the next day, when the man stopped by the geology classroom between classes, that he recognized him.

"Kameru; I haven't seen you for a year or more," he exclaimed. "You look well."

Kameru had gained at least ten kilograms and was now wearing glasses; both changes

made him look older than his twenty-six years.

"Thank you, Lord Thornton," he replied. "How is your family?"

"Very well. Our son is here; right now he is with a nanny, while Lébé teaches her classes in Tripola. She's published a second book."

"Yes, I've read it. I plan to interview her about it, in fact, for the *Tripola Bédhɛ*. But today I was hoping to interview you about the geology and biology expedition. Strictly the facts about its value and uses, of course. I have no desire to embarrass you or your family; I owe you all too much."

"I see. Yes, I can help you out, then."

"Good. I hear from Dwosunu, who's a good friend of mine, that it has gone extremely well."

"I think so. When we finish we will have surveyed a strip of land at least one hundred dekent wide and almost four hundred dekent long; almost twice the size of the strip of land along the Arjakwés we had previously surveyed. And we will have surveyed this area far more precisely and thoroughly because all of us have learned a lot more. In another month, about two thirds of this world's prime farmland will have been surveyed."

"How much of the entire world?"

Thornton paused to think. "Maybe a sixth. It will take many summers to finish. I don't know if I'm up to it. Look at me! I don't have an ounce of fat on my body!"

"You are thin. And I suppose it's hard on Lébé and Jalalu."

"It's not too bad, because I'm home almost every night. But I haven't been able to spend a lot of time with Jalalu."

"What have you found?"

"Some minerals: coal, iron, lead, gold, and silver. That's been pretty successful.

And we've mapped the geology and biology zones, which will be helpful in studying this world's life and planning where new villages can be built."

"But have any Lords used your results yet?"

"Oh, yes. There is already coal, gold, and silver mining going on. We plan to spend all fall and winter writing up the results of the trip and then there will be reports for them to use."

"And will the reports be published?"

"I don't know, yet. I'm sure a lot of the information will be."

Kameru scribbled more notes. "I hear that Lord Albanu is buying steam wagons with agricultural equipment to produce huge quantities of cotton and foodstuffs and is driving peasants off their land."

Thornton was startled. "I don't know about that, and it has nothing to do with the expedition, Kameru."

"Okay, fair enough. I hear that Lord Mitru is ignoring land use advice from you and your father and is funneling displaced peasants into Ora, to become workers, or to rural villages to cut timber for iron and steel making."

"Kameru, we have not given Lord Mitru any kind of report yet. We have offered some informal advice, and I would not assume that in the few weeks that have passed since, the Lord has ignored our advice."

"Is it true Lord Mitru plans to mine coal and you have recommended that he cut trees instead, because they're cheaper?"

"I don't know what he plans to do, and I don't know what our report to him will say. I haven't had time to write it up. We have eight to twelve teams hiking as much as eighty dekent per day, two days a week, making hundreds of observations and writing pages and pages of field notes. It'll take us months to write it all up."

"Okay," said Kameru, scribbling. "Don't worry, Thornton, I won't quote you."

"Kameru, I'm not just worried about quotations. I'm worried about the controversy you will cause, which will hurt a lot of people."

Kameru looked at him, a hard look on his face. "Well, that's too bad, isn't it? This medieval society of ours needs a few jolts in order to change. The *Tripola Bédhe* is a force for change, and we are proud of it."

"I'm sure you are. Kameru, I need to prepare for class right now, so this is not a good time to talk. The students are coming back in; I have to look over some notes."

"I understand. Sorry, Thornton. Can we talk more later?"

"Yes, sure, but don't ask me when; life is pretty full."

"Could I come on an expedition some time?"

"Are you up for an eighty-dekent walk?"

"Ah—no."

"Then it's not a good idea. But we can talk some time. I've got to go now, though."

"Okay. Good bye."

"Good bye."

Thornton watched Kameru walk away. He thought about the questions and worried. He'd have to tell his father about the incident.

But there was no chance to do that until late that night. Life in the génadema was quite public; it was hard to get private time with his father until several hours after sunset. Finally when everyone was going to bed he was able to go to his parents bedroom, where they were able to converse in English in whispers.

"This is serious," said Chris, scratching his chin and thinking. "I'll have to talk to Lord Gugéndu once we get to Tripola. Maybe he can get the paper to stop the articles, or at least tone them way down. This is the sort of thing that will cause a terrible controversy. It will generate a lot of anger if the articles are written as exposés."

"I'm worrying about the expedition. Dwosunu is a friend of Kameru; not only did Kameru tell me, but I asked Dwosunu and he confirmed it. He knows just about everything I know because we have to talk freely about the implications of our work.

Otherwise, no one will learn how to analyze. And since we have divided up students from

each city into different hiking teams, Tripola students have field notes representing about half our trips. Their class notes represent everything we've discussed in class."

"We'll talk to Rudhisuru about this problem. If there's trouble, he has to be on our side. Meanwhile, I'd be doubly careful saying anything that could sound like a criticism of a Lord."

"Okay. But it's too late for that because Estodhéru has been very receptive and Gugéndu will be as well. Mitru and Albanu were the difficult ones."

Chris nodded.	"Well, we learn	, don't we?"	

Two days later the royal party packed up and moved to Tripola. Chris delayed the departure of his family a day because it would be easier to arrive in Tripola the next day, after the excitement had settled down. The delay also allowed them to loan out their steam wagons for use by the royal party.

When they arrived in Tripola the next day it was still difficult to enter town because of the crowds. Half of the south shore—which had 25,000 people altogether—had walked or taken steam wagons to Tripola to attend the royal court and party. Mitru had eight steam wagons riding the dirt and gravel roads of the south shore every day, moving people back and forth, making a huge profit in the process. Everyone who could had brought something to Tripola to sell to cover their costs of traveling and visiting, converting the entire town into a huge open-air market. It was something to see.

They settled into rooms in the génadɛma wing of the palace and a few additional rooms in the palace as well; Gugéndu was accommodating them as well as he could.

Classes in Tripola that day were canceled because of the royal party, so they had plenty of

time to unpack. The geology and ecology samples had stayed in Mcddwoglubas;

Thornton would go there almost every day anyway. That reduced the amount of stuff to move.

Estodhéru came to Tripola as well, and he, Chris, and Gugéndu had a very pleasant lunch together.

"I am very envious of the Mɛddwoglubas Génadɛma," said Gugéndu. "I couldn't believe what I saw when I visited last week. Your population wants to learn and wants to be productive."

"It's partly because they don't have a royal garrison, you know," said Chris.

"They had to manufacture and export items to pay taxes."

"Really?" Gugéndu thought for a moment, then laughed. "Yes, I can see that. It is true; all my life I had wondered why there were so many *things* in the market from Lewéspa. Wooden things, ivory, copper, iron . . . furs, embroidered cloth, everything! And now we're all admiring your cotton cloth made by machine looms and listening to your clocks ringing their bells."

"Soon, everyone will buy our cloth," agreed Estodhéru. "Of course, the sad thing is that many women who weave cloth for their bread will be hungry. I am hoping they'll learn to make clothes and decorate them instead."

"We must think of the poor," agreed Gugéndu. "There are too few who do. But let me ask both of you: gentlemen, how can Tripola begin to make things? Our roads and telephones and electricity and schools have brought little wealth. This year I have seen an increase in tax collection; maybe ten percent. Some of that is because corn and potatoes are spreading in the south and are better suited to our damp climate."

"Which is even damper now than it was," agreed Chris. "Lord Gugéndu, I think Mɛlwika, Lɛwéspa, and Dɛksawsa—if I can refer to your area that way, rather than just calling it 'Tripola'—are now in a better position to work together than they ever have been before. The reason is because last week the Réjé declared that Lɛwéspa is a legitimate region of this world, part of neither Ora's region nor Tripola's."

"Oh?" Gugéndu was surprised. "I haven't heard about this."

"She said it to me," replied Estodhéru. "She said that by giving Lewéspa representation in the Consultative Assembly, she had recognized it as a legitimate region."

"It's not in writing?"

"No, not yet," replied Estodhéru.

"I heard it, too," said Chris. "It is true. But as I said, I think this helps the two of you, because you are now officially equals and your regions are now legal equals. That means you can work together on the basis of mutual trust."

"I had never thought of it that way," said Gugéndu. "But you are correct, it does allow a different sort of relationship."

"If your regions are able to collaborate, I will feel much more comfortable working with you as well," said Chris. "It is complicated for me to offer something to one region that I cannot offer to a rival. If Tripola wants to develop manufacturing, it puts me in an awkward position because of my existing arrangements with Mcddwoglubas. The rivalry between Ora and Mclwika has been difficult for Amos, in particular. I'd rather see complementary arrangements be created. There are plenty of items that require manufacturing. Tripola can buy the iron and steel it needs from either Ora or Mclwika,

and if it had access to the engineering talent in Mɛlwika and Mɛddwoglubas it could soon be producing useful items."

"But we don't have the waterpower," said Gugéndu.

"Small manufacturing efforts can be run with your existing waterpower," replied Chris. "A dam eight doli high across either the Glaktakwés or Dhébakwés will make enough power to run a factory. And once the electrical lines reach here from Ora and Mɛlwika, you will have access to a lot of electricity."

"And I can buy expertise from the two génademas?"

"Exactly," said Chris.

"There is one matter that we should discuss, however," added Estodhéru. "And that is the matter of the border between Dɛksawsa and Lɛwéspa. Her Majesty said my priority should be to negotiate with you and Mitru about the boundaries; otherwise she will determine them. Now that the entire area has been explored by the geology and ecology expedition and a map of the area is being prepared, it is even more important that we agree on a boundary, so we know who can build roads where and who can exploit what resources."

"That's true. I have no idea how we would go about defining a boundary."

"Ask the geologists," suggested Chris. "Then the two of you agree on some principles and you jointly appoint a team to survey and mark the boundary. I would invite to serve on that team some geologists from the army and or Mɛlwika, who would be neutral, but there should be an equal number of experts from both areas as well."

"That sounds like a good approach," agreed Gugéndu. "I will need to talk to Her Majesty about the matter of Lewéspa's separate status."

"She will confirm it," said Estodhéru.

"I don't doubt it. Historically, Tripola's claim was based on opposing Ora's claim. Ora has historical grounds for its claim, but ours are tenuous at best. We do not want Ora to be that much larger and more powerful; we have always feared they will try to dominate us."

"Together, we just about equal Ora," replied Estodhéru.

"Now, what can I expect of the geology and ecology teams?" asked Gugéndu.

"And what about the census people?"

"The census people will count every man, woman, child, animal, house, and barn in the southern region," replied Chris. "And I would recommend that you encourage complete cooperation. In Néfa they discovered systematic cheating of the Réjé, but *not* of Albanu; when the Réjé visited, he had a lot of explaining to do. She's ordered him to pay an extra thousand ledhay in taxes every year for the next ten years, money that I think will go to improving the roads all over the world. The census people are friendly and very thorough."

"Well, I have nothing to hide. In fact, I would like an exact counting of everything; it'll help me. We have a very poor idea of what the people farthest south possess."

"As for the geology and ecology teams, the ecologists are simply mapping what sorts of plants and animals are found where. This is not too useful now, but will be later, because if you want to cut a certain kind of tree you'll know where it's found and where it isn't, and if you want to encourage a certain crop you'll know where it can grow and where it can't. The geologists are mapping minerals, rivers, and soils. They're also

determining altitudes and sometimes slopes. So they can give you suggestions where a village could be put, for example, based on its need for farming areas. They can tell you what routes for a road are impossible and which need further study. And they will find minerals. They already found some iron for you, for example."

"Yes, Dwosunu told me immediately. But they're small deposits, and unlike Lord Mitru, I won't mine something uneconomical because it's good for my ego. What about the medical teams?"

"They'll go anywhere they're needed."

"Right now, they're needed here; half the area's population is here, and they will respond to free medical care because most villages have someone who has told them what the new medical knowledge can do. Later we'll want to send teams up the two rivers to more distant villages. Will Amos be here?"

"He's busy teaching engineering classes in Meddwoglubas three days a week."

"Could he come here at least part of one day? I'd like to talk to him and you, so we can talk more seriously about what sorts of manufacturing Tripola can do."

"You have two scientists in the génadema here interested in engineering, and two electricians. They've been taking the engineering classes," said Chris. "Amos can come down and we can talk."

For the next weekly expedition, the steam wagons dropped off ten hiking teams along the Dhébakwés or "Deepwater" River, which ran from Tripola eastward and slightly southward toward the Spine Mountains. A team got off off every five kilometers for a hike northward; by midday they'd loop back to the road a few kilometers farther west and

await pickup. The next day the teams would cross the river and make a southward loop toward the pole.

Thornton and his team followed the river the longest. The far southeast was a fascinating area to explore. Tripola was located at 52 degrees south, where the coolness of the climate was sufficient to allow fir trees to grow; farther north, the land was an open parkland of scattered deciduous trees and meadows. At Tripola's latitude the sun was within 25 degrees of the horizon more than half the night, so the sunset glow on the northwestern horizon went away for only four hours before a glow on the northeastern horizon began to presage dawn. On nights with high, thin clouds, the glow persisted all night. As they went south they entered an area where sunset, whenever it came, would be followed by twilight all night.

The small size of time zones also became apparent; as they rode east, the sun moved rapidly toward the western half of the sky. Even on Era's equator, time zones were only twenty-five kilometers wide. At Tripola they were half that. Half way up the Dhébakwés, people could walk between two villages in a few hours and feel that the day was an hour or so longer or shorter, even in a society without clocks. In the southernmost area, the daily cycle tended to have reduced importance; people could be awake or asleep at almost any time.

When the steam wagon reached the last village in the Tripola region, almost fifty kilometers southeast of Tripola, it was supposed to drop Thornton and his team off to follow the river, but they heard and saw that the road continued as a rough dirt track suitable for some wagons and ran to one more village, so they decided to give it a try. They were pleased to find that the steam wagon could, slowly and carefully, follow the

track. It wended its way through an open forest of firs and meadows, lushly green, with ample game. They stopped every half hour for a latitude and longitude measurement and a quick exploration. They even passed a startled hunter or two.

The Dhébakwés, never far away, grew narrower and swifter, especially as Skanda and the sun both sank lower in the west. Éra had geology resembling the earth's moon in one important respect; the entire side facing Skanda was a lowland, and as one reached the edges of the near side the land began to rise into hills and mountains. The earth's moon had acquired its topography when it had slammed into its central world at the beginning of time and then re-formed from the fragments thrown into low earth orbit; the newly-reformed moon was molten and the earth's gravity pulled the lunar core toward the earth and allowed the crustal rocks, of lower density, to flow to the back, producing the topographic asymmetry. Éra reflected formation or modification while in orbit around Skanda; the side facing away from Skanda was two to three kilometers higher than the front. Hence all rivers flowed to the front, where the sea was re-establishing itself.

The eclipse started, so they stopped for lunch Tripola time. It was near sunset here; they were as far east as Mclwika. The temperature, pleasant in the sun, dropped close to freezing. When the eclipse ended they decided to go a bit farther before turning back. Because of the steam wagon the team had a much easier time than expected, and had traveled fifty kilometers farther upstream than anticipated.

As they chugged on southeast the land suddenly dropped into a basin—a dhédhuba—and when they looked down into it they could see the river continuing its flow across. A village stood on its banks. Curious, they descended.

The entire village heard the steam wagon coming and turned out, regarding it with a mix of concern and curiosity. Thornton looked at the driver, then the others, then shrugged. As soon as the steam wagon stopped at the edge of town, he opened the door.

"We come in peace," he said.

"Who are you?" asked a tall man in his thirties.

"I am Thornton Mennea of Mɛlwika."

"Mɛlwika? Where is that?"

"Near Meddoakwés."

"I am Endranu, headman and Lord of this village."

"What is the name of this place?"

The man laughed. "The village has no name. We are the Wurones, so I suppose this village is Wurontroba."

"Wuronss." Thornton recognized that the name meant "the people of the heath," but that meant nothing. Then he remembered.

"You are one of the twelve Tutans tribes, correct?"

"Indeed we are, a small tribe, but in our valley we eat well enough. Have you anything to trade? We have furs, maple sugar, cheese, and we can offer you rye and barley bread for supper."

"We would be honored to eat with you; but then we must turn around and return to Tripola."

"That thing came from Tripola?"

"Yes. We left this morning."

"This morning? That is impossible. How can you travel in a day what takes us three at least, preferably four?"

"We can because this is a machine, made near Mɛddoakwés, and it is faster than a man walking. We would be happy to give you or any of your people a ride back to Tripola with us, so they can see what the steam wagon can do."

"Steam wagon," replied Endranu, feeling the word as he repeated it.

"I have seen them in Tripola," said someone who obviously had made a trip to the big city. "They are swift and comfortable. I told you about them, remember? They run almost half way here; they ride the royal road."

"Now one goes to Weranopéla every morning and evening and back to Tripola," added Thornton. That was the last village on the river and the point where the royal road turned northward toward Endraidha and ultimately to Melwika.

"We should ask them to come here," said the man who had been to Tripola.

"Why? We don't need strangers to visit us, or their things," replied Endranu. He turned to Thornton. "Tell your men to come out. We will be honored to give them hospitality."

It sounded almost like an order. Thornton hesitated, but nodded.

It wasn't until the next evening they were able to return to Tripola. Fortunately Thornton had a cell phone with him and was able to call his father and arrange for another steam wagon—the usual one to go to Wɛranopéla and back—to pick up the geology teams and

take them out the next morning. He returned to the génadema about an hour after sunset, accompanied by Lord Endranu and a dozen other Wurones.

"Well, you had an adventure," said Liz to her son as he sat down at the dinner table. The rest of the family had finished eating, but they all lingered to hear the account.

"Yes. A few times I thought we might actually be in danger, but we weren't. The Wurones don't get visitors and don't want them. They really didn't know what to do with us. I wouldn't want to meet a stray party of them in the woods; they might rob you and leave you there. But they were friendly enough to us, partly because they have a healthy respect for Gugéndu and the army garrison in Tripola, partly because they weren't sure what people with steam wagons really could do.

"They live well enough, though. Their village is on the bottom of a basin about 150 meters below the hills around it, and the basin's bottom is low enough to be warm enough for some farming. I don't think the hills outside the basin would be as good. They raise rye, barley, beans, peas, cabbages, and a local kind of beet. They tap maples in their basin for sap; there are no maples above the basin, though. They've got cows, sheep, and they do a lot of hunting. All their houses are made of wood and have beautiful carving on them."

"Are they in touch with the other Tutane tribes?" asked Chris.

"Some. They have a trail that heads north into the land of the Kaiteres and their headquarters, Gimutroba. Another trail takes them to the Krésones."

"Did they tell you where the river goes?" asked Amos.

"Yes; it continues east-northeastward all the way to the Spine. It's a long river.

They said there's a low pass between it and the Kaitere River, which flows north into the

Majakwés, so that's another route to the other Tutanes. They even showed us around the basin they live in; it's a meteor crater about five kilometers across. We found this."

Thornton reached into his pocket and pulled out a rusty rock with a fresh, shiny gray surface.

"What is it?" asked Lébé.

"A chunk of nickel-iron meteorite."

Amos took the chunk and looked at it closely. "I'm sure this could be used in Mɛlwika if it's high in nickel. We'd be able to make all sorts of new alloys, mostly harder ones. Is there a lot?"

"Yes, hundreds of tons of the stuff. There are boulders of it lying around and rocks of it in the ground. I think they were under the surface originally, but the basin's bottom is eroding downward because of the gluba, so they're exposed. If this is something they can export, I think they'd do it. The village had all the typical attitudes I've seen in rural villages. They like their way of life and don't want it disturbed. But some think education and medical services would be very good. Everyone agrees a little more money and trade would be nice. Because they're isolated, they're less in favor of trade, education, and medical care than many places, but both factions exist, and of course everyone wants a bit of money."

"They need to go to Gordha and Gimutroba to get advice," said Chris.

"Endranu and a group of the ones who like to trade have come here with us. I promised them a ride back home two days from now; I hope you don't mind! That's a day the steam wagons have less to do."

Chris nodded. "No, that's a good idea. Arrange it tomorrow. And call Mitru about them; maybe he'd be willing to start a weekly run there. He's taken over the local transportation in this area completely now. Lord Gugéndu's two steam wagons are used for agricultural and lumbering uses only." Chris turned to Amos, who had arrived that morning. "Anything new in Mɛlwika?"

"Not really. The mice and rabbit problems are continuing but they're under control. The road-building up the Arjakwés is in full swing and I'm told a steam wagon can now easily roll twenty kilometers up into the hills. Miller wants a thorough geological and ecological study. Harvests are continuing."

"And prices are holding up better than I thought," added Chris. "It would seem people and animals are eating more!"

"Especially animals," agreed Amos. "The price of meat has dropped a bit, too, and I gather more is being sold in the marketplace. The wires now run half way to Endraidha; they've made a lot of progress in the last week or so."

"I hear the wires from here to Mɛddwoglubas are almost finished," added Chris.

"Did your steam wagon have a safe on board?"

"Yes, I saw it! It's welded onto the engine. Heavy steel; very impressive."

"It's our new solution to the dangers of theft. Almost impossible for thieves to get into. It should make possible routine movement of valuables. The drivers don't have a key, either; only the banks. The bank has to send someone to the steam wagon whenever it arrives in a town."

"Does that mean we don't need paper money?" asked Liz.

"It means the problem will be lessened, but not eliminated. We'll be seeing ten-dhanay bills in a few weeks. Oh, and Thornton, you may hear from Lord Gugéndu in a week or so. He spoke to the Réjé today and she confirmed that Lewéspa is a separate region. He and Estodhéru will need to fix a common border and will need surveyors to do it. I told them they need a commission involving one or two each from the two regions and one or two from the army and Melwika."

"Because there is no creek or any other natural boundary," agreed Thornton. "In another month or so we'll have a crude map of the area ready. I can send the teams out in that area again next week, if you want, to survey it a bit more thoroughly, so we can prepare a good map for them to look at."

"That's a good idea. Can you do it personally?"

Thornton shook his head. "No, not me. Next week I'm walking south; I want to reach the south pole!"

Chris laughed. Lébé looked alarmed. "Is that safe?"

"It should be. I've been down the Glaktakwés to 70 degrees south, which is just thirty-three or so kilometers short of the pole. We should be able to walk from there to the pole and back in two days."

"Well, be careful," she said, ominously.

For Mary's 83 year old body, steam wagon rides were not pleasant. Primitive shock absorbing systems and primitive roads were a combination both painful and exhausting. Yet she could not help but think of `Abdu'l-Bahá's exhortation "O that I could travel, even though on foot and in the utmost poverty, to these regions, and, raising the call of

'Yá Bahá'u'l-Abhá' in cities, villages, mountains, deserts and oceans, promote the Divine teachings! This, alas, I cannot do. How intensely I deplore it! Please God, ye may achieve it." 'Abdu'l-Bahá spoke of crossing an entire world to promote the Bahá'í revelation, and in Mary's lifetime she had had the opportunity to live on three continents as a Bahá'í teacher and had visited two more. Yet never in her wildest dreams could she have imagined she would be teaching the Faith on an entirely different world, let alone traveling its length and breadth on primitive machines devised by a grandson-in-law.

For the experience, she had gradually equipped herself; too gradually, she felt, but then she was in her 80s. 'Abdu'l-Bahá had advised that "teachers traveling in different directions must know the language of the country in which they enter." It had been difficult to learn Eryan—the fourth language she had tried to master—in her old age, and it had taken three years to become reasonably comfortable. This was extremely unfortunate because neither Chris nor Liz were in the position to teach the Bahá'í Faith openly that she was in. They held public positions that required their time and energy, and which could be compromised if they appeared to proselytize a strange gsdhéma cause, especially one that seemed threatening to Eryan life and culture. But the Eryan respected age, and that was something she had in abundance. She held no other position; she was not a faculty member, though she did occasionally teach a bit of architecture, something she had actually practiced 45 years earlier. If she taught the Bahá'í Faith, people had to listen because of her age, and no one could oppose.

Ironically, this year was easier for her than the previous three on Éra. Their first year, with its poorly heated housing, bad winter nutrition, poor sanitation, and ubiquitous intestinal bugs, had nearly killed her. The second year, with its exceptionally cold winter,

had not allowed much recovery. Both factors confined her to the house and reduced her contact with non-family members, and thus with the language. But in the third year the increased number of English-speaking Eryan—many interested in teaching her their language—and her improving health meant she could do more in the génadema, which gave her more purpose and more language skills. Now part way through their fourth year on Éra her system had adjusted to many of the bugs that liked to occupy one's intestines, the range of food was better, and her ability to speak gave her more to do. She didn't have many years left; she intended to use them well for the Cause.

Freed from duties on the Mɛlwika Spiritual Assembly, she had time to do more as well. Back in the early spring she had started a weekly deepening class on the Bahá'í Faith in her house that soon grew to an attendance of thirty or forty. It stimulated more translations, which a Bahá'í student in the génadɛma typed up on one of the school's two laptop computers. Each time fifty copies were made and notebooks were slowly accumulating sacred texts that could be edited for eventual publication as a second volume of Bahá'í scripture. Mary had brought six such notebooks with her. The increased knowledge in Mɛlwika and the surrounding area had stimulated the Bahá'ís to share their beliefs with friends, producing a steady trickle of new believers, some of whom were moved to learn the letters so they could read the scriptures.

Now the time had come to take the deepenings farther afield. The summer génadema had stimulated a lot of interest, but the eyes of others forced the teaching to be quiet and indirect. The Réjé's visit disrupted the regular schedules of each city and raised the possibility of public complaint about the Faith to the world's supreme sovereign. But the summer génadema, and the Réjé, had moved into the southern and southwestern

shores, leaving Ora, Néfa, and Isurdhuna quiet. So Mary and Liz were heading there to stimulate the Faith in those areas. Aréjé accompanied them.

The key to everything was a man named ¿jnu, "Sacrifice," in his early forties, one of Néfa's few modestly wealthy people. He owned a large farm just outside town that had several hired hands to do most of the work and he owned a few buildings in town that he rented. The result was a comfortable income for himself and his wife and four children, now virtually adults. They lived in a nice house right on the edge of Néfa, close to the farm. He had been an early supporter of the génadema and sent both of his sons to Néfa Génadema, then Mɛlwika's. One had become a Bahá'í there and had brought the knowledge back to Néfa, where the family embraced Bahá'u'lláh as a result of a dream. They had spent a lot of time at the génadema when it was based in Néfa and had had many opportunities to ask questions about the Faith, so they had been confirmed. Now they were offering their house as a place to hold the three-day deepening that Mary was planning.

Because of Mary's infirmities and their friendship with the driver—from Mɛlwika—the steam wagon dropped them off in front of ɛjnu's house, even though it required a slight detour from the Ora Road to the Rudhisér Road. ɛjnu and his wife, Lufané, quickly came out to greet them, and the sons grabbed their trunks of clothes and books.

"Please come inside," said ɛjnu, after the formal greetings were over. "We have rooms ready for you. Lady Liz, you want to stay with your mother, right?"

"Yes, we'll share a room."

They passed through the house's main gate on the street, facing west, and entered an enclosed garden of vegetables and herbs; it was beautiful and practical as well. A servant was watering plants with a large pot as they entered; she stopped and bowed to the guests. From there they entered the house's main door, which led them into a vestibule where coats and shoes could be left, then a short corridor took them into a central garden. It was of a lovely symmetrical design, with large orange and lemon trees at each end. The eastern end had a tiled mosaic floor and an awning over it to protect the area from the sun; the western end had a tiled pool with fish and potted waterlilies. In between, and bordering the verandas along the side, were flowers.

"We'll use the tiled floor for classes," said ¿jnu. "We have blankets and pillows to put on it; it can accommodate twenty or twenty-five, which is plenty."

"That should do it," agreed Liz.

They stopped on the mosaic floor, which portrayed a stylized countryside. Ejnu pointed to the south side. "Your rooms will be over there; there are six guest rooms, two for the three of you and the other three for other guests. I built those rooms for my sons and their families, but they aren't married yet." The comment had an edge to it. "The six rooms on the north side are the family's rooms. The four rooms on the west side include the kitchen and storage; the rooms on the east side include the toilet, bath, sinks, storage, and two servant's rooms. I have two families living there. They'll feed us, keep the bath water hot—we have quite a pile of charcoal—keep the house supplied with water, and keep the tea hot."

"Excellent," said Mary. "How lovely your house is."

"Thank you."

They walked to the rooms for Mary, Liz, and Aréjé in the southwest corner. Each room was sux meters deep and three wide, with whitewashed walls and ceilings and floors of red tile, covered with blankets. The front wall facing the courtyard was of mahogany and hinged in several places; half could be folded to the right and half to the left, allowing one to open the entire expanse to the courtyard. Two of the four sections had louvers that could be opened or closed. Each room also had a door to the right and to the left to the adjoining rooms.

"Lovely; we will be very comfortable," said Mary.

The family left them to unpack. They put some clothes on hooks on the wall, but Eryan had few furniture and no closets; chests were used to store most items, so there was no reason to unpack very much. Mary rested and prayed while Liz went to visit the family.

Others began to arrive; six Bahá'ís from Ora and surrounding villages, five from Frachtwala, three from Isurdhuna, three from Bɛllɛdha. Other Néfan Bahá'ís and Bahá'ís from the surrounding villages arrived as well. The out-of-towners had the morning to settle in and rest. At 11 a.m. Mary came out and twenty-five Bahá'ís were waiting to greet her.

They began with prayers, and it was impressive to see how many Bahá'ís had memorized prayers. A dozen Bahá'í prayers were translated, and every one of them was recited, sometimes twice. The prayers were chanted or recited with feeling. A spiritual atmosphere filled the air when they completed the round of prayers.

Mary looked at everyone, one by one, and they all smiled back. The Eryan were more comfortable with silence than North Americans; no one spoke, but drank in the atmosphere instead. Finally, Mary broke the silence.

"I want to thank all of you for coming. We have two and a half days together; not much time. But it is enough to make a start. I am not sure what word we should use to describe this gathering. It is not a formal génadema, which implies tests and evaluations; nor is it a mendhadema, which implies a child learning and memorizing. Perhaps there is a bit of both in this program, which will stress systematic learning and memorizing as two pillars. It is a sort of géndha or school."

"Gnosdha?" suggested Widumajbédhu, a Bahá'í philosophy student from Isurdhuna. It was a clever word, for gén- was the root in Eryan for scientific or systematic material knowledge, while gnost- was the Eryan root for subjective or spiritual knowledge. The suffix -dha denoted a place.

"Yes," said Mary, with a smile. "That will do. Gnosdha; a school for mystic or spiritual knowledge. I like the suggestion. Our gnosdha will have several components. We will spend most of our time reviewing Ruhi books one and two, which are all we have available in Eryan, but we hope to have more available in a year or so. We should also study the Bahá'í scriptures together. I thought we could reserve the evenings for them: reading them together; praying about those subjects; discussing them; and we have to include some sessions when we discuss anything we want to discuss.

"I thought we should cover three topics in the evenings. First, the Bahá'í concepts of God, Manifestation, revelation, and creation; then Bahá'í laws of personal conduct, and we can include some principles that are especially difficult ones like equality of men

and women. Finally, I thought we would talk about Bahá'í community life and review Bahá'í elections. I hope that all your communities can at least try an election to choose officers, and when Ridvan comes around, 30 days after new years, your communities can elect local spiritual assemblies. How does that sound?"

Everyone looked at each other; they seemed agreeable to the concepts, which had a certain progression to them. Mary waited a long time to see whether anyone wanted to speak up.

"Excellent. I am not the only speaker. Liz will speak at least as much as I, and Aréjé, a Bahá'í from Meddwoglubas, will also speak and answer questions. We have copies of the Ruhi books and notebooks with quotations from the Bahá'í writings and plenty of extra paper for you to write notes, if you wish. We also have a few extra notebooks that you can take home to others in your communities." Mary nodded to Liz, who started to pass out the copies; a simple stack of papers with cardboard covers and three holes punched through them, into which a loop of wire was threaded.

Everyone opened their books and looked at them. Almost everyone present could read and write to some extent, though some had limited proficiency. Liz also produced a stack of pencils, a new manufacture in Mɛlwika: a soft-wood cylinder with a mix of ground charcoal and a binding agent. They worked reasonably well. The students each accepted a pencil as well.

"We have an hour before lunch, so let's start with general questions," suggested Mary.

Estoiwiku, a Bahá'í from Ora, raised his hand. "I have been returning to my village outside Ora to visit my parents and relatives and several cousins have become interested in the Faith. But they can't read and write. Can they become Bahá'ís?"

"Of course. The Bahá'í Faith does not require that one can read; it requires that one loves Bahá'u'lláh and understands He has given teachings and laws we seek to follow. If they want to be Bahá'ís, welcome them into the Faith and begin to deepen their knowledge, especially with the Ruhi books. Perhaps some of them will want to learn to read and then will be able to help the others learn as well."

Evé, the daughter of Isabella, the Peruvian woman who had ended up in Frachtwala over a half century earlier, raised her hand. She was there with both her son and daughter. "Mary, it's so good to see you again. What I worry about is that so many can't make it to these gnosdhas. The steam wagons are very expensive, as you know, and many can't get away for three days. In Frachtwala we now have ten Bahá'ís."

"Well, five of you made it! Gradually the five of you can explain these classes to the others. And maybe we can go to Charda to give a gnosdha there."

"As for the cost of the steam wagon, write the Spiritual Assembly of Mɛlwika, and we will send tickets if we can," added Liz.

"We appreciate your generosity this time," replied Evé.

Another hand went up. "I am Mitrésu from the village of Charnéfa, just outside town here. I plan to return there to be a teacher in the fall. But I'll be the only Bahá'í there. Will I be a member of the Néfa Bahá'í community?"

"You will be able to attend Bahá'í programs in Néfa and will be a member of the Néfa cluster, but you will be the founder of the Charnéfa Bahá'í community," replied

Mary. "Every separate village—every village with a recognized Lord—forms its own Bahá'í community. Perhaps it will take time, but you will be able gradually to explain Bahá'í ideas to your family members and friends, and some will accept."

"Some already seem interested," he replied, though he did not seem to relish the thought that he had to found a community.

"When will we have real génadɛma courses on the Bahá'í teachings?" asked Estobaisu, a philosophy student from Isurdhuna. "We have such courses on the hymns of Widumaj, after all."

"I don't know," replied Mary. She looked at Liz.

"Why not?" replied Liz. "Maybe the time to add such courses to the Mɛlwika Génadɛma has arrived."

"When I pray, I try to picture Bahá'u'lláh, but I can't," said a Bahá'í from Belledha. "What do you suggest that I do?"

"Perhaps an image will be granted to you in a dream," replied Mary. "Meanwhile, don't worry about it. We have a photograph of `Abdu'l-Bahá, His son, and we will share that."

"I have a question," exclaimed Ejnu, their host. "What is unity?"

"What is unity?" Mary smiled. "That is a fascinating and very important question.

Bahá'u'lláh says to be like 'fingers of one hand.' A hand has many fingers in order to
grasp things. This is an image unity that is very practical. Unity begins by working
together, cooperating, getting to know each other.

"But unity is more than cooperation. Bahá'u'lláh says we must be 'one soul in many bodies.' This is a spiritual unity. And in the prayer for spiritual assemblies, we pray

that 'we are assembled in this spiritual meeting, united in our views and thoughts, manifesting the spirit of union throughout the world.' Here we pray to have the same

thoughts and understandings.

"So what is unity? I think it starts with working together and moves toward a unity of souls and spirits. And the Bahá'í writings say that a key to unity is love. We must work together, talk together, learn to love each other, strengthen that love daily, learn to love all Bahá'ís, learn to love all people and all creatures, strengthen our love for Esto constantly. . . this is the challenge we face. If we can love each other truly, we will build a community that everyone in this world will want to join, and we will transform this world

utterly and forever."

April 27, 2001; 5/18/13, 7/26/17, 11/3/24

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## South Pole

The Réjé delayed her departure by two days to witness the electrical and telephone connection between Tripola and Mɛddwoglubas. Her interest spurred others to watch the event as well; Yimu Miller and Yimanu came from Mɛlwika, Orngéndu and Adar from Mɛddoakwés, Lord Mitru from Ora, Lord Albanu from Néfa, Roktɛkɛstɛr from ɛndraidha. They all gathered around a telephone set up in Her Majesty's tent—it had actually been there since her arrival, since Tripola's phone system was attached to Chris's cell phone and thus could call Mɛddoakwés—to wait for the connection.

They had a long wait, unfortunately. Finally, with Her Majesty's permission, Chris picked up the phone and called Tripola's switchboard.

"Still no connection to Meddwoglubas?" he asked.

"No," replied Amos a moment later. The operator handed the phone to him. "The lines are still dead. Oh, wait a minute! One of the lights on the switchboard just came on! Hang up; if it's working, I'll put you through!"

"Okay." Chris hung up. "He thinks they have established a connection. It shouldn't be too—"

Ring! Ring! The phone startled all of them; the Réjé jumped. Chris looked at Lord Gugéndu, who reached over and picked it up.

"Khélo?" he said; it was the Eryan rendering of "Hello" and had become standard vocabulary. He smiled broadly. "It is indeed Lord Estodhéru! How are you, my Lord? Your voice is faint, but it is clear."

"Yes, your voice is clear also," he replied. "What a marvelous invention."

"Yes, it is a miracle, is it not? Perhaps Your Majesty will grace the telephone with a few words?"

The Réjé moved forward; Gugéndu handed the phone to her. She put it to her ear a bit tentatively; Chris doubted she actually used telephones, but relied on aides like Estoiyaju to handle most communication.

"Hélo?" she said. The western shore dialect had an "h" instead of "kh" and many knew the correct pronunciation of "hello." She must have picked it up from Werétrakester, who pronounced the word correctly.

"Hélo your Majesty!" replied Estodhéru. "Can you hear me?"

"Yes, I hear you, Lord Estodhéru. Your voice is faint, but it is clear. What a marvelous innovation and development this is. A true example of progress. I hope it is appreciated by all and is used to advance our world, and not to create mischief."

"We pray this also, Your Majesty. Mcddwoglubas is honored to be connected to the rest of the world like this. We had been advised, long ago, to delay installing a telephone system, but we decided to install it anyway, and today we are proud we did."

"Thank you, My Lord," she replied. She looked around, then handed the telephone to Chris. She had done her duty.

Chris took the phone. "Hélo, Lord Estodhéru, this is Chris Mennea."

"Hélo Lord Mennea, I hope you are well today?"

"Yes, I am very well. I thought I would make an announcement to you and everyone else gathered here that with the inauguration of long distance telephone service on the western shore, I plan to leave my personal cellular telephone here in Tripola, in the

care of Lord Gugéndu, so that Tripola and Mɛddwoglubas will have the ability to call Mɛddoakwés, Mɛlwika, and Anartu."

There was a murmur of praise among those in the tent, and smiles.

"I'll leave the cellular telephone here until a line to Mɛlwika is opened. I believe that is still six months away. Meanwhile, I understand the line to Ora will be complete in about a month, and a line to Néfa a month after that. This means that all the major cities on the western shore will be tied into the eastern shore very soon. We will also inaugurate the long distance rates we planned to begin once the wires were finished. That way, our use of the telephones will begin to pay for the expansion of the system."

"Thank you, Lord Mennea, for your generosity," exclaimed the Réjé.

"This is truly good news," said Estodhéru, unable to hear the comments around Chris. "It means we will be able to talk to merchants, and the banks will be able to exchange money and clear checks much faster. It should greatly increase—-"

Estodhéru's voice suddenly stopped. Chris waited patiently. "Lord Estodhéru? Lord Estodhéru, are you there? Can you hear me? Hélo?" He shook his head, then hung up the phone. "I'm afraid the connection has been lost."

"But they will re-establish it, right?" asked Gugéndu.

"Of course. Work is still being done on the line. They must have accidentally broken the connection, but they'll reestablish it. When we first opened the line between Mɛlwika and Mɛddoakwés it needed repair work for several weeks. Since then it has worked quite well."

The phone rang. Chris picked it up. "Hélo?" Then he smiled. "Ah, it's Lord Estodhéru again."

They passed the telephone from person to person, quickly, so everyone was able to talk over the line. Then the first long-distance call on the western shore was over; besides, the Tripola branch of Prosperity Bank already had to talk to the Mɛddwoglubas branch. So they hung up the phone.

Her Majesty ordered refreshments for everyone. They all walked to an adjacent tent where the spread was ready for them. Roktekester came to Chris, cup of wine in hand, eyeing Chris's cup full of hot tea.

"How are you doing?" he asked.

Chris sighed. "Tired of teaching to crowds of students and looking forward to getting home. We'll finish here in less than two weeks."

I've just circled the sea; official business visiting various garrisons. We now have a pretty good road from Mcddoakwés to Néfa, via Mclwika, Endraidha, and Tripola of course. The road around the northern shore is still pretty bad. Lord Spondu was bitterly complaining to me when I was in Bcllcdha that his city has been left out. Not only the road—which is better than it used to be!—but the lack of electricity and telephones."

"He wasn't willing to invest in the system personally, so the merchants and men of modest wealth in Bɛllɛdha did not step up with their dhanay either. They don't even have a bank branch. Even Isurdhuna now has all three. I understand Gordha wants a bank branch!"

"Yes, they do. The army would like a branch in Kostakhéma too; it would make payments simpler for us. Spondu also complained that Mɛlwika refused to buy copper from him"

"Before the Dwobergones began to mine copper, we bought copper from him. He charged us ten times as much as they and refused to provide us with enough. I don't think Miller has approached him since, and I doubt Spondu can match the Dwobergone price."

"He can't. He asked me for a government subsidy of the prison because it was no longer covering its costs through copper mining. He's cutting costs every way he can, including cutting the cost of feeding the prisoners and slaves that do the mining and refining."

"If he will send some people to Mɛlwika, we'll teach them the techniques of copper mining and refining that we taught the Dwobergones. Many of them do not cost much to implement. Then we'll have two sources of copper in competition with each other, and that is better. They'll force each other to innovate."

"Unless they get together and fix their prices."

"Yes, but we can ask the Réjé to break it up if they raise prices excessively.

General, I feel bad about the situation Belledha is in, but I think we both know why. Do you remember when you and I met Lord Spondu? He wouldn't even look at me. I have never been able to have a conversation with the man. I think he regards me as an evil spirit."

"He regards you as a gedhému, and he is afraid of them. You are right about that. I think he thinks you are out to destroy Belledha. The discovery of gold and silver in Meddwoglubas deeply disturbs him. Belledha's copper mine used to be our chief source of silver. Now he fears the price of silver will drop as well. And with the availability of gold in larger quantities, the exchequer may mint gold ledhay coins. They should be

beautiful, too, and big. The lower price of copper makes it practical to mint copper dontay coins, also."

"Copper dontay sound like a contradiction in terms." *Dontay* came from the word *donti*, ivory.

"It is, but never mind; we'll start making them in a few months in Mcddoakwés.

The steam wagons need dontays, and there are so many more things available in the market to buy now, and fewer dhanays are around because people are saving them.

Everyone's complaining about the shortage of coins. I tell the merchants to tell people to take the coins to the bank, open an account, and deposit them; that way the coins circulate and people still have their money. But of course few are willing to do that."

"They don't trust the banks, yet."

"Exactly. Now, Mennea, do you know anything about the line to Endraidha? When I last passed it, it had stalled at Médhela, which isn't very far."

"Ask Amos; he'd know. My guess is that the factory in Mɛlwika can't turn out wire fast enough. The electric lines to Gordha need priority because of the electricity shortages, and they take a lot of copper."

"You're probably right. And telephone and electric wires along the western shore should be a priority as well. The Gordha dam is finally rising. The river has dropped to its minimum, which has sped up work. In another month they plan to turn the river off completely for a month or two to install the turbines; the dam is already high enough to store the water."

"I'm glad that project is finally moving forward."

"The army's been strapped for manpower. We're building too many things at once. And the dam has cost three times as much as we expected. We've had to develop a bunch of new engineering techniques."

"I'm impressed by the difficulty of the projects you have tackled. I congratulate you, General. The army has become incredibly active in development."

"Thank you. I think it has given us a much better image, even though most of our soldiers still don't like getting off their asses and working. But it has been good for them, too. Every soldier now must spend seven weeks a year on development projects. The ones who are learning how to use steam wagons love it and don't want to stop."

The expedition's steam wagon had to wait that morning, like most mornings, for the steam wagon bringing geology and biology students from Mcddwoglubas. But this time there was a new face on the wagon; Stauréstu. Thornton's face lit up when he saw his friend.

"Hail, Stauréstu! You made it!"

"Yes, I couldn't resist your challenge to visit my home village and then walk on south. I'm not in as good shape as you, I'm afraid; I hope I won't slow you down."

Stauréstu jumped into the cabin and wiped the rain from his hair.

"Well, it remains to be seen whether we'll hike all the way to the pole. I figure from Snékhpéla it'll take eight to twelve hours to hike to the pole, and the same to return. Since the sky will never get dark down there, there's no reason to camp; we can rest a while, but keep ourselves moving. But if it's raining it won't be wise."

"No; you'd risk illness. But this isn't a very heavy rain." Stauréstu looked out through a crack in the shuttered window just as the steam wagon got underway. "My experience has been that it has to rain pretty hard in Tripola for there to be any rain at all in Snékhpéla. We have a much cooler and drier climate."

"What's it like to live there?"

"There's snow on the ground over half the year and frost at night half of the rest. In the summer we can grow peas, carrots, and beets, but not wheat, barley, or even rye. A friend of mine who took some of your father's agriculture classes a year ago introduced cabbages this year and I hear they're growing pretty well. My friend is also trying to grow potatoes in special gardens that slope northward, contain a ditch of water at their lower end, and a frame around them so they can be covered with canvas at night. It seems to be working, but may be more work than it's worth. Most people in the village raise cattle and sheep because we have extensive grasslands."

"How much snow do you get in the winter?"

"Not too much. We never get heavy snowfalls, either. Sometimes it will snow constantly and very slowly for a week, and at the end of the week it is still not deep enough to cover your boots."

"Wind?"

"Usually a steady, cool wind blowing northward from the south pole."

"Is it usually cloudy or sunny?"

"Sunny most of the time, with clear and cold nights."

Thornton nodded. From what he had learned about climate, Stauréstu's description made sense. On Éra, air rose at the equator, drifted toward the poles, then

descended, dry, and flowed back to the equator as a wind that weakened as it spread out from the small confines of the pole to the wide girth of the equator.

"When were you last home?"

"To Snékhpéla? At the beginning of the summer Aréjé and I spent a few days. We were on our way to Mɛlwika to study under your sister, who, of course, was on her way to Néfa! That was quite a surprise, but the doctors she has trained in Mɛddoakwés were very good and we learned a lot from them, and we got to help keep the hospitals on the eastern shore going while she was here. Then the second half of the summer we went to Mɛddwoglubas and studied under her while living in our own house, which was a double privilege! So it worked out quite well."

"Meddwoglubas must have the best hospital on the western shore, now."

"Of course! We have some excellent nurses and doctors in training; Lewéspans are quite talented, as we know! I need to talk to the hospitals in both Ora and Tripola, because they don't have anyone who is able to perform operations. They can bring the patients to me or I'll go to them, now that we have telephones."

"You can perform operations?"

"Yes. I performed nine of them this summer and two last time I was in Mɛlwika.

Appendectomies, opening and cleaning arrow and knife wounds, a gall bladder operation, a spleenectomy, and removal of two tumors. Seven are still alive, too."

Thornton nodded, uncertain whether seven out of nine was good or bad. On Earth it would probably be bad; here, it was seven lives better than before the new medicine had arrived.

"How's the health in Snékhpéla?"

"If you had asked me two years ago, I would have said it was pretty good. We have pélui only once every eight or ten years, after all; it hits Tripola every two or three years. But now I know any pélui is unacceptable. The people in Snékhpéla are susceptible to four different worms and other internal parasites; everyone has one and may have two or three. This is typical, I'm afraid."

"It is. I suppose everyone in Snékhpéla will be surprised to see you again."

"They know I'm coming; I sent a letter. I have to stay an extra few days." He leaned close. "Aréjé's going to have a baby."

Thornton smiled. "Congratulations, what good news! I'm sure your family's thrilled!"

"They are. They want us to come back here to have the baby, but there's no way we can, I'm afraid; we're living in Mɛddwoglubas, now."

"The baby will change your life, as you know."

"Of course. The concern is how it changes Aréjé's life; she wants to continue studying and teaching. Lébé, May, and Lua are her models."

"That's possible, of course, but she'll need a lot of help, and not just from you," replied Thornton. "There are times you'll need other family members to help, or you'll need a nanny."

"We're counting on Aréjé's sister and mother."

They continued the discussion as the steam wagon moved steadily southward. A half hour before they reached Snékhpéla, when the fir trees had shrunk to the height of a tall man, the steam wagon stopped to let out four of the eight teams. Two headed east and two west, wading the Glaktakwés to explore the hills on the other side. The Glaktakwés

had just undergone a transition to a braided stream; rather than having one main channel, the water flowed over a wide floodplain in dozens of small, shallow, sediment-choked channels. They were nearing the point where the Glaktakwés emerged from the glacier.

From then on the character of the terrain changed dramatically. The rain had stopped, so they opened the windows in order to get a good view. A cold wind rolled down the floodplain, an expanse of gray sand and dark gravel set in milky-white channels of glacial runoff, surrounding occasional greenish islands of grass, dotted by occasional dwarf firs. The sides of the floodplain rose sharply to tundra landscape: grass, moss, and other arctic plants blanketing the countryside with a spongy verdure. The wind was constant and cold.

Finally the valley made a right angle and ran westward rather than southward. The southern side was a north-facing slope, and the extra sunshine it acquired from facing the equator caused it to be covered with stunted firs and rich grass. Herds of goats, sheep, and cows grazed there, usually watched by a child.

Ahead, the valley abruptly ended, both because it entered a higher, rockier area and therefore grew narrower—a sharp, high hill close by to the southwest that was permanently covered by snow on its southern side gave the area its name of Snow Hill or Snékhpéla—and because the great southern glacier ended at Snow Hill's northern base. The glacier was 500 meters wide and fifty high, discharging fountains of filthy water at four spots along its front that spread out across the floodplain, depositing sediment, turning from inky to milky, and gradually pulling itself together to become the Glaktakwés or Milkwater. The village was located a kilometer short of the glacier at a spot where the valley widened abruptly and the south-facing hillside protected the village

from strong, cold winds blowing off the glacier. Thornton could see about seventy stone houses rising up the slope, all with prominent north facing doors and windows.

"My people settled here about two centuries ago because the north-facing slope made the spot an island of warmth in an otherwise cold landscape," explained Stauréstu. "The tundra is good grazing for animals. Now, a quarter of the village is mining glacier ice instead; we ship twenty tons of ice every day and it goes to every city in the world except Anartu. The steam wagon made it possible just in the last year."

"And I bet demand is still rising. Every city has an icehouse and more villages are building them."

"The problem is making ice cheap enough so that villages want to buy it, but Snékhpéla can still make money on it," said Stauréstu. "Ah, here we are; let's get out and I'll introduce you to everyone."

The steam wagon stopped in front of the lowermost street of buildings, most of which seemed to have commercial and residential uses. One was a store in a former barn area, with the owner's living quarters above. Another was an icehouse for storing ice before shipment; a trailer loaded with ten tonnes of chopped glacier ice was stored within. Yet another was a warehouse with furs, cheese, and milk. At the far end of the row of buildings was a large, new structure with children out front; the village school.

Thornton and everyone else got out. Stauréstu was warmly greeted by everyone; half the village was around and many came down to greet the steam wagon. Stauréstu introduced Thornton to the village "lord"—he was not a hereditary Lord, but an appointee by the Réjé after the population chose him, as was typical in small villages—and they talked about where the expedition could camp. A choice spot was

offered right outside the village. Everyone got busy setting up camp while Thornton explained to the Lord where the four remaining teams would go that day and the next.

The Lord and Stauréstu had several suggestions for modifying the routes to include hills or other significant landmarks. Thornton called together the leaders of the four teams and they planned the routes on their big map.

Thornton's team set out first because it had the farthest to go. Stauréstu led them up the slope behind the village, past the potato experiment. It was a strip of terrace carved into the steep hillside five meters wide and fifty long with a wooden and canvas frame erected over it. Since the sun entered at a low angle, the roof did not shade any plants; at night a canvas front could be lowered to protect the plants from frost. The plants in the frames were much larger and fuller than others in a test plot with no night protection.

When they reached the top of the slope, a rolling land of snow and tundra stretched out before them to the southern horizon. Thornton took a reading of the sun's position, compared it against the time on his watch, and calculated true south; it happened to be just barely to the left of a distinctive horn-shaped peak. He pointed. "That's our landmark; we'll head for it."

They set out. The land descended steeply and because it faced the pole it received nearly no sunlight, hence it was covered with snow or had large areas where the snow had recently melted and the vegetation was almost non-existent. A few mosses and grasses struggled to cover the dark ground. As soon as they crossed it and began walking up a north-facing slope, however, the snow was gone and the grass was taller and thicker, suitable for grazing by the village's animals. As they headed south the pattern repeated itself.

"Does the snow ever melt in the shaded areas facing the pole?" asked Thornton.

Stauréstu nodded. "This is about as small as the snow patches get. The areas that look newly exposed had snow on them until earlier this month. The plants there are lucky to get two or three weeks of growth every year, before the snow buries them again."

"That's a hard life!" exclaimed Thornton.

"That's the way it is," replied Stauréstu.

Up a lush, green slope, then down its dark, cold, sparse poleward slope. It was rolling land and every roll repeated the same pattern. "Is it like this all the way?"

Thornton asked Stauréstu.

"No, in another five or eight dekent the snow will be covering the equator-ward slopes as well. Very few people have gone this far south, and no one, to my knowledge, has ever entered the permanent snow field. There's no need; there's nothing to hunt there, because nothing grows."

"Of course; I understand."

Stauréstu frowned. "Then, friend Thornton, why are we going there?"

"To look for minerals. To see what's there. And to find the south pole. I suppose there is nothing at the south pole; but we can go find it anyway."

"I suppose." Stauréstu sounded uneasy.

They continued walking in silence. In a few more dekent the equator-facing slopes began to get a skim of snow on them. The wind was quite cold, even with their coats; it was above freezing, but barely, and the wind chill was substantial. It was also blindingly white; the unshielded sun, reflecting off the snow, was nearly unbearable.

Thornton found himself closing his eyes, walking a few steps, then opening them to see where he was going.

They stopped after an hour next to a small gluba carrying a trickle of meltwater out of a depression. They examined the rocks and lichens; the gluba provided a lot of exposed rock. Thornton calculated their latitude and longitude; they were now at 73 degrees south. They continued due south.

"Do you know the mythological significance of this place?" Stauréstu asked Thornton.

"No; I didn't know it had any."

"It does. The stories from before Widumaj talk about the Alberua, `white lands,' as the home of the *mares* or ghosts. This is supposedly where the unhappy dead go; right here."

"Here?" asked Thornton, startled. He looked at the other two Eryan geologists, who nodded.

"Those are the old stories," said Dwosunu, Tripola's chief geologist, who had asked to come along because he was intrigued by the idea of visiting the pole. "Widumaj didn't confirm the stories, and he specifically said that souls go to either the world of Esto or the world of Witra, so no one believes they go here."

"I don't think Snékhpéla would have been settled, if my ancestors took those old stories seriously," added Stauréstu. "But a few people say they have seen the *mares*."

"So, should we keep our eyes out for them?" asked Thornton, with a smile.

They all laughed nervously. There had been some tension on the trip that

Thornton had felt; now it seemed heavier. So it was not surprising that, five minutes later,
they all jumped when they saw something move ahead of them.

"It can't be a ghost!" Thornton reminded them.

"Well, it can't be a person or an animal, either!" reminded the fourth geologist, a student from Ora who was certainly not a superstitious type.

Thornton turned left and headed uphill so he'd have a better view of the land ahead of them. In a minute he had a better view.

"It's an old mastodon!" he said. "He looks very old. Maybe ready to die."

Stauréstu hurried over to him. He saw the animal also; large, covered with reddish-brown wool that was peeling off, and staggering a bit. "You're right. He's sick. He's probably wandered into the Alberua to die. We find their skeletons and ivory from time to time."

"And you take the ivory?" asked Thornton.

"Of course; it's considered better than elephant ivory. It's a bit stronger and finer, and the tusks are smaller."

They stopped to watch the animal for a while. Finally they made a detour around it.

After another hour, the snow grew deeper. The ground no longer had large exposed areas; only occasional equator-facing rock outcrops. The ground was covered by a layer of old, corned snow on top of ice, the product of freeze-thaw cycles and compression. The ice showed unmistakable signs of flowing, too; big, steep hillsides were covered with cracks because the ice was sagging downhill, building up bumps of ice

at the base. The entire area—about 2,500 square kilometers, Thornton figured—fed the Glaktakwés Glacier.

After four hours they stopped and measured the sun; it was a mere three degrees above the horizon. "We're at about 86 degrees south," said Thornton. "At this rate, another hour or so."

"The ground is quite different now," said Dwosunu. "We're standing on quite a lot of snow and ice; maybe thirty or fifty doli? It mantles everything and since it's slowly flowing, it's rubbing everything smooth."

Thornton nodded. "I think you're right. And there are spots where entire depressions are full to the brim with maybe a hundred doli of ice."

Dwosunu nodded. He pointed to an ice "outcrop." "And look at the fine lines in that ice exposure. I wonder whether each layer is a snow storm? Or maybe it's an entire year?"

"This area doesn't get much precipitation," agreed the student from Ora. "This place is a desert."

"A polar desert," agreed Thornton. "Well, we're making good time; the ground is pretty easy to walk on, fortunately. Let's get going again."

They headed straight up a smooth hillside, the flowing ice having mantled the landscape and stripped it of everything loose. They lost sight of their second landmark because it was a steep slope that hid everything south of them. But soon they reached the top and walked along the rolling, ice-covered surface until a cliff-lined valley suddenly loomed up before them.

"Wow!" exclaimed Thornton. "This is a major tributary glacier to the Glaktakwés!"

They stood and looked down at the valley, at least one hundred meters deep and three hundred wide. "We'll never get across," said Dwosunu.

"Maybe it isn't necessary." Stauréstu pointed southward. "I think it bends out of our way."

"Let's stay on this side, for now," agreed Thornton.

They walked southeastward; not quite the direction they wanted to go, but close enough. In a half hour the glaciated valley did bend out of their way a bit, but they noticed they were walking on a small tributary glacier themselves. It ended in a huge, jumbled icefield where several tributary glaciers joined together to form the big glacier.

"I think we can get across," said Thornton. He pointed. "There's very little snow cover this time of the year, so we can see the icy surface easily, and we can see all the crevasses in it. I think we can walk around the crevasses."

Stauréstu nodded and drew a path across the icefield with his finger. "That way?" Thornton nodded. "Let's go."

They headed out across the ice, which had a fascinating, deep blue color to it. It was barely freezing and still pretty windy, though the wind had lessened. The crevasses usually were a few hundred meters long and could be walked around, though it required a lot of backtracking.

"If the sun weren't visible to give us a direction we could easily get lost," said Thornton.

"But you're paying close attention, I can see," said Stauréstu. "There are some distinctive prominences that provide landmarks, too. I've been using them."

"Thornton, how much of the water in the old sea is tied up here in the ice?" asked Dwosunu. "If all of this ice melted, it would raise the sea significantly."

"It would make a noticeable impact, and there must be an ice and snow field like this at the north pole as well. But my guess is that the icefield was here when the sea was big; in fact, I bet this icefield was bigger then, because the bigger sea would produce more snowfall."

"So this area is shrinking?"

"I bet it was before the big flood. Maybe it will start to expand now."

"The glacier near Snékhpéla has been retreating," said Stauréstu. "When my father was a kid, the front of the ice was a dekent away. Now it's two dekent."

"That's a lot of retreat," said Thornton. "I bet it'll keep retreating for a while, then will start to expand. Have you had more snow, the last two winters?"

"Not much," replied Stauréstu. "But winters can be very different from each other, with some warm and some cold."

They continued across the icefield, which took an extra hour or so. Once on the other side they stopped to rest again and to measure their position. They were at 88 degrees south; the sun was barely above the horizon.

They rested, whacked at a few rock outcrops—the rock was quite ordinary—ate a snack, then headed south again. Thornton began to look at his watch because at the rate they were going, they should reach the pole in about forty-five minutes. A feeling of excitement began to grow.

Thornton turned to Stauréstu. "Could you have imagined that a world like this existed, close to home?"

"No. I am amazed. It isn't far or difficult to reach, but we never went here. But it was the days of old knowledge; now we are in the day of new knowledge."

Thornton had to smile. In Ora and among the smug, "days of ignorance," was the preferred term for the time before the arrival of the Menneas. "I much prefer 'days of old knowledge." he commented.

"Oh, so do I. 'Days of ignorance' is completely insensitive. But in Meddwoglubas, we are sensitive for various reasons."

"Not just the Bahá'ís, too."

"Correct." Stauréstu switched to English, even though Dwosunu and the other geologist knew some. "Mɛddwoglubas is undergoing quite a change, you know, as a result of your family's visit. Few converted while you were there, but many are considering it now. We can expect many."

"Really?"

"Oh, yes. Even Estodhéru is thinking about it very seriously."

"Really?" Thornton looked at his friend, who nodded. "That would be a revolution."

"It would produce mass conversion, I think."

"Wow. A huge challenge."

"Pray for us. I don't know what will happen to our region, or to the Faith for that matter."

"I will. Did you mention this to my dad?"

"I will."

Thornton nodded. He thought about the implications. If much of Mcddwoglubas converted, what would the Réjé say? The town had no priests, but what would the priests elsewhere say? What would Gawéstu say and do? What would the Lords of Ora and Tripola do?

He thought about the problems so much he was totally distracted. As they walked down a gradual slope he slipped and fell.

"Whoa, Thornton, are you alright?"

"Yes," he said, brushing some snow off him. "I have to be more careful. The ground may be covered with ice, but the ice really isn't slippery!"

"The sun's on the horizon; let's stop and make a measurement," suggested Stauréstu. Thornton nodded and pulled out his sextant. He measured the sun and Skanda—which was less than half full—and Skanda's phase. That helped determine the local time quite accurately.

"We're at 89.5 degrees, I think," said Thornton. "That means the pole is about a dekent and a half that way." He pointed.

"Let's go!" exclaimed Dwosunu.

They began to jog toward a slight rise that was about the right distance. "How well can you measure our position?" asked Stauréstu.

"I don't know. Maybe half a degree; maybe better."

"Then we might be at the pole right now?"

"Unlikely, but possible."

Stauréstu laughed. "Well, we can check our position on top of the hill."

They hurried up the slope, glancing at exposed ice layers and the occasional boulder entrained in the ice. There was some fresh snow on the ground as well. But the wind had stopped; they were in the zone where it was descending rather than spreading out horizontally.

They scrambled to the top of the hill, which was a bit higher than the others and had a bare rocky patch on top. The others sat on the rocks while Thornton pulled out the sextant. The sun was balanced right on the horizon. It was amazing that Éra would have an axis without any obliquity at all.

Thornton nodded, then aimed the sextant at Skanda, which was half buried by the horizon. "Yes, this is the pole," he said. "Everything indicates that we're at 90 degrees south."

"Let's cheer!" exclaimed Dwosunu, who was excited. They all let out a yell, then listened as it bounced off the icy hills and glistening slopes around them. In every direction to the horizon it looked the same; lifeless and frozen.

"At least we can build a pile of stones here," said Thornton. "Then there will be proof that we made it."

"Only if someone else follows us; who would come here a second time?" asked Stauréstu with a laugh.

"You never know; this place might become popular some day!" replied Dwosunu.

And they all laughed.

The Tripola Messenger

"Home sweet home!" exclaimed Thornton, as he unlocked the door to their apartment within the Mennea house. He picked up Jalalu—now walking and running everywhere—and carried him in, then helped Lébé with the bags.

"I'll get the trunk!"

"No; not yet," she replied. "Kiss me first."

"Okay; gladly." He embraced her and kissed her, much to Jalalu's irritation; he grabbed his parents' legs and tried to push them apart.

"It's good to be home," she said. "It's hard to believe we've been gone almost three months!"

"Hard to believe the fall term starts in a week!" added Thornton. "There's no rest for the wicked."

"No." She looked around. The maids had come in to clean; there was no dust. The couch looked comfortable, with its blankets and pillows lined up neatly. Light streamed in the high windows that had been added to their apartment two years ago, after glass was readily available and the house was no longer part of the defensive wall. She walked into their bedroom; the bed was neat as well and the wooden armoire open, ready to receive clothes. Jalalu's little room was ready also.

Thornton ran to get the trunk, then they unpacked while Jalalu played. Thornton went to the computer room nearby to make sure the computer was there and unpacked as well; there was already a student using it, in fact, searching for engineering information

while printing a copy of a novel in Spanish, probably for Estodatu, who prided himself in reading Spanish almost as well as English (and Persian).

It was late afternoon Mɛlwika time, though in Tripola it was almost noon. Their stomachs would soon need lunch/supper. Korudé had finished her unpacking and showed up in the central garden, so they took Jalalu down to her; he could play with his cousins while she watched him. Unpacking was reasonably quick, so Thornton looked to Lébé. "We've got a half hour before eating; shall we go for a walk?"

"Sure. I'd like to poke around," she agreed.

So they headed down the stairs and out the door. They walked through the old Meddoakwés Gate, now opening into a small plaza with a major street—Broad Street—running downhill to the Arjakwés and across it inside the wall along the north addition, and another gate piercing the wall and leading outside to West Street, the concreted street running along the western edge of town. They took the street inside the wall and crossed the Arjakwés on a nice, strong iron bridge built last fall. Broad Street was lined with fairly nice houses and all sorts of small shops.

On the far side of the Arjakwés floodplain, where Broad Street began to rise up North Hill, the wall was pierced by another gate. Another wide street, Gluba Street, came from the east and intersected Broad at North Square. A large flagstone expanse, it was the new terminus for steam wagons running to Mɛddoakwés. Most freight entered the city through that gate and headed up Gluba Street to the foundry and industrial park. The new icehouse, stable, and several warehouses were built there; it was a utilitarian quarter, and therefore dirty and a bit seedy. That had not changed since late spring.

They continued on Broad Street up north hill to its broad, flattish crest. The street was now completely lined with buildings, many large; this was the area Estanu had built his apartment buildings, and many others had followed. They were surprised to see that all the house lots were now full. Even more impressive, the buildings on Broad Street were pretty; some people had planted flowers in window boxes in front of some houses, and others had flowers along the sidewalk. Eryan cities usually were utilitarian to the point of filthiness, so Broad Street was a pleasant contrast.

On the top of the ridge they turned right and walked east along Crest Street. From the crest northward to the city wall, the downward slope was covered by poorly made, small buildings on small lots. It was Mɛlwika's poorest quarter. Surprisingly, they could see, looking down the streets, that it was now completely built up; no part of the city within the walls was left vacant.

Crest Street took them to the industrial park, then it angled southeastward and met Gluba Street near a steel bridge over the dam. The industrial park looked full as well. Modolubu's paper plant was in a new building next to the press facility. Rudhu's glass making facility now had a second floor. The space adjacent Behruz's chemical plant was being prepared for an expansion; next to it was Isuranu's explosives factory. A new pencil making building occupied another space. Amos's telephone lab made telephones, switchboards, and other equipment. A son in law of Miller had a building making electrical transformers and other heavy equipment for electrical transmission. The paint making factory was bulging in its facility. There were also dyers, tanners, furniture makers, spring makers, nail makers, felt makers, and others.

They crossed the gluba bridge and stopped on the far side to look at the gluba, dam, and the industrial park. "I can't believe the park is full already," said Lébé. "It was supposed to provide space for four or five years."

"I think two things happened," said Thornton. "First, the city got 120,000 dhanay in tax money it could spend; that stimulated the local economy. Second, demand for concrete, gravel, wire, steam wagons, wheelbarrows, and a lot of other manufactures has been strong and profit is pouring in. I think most of these buildings were financed by your father and the space is rented out."

"Yes; he's looking to preserve his need for future expansion. He's built an extra building and still needs space. But this really is amazing!"

"It is." Thornton pointed at the reservoir. "I see water is trickling into the reservoir, but I'm surprised the reservoir's only half full. I suppose the demand for power has been too much."

"Let's hike up to the top of the hill," she suggested. Thornton nodded and they started up to the lookout tower built around the steel mill's smokestack, which stuck into the sky from the summit.

The door was unlocked, so they walked up the stairs to the tower. It was common fot the door to be open. From the top they had an incredible view of the entire area. To the east, the ridge dropped down into the Arjakwés reservoir. The Arjakwés Road was newly graveled as it ran to the northeast into the forested hills. To the north, west, and south, Mɛlwika spread out below them; beyond the red tile roofs and gray streets was the verdure of the irrigated farmland and the dark concrete ribbon of road running toward Mɛddoakwés.

"It's so strange to look down on these roofs and remember what this place was like, as a little girl," said Lébé. "I can remember herding our two cows over by the Péskakwés, where it's all houses now. I remember climbing all over this hill and its rocks and bushes."

"Which are all gone, now," said Thornton. "I love our city. Having been all around this world, you appreciate this place more and more. It really is unique."

"It is." Lébé looked over the city. "I need to write a novel about this place. There are so many stories about village girls coming here to follow their second-son husbands who have moved here to make a fortune. It's a really great story."

"It is a good story. But when will you ever have time to write it?"

"I'll have to make time. Even if I am teaching two classes this term. I'm itching to write more."

"So . . . does the husband beat her?"

Lébé considered. "Maybe once or twice, until she put a stop to it. Hum, I wonder how she'll do that . . . But he has his struggles, too, as a second son with no money whom everyone says is no good. He had no money until he came here, got land from your dad, and a job from my dad; when he went back to his village to ask for her hand her parents thought he stole the money for the dowry."

"And she insisted on marrying him?"

Lébé nodded. "I think so. He has bad friends, too, most of whom moved here. A lot straightened out and became factory workers or farmers but one drank himself to death and another murdered someone."

"That sounds about right. And they all built houses together; probably on this hill."

"Yes, on this hill. And maybe one got killed when the Kwolone attacked."

"This is getting to be a good story! But look." Thornton pointed at the sun, whose light was noticeably fading "If we don't run, the eclipse will catch us out here in darkness."

"We had better hurry," she said, and they hurried down the stairs and jogged down the street. Skanda covered the sun just before they got home. There were street lights in Foundry Square and just as they crossed the square the lights came on; and just as quickly they went out, as the city's power grid collapsed. But they knew that area of the city very well and had no problem getting into their house, where the dining table was set and brightly illuminated by candles.

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Chris went out for a quick walk around the city just after Thornton and Lébé started out and returned home a bit before they did. He didn't need to visit the various businesses his family had spawned; he telephoned Rudhu, Modolubu, and a few others and invited them to supper tomorrow night instead. He went out to "breathe the air" of the place, as the Eryan would say.

The air did seem a bit different. The streets seemed more crowded, the marketplace thriving and noisy. Even the alleys were paved and had sewers, but they were fairly dirty and smelly; the main thoroughfares were swept regularly and he wondered why the alleys were not swept as well.

He was surprised how often he saw steam wagons. The city owned only one and the grange owned one and rented one; but steam wagons were arriving or leaving for Gordha, Mɛddoakwés, the western shore, or local villages, and there were steam wagons carrying timber, iron ore, coal, gravel, limestone, and grain. Mɛlwika had grown because of cheap bulk transportation; it would have been impossible otherwise. The steam wagons underscored that point quite clearly.

He looked at the people in town. There seemed to be more young children on the streets; the baby boom had started three years earlier and the oldest children were now old enough to walk around. There were more older people. The clothing seemed better than in Mɛddoakwés or the western shore, and except for Mɛddwoglubas, there was more machine-woven cloth. There were more real shoes, too; Dhérwéru had opened a shoe factory in town earlier in the year and was turning out shoes in standard sizes. These were an innovation; previously the Eryan wore sandals or various sorts of moccasins.

Chris couldn't help noticing one gentleman who was standing near his house, a basket full of purchases in hand. He looked to be in his sixties, which probably meant he was in his fifties; a lifetime of hard work aged the Eryan. His beard was mostly white, with traces of former redness in it, and he was nearly toothless. He wore shoes and clothes made from machine woven cloth. As Chris approaches the door of his house, he saw the man was staring at him, so he turned.

"Can I help you?"

The man was a bit surprised by Chris's reaction.

"No, Lord. I just wanted to see the man who gave land to my grandson so cheaply." He was a bit difficult to understand because the lack of front teeth made his speak with a bit of a whistle.

"So cheaply?"

"Indeed, Lord."

"It is not difficult to understand; cheap land means more people in Mɛlwika and more money to be made other ways."

"I had thought the teachings of the hymns might have been a reason."

"I apologize for both disappointing and underestimating you. I have given the answer twenty year olds understand; you are a wiser man. I believe everyone benefits—even the rich—when everyone has the chance to rise above poverty. Mɛlwika is based on this belief. If someone can work, they deserve the chance to earn the money they need to live and raise a family."

"Then why do we need Lords at all, if we are not dependent on them any more?"

"That's the question this entire world will soon be asking, won't it?"

"Especially after the election next week."

"Indeed," agreed Chris. "What is your name?"

"Here I am known as Arktanu Manupatru," the man said. Manupatru meant "paternal grandfather of Manu." "But in Yimuaidha I was known as Arktanu Mitrusunu. There, everyone remembered my father; here, it's my grandson."

"What brings you from Yimuaidha?"

"I have two sons and both have had two sons who are adults or almost adults.

Yimuaidha doesn't have much farmland, and even less is irrigated. We have no money to

buy land and my farm simply cannot support that many. One grandson got land from his father in law. Two are here. When the first one got married this spring and brought his bride, we had to make a difficult decision. I'm getting too old to farm and Manu needed my advice; he got forty agris from you. So here I am, advising him."

"How did he do this year?"

Arktanu smiled. "The first harvest was 12 berwoni per agri; the second, 16. He says if he can stay at double the usual harvest per agri and continue with two crops a year, he might marry a second wife! We just finished the second harvest the other day, and now we're planting peas and carrots; I think we'll get a fairly good pea harvest if the frost is late, and the carrots will grow all winter, except when the snow's over them."

"But not forty agris!"

"Yes, we planted all forty. It's a gamble, but the reward should be good if we succeed because no one else will have a pea harvest in late fall. Prices will be high."

Chris doubted the plan would work; the remaining growing season was usually too short. "How was the price for the second wheat crop?"

Arktanu shrugged. "It could have been better. Too many people are growing big crops; demand can't keep up. We spent a hundred dhanay buying guano for the fields and that pushed up the yield incredibly. But everyone's doing the same."

Chris nodded. He had heard that half the Fish Eryan village of Nuarjora had been employed all summer just digging guano from former coral islands, which would soon be islands again; they were sending forty tons of guano a day up the Arjakwés Valley and to Tripola. A single steam wagon would pull ten tons at a time in three large wagons and spend the entire night moving it slowly up the royal road, because so much weight was

too much for the engine. The price had jumped as high as twenty dhanay per metric ton for a while. Demand was staying high, too, because winter was a good time to spread fertilizer, and the price had stabilized at eight dhanay per ton.

"Did you find it difficult to adjust to the way we farm, here?" asked Chris, curious.

"At first, Lord, it was strange. I had no appreciation for what a steam wagon could do. I kept telling Manu that it was suicide trying to farm so much land. I also did not understand what regular irrigation and fertilization would do. But otherwise, the methods are much the same. This pea and carrot crop is my experiment. I have a hunch the weather will be favorable; what can I say? Both crops respond well to guano. They're already coming up."

"I'd like to see your farm, some time. Farming is still one of my great loves."

"You are welcome, Lord. We're ten dekent up the Canal Road and our land is marked by a sign saying 'Manu Yimusunu's Farm.' Kérdu can direct you, he knows us."

"Then I will ask him. How is Kérdu doing, do you think? How's his farming advice?"

"He's a young man, but he has a feel for it."

"That's my impression, too. He was born with dirt under his fingernails, as they say. Perhaps you can help him over the winter; he is trying to establish a program at the grange called 'The Farmer's Ways.' The idea is to give and exchange ideas about how to farm better."

"I have wanted to go to one of the meetings; perhaps now I will, with your encouragement."

"Excellent. Are you planning to stay, or return to Yimuaidha?"

"Oh, stay here, Lord! There's no reason to return there. It has no land. In fact, there are twenty-five or thirty young men here from Yimuaidha and most have brought wives from there as well. Our village has lost a tenth of its population—the most vigorous tenth, too—to Mɛlwika. And with the new road we can get on a steam wagon and be there in fifteen or twenty minutes for a dontay. There's no reason to move back when you can visit easily."

"That's true. I have enjoyed meeting you." Chris offered both hands, and Arktanu put down his basket in order to shake. He smiled; he was touched by Chris's interest.

Then Chris went inside. The eclipse was coming, so he helped light candles.

There was no reason to turn on the lights, he was assured, because they'd go out anyway.

There was no time to rest; there never was. Chris had a week to prepare the school for the fall term. It used to be that he had to travel to recruit students; this time he wrote a few letters to former students and made some calls. And he could leave the counting of students to the registrar, a part-time student who was well-organized, especially if reminded periodically. Then there were all sorts of matters around town; former students who wanted to start businesses, new arrivals who wanted to meet the Lord, and the town council.

The town council was the buzz of the town because of the upcoming election for one seat out of six. Four days after they returned was a big town meeting to talk about the election and the future of Mɛlwika. It was held in the park by the mouth of the Arjakwés Gluba about two hours before the eclipse. A flat wooden platform was built at the base of

the only steep slope that hadn't been built on; one of Miller's factories loomed above the scene. The steep slope was perfect for an audience to look down on the platform; it could be used for town meetings and perhaps for theater.

The hillside was packed; since it was Primdiu and many did not work, the majority of the town's adults turned out. The Council sat on chairs on the stage, with an empty chair to symbolize the vacancy.

After the town's two priests chanted hymns from Widumaj, Weranolubu rose. "The Council has a statement to make about the election, which I will read slowly. It was also published in yesterday's issue of *Melwika Nues*." He cleared his throat. "The Melwika City Council serves, according to the law of the land, at the pleasure of the Lords of Melwika and Ménwika. It exists to chart the direction of the inhabitants of both cities, provide basic services to their inhabitants, and be a servant to everyone so that Melwika can be a clean, healthy, beautiful, and prosperous place to live. The Council obtains its money through taxes levied on its behalf by the Lords of Melwika and Ménwika. By the law of the land, its composition is determined by those Lords, who have decided that, this year, one seat on the Council will be chosen by the people.

"The manner of choosing will be as follows. On Brénménu 24, men and women over the age of 18 wishing to express their choice will come to the town hall any time between sunrise and eight bells in the evening, where their choice will be recorded on a piece of paper by them or by a scribe. The votes will then be counted and the result announced the next day. The individual pieces of paper will subsequently be available for anyone to examine for the next month.

"The Council and the members thereof will not express an opinion as to who should or should not be chosen. The townspeople are free to vote for anyone in the city over the age of 18 in making their decision. The Council, however, does ask two things. The first is that no one ask anyone else who they will vote for or suggest to anyone whom they should or should not vote for. Voting is a solemn and private act. The customs of the Eryan have long been that no one should boast of their qualifications for anything, nor should others boast on their behalf. We seek to hold an election that is solemn and dignified.

"Second, in your private consideration who to vote for, you should consider this advice: 'who can best combine the necessary qualities of unquestioned loyalty, of selfless devotion, of a well-trained mind, of recognized ability and mature experience.'

Unquestioned loyalty refers both to the Réjé and to the highest needs of this city. Selfless devotion refers to the person's devotion to other people, regardless of personal advantage or disadvantage. A well-trained mind does not necessarily mean that the person can read and write, but that the person should have discipline and the ability to accomplish tasks.

Recognized ability and mature experience suggest the person has prior experience in a leadership position where he or she has demonstrated capacity and wisdom.

"We are confident that if the people meditate on this list of qualities, they will make a wise choice. The purpose of this meeting tonight is two-fold; to answer questions about the voting process and to discuss in general terms the needs and plans for our city. We invite everyone to offer their ideas about improving the city." We ran olubu lowered the piece of paper. "Does anyone have questions about the voting process?"

There was silence at first. Then Saréidukter, seated between the two Lords on the platform, asked a question they had all agreed on to keep the discussion going.

"I have two questions, actually," she said. "The first is, if one is not supposed to discuss who to vote for, how can someone vote who is unable to write down their choice?"

That elicited laughter from the audience. Weranolubu smiled. "Of course, one can tell the person who is writing down one's vote whom one wishes to vote for. But that person's obligation is to write it down faithfully and not suggest other names. If one does not trust the scribes, one can bring someone to write down one's choice, or one can take the piece of paper to another scribe in another room and ask what name was written on it. A scribe will also give you a second piece of paper with the name so you can take it outside and show it to others."

"Alright," said Saréidukter. "And what if someone comes up to me and says 'you know, this city is best served if you vote for such-and-such.' What can be done about that?"

"Bring it to me. If we find evidence that someone has been campaigning secretly, we will disqualify all votes for him or her."

"Alright," said Saréidukter, seemingly oblivious of the fact she now had a third question. "Tell me again why it's so important that we not have secret campaigns to get votes."

"Several reasons," replied Waranolubu. "First, we are allowing women to vote, and we want them to know that their husbands cannot tell them how to vote. No one will know how someone else has voted; it is a secret. Once you put your piece of paper into

the box, it is mixed with the others and no one will know whose vote says what. Second, voting like this has never been done before on Éra. If the process is noisy and indecorous, it will be controversial and there will be opposition to it. We need an election that is orderly and wise; otherwise, the idea of elections will be unpopular."

Someone in the audience rose, and Weranolubu pointed to him. "How do we know that the Council or the Lords do not have a secret plan to choose the person they want?"

Weranolubu spread his hands. "If such a conspiracy came to light, it would destroy the credibility of the election process. The Lords and the Council have no need to do that; if they wanted someone specific, they would not bother to hold an election. The rules of the election have been laid out quite clearly and the Council considers them binding on all, including itself. As such, any evidence of violations can be taken to Judge Wérgéndu or to Lord Kandékwes or to the Réjé herself."

That caused some murmuring. Many had their doubts the election was real; they simply could not imagine it. Several more rose to be recognized. Weranolubu pointed to one.

"How do we know whether someone is really 18?"

Weranolubu nodded. "When everyone obtains land here in Melwika they must state their name, age, names of their father and mother, and where they were born. We have used that information to draw up a voting list. No doubt some lied about their age, but we will not pursue the matter. No one who has moved to town since New Year's can vote; we have a rule that one must live here at least six months to vote, because we want

people to vote who know the place. If you want to vote for someone who might not be 18, it is up to you to decide whether you will vote for him or her."

"Why do you let women vote?" asked another man.

Weranolubu turned to Saréidukter, who rose. "Gossip in the marketplace or down by the river when washing clothes are as good a source of information as the farmer's field and the factory floor," she replied. "All adults have a stake in Mɛlwika. Let them all express their views."

Weranolubu pointed to the last man with a question. "If no one can say 'vote for me' or 'vote for him,' what can people say and how can we decide?"

"Excellent question, and perhaps one leading to the next half of our meeting. We are assuming that people who are qualified to serve on the Council are often people who have ideas about the future of Melwika. So, in addition to thinking about the people in town you know well and their qualifications, and the people who have natural leadership positions in town, we encourage everyone to consider people who seem to have good ideas, expressed in forums such as this one. We do not wish to silence public debate; rather, we want the discussion to be about ideas, not about people. So, let us turn to the matter of Melwika's future. Who has ideas, suggestions, and comments?"

Several rose, and he was pleased to see that among them were people of capability. The Council did not wish to discourage the wise from speaking up.

Weranolubu nodded to the first one, Potanu, the firechief.

"I think I would stress the importance of planning and rules for Mɛlwika's future. We have to fight fires in this city once a week, and every time we do, we find a violation of building codes or some other problem that makes the fire harder to fight. Anyone who

has ever lived in Mcddoakwés or any other big city knows that fire is the biggest danger. Most cities suffer a major fire every ten years and most cities burn to the ground once a century. We can avoid that terrible tragedy by establishing and enforcing proper regulations. No one likes regulations, but we are not living in a little village of 500 people any more. We are living in one of the world's biggest cities, and a city that keeps getting bigger. Thanks to Esto that we have meetings like this, so that we can discuss regulations and agree on them.

"Closely related to regulations is spending more on our roads, on the city water system, and on the city sewer system. We need to lay water pipelines toward Nénaslua and Deksawsuperakwa because people are beginning to build houses on those routes and we can't protect them from fire without water. Providing water will also encourage building even more houses. As a result, we may also need to build sewers on those routes. That's the expansion I see to the city. It might also be practical to add an eastern addition to Ménwika. That's what I see for our city."

The issue of regulations had always been the hottest one in the city and it stirred many murmurs. Weranolubu recognized Sarébejnu, one of the city's two priests.

"If there is any vision I see for Mɛlwika, it is that we must continue to champion the poor. This world is a world of terrible suffering for many. I don't need to tell you that; many of you have suffered. Many of you would not be able to marry and would not have children if you had not come here and gotten irrigated land. Mɛlwika is a refuge from suffering and an example of how a city can be run to help people make better lives for themselves. The new shoes and clothes we have are nice, but they are trivial compared to

the opportunity to live happy and comfortable lives, lives in conformity with the teachings of Widumaj. My vision is one of the harmonious society Widumaj describes."

Lasu the cheese-maker, an active critic in town meetings, was next. "I would hope that the priest's vision can counter the excesses of Potanu's. We do not need external regulation, but internal regulation. Each man must regulate himself, rather than having the city impose its regulations on him. Let the hymns of Widumaj restrict our excesses." And he sat. He had had many run-ins with the hospital about unsanitary cheese-making, and he had not been repentant. Many obviously agreed with him.

Estanu the builder was next. "If there is one word to describe Mɛlwika, it is 'opportunity.' I think we should maximize opportunity, and that should guide the city council. Many of Mɛlwika's merchants and manufacturers are second sons or other men who started with nothing. Now we are prosperous. If the city keeps growing, more and more can come here and make money. The merchants are the backbone of this city and the steam engines of its growth. If we make this city favorable for merchants, we will make it favorable for everyone."

"I would say the opposite," exclaimed Dianu the musician when he was recognized. "Mɛlwika must not stand for exploitation, but for fairness and equality for all. The City Council should pass a law that places a cap on the amount of wealth someone can amass, even a Lord. If they amass more, it will be taken from them and used by the city for the benefit of all. We cannot have wealthy men without impoverishing other men. Mɛlwika must be a city with no extreme wealth and no poverty." He sat to scattered applause and scattered boos as well.

"That policy would impoverish everyone," replied Estanu, jumping to his feet. "If a merchant has no incentive to earn money, he will not hire workers, create new business, or generate new wealth. Wealth does not grow on trees; it is created through coordinated hard work. Everyone must work, but someone has to coordinate."

Dianu jumped to his feet again as well. "But why should the coordinator live in a huge, fancy house with lots of servants? Let him settle for something smaller—"

"Honoreds!" exclaimed Weranolubu, raising his hands. "You are both out of order. Raise your hands, like everyone else. I recognize Kérdu."

The head of the grange rose. "My vision of Mɛlwika's future is of a city where everyone has time both to work on a farm and in a city job. The two kinds of work complement each other. The factory work is steady but hard on one's soul; farming comes in bursts and revitalizes the spirit because it brings one in contact with nature, but fosters many months of indolence. Farming, also, is good work for women and children to participate in, it is good family work. I hope we can arrange our city life better to foster farming as well. The expansion of farming over the Ménwika lands and into the Mɛlwika hill country are important projects for the city and the Lords to encourage."

Snékwu, a young Bahá'í farmer, was next. "I want to thank Sarébɛjnu for his stress on the teachings of Widumaj. We live to learn God's revelation and live by it; while material comfort is very important, it is a secondary matter. So I hope the Mɛlwika City Council will base its decisions and vision on the revelations of Widumaj and Bahá'u'lláh, so that the city will move in a spiritual direction. Thank you."

He sat. It was a bold step for an Eryan Bahá'í to speak up so directly, and it caused a few murmurs. Melwika had over a hundred Bahá'ís, though, out of a growing population now approaching 3,000. It was time they were heard.

"Lubésé," exclaimed Weranolubu.

The chief telephone operator rose. She was obviously nervous, speaking in front of a male-dominated crowd, and a hush fell over the crowd to hear her faint voice. "I want to thank the Council and the Lords for making this city so friendly toward women. When my husband died two years ago of pélui, I considered suicide. I thought my children and I would starve. But then I moved here, joined the widow's group, learned many, many skills, learned the letters and numbers, and soon had a job. Now I have a new husband as well and he understands my fear that I could be left without the means to support myself, so he does not object to my working. My friends and fellow citizens, it is very important to allow women the chance to work for themselves. It gives them peace of mind, confidence, and security. It is important that the city continue its plan to help women start small child care businesses in their homes, so that some women can earn money watching children while others earn it by going to work. Men, you gain from a wife who works; you do not lose. Your family is more prosperous as well. Please understand this. My vision for our city is that it allows women to contribute." She sat to many murmured comments, as the male audience considered her remarks.

"The debate about wealth and poverty is about to resume," said Wɛranolubu. "But first, Lord Mennea has raised his hand."

Chris rose. "I want to thank everyone for being frank about their ideas. If one studies history, one will note that the discussions today repeat discussions for thousands

of years. The arguments are not new. I do not think these arguments will be completely resolved in Mɛlwika. But in Mɛlwika they can come to the surface and be spoken about by everyone to everyone. That is new. And the ideas that clash tonight must ultimately be based on respect for the right of everyone to speak their mind. That is my vision for Mɛlwika; a place where we can debate and sometimes disagree, but still work together to build our city afterward."

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The discussion continued until the eclipse began. Everyone wandered home in the darkness to cook supper. The Mennea household had been emptied of almost everyone; even the cooks had attended the meeting, so it was some time before supper would be ready. Meanwhile, the family discussed the results.

Then the phone rang. Chris walked back to his office to answer it. "Hélo?" "Chris dear, this is Liz. How are you?"

"Oh, we're fine. How are you and mom?"

"Oh, we're fine. This morning we got back to Mɛddwoglubas from Néfa for our second Bahá'í school. It was just for Néfa and the surrounding villages and was open to inquirers as well. Thirty were there, and we had four declarations."

"Really? Fantastic! The friends must have been thrilled!"

"Yes, the spirit in Néfa is now very strong. But we have to be careful; Lord Albanu personally visited ¿jnu's house and asked mother and I why we were there. I replied that we were friends with ¿jnu and invited by the family and other friends. He did not press the matter, but he knew why we were there and we knew he knew. So we're not

going back for at least six weeks, so things can cool off. We'll be going to Ora next week and Tripola the week after that, each time for a week."

"Are you giving classes in Meddwoglubas, too?"

"Only a few; we're here to rest, really. But mother wants to ask you something.

I'll put her on."

"Alright." Chris waited and a moment later his mother-in-law's voice came over the line, faint and interrupted by static, but quite understandable. "Hello Chris, how are you?"

"Oh, we're all fine here, mother. I hear you've had some excitement in Néfa."

"It was marvelous! The Bahá'ís there are getting much more knowledgeable and are on fire as a result! They're telling friends and relatives, and there's a snowball effect that has started. We'll have hundreds of believers there in no time."

"And Albanu was unhappy?"

"Yes, but he did nothing. The Bahá'ís will be careful, I'm sure. We've written to Isurdhuna and Frachvala; I hope we can go there and come back before the first snows. I want to spend a minimum of two weeks in all these areas—a week for the Bahá'ís and a week for their friends—before we head home. By late fall, the Faith will be very strong over here; we'll have the proper foundation for a Spiritual Assembly for the entire kingdom." One reason Mary had traveled to the western shore was to lay the ground for a national election next spring. Many members of the Mɛlwika Spiritual Assembly, which was functioning de facto as a central Spiritual Assembly as well as a local spiritual assembly, was that any central assembly based primarily on one strong community and several weak ones would be weak itself.

"This will end the debate, won't it?"

"Yes, and in the best way. But Chris, I wanted to call you about a different matter. I want to spend a chunk of your money. This morning I had a second chance to talk to Mansjnu. I think you met him; he's one of the builders here who's now a Bahá'í."

"Yes, I remember him; a nice man."

"Well, he's also a musician on the side. When he sat in on May's class about Earth culture, he was fascinated by Earth music. He and I have had several conversations since about pianos, in particular. This morning we talked about him making a piano."

"Hum. Yes, that would be expensive. I bet it would take a full year."

"That's what we're figuring, plus hauling in good wood—mahogany, oak, chestnut—aging it properly, carving the ivory keys, purchasing high quality wire from Mɛlwika, assembling each key. It's quite a complicated task. Manɛjnu knows a little English, but will need help from one of the local translators to read information about piano manufacture that we can get over the web; I'm sure there's some. And he'll need some assistance at times. We're figuring it'll cost two thousand."

"That sounds about right. Okay, mother, here's what we do. We'll pay him two thousand for the first piano and will be willing to consider paying more if he needs it, if we receive reports about his progress that clearly indicate where and why there are cost overruns. But then you encourage him to start piano manufacturing, and we want a ten percent royalty on the first fifty sold. I'm inventing the number off the top of my head. I suppose if he could manufacture fifty in a few years, they'd sell for 500 to 1,000, and ten percent would recoup all our money in a few years. That's how we usually arrange these

things. He gains a piano business and the new knowledge generates money so that we can invest in something else."

"Alright, Chris. I can drive a good bargain, too. I'll work on him and see whether I can bring him around. I think he'll agree to terms like that."

"Good. I'd like to see this world gain pianos. It's not on my first priority list, but that's alright."

"Maybe it should be on our first priority list, though. The arts are easily short changed. I'll turn the phone back to Liz, now. Bye, dear. Kiss everyone for me."

"I will, mother. Alláh-u-Abha."

There was silence on the phone for a moment. Chris looked at the wall and marveled that Éra was gaining another important piece of earth culture. They had not yet managed to find someone capable of pioneering the field of psychology. They still needed someone to start on medical technology, especially manufacture of vaccines and medicines. They had been unable, to date, to find someone interested in making sewing machines, though an engineer in Tripola was promising. They had power looms, but still no one to make cotton gins. They had people able to handle electricity and make electrical and telephone equipment, but no one yet was fascinated by electronics or the problem of making radios. They could manufacture motors, but no one was yet interested in making compressors, so they had no refrigeration.

On the other hand, this summer they had found students interested in oceanography and archaeology and had managed to strengthen meteorology. The local potter had finally upgraded to make ceramics, with the result that hand-painted china was becoming popular with the Lords and was emerging as a profit center. Real shoes were

now being made, and real cloth was rolling off Mɛddwoglubas's power looms. Clock towers were dotting all the cities and some major villages and a table model would appear in the winter. Progress was being made, bit by bit. Now pianos.

Liz came on the phone, finally. "Sorry for the delay. How was the election meeting?"

"It went pretty well. The rules of voting seem to be well accepted. I'm glad we decided to push for no campaigning. Everyone seems to feel it will make the election less controversial and lower-key, and right now it fits Eryan culture better than the egotism of modern Earth elections. But the rule did not stop a very active and lively discussion about the future of Mɛlwika. We got a lot of good contributions and some hot discussions."

"Did any women speak up?"

"Two, both widows. Lubésé was quite eloquent about the need to allow women to work, even if they are married."

"Good for her. And I'm sure Saréidukter had things to say. I ask because I was talking to Gelé a little while ago, and she had talked to Sliru by telephone—he's in Tripola—and he said the *Tripola Bedhe* is out and it'll be very controversial. But I didn't hear how. I was thinking it might be about our election."

"It's possible. But Kameru wants the election to succeed, so I doubt he'll do anything to undermine it."

"That's true. We'll look tomorrow, I guess. Kiss everyone for me, alright?"

"I will. You have a good day."

"And you have a good evening. Goodbye."

"Bye."

It was after noontime before May could get to the marketplace to buy a *Tripola Bedhe*. By then they were becoming hard to find; the issue had been snapped up. She walked home, reading and turning red.

Thornton came into the dining room when May, Lua, and Chris were gathered around the newspaper, reading the front page. He glanced over their shoulders. "Wow, an article about our trip to the south pole! Fantastic!" Then he saw their serious looks. "What does it say?"

"I don't know," said Chris. "I'll read that story later. We're reading this one about Néfa."

"About 'the notoriously greedy Lord of Néfa, whose callous attempt to displace peasants and force them into involuntary servitude on his vast estates is a reversal of the direction of social development and a self-centered seizure of the new knowledge to bolster the old systems of exploitation," added May.

"What?" exclaimed Thornton. He began to read the article as well. "Wow, it's long. Not all of it is like the part you just read."

"It says the same thing, though," said Chris. "And not all of this information is accurate. Albanu is not, to my knowledge, trying to force farmers off land they own. He is forcing tenant farmers to raise the crops he wants."

"That sounds like a story Dwosunu told me, when we were in Nefa," said Thornton. "And Dwosunu is a friend of Kameru."

"So, not everything comes from a personal investigation," exclaimed May. "I wonder whether Kameru went there at all."

"Yes, he was there," replied Chris. "I heard that. Lord Gugéndu effectively exiled

Kameru from Tripola when the Queen was there; he didn't want any trouble. The *Tripola* 

Bedhe ran totally harmless stuff and some flattering articles about Her Majesty's visit.

Meanwhile, Kameru went north; he was in Meddwoglubas just before we left for Tripola,

and he was going to Ora next."

"So he went to Néfa, returned home, got more information from Dwosunu and the

other geologists and ecologists from Tripola, and wrote this article," said Thornton.

"It's so sensationalistic," commented May, shaking her head. "And people love it;

the copies were almost all gone when I picked up this one. I'm sure someone has

telephoned for more."

"I guess we can be thankful Lord Albanu can't make long distance calls, yet,"

commented Chris.

May 6, 2001; 5/18/13, 7/26/17, 11/3/24

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## City Council Election

The Néfa exposé caused demand for the *Tripola Bedhe* to rise to unprecedented levels. This soon caused problems in Melwika that necessitated a meeting of Chris, May, and Sulanu, editor of the *Melwika Nues*.

"People can buy only so many newspapers," explained Sulanu. "I called Tripola earlier this afternoon and was told that demand was so high, they have had to print 1,000 copies of the latest issue of the *Bɛdhɛ*! Meanwhile, the latest issue of the *Nuɛs* appeared yesterday and it is being purchased very slowly. It looks like we'll be lucky if we sell our first run of 200."

"That's all?" asked May.

Sulanu nodded. "We usually make a second run today or tomorrow based on sales. Usually we print 100-200 more. Not this time."

"What does that do to income?" asked Chris.

"It's a simple calculation; the cover price is one dontay, and we earn about three-quarters of that; merchants get the rest. If we sell 200 instead of 400, we bring in 7.5 dhanay instead of 15. My salary is 15 dhanay per week and printing 200 costs me 3 dhanay."

"Well, we recoup some of that difference because a lot of the material you edit and typeset can be easily rearranged and reprinted again in educational materials," said Chris. "And I don't mind covering the difference; we can afford it."

"Still, our educational market is being eroded," said Sulanu. "People would rather teach reading through sensationalist stories than our materials."

"Lébé has started on a new novel," noted May. "Maybe we could serialize it. That would add something attractive and potentially provocative without being too controversial."

"Are you sure we can't write exposés of the sort the  $B\varepsilon dh\varepsilon$  is?" asked Sulanu.

Chris shook his head. "You would not want to be in Tripola right now, believe me. I've received letters or angry phone calls from a dozen Lords, and I passed them straight on to Gugéndu. Just yesterday I had four; five the day before. Gugéndu apologized to me about incomplete school business; that he had been so busy dealing with angry letters and calls he hadn't been able to get anything else done. He said forty people have written or called him in the last four days."

"Still, at least Gugéndu doesn't have to subsidize the paper any more," persisted Sulanu. "Financial self-sufficiency is something both papers have striven for over the last year. I figure with 1,000 copies sold, the *Bɛdhɛ* is taking in 37.5 dhanay. That's enough to cover all printing costs and support a full-time staff of three!"

"Sulanu, you'll get there," said Chris. "I doubt we have come close to saturating the newspaper market. There's room for two newspapers; eventually there will be room for one in every major region."

"We need to push advertising," added May. "We've been talking about it for months; now's the time to start."

"I'll assign a student to the problem in one of my business courses, starting next week," promised Chris. "Or maybe it can be a group project."

"And this reinforces my determination to offer a course in journalism this fall," added May. "I've wanted to teach it for three years. Maybe this fall is finally the time. Kameru violated a lot of standards when writing his article. It's full of provable inaccuracies."

"Maybe we should expose them," suggested Sulanu.

"I wouldn't spend too much time on that," replied Chris. "Albanu is demanding an apology. They may have to print something. Confidentially, both the army and the palace are angry about the article. So I think we need to stay away from the controversy, so it doesn't taint us."

"I see," agreed Sulanu.

"Everyone's waiting for the next issue to see whether changes will be made," added Chris. "And I think there will be."

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Chris had little additional time to devote to the controversy because the fall term was beginning. No term ever began the same way, and this fall's had many very difficult problems to solve. But he had time to talk to Thornton the afternoon before the inaugural dinner.

"May says you're almost all the way to a Bachelor's," Chris noted, reading
Thornton's transcript. "You already have plenty of courses because every new course you
teach counts as one you took as well, but you still don't have your distribution
requirements." He looked through his glasses at Thornton. "Son, you need to slow down
and get four classes in literature, history, social science, and something else other than
science; it's your choice. And you've got five terms, so it's only one per term."

"I know. I'd rather cram them into the winter actually, dad. The fall's already pretty busy with the map making projects we've planned, and I'm sure the same thing will happen in the spring. It'd be easier if—"

Chris shook his head. "No, I'd rather you spread them out, because there will always be something else to do. Always. Especially if you take the classes from non-family members. Go to Mɛddoakwés and take two classes there. I want people to know you earned the degree, and they'll be sure if you earned a good grade in their class. One class a term wouldn't be hard. If you teach a class in Mɛddoakwés, you could take a class there during the next period, and come back."

Thornton stared at his father, knowing this is what he wanted regardless. "Okay. I understand the principle you're emphasizing. I agree it's important even if it will be a pain. If you really want me to do that, I will."

"Lébé, too. I'm planning to talk to her later this afternoon. May has spent the last three days updating our registration records. We could have as many as fifteen students receiving a Bachelor's degree in early summer. We might even have six or seven of them receiving Master's degrees, and that would include you and Lébé as well; we have quite a crop of student teachers coming along, creating new courses and seminars for themselves and others. May plans to sit with all of the ones in town and write the others to put a fire under them to finish up."

"And then Ph.D. work?"

"Exactly, though that can be stretched over six or eight years. I'd rather have experience and quality. Now, how's our department of biology and environmental science going?"

"Slowly. The summer expedition did reveal some talent, but it's scattered all over the place. I'm planning a seminar on ecology, but I'll be lucky if I can get three students. We've got a class on botany in Meddoakwés and one on cellular biology here, being taught by a doctor at the hospital."

"That's an improvement. Good. If you could get students from the western shore, how many might you have?"

"Depending on the class, I suppose we could get six or eight more in biology/ecology and eight to ten in geology."

"That many?" Chris considered. "Good. I met with Werétrakester yesterday and we talked about scheduling basic courses Primdiu, Dwodiu, and Tridiu, and advanced classes the other three days of the week. The idea is to make it possible for students to come here every week for advanced classes, then go home to teach basics elsewhere. Right now the faculty at the other génademas are advancing very slowly in terms of knowledge. If they could come here weekly or even every other week it would allow them to acquire skills and continue their basic teaching. It would also allow them to teach advanced classes to more students. Transportation is now sufficiently advanced to allow twenty or thirty or more students to commute here."

"That's an intriguing idea. A kind of continuation of the summer génadema."

"Exactly. I talked to Mitru and he's willing to switch to a schedule where two passenger wagons arrive here Tridiu evening, one via the northern shore and one via the southern, and two return on the same routes the morning of Primdiu."

"They'll be jet-lagged and tired."

"And they're all young; they'll love it."

"Where will we put them up?"

"That's not as difficult as I thought because our enrollments will actually *drop* this term. A lot of people who want basic classes took them over the summer. By doing so many classes so cheaply, we have dried up the autumn market. We'll have one hundred students rather than the hundred-sixty I had hoped for. At the same time, the number of returning students appears likely to jump from thirty to almost fifty. That's good news and bad news; good news because we have a bigger pool of committed students than ever; bad news because they are less able to pay than the new students, who have grants from their local Lord or access to the monies allocated by the Consultative Assembly."

Thornton looked alarmed. "What does that do to revenues?"

"The Mɛlwika Génadɛma will take in half the income I expected. Furthermore, I'll have much less work for the advanced students to do. I've told Estodatu he can finally open the translation institute he has been pushing for; a lot of students have taken basic English and that will improve their skills. I doubt it will do our income much good, though, unless the army orders a bunch of books about weaponry! I won't get much from Lord Mitru, Gugéndu, or Albanu either if they send their faculty here weekly for courses; they're too stingy. Estodhéru will be alright."

"We can ask the army for more money for the cartography project," suggested Thornton. "Of course, the data is scattered everywhere, because students took copious notes. There will be map-making efforts in Néfa, Ora, Mɛddwoglubas, Tripola, Endraidha, and here. If we can get those maps together the results will certainly be much better."

"Well, plan it. Now at least some of those folks will be able to get here. I'll talk to Roktekester about that possibility."

"Dad, how will you pay for everything?"

"It's not as bad as it sounds. Farm mortgages, rents, and grange fees are way up. I mostly paid off the new school buildings with the spring income and I can borrow or postpone the rest. We'll have to be very careful, but I think we can make ends meet. Food's cheaper, so that helps. The students will do more around the génadema so we'll need to hire less help. We'll get the students more work with associated businesses like Modolubu's and in turn they'll pay some of it as tuition. With classes crammed into three days, they'll have a bigger block of time for work. We'll manage."

"Good. But aren't we being drained by the electrical and telephone line?"

"Yes. The phone company's losing money and the lines are going to cost almost twice what we thought—"

"Twice?"

"Yes, and it's still not clear why. The project is not being managed well. The time has probably come to get to the bottom of it, too. Needless to say, the hospital loses money, though it's doing better than expected right now. Behruz's chemical manufacturing plant is doing extremely well, but almost all the profits are plowed into expansion and improvements. However, Behruz has agreed to postpone some of them in the first and second autumn terms."

"And the bank."

"Well, it takes my time, but not our money, fortunately. In retrospect, the headache of setting it up may not have been worth it. It's in constant crisis, mostly

because its staff are not well trained yet and make mistakes. Yimanu's not a bad manager, but still needs my assistance, so I'm often on the phone or dictating letters to the other directors, to explain irregularities. At least the bank appears to be headed toward its first—small—profit. If the bank hadn't loaned itself 5,000 dhanay to build a fancy headquarters, it would be in much better shape."

"But it would have less prestige."

"Well just one course!"

"That's true. If we avoid economic crises in the next few years, it should be fine."

"So, I should go write letters to everyone I can think of, proposing they come here three days a week."

"Yes. Talk to May about coordinating the schedule, then contact the letter copying pool if you can't get access to a computer. Meanwhile, feel free to telephone the different schools; just keep the calls as short as possible. It's a dontay every three minutes and the rate doubles during the high-demand hours."

"Okay," agreed Thornton. He stood up. "I'm excited by this new arrangement.

Too bad I have to take courses the other three days of the week!"

vven, just one course:		

It was well over a week after his return before Chris could find the time to go to Mɛddoakwés. Miller invited him to ride with him to the capital because they both had business with General Roktɛkɛstɛr. Miller's private coach stopped by to pick both of them up at 9 a.m. three mornings after the fall term began.

Chris immediately noticed the smooth, concrete road surface. "My, the ride is much smoother than before! How far does the concrete road go?"

"Almost to Morituora. It shaves five minutes off the trip because steam wagons can go faster. The ride is really smooth now. Quite modern."

Chris noted all the people walking and riding animals. "It looks like there's more foot traffic, too."

"Yes, but just to Nénaslua; not all the way to the capital. There are now a dozen houses built along the road."

"Oh?" Chris watched and, sure enough, they soon rolled by a house on the south side of the royal road. No doubt it was a farmer's, on land he rented from Miller. Just before they reached Nénaslua a gravel road entered from the right, and a neat road sign on a three-meter pole said "Yimuaidha 10 Mɛgdhuna 20."

"So, we have road signs as well, and in kilometers, I see."

"A few. It was a project of the Gésɛlékwɛs Maj Génadɛma. And see the wagon stop?"

"That little wooden shed?" Chris noted it was painted neatly white, was closed on the north, east, and west, had a wooden floor and a long bench.

"Yes. Mitru paid for them himself out of the profits he made this summer. People want to get on the passenger wagons everywhere; it slows them down enormously. Now passengers have to be at a stop. It's more efficient and people have a place to wait. And the floor has a sundial painted on it, though the little stick to cast the shadow keeps getting broken off."

"Where's he putting these things?"

"Every dekent along the road. There are only three of them so far, as an experiment. But over the winter when business slows down, we'll make as many as we can."

"Good. How was your summer?"

"Miller Industries?" John smiled. "We made more money than ever before. It was incredible. I'm now making a steam wagon every two weeks with about 30 workers; that's 33 per year. And I'm selling them. We're making ten thousand wheelbarrows a year and two thousand cast-iron stoves. We ground four times as much flour as last year; we've added three more grindstones. We're cutting and selling incredible amounts of timber, too."

"Yes, and I hear you're clear-cutting the forest. Did you hear Thornton's suggestions? You've got to cut the forest in strips so that the wildlife has hiding places and the wind can reseed the cleared strips."

"Oh? That makes sense. He should give me a report, and if it doesn't cost too much we'll do it. We're also digging more iron and especially coal than ever, making more cement and gravel, and turning out more electrical equipment. I employ 300 now. Profits will be a hundred fifty thousand, I think."

"Wow. And where will it go?"

"Half to my family! I've now got 42 children and with their spouses and kids, my clan totals over 80! I have eleven sons and six sons-in-law who work for me. My oldest granddaughter gets married in a few months, and her brother Primu will probably follow in the spring! So we have some weddings coming up. But about half will be left for investment. We've used it to improve the factory, build more lathes and machine tools,

and streamline the steam wagon assembly. A team has been working all summer on manufacturing a big tank for storing coal gas and designing a pump to compress the gas, and that work is just about finished; it has cost me 20,000 or more, but the result is a system for hauling tanks of gas to Mɛddoakwés and maybe even the western shore, and it'll allow us to store gas here for times when there's high demand. We've been improving the design of steam wagons to stay ahead of Lord Mitru's machines. The research and development arm, you might say, has benefited from the bigger profits."

"Now, we have to figure out an arrangement to systematize your R and D and link it to the génadema."

Miller shrugged. "Amos and I have talked about that on and off when he was here. I'm willing to invest in a real research center which can be a sort of engineering school for the génadema as well, as long as teaching is less than half of their work and the products come to my business first. One reason I'm willing to consider it, frankly, is that I can't spin off businesses fast enough! We wanted to do power looms, but couldn't find the people. The same with clocks. Now Meddwoglubas is doing them. That's fine, because we really couldn't have done them, even though we wanted to."

"Good." Chris smiled. "The trick, John, isn't to route all the products to us; just a portion of the profits. Let other people and other cities do the work and benefit from it.

But if we're providing the product, some of the profit must come back to us, so that we can provide more products."

Miller nodded. "I can live with that. Now, tell me how much money you've been making."

"Not as much as you. The génadema will actually lose money this fall; there are fewer students, unless you want to send more our way. Of course, agriculture is making more than ever before; about sixty thousand. Behruz's chemical plant is making money, but the profits have gone into the plant to make matches and to expand the paint factory, and soon it'll be turning out linoleum for flooring."

"I know, I'm buying much-improved paints for all sorts of things and plan to buy lots of linoleum."

"I gather the new addition to Mɛddoakwés will be a big purchaser of linoleum, too."

"It should be; we've been selling incredible amounts of timber and timber products all summer."

"The rest of my money has gone into improving the telephones and related equipment; Amos and Behruz now have four men each working for them just to develop products. We can roll them into the research facility too, I think. We're doing a lot on a little money."

"Yes, so are we. One problem is that we need more space, the city's full, and some things just can't go outside the walls. I need to set up a gas tank farm, for example, to store gas, and the tanks have to be separated from each other, and they can't be surrounded by houses. The only place that's practical is the crest of the ridge. We can't put a research and development facility outside the walls either. So in the spring it'll be time for an eastern addition to both Mɛlwika and Ménwika, I think."

Chris nodded. "That's a good idea. But we should plan it with plenty of space for future industrial development within the walls, so that we don't have to enclose even more land later. Let people build outside the walls. A lot are beginning to."

"I agree."

Just then the steam wagon slowed down and bumped off the end of the pavement onto gravel. They were at the edge of Morituora. Even that small town at the mouth of the Moritua Lake looked prosperous; the changing climate had provided it with ample summer water for a second rice crop, and a woodworking factory had been opened by one of Miller's sons in law to utilize the town's labor and power from the electric line. Miller pointed it out to Chris and told him how proud he was of the facility, his first in a neighboring town.

Soon the steam wagon was approaching the north addition of the capital. Chris looked out the window at the new city wall, tall, cleanly mortared with Miller cement, and solidly built. They rolled through a new gate guarded by a pair of tall, large towers that obviously doubled as barracks. Inside, a wide, white-concrete Moritua Road rolled one hundred meters to an intersection with northward-trending Isérakwés Road, the addition's new main street. The pavement itself was twenty-five meters wide, paralleled by strips for grass and trees four meters wide, then five meters more for sidewalks, producing a grand boulevard forty-three meters or one hundred thirty feet wide. In front of the old north gate to the city at the addition's southern end the street entered a square—Dukterésto Square—one hundred meters wide that was thronging with people buying and selling from wagons. From the square, Isérakwés Rodha ran two hundred

fifty meters to another gate at the far end, and the entire length was lined by new buildings either finished or under construction.

"Wow!" said Chris.

"That's right, you've been away all summer. You have to see it all." Miller stood and opened a window in the front of the coach, opening on the steam engine itself. "Driver! Turn right onto Isérakwés Rodha, so Lord Mennea can see the entire new addition."

"Yes my Lord," replied the fireman, who informed the driver.

They went up the street to the far end, turned around in a plaza there, then came back down it.

"The southern end has the most prestige," Miller explained when they reached Dukterésto Square. "The temple has built a new façade facing the Square in the west side and added some new buildings, giving those thief-priests even more space. Adjoining it on the square's northwest corner is the new palace."

"So this is the palace!" said Chris, pointing to a grand, pillared structure.

"Well, it will be. I don't think there's practically anything behind the façade yet.

The Réjé has a ten-year plan for building it. Then after the palace there's a street heading to the new army complex behind it. Opposite on the east side of the square will be the new city bath; they've just started with the brickwork and right now it's housing construction workers. After that you have the new house for Lord Kandékwes. Isérakwés Rodha has the new residences for the big merchant families, and mansions for the various other hereditary Lords and ancient branches of the royal family."

"Oh? I thought they were all down in Brébestéa and Ekwedhuna, where their horses could roam freely on the cavalry's pastures."

"They still have their houses and horses down there, but now they have houses in the city as well. Safe city water, electric lights, telephones, piped gas, a hospital, and a génadema have convinced them that city life has advantages. I think most of them are here three or four days a week. That means their servants are here and they are buying more here, so many of the merchants down there have moved here as well. So Meddoakwés has probably gained a thousand people as a result of the addition. Not to mention the eight hundred construction workers and their families, many of whom will stay."

"That's amazing." Chris looked at the new houses. "And the merchant families have moved their entire operations here?"

"Yes. Most have walled enclosures twenty-five meters along the street and one hundred fifty deep. Lots of space for storage, steam wagons, sales space, and I think most are thinking about opening factories on the backs of their lots, since there's an alley back there."

"What about their old houses and property?"

"Some have kept their old places for sons or cousins. Some have sold them to up-and-comers or aristocracy. Walk around the old town and you will be surprised to see there's a fair amount of refurbishment and even new construction. People are making money from the work and are building up the places they have."

"Good. I wouldn't want to see the old city become a ghetto."

Miller laughed. "When wasn't it?"

The steam wagon turned left into the street that ran along the side of the palace.

The palace was to the right; on the left was a wall. "You'll be interested in this space. It's reserved for the new Géselékwes Maj Génadema."

"Really! The first lot on Isérakwés Rodha after the palace!"

"Yes, quite prestigious. I think the lot is fifty meters on the street and two hundred deep. I suppose the army will use it to drill and store things for a while. I don't know when they plan to build."

"I'll have to ask Werétrakester."

They continued down the street, then turned left into the army complex behind the palace and almost immediately entered a private square. The coach stopped; Miller and Mennea got out. John pointed east. "This is the back of the palace. The rest of this will be the army headquarters; call it 'the pentagon.' But it's not finished. We have to walk through."

Miller led Mennea to a door, where they talked to a guard, who got on a phone and called General Roktekester's office to verify their appointment. A soldier escorted them down a long, partially completed corridor that ran past muddy squares of dirt that would be future courtyards and past doorways that opened into construction. At the far end they emerged into an existing garden courtyard and Chris recognized it as part of the old palace complex; one that had been against the old city wall, but the wall was now completely gone! They walked past the old army headquarters building into an old bureaucrat's building; it was the new temporary army headquarters. "They move everything around once a month," growled Miller in English. "It can't be efficient."

He led them in and they went up the stairs to General Roktekester's new office suite. The General himself stood in the door to welcome them.

"Lord Kristoféru, it's good to see you again," he said. "Hail, Lord Miller. Please enter my humble office." And he led them into a space that was anything but humble. There was an immense desk with several tables piled high with paperwork and two assistants hard at work with it at the moment. The floor and walls were piled with blankets of all sorts. In the corner was a comfortable circle of pillows and chairs; one could choose to sit in either. They sat in chairs and the assistants immediately brought tea and cakes.

"And this is temporary, I understand," said Chris.

"Yes, just temporary. They say the permanent offices will be ready before it gets cold; which had better be true, since this space isn't heated. Say, Mennea." Roktekester reached over to a nearby table and picked up a ten-dhanay bank note. "Can you give me change?" he said, with a smile.

Chris laughed. "So, you got one, eh? They've been circulating two weeks, and so far reception has been reasonably good."

"Everyone immediately dashes to the bank and changes them for coins," commented Miller.

"Not everyone, and every week we think the number will get fewer, as people get used to the idea."

Roktekester put on his reading glasses and examined the note. "I like them.

They're really well made; I'm impressed that 'paper' can be this tough. And the Réjé
very much likes her picture on the front. It's a good likeness."

"We have good artists."

The general looked at Miller. "We have some common projects that are working out well. The Gordha dam will be finished next month. The river is much smaller, now that the snowmelt has stopped, so work on the penstocks is going forward quickly."

"When will you be ready for the turbines?" Miller asked.

"Two months."

"Good. The wires will reach Gordha by then, and we'll have the turbines and generators built and ready to transport. Sounds like we should start installing the generators."

Roktekester nodded. "I think you can." He turned to Chris. "I just got a report yesterday that the line to Ora will be finished next week. That means Ora will be able to send long distance calls to Tripola, and on to here, and Tripola will be able to buy electricity from Ora."

"I got a report, too. Néfa will be connected in four more weeks. Endraidha will be connected to Mɛlwika by mid winter, and by spring Endraidha will be connected to Tripola. It's a one-year project to complete the entire line."

"Are you already thinking about a northern line to Néfa via Lepawsa and Belledha?"

"Only if we can get the money! We'll need royal help for it. The southern and western line has exhausted private financing and everyone's mad that the investment is bigger than expected and will take twice as long to pay for itself as predicted."

"I'm being put under pressure from my cousins in Lepawsa to add turbines and electrical generators to the five dams we built last year," said Roktekester. "They want electricity. Belledha has some merchants who can invest, and if Spondu can be convinced he's not poor, maybe he'll invest as well. I'll keep that in mind." He looked at Miller again. "So, the two of you are here to convince me Sumilara can safely be sold steam engines."

"Not any steam engine, Lord General," replied Miller. "Much of the equipment we make now would not be suitable. We would have to make special modifications. The Sumis will have to agree to gravel the main roads connecting their towns together. We will sell them steam wagons designed to have a very low clearance; such machines could not navigate muddy tracks or stump-covered forest trails. The gravel roads would have to be very smooth, so they would require some special maintenance."

"How would you do this?" asked Roktekester.

"Redesign the steam wagon so the axle is located higher in the vehicle. The wheels will be the same size, but the chassis will rest much closer to the ground."

Roktekester nodded. "I can picture it. I suppose you will charge them."

"Of course; we'll have to charge an extra thousand dhanay. The vehicles can be driven on concrete roads, so they won't be useless off Sumilara. As a result, I can afford to make quite a few of them. We'll use some of them in this area until the Sumis want to buy them."

"And you'll sell them gravel making equipment?"

"Yes. Lord Lamuno has written asking to buy four steam wagons this year and probably four more next year. He wants to buy two gravel sieves and I gather he's written Lord Mitru asking to buy two steam shovels."

"He also wants electricity," Chris reminded John.

"Yes. I propose to write him back suggesting that we sell them steam engines to make electricity. Sumilara doesn't have many glubas and hydroelectric dams could be hard for the army to defend against guerillas. But there are vast forests drowning in the rising sea and the wood can be cut and burned to make both electricity and gas. If the electrical plant was next to Anartu, the army could watch it."

"That makes sense. They'll want a telephone and electrical line along the southern coast." Roktekester considered that.

"Allowing them to spend their own money on good roads, electricity, telephones, and steam wagons is the best way to integrate them into the rest of the kingdom," said Chris. "If you deny them, they will be angry and resentful and that will feed the feeling of rebellion. The Sumis are a smart people who won't go away. They do not want to be part of the kingdom, but they want to be a part of the kingdom's economy. As long as those two things are linked, they'll be in."

"I understand that." Roktekester stroked his beard. "The Sumis' biggest ally, in a way, are the Eryan with extreme prejudice against them. Those people would enslave the Sumis, or at least keep them poor. I agree that such an approach would push the entire Sumi people away from us. If we welcome them to participate in the Kingdom, only an extreme few will refuse."

"Exactly. Lord Lamuno seems to understand that as well. He tried to send students to every génadema, I think."

"Yes, even Gordha," agreed Roktekester. "There are thirty in Isurdhuna and fifteen in Néfa, and they're paying double. I will take this matter to the Réjé. She must make the decision. But I think she would be in favor, as would Perku and I. And probably Prince Meméjékwu."

"So, what's our next step?" asked Miller. "I'd prefer that an army engineer come take a look at our new design. You might want to send a mechanic as well; they'd have suggestions for improving our modifications. I'd also like to get the steam-powered electrical plant moving."

"Give me time," replied Roktekester, irritated. "Yes, we'll send a team to examine your redesign. I don't care if a more complicated redesign is expensive; the Sumis will have to pay. I want to talk to the garrison commander and some of his officers about the electrical generating plant. And I need a few weeks to talk to the Réjé."

"Then we'll get back to you in three weeks?"

"Suit yourself," said Roktekester, almost apathetically. "The Sumis will have to remain behind us in terms of technology. If they don't like it, they can pray to their old gods for help. They can't replace their old technology without our help, so they should be grateful rather than resentful. And you can tell that to Lord Lamuno."

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Thornton and Lébé went to the town hall at noon to vote. They saw a huge crowd in the Garden Court and everyone was talking about how to vote, what to do, whether the vote really would be counted, etc. At the same time, everyone seemed to know the votes

would be counted, because they talked informally about who would do what for the town, what the town needed, and who would offer which strengths and weaknesses. It was a confusing, giddy, exciting sort of discussion.

They went inside and saw a table with a stack of ballots, which were a simple piece of paper with a single line on it. Mayor Weranolubu and an assistant sat at a table nearby.

"It's quite an exciting day," Thornton said to the mayor.

"It really is. Everyone's coming to vote! You can take your piece of paper into any one of these five rooms to fill it out, and we have three scribes standing by to help those who can't write. But many are taking their pieces of paper outside, filling them out in the Flower Court, sometimes asking a friend to help with spelling, then bringing it back to us."

"You can do that?" asked Lébé.

Weronalubu shrugged. "Sure. Some people go to the temple or the Bahá'í Center to pray, too."

"I think we'll do that, too," she said. Thornton nodded.

So they walked out of the hall and down to the new botanical garden being planted in a quarter of Arjakwés Park. They sat and said prayers, and each wrote down the name of the person he or she wanted to vote for. Then they returned to the town hall, were checked off on the voting list, and deposited their ballots. Their fingers were marked with indelible ink so they couldn't vote again.

"So simple," Lébé said.

Weranolubu nodded. "Very simple. But it'll take half the night to count the votes; we have about 2,000 voters in Melwika now!"

They came out and walked toward their house. As they approached the door they saw Mitru appear from around the corner.

"Hey," Lébé said to her brother. "Are you going to vote?"

"Yes; it's crowded?"

"No, not bad," replied Thornton. "There's a crowd, but it isn't a line. Everyone's talking about whom to vote for, how to decide, etc. It's pretty exciting."

"Sounds like it. Say, Thornton, Marku just arrived on one of the steam wagons and convinced the driver to take him to the génadema—not easy, with the narrow streets—because he had a Sumi statue to deliver. It's quite beautiful, I hear. The driver came to me complaining. I told him not to worry about it and to help Marku."

"Thank you. Marku's moving from geology to archaeology; the science of digging up and studying old artifacts. He's getting pretty good at it, too. We have quite a collection."

"You must; I remember seeing a few of the items. Where will you put them?"

"I don't know. We need a *spékdema* or museum; a special building for looking at and studying them. But this is a bad time for our finances, so we can't build it."

"Really? I've been thinking that I'd like to do something special with some of my profits from the summer; and I have a lot of profits. Well, not compared to my father; maybe five thousand. Maybe if I gave a thousand, that would get the ball rolling."

"Really?" said Thornton. "I bet something like that would get the ball rolling!

Dad's real good at leveraging opportunities. A big chunk of the museum will feature

Sumi art, so I'm sure he can get a few thousand from Sumi merchants in Mɛddoakwés.

The building would probably cost eight or ten thousand."

"Well, if I gave one thousand, your family threw in another thousand, and he got four thousand from the merchants, he'd be most of the way there."

"That would work," said Thornton. "Say, thanks, Mitru!"

"I've been wanting to do something," he replied. "We probably should ask dad to put the first steam wagon in a museum, too, once it reaches retirement time."

"That's true. Good idea. I'll tell my dad!" said Thornton.

The voting—and talking about voting—continued until two hours after sunset. Then Mayor Weranolubu, the priest Sarébejnu, and two accountants retired into his office to count votes.

They spread the ballots out and piled them by recipient, then began to count. They finished well after midnight, then locked the town hall tightly over night.

Quite a crowd gathered in the flower court at 9 a.m. the next morning for the announcement. Weranolubu came out a few minutes after the bells rang nine times.

"We have a clear winner," he said. "Eighty percent of our voters cast a ballot; that's 1,715 votes. Estanu received 467 votes, Lasu 288, Potanu 265, and Kérdu 249.

Another 350 men and women received votes, but they all received under 100, and most received two or less. Estanu is the new member of the Council."

There were cheers and applause. Thornton was happy and applauded as well; he had voted for Estanu.

The crowd didn't break up right away; people were talking about the choice.

Thornton turned to Lébé. "He's a good choice. Good judgment."

"And well organized. I suppose it was inevitable that a merchant would be elected. They're the segment that needed representation the most."

"Perhaps. But the others who received votes show there were other positions."

"That's for sure. Lasu represents no rules, Potanu lots; Kérdu the farmers. I hope a leader emerges among the workers, because they need representation as well."

"That's true," agreed Thornton. "But that may take time. Let's head to school."

She nodded and they walked out of the Flower Court. The crowd was slowly breaking up, though some wanted to wait around until Estanu could be brought to speak. They headed south toward the Péskakwés River, walked over the bridge, and uphill to Temple Square. As they headed across the square Thornton saw the new issue of the *Tripola Bedhe*. He stopped to buy one.

"Oh, what does this one have?" said Lébé.

"Let's see," replied Thornton. They opened the paper to look at the front page.

The headline was "In Ora, Forests are Leveled, Useless Coal Dug, and Masses Toil at a Whim."

Lébé shook her head; Thornton whistled. "Dwosunu must have told him about all the problems with the clear cutting, the small coal deposit that's not worth digging, and the lack of plans to rebuild flooded villages."

"I guess." She read the article. "Kameru can write pretty well. But let's remember one thing, Thor; Lord Mitru deserves every word of this."

Thornton chuckled. "You're right; he does! But he's powerful and he'll get his revenge, and he may take it out on us."

"The world is changing and it's going to hurt," said Lébé. "Just like in my new novel."

"Except this is reality," Thornton reminded her.

May 11, 2001, with expansion on 5/13/01 and 5/14/01; reread and edited 5/18/13, 7/27/17, 11/3/24

Raid

The whole town was abuzz about the election for the rest of the day. Estanu was congratulated by everyone; he was well known and respected, even by most of the people who did not vote for him. The election was the only event capable of competing against Kameru's front page exposé of Lord Mitru's refusal to plan systematically for the flooding of a quarter of his people's farms and villages and his egotistic favoring of projects that he thought looked good, whether they were the best for his people or not. In Meddoakwés, where the election was less immediate, the story from Ora dominated discussions.

The next morning May was surprised, as she walked across Temple Square to her class at the women's génadɛma, to see Kamɛru patiently interviewing someone about the election. May walked up behind Kamɛru and patiently waited while he asked a series of questions about the election and jotted notes of the person's replies. He was a good journalist in that he knew what to ask to elicit personal reactions.

Finally he turned to see who was standing near him. "May, good morning! How are you!"

"Good morning, Honored Kameru. I would ask what brings you to town, but now I see. The election will be in the next paper, I take it?"

"Of course; the lead story. This is an important development. The people here in town are very happy about it."

"How long have you been interviewing?"

"Two hours. I arrived on the overnight steam wagon and got here about dawn."

"Where are you staying?"

"I don't know. I figured I'd find someone I know and stay with them."

"Well, if that doesn't work out, the old génadema building has a lot of empty rooms this term, and one of father's classes is using them as a hotel. It costs a dhanay a night to stay and a half dhanay for meals."

"Good to know. But I'm only staying tonight and taking the steam wagon back tomorrow."

May shook her head. "The wagon tomorrow goes via Bɛllɛdha. Mitru's cutting back on service, now that summer's over. The day after there's a south shore direct. So I'd stay two days."

"Hum. Maybe I will. I'd like to get to Mɛddoakwés and maybe Nénaslua or Morituora to interview people, maybe even lords. I want a big, thorough article. And I think you'll like it."

"I hope so." May looked at him. "Kamɛru, I respect what you are trying to do.

This world has many evils and they need to be exposed. But the way you are exposing them is calculated to maximize the reaction, and that is counterproductive."

He looked hurt. "Do you think I am actually trying to create reaction? Why would I do that? I'm sorry, but I don't understand why you are insulting me this way!"

May was startled by his reaction. "Kameru, I apologize if I implied it is intentional. Let's just say that the evils in this world can be exposed in various ways, and some ways are more effective than others."

"And you think my ways are not effective? That is not my experience, I assure you. And I don't see successes crowning every effort of the *Melwika Nues* either. For that matter, when does your paper expose evils at all?"

"There have been many articles about Mɛlwika that have been very important in educating the voters, not only about voting, but about this town's needs and the issues it faces. We just had a successful election because the paper has been a patient voice of education. And we have been praised by Lord Kandékwɛs for our articles about the expansion of Mɛddoakwés, even though one can see our criticisms if one reads carefully. Nénaslua and Béranagrés have a new Lord and a new grange, and we have helped along that process so that it remained peaceful."

"I'm afraid matters on the western shore are not as favorable to gradualism."

"No? There are no elections in Tripola, and there probably could be."

"I said *western* shore, not southern! We are an important voice for spreading schools and support for roads and other aspects of the new knowledge in Tripola and its surrounding villages. As for the western shore, a few people here seem to think Albanu and Mitru are getting what they deserve."

"Like I said, exposing their evil and making them angry enough to react, rather than reform, may not be the best solution."

"We'll see, won't we?" said Kameru, in a tone of voice that made it clear he didn't want to talk about the subject any more.

"I think so. Kameru, come by the house. I'm sure father would like to talk to you."

"I'm sure. Good day, Honored May."

"Good day." She walked away feeling sure her reaction had backfired.

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Normally, general science was taught by the various advanced students; it gave them a chance to learn how to teach, express what they were learning, and saved the génadema some money. But Thornton, Amos, and Behruz always tried to come in and teach something—it gave them a chance to meet the students—and that morning it was Thornton's turn. He lectured about biology and the classification of animals because they still had few students who could talk about biology. He would have preferred to talk about geology, but they had plenty of students who could talk about that.

Half way through class, when he was explaining about birds, a new student raised his hand and asked how birds could fly. His brief explanation led to another question, then another, until Thornton finally explained that he could answer more questions about flight after class. The man, who was in his early twenties, took him up on the offer.

"My name is Okpétu," he explained after class ended. "I am from the House of Dwobrébas."

Thornton offered both hands. The House of Dwobrébas or "two lionesses" was a regional lordly family for the lower Dwobrébakwés River, which flowed into the Arjakwés a dozen kilometers southwest of Mɛddoakwés. The Dwobrébakwés Valley and lower Arjakwes Valley had been settled by a half dozen military captains and their extended families when the area was wrested from the Sumis, some of whom had been retained as serfs and slaves. The six extended families were now in charge of nineteen villages, the people of whom were independent farmers of mixed blood. Many villages had a local overseer as well. The regional lordly families mostly lived in Ekwɛdhuna,

Brébestéa, and Pérkas—the three military villages south of the capital—where they intermarried with six or seven large families related to the royal family and another six or eight families that were absentee lords of villages on the western shore. The twenty or so large families—perhaps five hundred people altogether—produced a large fraction of the army's officers, the preferred career for the second, third, fourth, and fifth sons.

They shook. "I haven't met many from the *jérdomas*, old houses," Thornton said, using the preferred term for them. They were called *eserdhées*, the "bloodsuckers" or "leeches" by the less charitable.

"My older brother prefers fencing to book work," said Okpétu. "But the army's now giving him a hard time; he's been sent to Endraidha to study! So maybe my younger brothers will follow in my footsteps instead. The great houses are discovering the new knowledge, too."

"Why aren't you studying in Meddoakwés?"

"Because now my family has a house in the capital, and I don't want to live there.

The dormitory rooms here are small, but at least they're private. And I have two friends here. But I want to know more about flying. I hear that on Gedhéma, people can fly."

"Well, not with wings of their own. On Gedhéma they build machines that can fly.

A man climbs inside it. It has wings, but they don't flap. In front there's an engine, like a steam engine—"

"A steam engine! That's big and heavy!"

"These engines are more like the engines in our rovers; smaller, lighter in weight, more powerful, and more reliable."

"Can you build something like that?"

"No, not for another five or ten years, I'm afraid. They're difficult."

Okpétu looked disappointed. "That's too bad. I have always wanted to fly. I own falcons and have spend many days with them; years, really. The birds don't have big engines, so why do we need them?"

"Well, we don't need them all the time. Airplanes have engines." Thornton used the English word. "But gliders—plétrus—do not. If you watch birds, they don't have to flap their wings all the time; they spend a lot of their time gliding."

"Well, can we make a glider?"

Thornton laughed. "Maybe some day! It'll take several people a year or so; it's a lot of work. And we may not have the materials to make them."

"What do we need? Feathers?"

"No; strong, light-weight cloth is best. I'll tell you what. Amos knows more than I; you should talk to him. And in the library you can read more, or you can ask the English class to translate some articles for you. I think the science class requires a paper, right? Then write a paper on the subject."

Okpétu smiled. "Excellent idea! Thank you, Lord Thornton."

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That night Estanu came to dinner. Everyone shook hands with him and congratulated him.

"I had no idea they'd elect me," he said. "Lasu is so noisy, I figured they'd elect him! I wanted to be elected, but I couldn't say anything. It was quite a surprise."

"Well, congratulations," said Lua. "I'm delighted."

"Liz sends her congratulations as well," added Chris. "She and mother are in Tripola right now."

"And I want to congratulate you, too," added Thornton. "What does Yimané think?"

"She was shocked and said it meant more work for her!"

"It probably does," said Chris. "But you have enough money now, you can hire some help. I wish you were still working for me, in fact!"

"That was great, working for you," said Estanu. "And I owe to you all my skills, Lord Chris."

"Even if you didn't take many classes," said Chris with a smile.

They sat and ate. While they were drinking tea after dinner, Kérdu and Saréidukter stopped by briefly to talk about the grange's mouse problems. There were a few uneasy moments between Kérdu and Estanu—they had been election rivals of sorts—but then they shook hands and smiled. Behruz and Chris gave some ideas about how to handle the mouse poison that the chemical plant was now turning out; it had helped a lot, though the mice were now getting hungry with the change of seasons and were migrating a lot, and the poison literally could not kill them all. Kérdu then hurried off to plot strategy while Saréidukter remained a few minutes to share ideas about the city council with the new member.

When the clock struck out ten bells it was time to head home. Saréidukter said good night and left. Chris turned to Estanu. "Before you go, there's one other matter I want to mention to you. If you can find three or four days, I need your help on something, and we can pay you generously I think."

"Oh? What is it?"

"Someone has to investigate the construction of the telephone and electric line from here to Néfa. It's less than half done, but the schedule calls for it to be three quarters done by now. The total cost is supposed to be 75,000 dhanay and it has already cost 60,000."

Estanu whistled. "What's happening?"

"I don't know. None of the investors know, and we'd like to know. Ménu Miller is in charge and his father's bookkeepers have not given much information about spending. We're looking at a 120,000 dhanay cost and the entire plan is teetering on the edge of collapse. Yet the line to Gordha seems to be on schedule and within costs!"

"That's suspicious. Who's in charge?"

"Someone Ménu trusts, and Ménu gets there often. I don't think he gets to the other teams very often at all. My guess is that there's bad oversight."

"And Ménu is making a bundle on construction in Mɛddoakwés right now. So have I. He doesn't have time to go to Néfa."

"Exactly."

Estanu considered. "I might be able to spare two or three days in two weeks. Let me think about it."

"Alright." Just then the telephone rang. "I better get that; it's probably Liz. Think about it."

"I will. Goodbye."

"Goodbye." Chris waved goodbye and hurried into his office. "Hélo?" he said.

There was heavy but faint static in the background; it was a radio call. "Hélo, Lord Mennea? This is Wérdéu in Tripola. How are you? I hope it isn't too late to call."

"No, we're all up. How are you, Honored Wérdéu? How is the génadema?"

"It is fine; our enrollments are up this term, I'm happy to say. I need to speak to Kameru or get a message to him, and I thought I'd call you in case you know where he is staying."

"May told me he plans to stay with friends, but I'm afraid I don't know which friends. Is this an emergency?"

"Well; in a manner of speaking it is. He needs to call me right away."

"I see." Chris was suspicious about Wérdéu's circumspection because the headmaster was not usually secretive, and he did not trust Kameru. "Can I be any more specific?"

"No, I'm afraid not. Well, tell him this: he must be on the morning steam wagon to the western shore, even if it goes on the northern route. And he should go to Meddwoglubas. He can call me from there."

"Alright, we'll try to find him and tell him."

"Thank you. Good bye."

"Good bye." Chris hung up the phone. He went to find May, who was in her apartment with Amos. He related the conversation to them.

"We can probably find Kamɛru; I think he stayed here tonight, because I saw him about 6 p.m.," said May. "If you want, I can go to the dorm and ask around. I bet someone knows where he is."

"Yes, go look," agreed Chris. "This may be important."

"It sounds fishy to me," said Amos, shaking his head. "I wonder whether there's an arrest warrant out on him? He's published two articles that are pretty shocking."

"But Lord Estodhéru's not going to help. He'd go back to his home village, not to Lewéspa." Chris shook his head. "Let's call Stauréstu."

"A hunch?" asked May.

Chris nodded and the three of them trouped back to his office. Chris picked up the telephone. "Lubésé, please connect me to the Mɛddwoglubas operator. No; Tripola, please."

"Very good, Lord Mennea." There was a long pause as Lubésé called the Meddoakwés operator and asked her to connect the call to the long distance operator in the army's complex, who in turn connected the call to the radio tuned into the frequency of the Tripola cell phone.

"Are you calling mom?" asked May.

"No; I don't think I'll ask the army operator for Mɛddwoglubas. Can they listen in?"

Amos nodded. "If you can hear pretty well, they probably aren't. A second party on the line makes it hard to hear."

Chris nodded. A moment later there was a click at the other end. "Tripola."

"Could you connect me to Meddwoglubas, please."

"Certainly." Another long pause.

"Meddwoglubas." Faint, staticky, but clearly understandable.

"This is Lord Mennea in Mɛlwika. I'd like to be connected to Stauréstu, please."

"Certainly. I think he is at Lord Estodhéru's."

"Is something happening there?"

A pause. "You might say so. About two hours ago an army unit from Ora reached Lewéspadéma and is demanding tax revenue on behalf of Lord Mitru. The people there are refusing."

"How did you hear?"

"My Lord, the phone line has been operating as far as Lewéspadéma for two weeks. They called me immediately!"

"I see. Yes, put me through to Lord Estodhéru's."

"Immediately, my Lord."

There was a long pause; presumably no one picked up the phone right away. Then "Hélo?"

"This is Lord Mennea calling to offer Lord Estodhéru assistance."

"Lord Mennea! I'm sure he will be happy to talk to you. Please wait a moment."

Yet another pause, then several voices could be heard faintly at the other end.

"Lord Mennea, this is Estodhéru. I am amazed the news has spread to Mɛlwika already."

"I just received a call from Wérdéu, trying to reach Kameru, who is here in Melwika. He wouldn't tell me any details, but it was clear that something important had happened in Meddwoglubas. He wants Kameru there tomorrow morning."

"Tomorrow morning," said Estodhéru gravely. "Trisunu, head of Læwéspadéma, called me about an hour ago seeking advice on what to do. I have assembled a few of the wise here in town and we are deliberating. I suspect our telephone operator told someone calling from Tripola."

"I have no idea whether I can be of any assistance, Lord, but if I can I will be happy to help, because Mɛddwoglubas is practically our second home. Of course, my assistance is based on the assumption that nothing disloyal to the Réjé will be done."

"That would be our assumption here in Mɛddwoglubas, but Trisunu is very angry and his people may not behave rationally. The report is that one hundred soldiers from Ora showed up about two hours ago, demanding immediate payment of taxes to Lord Mitru and the Réjé. Trisunu produced receipts showing that the villagers have been paying their taxes to the Réjé via Mɛddwoglubas; this whole region has been paying through the local bank branch since the army opened an account here in the spring. Trisunu also produced receipts showing that his village had hosted the Réjé's visit to our region and had paid an amount equivalent to the taxes they pay to Lord Mitru in that fashion."

"That was a clever idea, I must say."

"Yes, and I repeatedly pointed this out to Lord Mitru in our negotiations, but he refused to accept their payment as a replacement for the taxes he claimed. Anyway, the officer tore up Trisunu's receipts and refused to recognize them. He demanded full payment of all the taxes immediately. Meanwhile, villagers began to take their animals out of the village and soldiers tried to stop some of them, which caused a scuffle to break out. A few minutes ago we received a call saying the soldiers had started to burn houses."

"Burn houses?"

"Yes, that is what the army does when a village refuses to pay its taxes. It will seize any mobile assets it can—animals, mostly—and take them as well. Resistance is useless because the army has better weapons."

"Lord Estodhéru, from what I remember of your description of your meeting with the Réjé, this does not sound like something she would have approved. She wanted you and Lord Mitru to negotiate before she stepped in. Why would she authorize a raid like this?"

"I quite agree that it seems unlikely. The Réjé always emphasized negotiation.

Besides, villages are never attacked without warning, like this. I can only imagine that

Lord Mitru has authorized this. Wéywiku was promoted last fall and moved to Anartu to

be second in command of the Sumilara garrison. The new commander in Ora, Molanu, is

Lord Mitru's nephew; he is the third son of Honored Yimu, Mitru's brother and director

of Ora's steel and iron works. I think he is responsible."

"It seems to me that Lord Mitru does have the authority to use the garrison, too.

That's true of Gugéndu, anyway; he gives his garrison all sorts of tasks."

"But Gugéndu can't order his garrison to attack a village! Only the Réjé is supposed to be able to do that!"

"Then this action is illegal, unless she ordered it?"

"I think so."

Chris smiled. "Then I can help you, because Judge Wérgéndu is a good friend. He is related to both the Réjé and to Roktekester. Perhaps I should call him about this matter—"

"My Lord, it is late there, is it not? Perhaps it would be better to wait until morning."

"My Lord, I think this is too important. I am willing to wake people up for this. Lord Mitru has no access to long distance telephone service, so you can get your story out before he can. Kameru will be there by tomorrow afternoon because the only steam wagon tomorrow goes via Belledha. Meantime, I think we should consider whether it would be better to get an article out in the *Melwika Nues* first."

"I'd rather get the story told by someone who will be responsible. Yes, that's important. But you can't get someone here earlier, can you?"

"No, but we can use the telephone. Maybe it'll cost a few dozen dhanay, but I'll pay the bill. This phone system is losing money anyway, so we might as well subsidize it!"

Estodhéru laughed. It was the first time he sounded a bit more relaxed. "Let me talk to the people here about the newspaper, and I'll talk to Trisunu. If he has a sense that something is being done, he can restrain his people better. Since Lewéspadéma does not officially exist, it does not have a recognized Lord, so this is his chance to prove to the Réjé he can demonstrate leadership. You should contact Judge Wérgéndu; I think that is an excellent idea. He can contact the Réjé and Roktekester himself if he wants. I met him when he was here in the summer; he was a very wise and decisive judge. A true scion of his grandfather Yusdu."

"Indeed he is. We are happy to have him serving as a judge for us, and the Réjé clearly is pleased as well. I'll call him right now and call you back after I reach him. Goodbye."

"Goodbye."

Chris hung up the telephone. "May, go find Sulanu and see whether he can come here now. Then go look for Kameru. I do not feel any obligation to help him get a scoop." "Okay," she said.

Chris picked up the phone again and called the palace. Getting Wérgéndu would be tricky because he could not call the man directly; almost no one had phones in their houses, only in their offices, and Wérgéndu didn't even have one in his office in the palace. Fortunately, the palace operator had access to several pages, one of whom ran and found the judge.

As Chris explained the situation, Wérgéndu grew angrier and angrier. "Lord Mennea, from what I hear, this does not sound legal or proper. Villages are always warned they owe taxes. In this case, it is not even clear the village owes. But I can't do anything without more information."

"Of course. I suggest you call Lord Estodhéru. I think you can call Trisunu directly and talk to him."

"Certainly, Lord, but I can only do so much by telephone."

"Judge Wérgéndu, if you want to go to Mɛddwoglubas, I will ask Thornton to drive you there in one of our rovers. We can get you there in six hours. This is an emergency and we will help."

"I see. But six hours from now will not work anyway; it will be the middle of the night there."

"That is true. You have some time to ascertain some facts and see whether the Réjé or the army want you to get involved."

"Whether they want the justice system to act." Wérgéndu considered. "Alright.

Everyone will be going to bed here very soon, so maybe I should start by asking General

Roktekester if he knows anything, and then I'll wake Estoiyaju. Then I'll call Lord

Estodhéru."

There was no chance to sleep that night. Sulanu came over and they talked about the role of the *Melwika Nues*. They agreed that he, too, should go to Meddwoglubas, though on public transportation, to write a fair and impartial article. Estodhéru called back—reversing charges—to give more information. The army unit had even blown up a building with explosives, but had gotten little wealth because the population had fled with anything portable.

It was two hours before Wérgéndu called back. He had spoken to Roktekester and the Réjé herself. "The Réjé knows nothing," he said. "She is very concerned. I think my uncle Roktekester knows something, but it is clear he did not authorize violence. My guess is that the commander of the Ora garrison hinted at something and my uncle reacted noncommittally."

"At any rate, he did not issue the order."

"Nor did Mɛméjékwu. No one else in headquarters could have. This must be an act of Lord Mitru's."

"So, what's the next step?"

"Her Majesty has ordered me to go, as judge, to make a ruling. Estoiyaju is to go along."

"Estoiyaju?"

"Yes. Don't worry about him. He is the son of a military officer and the daughter of a priest and he loves the army and priesthood powerfully, but his loyalty is to the Réjé first and foremost. He is an observer. I make the decisions."

"Okay. When do you want Thornton there?"

"Two hours. We'll drive to Mɛddwoglubas, pick up Lord Estodhéru, then drive to Lɛwéspadéma to investigate. If necessary, Thornton and Estoiyaju will drive to Ora and Estoiyaju will fetch Lord Mitru."

"Alright; in two hours he'll be there. Do you mind if I send a companion along, to help Thornton with the driving?"

"That's fine."

"Excellent. Is there anything else we can do?"

"No, that's it. I'll look forward to seeing Thornton. Oh, he should bring a telephone."

"He will. Two hours. Goodbye." Chris hung up the telephone.

"I guess I should go wake Thornton," said May.

"Not yet; let him sleep a bit more. He'll have three hours, that way. May, why don't you go along as well. As a woman, no one will wonder about you. And you will get there before Sulanu, so you'll have more information. If Thornton's busy driving, you'll be busy observing and writing."

"I'll have to cancel my classes tomorrow, but I can manage that."

Adrenaline kept Thornton awake as the rover sped southward and westward on the new gravel road to Endraidha, Tripola, and Mɛddwoglubas. The vehicle was crowded; General Roktɛkɛstɛr himself decided to come along. Thornton and May sat in front while the other three men talked among themselves and made calls on the cell phone to the palace.

They left Mɛddoakwés at 2:15 a.m. The trip was 250 kilometers on a fairly good road that safely allowed 60 kilometers per hour. The biggest dangers were stray animals on the road, people camping on it—it happened sometimes—and suddenly coming up on steam wagons plodding along in the semi-darkness of Skandalight. The night had become a popular time for very heavily laden and slow-moving freighters—an engine towing as many as three trailers behind it—and they were unable to stop quickly. They did come upon a freighter making its way from Tripola to Mɛlwika at twenty kilometers per hour in the middle of the road, pulling ten tons of ice and a few tons of other goods, but since the rover was using headlights there was no surprise and they were able to pass.

They crossed seven time zones in a bit over four hours, reaching Mɛddwoglubas before midnight. After talking to Estodhéru for an hour, they added him to the party and headed for Lɛwéspadéma.

The village was expecting them. No one was asleep because of the trouble and by then Skanda was full anyway. The entire party was given a detailed tour of the village.

One house had indeed been blown up; four had burned, and six barns as well.

Fortunately, no one had been killed, though several were injured or burned. Farmers had their grievances about animals captured and hauled away, as well as some farm equipment and personal property. Wérgéndu sat and listened to each one while Estoiyaju took official notes and May took a few unofficial ones.

The sun rose just as they finished. May snapped pictures while Thornton, Estoiyaju, and Roktekester drove to Ora to fetch Lord Mitru.

That task took all morning because he refused to go. He was shocked to be confronted by the head of the army, the Queen's personal secretary, and the kingdom's

chief judge less than a half day after the raid had been conducted. Indeed, they arrived before he had even heard a report from Commander Molanu about the incident. He was unaware of the existence of a telephone line to Lewéspadéma. Only when Roktekester held up a cellular phone and suggested they call the Réjé did Mitru agree to go to Lewéspadéma.

He was greeted in angry silence by the villagers, who were restrained only by their inbred respect and fear of aristocracy, especially of the "big lords." Wérgéndu met him in front of the exploded house in the center of the village.

"Did you order this raid?" he asked.

Lord Mitru looked around. "I did." He didn't dare offer further explanation; the crowd would reject it.

"Did you repeatedly warn this village to pay taxes to you?"

"Once."

"Did you consider accepting their hosting of the Réjé's visit as payment?"

Mitru looked at Wérgéndu. "Perhaps if they had paid for her visit to Ora, which is their region, I would have."

The crowd hissed, which startled Mitru. He glared at them.

"Were you aware that the villages in your southern region, as well as the Lewéspa villages, have long accepted the Trinénasisér as the border between these two regions?"

"Why should I be aware of that, when it is irrelevant to my valid historic claim to the entire region?"

"Did you attempt to negotiate with Estodhéru about a common border between your two regions, in respect to the Réjé's recognition of Lewéspa as a legitimate subdivision of the kingdom?"

"I never considered the Réjé's giving Lewéspa a quota of representatives in the Consultative Assembly as constituting recognition."

"Are you aware that she did?" asked Wérgéndu. This was a point he had verified by telephone with the Réjé.

"I had been told it by Lord Estodhéru, a source I did not consider unbiased in the matter."

"And you never attempted to confirm or deny it?"

"No."

"Then I am ready to rule," said Wérgéndu. "Estodhéru followed in good faith the Réjé's command to negotiate a border with Lord Mitru and Lord Gugéndu. The latter border was agreed on swiftly a month ago and will soon be marked by a common border commission. But no agreement was reached about the Lɛwéspa/Ora border. I rule that common custom is accepted; the Trinénasisér is the border. I understand the Trinénasisér starts north and west of here and thus runs behind a portion of Ora. Rather than follow the river northwestward, the border will run due west to the Long Lake from a point twenty dɛkent upstream from here.

"As for this raid, it was an illegal act." He paused because the villagers cheered.

Mitru turned red with anger. "All property confiscated must be returned and damaged property must be compensated. I will rule on the amount of compensation in a few days

once I can speak to experts. The compensation will come from Lord Mitru, not from the army.

"I further rule that some of this village's lands are north of the Trinénasisér and thus in the future taxes must be paid to Lord Mitru on agricultural produce from those lands. Those lands are in Ora and thus the taxes belong to him. But the taxes for this year are waived because of the raid and because of the village's support of the Réjé's visit to the area.

"I further urge that General Roktekester investigate the propriety of army explosives being used against villagers on the order of a Lord, and that a clear set of rules be drawn up in response to this situation.

He turned to Lord Mitru. "And I further rule that all of this be appealed to the Réjé for her final decision on the matter. Since the loyalty of both parties to the crown is unquestioned, I am sure they will have no objection."

May 15, 2001; reread and edited 5/18/13, 7/27/17, 11/3/24

## Censorship

"It was a sight to see," said Thornton, concluding his description of Wérgéndu's visit to Lewéspadéma. "The villagers cheered every time he opened his mouth; even when he ruled they owed Lord Mitru in future years taxes on the farmlands north of the Trinénsaisér. Those lands were in the Ora region by everyone's definition."

"What did Mitru say afterwards?" asked Chris, taking another bite of his lunch.

"I drove him back to Ora and he was hopping mad. Roktekester was in the car with him and tried to sound sympathetic; he kept saying 'my Lord, times have changed, and your ways must change as well.' But Mitru just ranted. He didn't curse you, but I think that was because I was present."

"I'm glad Roktekester went along; everyone respects him," said Chris. "It gave the delegation weight."

"I doubt Mitru would have listened otherwise," responded Thornton, "And that would have been embarrassing because the Réjé clearly wanted Wérgéndu to straighten things out. He did."

"He's good and gaining a reputation for honesty and straight talk. We're very fortunate he has the character he has," said Chris.

"What else?" asked Lébé.

"Wérgéndu spent the rest of the day taking notes, and he asked May and me to photograph everything. About noontime the steam wagon arrived from Mɛlwika via Néfa and Ora bearing both Kamɛru and Sulanu. Wérgéndu was very careful; he briefed both of them together, so that he knew both had the same information. Both poked around the rest of the day. As sunset approached I brought Wérgéndu, Roktekester, Estodhéru, and a few other local Lords back to Meddwoglubas for supper, then we drove all the way back here. Sulanu was on board by then and got a bit more confidential information from Wérgéndu, and permission to use some of it without attribution."

"You know, Estodhéru called to thank me," said Chris. "He said 'so, do you Bahá'ís always insist on trusting and obeying the law'? I said yes, it was one of our teachings. He replied 'I can see Esto is with you, because he protects you when you trust and obey.' I was amazed."

"I saw mother and grandmother briefly," said Thornton. "They arrived from Tripola that afternoon and I ran down to Stauréstu's for a few minutes to say hi. They plan to remain there for a week or so."

"Good. Thanks, son, for disrupting your life and doing this. And May, thank you, also, for your observations."

"Oh, we'll put them in the newspaper," she replied. "And Wérgéndu was very specific about what he thought would not offend in this case, and what would. It was pretty straightforward. Sulanu and I will be scrupulous in following his advice. We'll run the article past him to be on the safe side."

"Thank you. I'm glad to hear Liz and grandma are in Mɛddwoglubas because I have to talk to them. The spiritual assembly is planning to meet this afternoon to talk about matters of clusters, boundaries, and district conventions. I need their advice."

Lébé rose from the table. "I've got an afternoon appointment at the school, so I have to go."

Thornton jumped up. "I'll come along, then."

"You haven't finished!"

"I'll come back to finish."

They ran upstairs so she could grab her book, then hurried back down. "I'm reading my stories at the school," she explained to him. "I think to the 4th and 5th graders."

"Oh; that's good. Surely they want you to do more than read, though? Any of them can read the stories, too."

"I suppose. It should be fun." They headed out.

"Did I miss anything in Werétrakester's class?" asked Thornton. They had decided to take his advanced philosophy course together, to fulfill the distribution requirements for their Bachelor's degrees.

"Yes; Kierkegaard."

"Kierkegaard? He's some sort of gedhéma philosopher."

"Well, Werétrakester loves him. He assigned a forty-page translation into Eryan. I read it and was utterly befuddled, but when Werétrakester began to explain it, I went over my copy and scribbled corrections to the translation and handed it to him. He was pleased!"

"So, what do I have to do?"

"You missed the oral discussion, so I suppose you have to go meet with him and endure an hour of discussion with him about it. I can go over it with you."

"Thanks, I'll need it. What are we doing next?"

"The section on Descartes. I don't think Werétrakester realizes he's teaching these guys out of order, but he strings them together based on their ideas in a pretty interesting way. It's a thirty-page printing; I grabbed a copy for both of us."

"Good. When will I ever read it when I've lost two days of classes I have to make up, we have a deadline to complete a map of the Néfa region, and I'm jet lagged. And I have a touch of diarrhea as well."

"Eryan bugs," she said, shrugging.

"I guess. How's the new novel?"

"Oh, I've made some progress! I've outlined a few major points in the story line; I'll let the rest write itself, though. And I've written the first chapter, where the new bride, Mitrudukter, meets her mother in law for the first time and is relieved to be going to Mɛlwika, until she sees the place, that is."

"That bad?"

"Well, the first year here it was rough, with a hundred slightly desperate strangers trying to figure out whether they could be farmers or factory workers or whether they should stick to stealing."

"Oh, I remember that time. Thank God for Perku."

"He appears in chapter two; in another name, of course!"

They walked out of the old Mɛddoakwés gate and along Broad Street. Once it reached the Arjakwés they turned right and walked upstream on Foundry Street. The town's new elementary school was built into the hillside just below the Miller/Mennea house, outside the old wall. Thornton kissed her. "Good luck."

"Thanks. It should be fun."

He headed home and she walked in the main door. The school building had been constructed over the summer. The town's tax windfall in the early summer had enabled it to inaugurate universal education from age 6 through age 13, or grades one through eight; it also had a non-compulsory kindergarten and non-compulsory grades nine through twelve. The building had 22 classrooms, two for each grade from kindergarten through 8 and 1 each for the last four grades, plus offices for the school system and storage, all arranged in a three-story stone building. It was a nice building; every classroom had glass windows and the office had electricity and a telephone.

It was impressive, but as soon as Lébé walked in she could also see it was crowded. "Hail, Lébé," exclaimed Ornéstu, the principal, who was waiting for her at the door. "Welcome to the Mɛlwika school."

"Thank you." She watched children scrambling around in the hall. "I guess this is the time between classes?"

"Yes, and we can use you right away, if you're ready. The fourth graders will be waiting. I think they want to ask you how you became an author."

"How I became an author? I thought I was just reading to them!"

"Oh, no. They will ask lots of questions. I'll be taking over the class and helping to watch it a bit, so that Galsteré can get some time to finish lesson plans. As you can imagine, we're the most developed school system; indeed, we're really the *only* complete school system in this world. So everyone wants our lesson plans, and all of us are under constant pressure to produce something that is pretty and complete so that Modolubu can print it and make it available to others. Galsteré's behind, just like the rest of us, and she's squeezing every second she can."

"I'm glad to help." Lébé looked at all the children. Most were wearing uniforms, but not all. "Do the uniforms help?"

"They give the school a certain discipline, but we ran out. We designed the school to have enough space to last four years, at which point the baby boom would hit and we'd need a lot more space. But the school is already twenty percent over capacity. The classrooms were designed for thirty children and we wanted the classes to have only twenty-six, but they already average thirty-two. A lot of the kids are cousins of Mɛlwikans who are living here to get the free education."

"Really?"

"Oh, yes! And entire families want to move here because of the schools. We have a certain number withholding their kids, too, because they consider education a waste of time, but we were amazed by how many showed up for the first day of class, ten days ago. Most Mɛlwikans want their kids to learn."

"How will the city pay?"

"That's one of the challenges. We have a lot of them. The Réjé gave us a special grant over the summer. Rather than twenty-two full-time teachers we have eight, plus thirty part-timers. The eight full-timers would like to take classes but can't afford it. The part-timers are all taking classes at the génadema in education. I'm only a part-time principal, in fact; I'm a student as well. That saves the city money and helps fund the génadema, although it's disruptive for the kids because they don't always have the same teacher. If there's any help we need, it's a grant from the city to pay tuition, so the full-timers can all take one course every term. It'll cost Melwika about a thousand dhanay every year, but it'll produce good results. We're making a little money from sales of

lesson plans, though not much because no one can afford to buy them if they're expensive."

Lébé lowered her voice. "I heard a rumor that there are teachers living here?"

Ornéstu looked embarrassed. "It's true. A few génadɛma students have practically no money. They're learning to be teachers so they can go home to their villages to teach, but the villages don't have any money to pay tuition, lodging, and meals. So some sleep in the classrooms. Most of us use classrooms as offices, too. And we hold a lot of informal seminars here where we can tell each other about the courses we're taking. That way the teachers can learn the material from two or even three even if they've signed up for none of them, and we get practice teaching each other. Or we can sign up for two and miss one class, but learn the material later from someone else who attended."

"I've noticed that sort of pattern in my course on Eryan literature," said Lébé. "I figure we have to be tolerant of that sort of thing, as long as people can do well on the exam."

"Don't worry, we're all learning as much as we can," said Ornéstu, with a smile.

They walked into the classroom. Two classes were in the process of squeezing in to hear her. The kids were alert and attentive; indeed, they were excited to see her.

She told them the story of how she came to write the children's stories of her mother, then the stories other old women knew. Then she read a short story from the book. And the questions began. The génadema had taught the teachers well, and they had taught the children; these were not silent memorizers, but inquisitive young minds. She was thrilled.

It was surprising how fast the two class periods went by. Soon she was out and went home to plan her late afternoon class. After helping Jalalu start his afternoon nap—late, because of her appointment at the school—she had barely an hour to review everything. She sat in the house's central garden to prepare.

Soon Mitru, Thornton, and Okpétru arrived. "But why would you *want* to fly?"

Mitru was asking Okpétu. "I suppose it would be exciting; but I'd just be thinking about falling all the time!"

"My falcons don't worry about it; why should I?" replied Okpétu.

"I still think a balloon might be easier to make," exclaimed Thornton.

Okpétu shook his head. "You said you weren't sure what we'd make the bag out of, or how we would heat the air. A glider can take off on the road with a rover pulling it, and we know the frame can be made of wood or thin metal covered by canvas."

"But we still don't know whether we can make an altimeter, something so you know whether you're going up or down, and we don't know how to make the flap controls."

"But they don't sound difficult; just challenging. No, I want to make a glider."

"You'll get yourself killed," exclaimed Mitru. "And who would pay?"

"I'll ask my father and mother; they'll help. And the army."

"The army should be interested," agreed Thornton. "But you need to take more classes, Okpétu. You had a few in Mɛddoakwés, but you need some advanced ones in flight."

He laughed. "When will we ever have those?"

"How about next term? You suggest the topic to Amos and put together a syllabus of subjects to cover. I think you'll find a few people to take the course, too. You'll have to do a lot of the organizing, but I bet Amos would help some."

"That's crazy." Mitru turned to his sister, whom he had just noticed. "Hi sis." "Hail."

Okpétu turned to Thornton. "You mean Mitru's your brother in law?"

Thornton nodded. "This is Lébé, my wife and Mitru's sister. Lébé dear, this is Okpétu."

She nodded to him. "An excellent name for someone who wants to fly." Okpétu was a mythical Eryan bird, rather like a phoenix or griffon.

"Except I'm real."

"And he, too, will fly," said Thornton, in a tone that expressed neither approval nor condemnation.

"Is Chris here?" asked Mitru.

Lébé shook her head. "The Spiritual Assembly is meeting at the Bahá'í Center. But he'll be here soon."

"I want to check with him about the génadema schedule again. Setting up my passenger wagons to get everyone here by Kwéterdiu morning and home on Primdiu morning is a real pain, especially if he wants service to Belledha as well as the other cities."

"That's what we need. We're trying to get in three days of classes every week."

"But think about this. Let's say I run the wagons around the world so they return here Kweterdiu. Usually they'd stay a day and leave Suksdiu, not Primdiu. So that means there's no service for three days, rather than two."

"What if wagons arrived here Kwéterdiu, Primdiu, and Tridiu?" asked Thornton.

"People could stay one, two, or three days at any city in the world every week, depending on their needs."

"But what if they need to stay two days at a time when the service requires three? And people are not used to reading schedules. It doesn't do much good to print a schedule in the newspaper; people still can't read timetables and aren't used to trying. They want a simple, predictable schedule."

"That makes sense," agreed Lébé.

"What about using the freight wagons?" asked Thornton. "They run at night, which is a good time to bring people here."

"They're pretty slow, though; from Ora to here is ten or twelve hours. Even laying on a hammock, the ride's pretty bouncy and it's hard to sleep. And any passenger wagon that comes here has to go back, or it won't be available next time. When do I take it back?"

"That's not hard," said Lébé. "It could go back on a passenger trip as an extra wagon, probably on Primdiu."

"What if you ran passenger wagons Primdiu, Tridiu, Kwéterdiu, and Penkudiu?" asked Thornton. "Then you'd have regular service every other day and an extra."

"That's what I'm leaning towards; but I think I need to charge more for that."

"Ah," said Lébé. "It can't come as an extra donation, on top of the support for the museum?"

"I wish I hadn't even agreed to that. Demand for passenger traffic is now dropping fast and I don't know when it'll level off. If it keeps dropping at this rate, I'll be running one passenger wagon a week by early winter. Even freight shipments are dropping, now that the harvests are over."

"But last winter there were enough passengers for two or three runs a week, right?

And freight leveled off." Thornton shrugged.

"I'm counting on that. I think sales of coal and coke will shoot up when the weather turns cold. But you don't know until it happens, or until a few years demonstrate a pattern."

"And it's too soon for a pattern, I'm sure," exclaimed Okpétu, who was disinterested by the entire discussion.

"Did I hear father saying something about steam wagons in Sumilara?" asked Lébé.

"Yes," replied Mitru. "The army has approved the new steam wagon design for Sumilara island; these are steam wagons with very little clearance, so they can only be used on good gravel roads. But they want the wagons owned by someone off-island who will supervise their use, which probably means Mitru Transportation. I have to find someone I can trust to run the operation on the island, and I'll have to visit every month or so to see how everything's going. The army won't put a limit on the number of wagons in use there, either; as many as demand requires. As long as they know the wagons aren't being used at night to transport stuff they don't want transported."

"Good news," said Thornton. "Congratulations. But I suppose you won't start very soon."

"We can modify one steam wagon and start using it in a month or two."

Okpétu asked a question about engines; he still wanted an airplane. Mitru and Thornton launched into a long, technical discussion of steam wagons, so Lébé excused herself and retreated to the balcony, where she could get her preparation done. A few minutes later Chris arrived. Before Mitru was able to say anything other than greet him, Chris spotted Lébé. "I'll be right back; got to talk to my daughter in law."

"I need to talk to you, too," said Mitru.

"Alright, I'll be right back." Chris walked up the stairs and Lébé put down her books and papers to see him.

"Did you have a good assembly meeting?" she asked.

"Yes, it was very good, though we ended up talking to Liz over the telephone for an hour. She and grandmother put together a list of every village on the western shore with Bahá'ís, and the latest statistics for each. They even have names." He lowered his voice. "It's impressive. We have 30 in Mɛddwoglubas, 10, 6, and 3 in three other Lɛwéspa villages, 10 in Ora, 7 and 6 respectively in two villages outside Ora, 11 in Néfa, 5 in a village outside Néfa, 10 in Frachvála, 4 in Isurdhuna, 4 in Bɛllɛdha, 9 in Tripola, 5 and 2 in villages outside Tripola, for a total of 121. Then on this side of the sea we have 100 in Mɛlwika, 15 in Mɛddoakwés, 9 in Béranagrés, 9 in Morituora, 5 in Gordha, 3 in Mɛgdhuna, and 3 in Nuarjora, for a total of 144. I think there's now a Bahá'í in Anartu as well. So Éra has 266 Bahá'ís and potentially has ten local spiritual assemblies."

"I'm amazed you can remember all those numbers."

"I have a head for business. So we've decided to elect a spiritual assembly for the entire realm this Ridván, and we're dividing the world into ten electoral districts. Each will elect one or more delegates, and the delegates will meet to elect the world Spiritual Assembly. Each unit is centered on a place with enough Bahá'ís to form a local spiritual assembly. Since some units have more Bahá'ís than others, there will be proportional representation with a total of nineteen delegates being elected.

"In order to prepare everyone, we need a monthly Bahá'í bulletin to be produced and mailed to all ten units. We'll probably want to print about forty copies, so there are plenty for people to look at. The Assembly was wondering whether you could do it."

"Me? How much of a bulletin are you talking about?"

"One or two pages of paper with print on both sides. We figure we can make them on Thornton's computer. I bet Mary will write half of it, so you'd have to type it up and edit her Eryan."

Lébé nodded. "I'm pretty busy, but I could do it, because it's important."

Chris smiled. "Good. This won't end at Ridván, remember; it'll probably continue under the Central Spiritual Assembly."

"We'll see whether I can do it after the elections. I'm honored to be asked."

Every day was full with many tasks, frustrations, and small accomplishments, but in the back of May's mind was one nagging question: what would the next issue of the *Tripola Bédhe* say? The paper appeared in Melwika every Penkudiu morning. The *Melwika Nues*, in contrast, appeared on Dwodiu. Sulanu had been able to delay his issue a day to include a full page of coverage of the army attack on Lewéspadéma, coverage that was thorough

without upsetting any big players. May hurried out of the house soon after dawn to see what Kameru had done with the same topic. When she returned to the breakfast table she was shaking her head. She just held up the paper.

"The Shameful Act of Our Army," Chris read out loud. "That's a headline guaranteed to attract readers."

"So is the text," said May. She brought the paper closer to her face and read parts of it aloud. "On Primdiu our army attacked without warning a village, claiming it had not paid taxes when in fact it had. The three-hour raid left one house exploded, three others burned to the ground, five barns burned, and a dozen people injured. Ordering the attack was Lord Mitru of Ora in a brazen attempt to enlarge the boundaries of his region and bully the southwestern region into accepting his authority."

Thornton whistled. Chris just shook his head sadly. "You can't write something like that about the army. You might get away with it with Lord Mitru, but not the army."

"What can they do?" asked Thornton, frowning. "Gugéndu's been able to protect Kameru so far."

"But there's a limit to what he can do," replied Chris. "I'm beginning to think that Gugéndu himself enjoys the paper; he could stop it himself, after all."

"You're right; Kameru really respects him," agreed May.

"This will backfire," said Chris, shaking his head. "Sooner or later."

Thornton hated to be late to a meeting, especially when it was a big one. But it had been scheduled at a bad time for him; half way through the afternoon advanced geology seminar. The new arrangement of commuting students to Mɛlwika for three days a week

worked fairly well for engineering and medicine, but not geology; the geologists already had established their labs in each city and were already working on maps separately.

They really needed two days together per week rather than three, but the steam wagon schedule did not permit it. So Thornton had one of his advanced seminars on Primdiu afternoon.

At least the meeting was in the conference room right down the hall. He answered questions and turned the meeting over to someone else to coordinate the various presentations on the geology of the Néfa region, then hurried down the hall. Bidhu was just coming up the stairs, soaked head to foot by the pouring rain outside.

"Oh good, I'm not the only one late!" he said. "Hail Bidhu."

"Hail, Lord Dhoru. The passenger wagon from Mɛddoakwés broke down in Nénaslua. What have I missed?"

"I don't know; I'm walking in right now. How's the census?"

"We're pulling together the raw figures for the western shore right now. They're pretty complete; I have to present them to the Réjé on Kwérɛrdiu. Next week I lead a team to Isurdhuna, then in three weeks we stop in Bɛllɛdha to survey that region. We'll have to clean up the rest in the spring."

"What would be left?"

"The Fish Eryan, Lepawsa, and the Tutanes, in order of difficulty. And Sumilara, but we'll go there during the winter when it's warm there. I think the informal Anartu Génadema will help us with the survey."

"Good for everyone."

"How's the wrap-up on your mapping and geology?"

"It's just started. We'll do some now while we do some mapping in the good weather. As the weather deteriorates we'll stay in more and more to process all our data and develop the contour maps. We'll work on it all winter."

"Wow! I had no idea it'd take that long."

Thornton opened the door to the conference room. Chris, Amos, Behruz, Yimu, and John were already inside; the rainwater still dripping off Yimu's head and the preliminary conversation made it clear the meeting had not begun.

"Come in, dry off, and warm up," said Chris. "I'm sorry you got caught in the thunderstorm." He opened a drawer and pulled out a towel; it was a well-equipped meeting room.

"Thank you, Lord Mennea." Bidhu took the towel and dried his head while Chris poured him some hot mint tea. They had pushed the formal table against the wall and everyone was sitting on pillows on top of a pile of blankets on the floor, quite traditionally.

Thornton poured himself some tea and sat as well; Bidhu sat once he had dried himself a bit. Chris handed him a spare blanket. "Here, warm yourself. How is your work?"

"Oh, very exciting, my Lord. We are finishing up the compilation of figures for the western shore. The area from Sumiuperakwa to Tripola has 105,659 people. We're still adding up the totals for houses, barns and other outbuildings, horses, cattle, sheep, etc."

"What's the population of Ora?" asked Thornton.

"Nine thousand; it's been climbing because of displacement of villagers by the sea."

"Wow, bigger than Mɛddoakwés!" exclaimed Miller.

Bidhu shook his head and beamed. "The addition has triggered an expansion of Mɛddoakwés as well; to 9,500, I'd estimate."

"Is the population growing or shrinking?" asked Chris.

"How would we know that from one census?"

"By counting the number of people in each five-year age interval, and estimating mortality rates," replied Chris. "It would be crude, but probably would give a rough idea. That's what this meeting's all about; creating a research and development center. Such a center would include mathematicians who could analyze statistics."

"I was wondering why you invited me," replied Bidhu. "I can understand engineering professors and company engineers working together, but I couldn't figure out why the census should be involved."

"Her Majesty has already asked you to calculate other statistics, I understand," said Miller. "I hear she asked you about tax revenues."

"Yes, to check the five-year trend. You are correct, we seem to be evolving into a department of statistics."

"And how many employees do you have?" asked Behruz.

"Me, five census counters, and four analysts."

"The analysts need statistical training," said Chris. "Now let's see if I have all the numbers, which I was collecting while everyone was arriving. Yimu has nine engineers or mechanics in his department of product development. Amos has four full-time

engineering students and five electrical and telephone workers who are doing repairs on the side, and improving or developing new products. And Behruz has eight chemists who are also students. Thornton, we've got how many full-time geology students?"

"Here in Mɛlwika? Four. And there are three biology/ecology students at the hospital or in Mɛddoakwés."

"Okay. Then including the heads of these departments, we're talking about. . . forty-two people involved in scientific or engineering research and development. That's pretty impressive."

"But so what?" asked Miller. "It's not practical to put them all in one department.

They're in separate places for good reasons. The Réjé needs her census analysts and

Behruz needs his chemists."

"That's not what we're talking about," replied Behruz. "The idea, in my mind, is to at least meet together occasionally, help all of us feel like a team, and work out collaborations. The factory needs chemists and sometimes I need engineers or mathematicians."

"I see. Well, that's easy," said Miller.

"But it's more than that," added Chris. "Or it can be. There are some obvious two-way collaborations that don't need a formal research and development center. Bidhu and Thornton worked together all summer, with the result that there are census people who now know geology and geologists who know how to do the census work. But we need more than that, sometimes. The obvious example is an engineering, electrical, and chemical laboratory. We need one set of equipment that everyone uses; that way we can assemble the best."

"It should include optics," added Thornton. "Rudhu is not a researcher; he needs a lot of help to develop any new product."

"And pharmaceuticals," added Behruz. "Lua needs a lot of medicines, and the aliens are getting more and more reluctant to send them to us."

"There's a drop next month, and they want to stop making digitalis," added
Thornton. "They say it's something we can purify ourselves. We need to sell the
medicines they give us and use the proceeds to pay for the production of new medicines."

"And no one wants to pay," added Chris, wryly. "Here's what I was thinking. The research and development lab can be a company owned by Miller Enterprises, the Mɛlwika Génadɛma, and anyone else we partner in. The lab spends some of its time teaching courses through the génadɛma; maybe one course per researcher per term. That can vary, too, depending on the need and interests. But if the lab decides to develop a product, it keeps track of the resources used—the people and equipment—and the profits are allocated proportionally. The lab licenses the product to someone who will produce it, and the license specifies either an upfront purchase of rights to make the product or a percentage of the resulting profits on the product for a period of time; five years, thirty years, forever, or whatever."

"Now, why should we switch to this from our current arrangement?" asked Miller, frowning. "Why should I commit some of my development resources to this kind of arrangement?"

"John, if you separate product development from the classroom, some problems develop," replied Amos. "The people who stay in classes learn more and are able to innovate more. But if they just teach, they forget the practical side of their work. Right

now Yimu's team often is able to do some tasks extremely well, then they get stuck with a theoretical problem and they have to turn to me or a few of my advanced students. If Yimu hires my advanced students, they stop learning and soon the increased need for innovation surpasses their knowledge, so they're back to asking me or my newer students for help. I've seen the same problem develop with my own employees for the telephone company; if they aren't in the classroom, they don't learn the ideas or approaches they need to solve new problems."

"Me, too," agreed Behruz. "So my chemistry company has been paying its chemists to take my génadema courses."

"I have the opposite problem," said Thornton. "Our geologists are making maps and collecting information, but the army or the crown often is not paying for it; it's just using it."

"If we can put the mapmaking itself into the research and development lab as a product, maybe we can get a little more money for it," replied Chris. "If nothing else, we can produce commercial maps and sell them."

"Well, I think some of this is a way to systematize how much I pay for professional assistance," growled John. "I guess I don't blame you for that."

"John, you are now making thousands of dhanay per year on your manufactures, which is excellent for you and excellent for Éra," replied Chris. "But if more of that money flowed back through the génadema, it would benefit you and the world in other ways. We need to fund serious, ongoing education that takes many years. So far the regional and local lords are willing to pay for a few terms at most. Even your employees only take a few courses—three or four, maybe five at most—and then they feel they

know enough to do their jobs. Behruz and Amos have the same problem with their employees. But a good scientific and engineering education takes steady work over many years."

"I have to stretch myself, too," said Amos. "I have a Master's degree in civil engineering. Fortunately my undergraduate degree was in mechanical and electrical engineering, but my familiarity with all of that information was old and rusty when we arrived here. Since then I've intentionally created at least three new courses every year and hit the books so that I could learn more."

"And I've created about two new courses per year also," agreed Behruz. "But now I want a mechanism whereby my lab people will be taking courses from each other, accumulating courses towards degrees, and improving their skills all the time."

"That's what we need, too," agreed Yimu. "There's no doubt about it. Lately I've been encouraging some of my development team people to continue their education, but they reply that the development work is keeping them so busy they don't have time."

"They have to make time," replied Chris. "And to do that, it has to be built into their work day. Dwodiu and Kwéterdiu, they concentrate on classes; Tridiu, Penkudiu, and Suksdiu they do their development work."

"Now, if I want to develop a product that requires a chemist, how would this work? The lab would put together a team to develop the product for me, using my people and someone from Behruz's staff?" asked Yimu.

"Exactly," said Chris. "And the lab, or Behruz's company, or both would get a certain fee or profit. We'd settle that ahead of time."

"And depending on the need, I might give permission for an advanced person to help you, or a less advanced person; or a bit of both," replied Behruz. "I'm already outgrowing my chemistry facility in the industrial park and need more space. I'm willing to pay for a chemistry department for the génadema that would be part of the research and development lab as well. It would be available to your people, and when I need a complicated new piece of chemistry equipment, your people would be in the position to help develop it, and maybe your company or someone else would then build it."

"Part of this so-called lab, then, is actually a series of fee structures and a staff of one or two people to keep track of the flow of resources and payments," said Bidhu. "I doubt I could actually commit people to it, because we are paid by the crown to do a certain task. On the other hand, if my people are gaining skills that make them more efficient, so that they could do their work and a bit of other work as well, maybe I could convince Her Majesty to allow it."

"The army will want to participate, too," noted John. "How will we handle that?"

"Let's cross that bridge when we come to it," replied Chris. "Let's set up the mechanism first among ourselves; almost all of us are part of one big family, after all, we can work together based on familiarity and trust. We create a structure that allows different companies and a génadema to work together for everyone's benefit. Then we can apply it to new situations."

"What if Lord Mitru wants to add his génadema?" asked Yimu.

"Then maybe we can figure out a way to do it; or maybe not," replied Chris. "One of the keys to making this lab work is the free flow of information within it. If someone

on the western shore wants to join there would have to be people exchanges and long-distance courses, like the courses we're now setting up."

"Presumably you'll be allowing people from Meddwoglubas join?" asked Yimu.

"We could. They certainly will be taking courses; they are already," replied Amos.

"There are also three people from Tripola this term who are focusing on engineering and mechanics."

Yimu looked at his father, who was still skeptical. John stared back at him and they seemed to hold a silent conversation. "You negotiate the details, Yimu," John finally said.

Yimu nodded. "Okay. We need to think exactly how big our research and development department needs to be. Because this automatically takes away a third of its time, if the members are spending time taking classes some entire days instead of developing products."

"But they'll develop more new products later; they'll become more efficient," said Amos.

"I understand that, but we still have an initial financial outlay," replied Yimu.

"We'll also have to change the atmosphere of the research and development team. That will take some time."

"It should be worth it," replied John, in a tone that disguised whether he thought it actually would be.

There was a knock at the door. Chris looked up; it was May. He beckoned her in, but she just opened the door a little wider. "Father, there is an urgent call from Lord Gugéndu."

"Can it wait? What's it about?"

"He would not say what it's about and insists on talking to you absolutely as soon as is possible."

"How strange. Alright, I'll pick up the call at the phone down the hall." He turned to the others. "Please excuse me a moment." He walked out and down the hall, a feeling of worry and dread rising in him.

There was a phone in Thornton's office, between the geology and biology labs.

Chris closed the doors for privacy and picked up the phone. "Lubésé, this is Lord

Mennea; I understand Lord Gugéndu wants to speak to me."

"Yes, urgently. I'll connect you right away."

There was a pause, then a click. "Hélo?"

"Hélo Lord Gugéndu, this is Lord Mennea. How can I help you?"

"Oh, Lord Mennea, I hope you can. Perhaps only Esto can help! Lord Mennea . . . about an hour ago an army steam wagon pulled up in front of the building housing the Tripola printing press and the offices of the *Tripola Bédhɛ*. They entered and proceeded to remove the printing press. No one dared to prevent them since they had swords. I just do not know what to do. Do you think Wérgéndu can help us? Should I call him; where is he?"

"Today Wérgéndu is in his court in the palace. He is in Mɛlwika city hall only two days per week. Where did the soldiers come from? Your garrison?"

"Certainly not! Our commander did not order this. I'm told they drove into town from the northeast; the road to Endraidha and Meddoakwes."

"I see. It is possible General Roktekester did not order this, but I think it is very unlikely, don't you?"

"I agree. I can imagine that Lord Mitru could order it and his garrison might do it, but not after the attack on Lewéspa! They are in trouble already for unauthorized action. I think the army has great discipline right now."

"I agree. And I think the army would have consulted with the Réjé, too. This is not something Roktekester would do by himself."

"Alas, I agree."

"Then if I were you, my Lord, I'd walk to the printing press and talk to the officer in charge. Find out whose orders he is following. Then go to that officer and demand an explanation."

"I think if I do that, I will soon be knocking on the Réjé's palace door!"

"My Lord, if you don't, they will be knocking on *your* door," replied Chris.

"I don't think I can do that. And they may not bother me, either; I am the Lord, after all! If they had wanted my involvement the officer would have stopped here and asked permission to take the printing press."

"Maybe he would."

There was a long pause. "My good Lord, could you call Wérgéndu and ask him to help?"

"My Lord, if you have no plans to act, I don't think it would be appropriate for me to do so."

"I beg you my Lord, it would be very difficult for me to do or say anything."

"My Lord, that is because it is your obligation to do so."

"You are right. It is a question of responsibility." Gugéndu was silent for a moment. "Very well, my Lord. Thank you for helping me clarify the situation. I will go ask the officer who gave him his orders."

"Excellent, Lord Gugéndu."

May 19, 2001; reread and edited 5/18/13, 7/27/17, 11/3/24

## Consequences

"Father, we have to do something," said May at the breakfast table the next morning.

"This world will never advance without freedom of the press! Kameru was stupid, but surely there's a way to protect his right to publish? We can't just sit back and ignore this entire event!"

"Well, the first person to protect Kameru is Lord Gugéndu; and I haven't seen any evidence that he plans to do anything, even if he told me he would. May, you can't create a right overnight. The right that exists on this world currently is that the Réjé can do anything she wants. Within limits, the Lord of each region or village can do anything he wants. The people are not without rights; this world does not have serfdom, except maybe in Néfa and Belledha, it does not have slavery except in Belledha, people own land and it can't be taken from them without compensation; people have the right to appeal their case to the regional Lord or the Réjé. Here in Melwika they have the right to vote, but nowhere else. The right to publish simply does not exist in the law. Each Lord has his own sphere of control, where publishing is concerned, and the Réjé can overrule if she feels a compelling need to do so. John and I can set up the freedom of the press in Melwika, but if Kameru comes here and prints his paper, the Réjé can close it, just like she did in Tripola."

"Do we have confirmation the palace ordered the press confiscated?"

Chris nodded. "I spoke to Wɛrétrakɛstɛr and he made some discreet inquiries."

May was still not satisfied. "Father, what are we to do? How are we going to develop freedom of the press here?"

Chris chuckled. "How did it develop on earth? You know history better than I do."

"It usually took a revolution."

"That's what I thought. Well, the only way to avoid that here is the Faith; the revelation of Bahá'u'lláh. So I guess that's your answer."

"Unless spreading the Faith gets us killed," commented Thornton. "It hasn't gotten controversial yet, but I wonder what will happen when we hold the unit conventions, and then the election of the Central Spiritual Assembly?"

"We'll see," replied Chris. "In many ways, the thing that should have been controversial was the release of *The Secret of Divine Civilization* last year. That book has sold pretty well and I get the impression it has been widely read. It lays out a lot of limitations on kingly authority and aristocratic wealth, though you have to read between the lines a bit to understand that. And it is not something that will be briefly popular and then disappear because the Bahá'ís will keep reading it and using it as their blueprint for change. If we can keep emphasizing that book and the subsequent guidance that Shoghi Effendi and the Universal House of Justice gave, I think this world should be able to avoid revolutions."

with some prayer, too,	added Edd.

"With some prayer too" added Lua

The excitement in Meddwoglubas had gradually died down over the two weeks following the army raid on Lewéspadéma. Rumors that the army planned to continue south and

conquer the entire region for Lord Mitru proved to be a short-term fright and were replaced by a sense of urgency when the half dozen persons burned or otherwise suffering minor injuries arrived by special steam wagon at the hospital. Meddwoglubas Hospital, as a result of Lua's visit, Stauréstu's time in Melwika, and his subsequent focus on its priorities, was at least as good as the facility in Meddoakwés and nearly as good as Melwika; it just lacked a building of its own, utilizing back rooms behind the family store for emergency room space and rooms in several nearby houses to put up out-of-town patients. A real hospital building was in the planning, however, using regional tax money and some profits from cloth-weaving. Putting the injured in people's homes made the entire attack an intimate experience.

Wérgéndu's subsequent visit and rulings added yet another layer of emotion to the area, which suddenly realized that the cloud of illegitimacy had been finally lifted from it. Estodhéru felt empowered to act as coordinator and was more determined than ever to bring about "progress," a very popular word in Lewéspa.

Liz and Mary had many opportunities to watch and participate because they arrived in Mcddwoglubas just twenty-four hours before the army's action. Mitrané, who had become quite interested in the Faith, invited them over every afternoon for a few hours of discussion, and Estodhéru himself began to drop in on them. One afternoon two weeks after the army attack, he arrived soon after Liz and Mary had started to drink their mint tea.

They all greeted each other. "I went to the manufactory first," he said. "They now have an eighth power loom operating and will soon have two more. Pretty soon we'll have to start lowering our cloth prices, because we'll have trouble selling it all! The

grandfather clock design is working well and we'll be producing them in quantity in another two months."

"And the piano?" asked Mary.

Estodhéru smiled. "I asked just for you. They've designed the bed and added the wires, which they stretched and roughly tuned. Now they are designing the key and hammer assembly; I gather from the explanation that you hit a key and it causes a hammer to strike the wire. They struck some of the wires by hand for me; the sound is interesting."

"Wait until it is finished," said Mary. "It's a beautiful musical instrument and very capable when someone is trained. I used to be quite good."

"I'm sure you still are," he replied, smiling. Estodhéru had been thoroughly charmed by Mary. "Then I went up to the school. Many adults are there. Now that the harvest is past and the fields fallow, many go to the old fort with some of their work, sit in one of the north-facing rooms heated by the sun, carry out their crafts, and listen to something being read. They bring food and socialize as well, and exchange tips about improving their work. I asked them to read *The Secret of Divine Civilization*. It is far more edifying than the *Tripola Bédhe*."

"And more available," added Liz.

Estodhéru switched to a solemn tone. "'If a judicious and resourceful individual should initiate measures which would universally enrich the masses of the people, there could be no undertaking greater than this, and it would rank in the sight of Esto as the supreme achievement, for such a benefactor would supply the needs and insure the

comfort and wellbeing of a great multitude. Wealth is most commendable, provided the entire population is wealthy.""

Mary was startled. "That's one of our mottos," she said. "When we arrived and were uncertain what to do, that passage from 'Abdu'l-Bahá was our chief guidance."

"And it should be. It has become mine as well," he replied. "`Abdu'l-Bahá's rejection of violence and force of arms was important to me, two weeks ago. I had read the entire book over the summer and thought little of it, but when Chris called offering advice and he stressed staying calm and remaining loyal to the Réjé, I immediately thought of `Abdu'l-Bahá. We were contemplating assembling a force of volunteers and marching to Lewéspadéma to protect it. Had we done that, the Réjé would have naturally supported the army, even though their action was inappropriate. Through patience and loyalty we won more than we ever could have by force of arms."

"Sometimes that's the way it is," agreed Liz. "Esto guides and protects you if you do the right thing. He cannot protect us from everything, of course. But His assistance is felt, and it is a great confirmation to persist in correct action."

"I believe it; I felt it that day," Estodhéru said, nodding. "And since then I have been trying to apply *The Secret of Divine Civilization* to my own responsibilities as Lord and leader of this area. We are a small place; we have no royal city, no garrison, and no temple. But I now see more clearly than ever that we can be a great place on this world if we can raise the prosperity of Lewéspa. 'Abdu'l-Bahá speaks of a country with a tenth the population of another but being just as powerful; that is what we can do."

"China and Japan," said Liz, nodding. "Japan was small and weak until it developed; then it nearly conquered China. Yes, Lewéspa could indeed be as powerful as all of Ora. It's already close, I think."

"But material power is not as important as spiritual power," reminded Mary. "A person or a people who are virtuous, honest, and God-fearing will achieve a certain amount of prosperity and wealth; but a prosperous people will not necessarily achieve virtue."

"You are quite right," agreed Estodhéru. "And I agree with `Abdu'l-Bahá and the prophet Bahá'u'lláh here: virtue is achieved through practice, observing virtuous people, prayer, studying revelation, bringing oneself into account, and consultation."

Mary was impressed by the list. Not all of it was from the Bahá'í writings, but it was a comment in the Bahá'í spirit. "What do you think of Bahá'u'lláh, my Lord?" she asked.

"Oh, that is quite simple: I have no doubt that He is a Manifestation of God. I can tell by His words and those of His inspired son, by the prayers, by the behavior of your family, and by the way the truth has manifested itself in the last few years. Just as it did two weeks ago, when I wanted to prepare for use of force and was persuaded otherwise." Estodhéru paused, not sure what to say. "Indeed, I believe I should consider myself a Bahá'í. In the last two weeks I have done much thinking about this world, my region, and my city. Many proclaim the new knowledge itself to be the solution for our problems; but Ora has it and its problems are growing as much as they are shrinking. Lord Chris insisted to me that the new knowledge was not the solution when I asked him over the summer; he said that divine knowledge, the virtues it teaches, and above all practicing the

virtues, are the key. He said the hymns contain the virtues. He is right, of course; but Widumaj does not tell us what to do with the virtues. 'Abdu'l-Bahá, in *The Secret of Divine Civilization*, tells us how to apply the virtues to build a new society."

Liz and Mary were quite surprised; he could see it on their faces. "As I said, I have thought about this matter quite a bit. I have even prayed about it, using all the prayers you have attached to the end of *The Secret of Divine Civilization*. I have even said the short obligatory prayer a few times."

"My Lord, please forgive my surprise. We are pleased, of course," exclaimed Liz.

"More than pleased." Mary rose and walked to him. "Lord Estodhéru, welcome to the family of Bahá." Then Mary embraced him, which startled Estodhéru as well.

"Thank you, gracious lady," he replied. "This is more of a welcome than I could have ever expected."

"You are welcome, of course," said Mary. "Everyone is. We wish no ill toward anyone on this world; we wish only the best for everyone, including all priests and Lords. But of course, we do incline to feel that the new material knowledge and the old spiritual knowledge brought by Widumaj, together or separately, are not enough to take Éra where it needs to go. It needs the new spiritual knowledge as well."

"I quite agree," said Estodhéru. "And I want to see Lewéspa adopt a development plan based on it."

"Excellent," said Mary. "I think that would be a great innovation, and a model for other places as well. But my Lord, if you want to apply the spiritual knowledge properly, you must refine your own soul as well. Let us talk about the spiritual principles and

teachings as you can apply them in your own life before we turn to their application to change the region."

"Perhaps we should do a bit of both," replied Estodhéru. "For they are inseparable matters. I agree with you there." He turned to Mitrané. "Perhaps we should not announce this decision yet, as it could cause surprise and shock. It should be disclosed gradually."

Mitrané nodded. "I agree, father. And I wish to follow these new teachings as well, though I have studied them less thoroughly than you."

"Less thoroughly?" Estodhéru chuckled. "You have studied them quite a bit for the last few months, I think. You have studied them well!"

"But there is much more studying to do," she replied.

"We are all studying this revelation," said Mary. "Whether we have accepted Bahá'u'lláh or not, there is always more to learn. We must start on the journey; we will never finish it."

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Late that night Chris was awakened by a phone call from Liz and Mary about Estodhéru's declaration of faith. It was startling news but welcome at the same time. He was the first Lord to accept the teachings and Mitrané was the first heir apparent to become a Bahá'í. The Mɛlwika Spiritual Assembly discussed the matter in emergency session the next night and even called Mary to hear more. Though only a local assembly, it functioned as a "national" assembly in matters such as this. In the end they decided to leave the matter of accepting Estodhéru to the spiritual assembly of Mɛddwoglubas. Liz and Mary postponed their trip to Frachvala a week, to remain in Mɛddwoglubas a bit longer to deepen the Lord and speak to the Mɛddwoglubas assembly.

A week later Chris was surprised and pleased to receive two telephone calls within an hour of each other. The first was from Albékwu, the head of the Gordha génadema; he was visiting a Méghendres hamlet on the main road between Gordha and Melwika, though much closer to the former, and took advantage of the functioning telephone line that far along the road to make a courtesy call. Then an hour later the head of the Ora branch of Prosperity Bank called to ask technical advice about a banking matter; the telephone and electrical lines were still burning through money and creating financial problems. The telephone line from Tripola to Ora had been finished, making possible long distance calls via the cellular telephone in Tripola to Meddoakwés/Melwika and Anartu. The line to Néfa had just a few weeks more of work.

When the call ended, the house's maid knocked and told him he had a guest. Chris invited him in; it was Wérdéu, head of the Tripola génadema.

"Honored Wérdéu, it is a great surprise and honor to see you!" he exclaimed.

"Come in, enter. Would you like some tea?"

"I just had some, my Lord."

"Well, let us have more." Chris walked to the tea pot sitting above a candle in one corner of his office and poured two cups of tea. "It is even mint tea; the kind you like. How is your family?"

"Excellent, my Lord. Excellent. And yours?"

"Always surprising me! Everyone is well. What brings you here to Mɛlwika?"

"My younger brother is a student in Mɛddoakwés, and I came to visit him for a few days. I plan to visit Wɛrétrakɛstɛr as well and I'm visiting friends here in Mɛlwika."

"I am honored by your visit to me. How is the génadema? How are enrollments?"

"Enrollments are very strong this fall term, Lord, because Lord Gugéndu decided, after seeing Meddwoglubas' summer génadema, that he had to put more money into our génadema and twists the arms of the local Lords more to convince them to send students. I think almost every Lord has sent a son or even a daughter to the génadema this term, and many have sent future teachers. Some teachers have returned to take classes; we're giving two intensive days of classes a week to teachers and they're coming by steam wagon. It is very encouraging, Lord; we have almost one hundred students this term."

"Excellent, I congratulate you! This will be a great boost to your génadema. And I suppose the teachers are coming two days other than the three days when some of your students come here?"

"Yes, of course. In fact, the classes that our students take here are sometimes repeated the next day in Tripola."

"And the week later, the questions come back here. I have Gostanu in my advanced business class here, and he's always seeking a half an hour of my time because he has a list of five or ten or even more questions from his business classes! But I'm not complaining; I'm delighted we are helping so usefully."

"The three days of classes here every week are indeed helping us, and one result, I think, is that you may be able to approach Lord Gugéndu and ask for more tuition payments. I offer that advice confidentially, of course. I am very grateful and will try to encourage him to pay you more completely."

I appreciate the effort. We may be able to offer the Lord a bit more as well; it appears we will organize a technology research and development center in the next few months. That is, an institution that will design and plan new products, for which it will

find manufacturers. The Lord wants to go into manufacturing; maybe we can suggest a product to him."

"That would be welcome, I am sure. There may be another way you can receive just compensation, also, my Lord. I refer to the *génberwona* that three of us in the génadema have been editing, which is almost ready for publication. We had planned to set the type for it this fall and publish it in early winter. We just started with the typesetting when the army took our printing press."

"What is this *génberwona*?" Chris was uncertain what to make of a "knowledge book."

"It is a book of general knowledge. It has a section about the entire kingdom; Bidhu had said we could publish the tables of census information. It would have little maps for each region and descriptions of what each region makes. It would have a section about astronomical bodies, one about medicinal plants, a first aid section, a short science section, a description of how various things work—we've included steam wagons, power looms, clocks, telephones, electric lights, piped water, pumps, gas—and section about the world's history, etc. It'll be a nice general reader for teachers and people wanting to learn more. We've written the pieces in Tripola over the last few years."

"That sounds like an excellent idea. Have you spoken to Modolubu?"

"Yes, Lord, and he said we must seek your advice first."

"Since you are here, why not approach the army? They'll probably want to set up the printing press they took from you, I suppose in Endraidha. Maybe they'd print the book for you."

Wérdéu looked shocked. "We would never ask the army to print our book on our press for their profit."

"No, I suppose not." Chris thought for a moment. "We will need to look at the manuscript, to make sure the book has nothing offensive to anyone. I think you can appreciate the caution; there are no laws guaranteeing anyone the right to publish anything they want. I gather the Consultative Assembly wants to talk about the question and related ones, but it has no session scheduled until spring. And I will explore the matter informally as well, to make sure no one is offended by our assistance to your project. But that is all I can offer."

"I understand. I wish it would be possible for us to continue with the Tripola  $B\acute{e}dh\varepsilon$ , with it being printed here. But I can understand why you are taking the position you are."

"I hope that is true. Please understand that I am not an advocate of the unfettered right of anyone to do anything they want, and that includes the evils produced by extreme freedom to publish. On the other hand, I think the restrictions will need to evolve, shall we say, to allow more freedom. But that is also true of public opinion; it does not want or understand the need for more press freedom, either. Education is needed."

"There is no doubt about that." Wérdéu rose. "Thank you for your time, my Lord.

I will send someone here with the manuscript in another week or two."

"The courier should bring it to me personally." Chris rose as well. "It is always good to see you, Honored Wérdéu."

He escorted Wérdéu to the door of his office and settled back into more work. By then, however, it was 4 p.m.; a customary time for people to visit. He heard someone ring the doorbell, and a minute later the maid knocked on his door.

"My Lord, you have two guests, and I think they would be more comfortable entertained in the garden than in your office."

"Thank you. Serve them tea and cakes, and I will be right out. Who are they?"

"Aryékwes, the Lord of the House of Dwobrébas, and his wife ɛjnésé. They are the parents of one of your students."

"Really? I'll be right out, then."

The maid left and Chris grabbed his current directory of students. Alphabetized under "Dwobrébas" was "Okpétu," who was listed as taking general science, math, and English.

He came out expecting to be greeted by an elegantly dressed couple, as one would expect of a member of the "great families." He was not disappointed. Both were probably in their forties, dressed in elegant clothes, she with extensive and expensive jewelry, he with the uniform of a retired military officer. No doubt their private coach was parked outside the door.

"My Lord and Lady, what an unexpected and pleasant surprise," he said. "I am Lord Kristobéru Mennea. How may I help you?"

"We are pleased to make your acquaintance, Lord," replied Aryékwes, rising. He offered only one hand rather than two; it was the restraint of the nobility. Chris took it but did not shake. He in turn offered one hand to Ejnésé.

"We have heard much of Mɛlwika in the last few years, but have never seen it before," replied ¿jnésé. "We felt compelled by our son's glowing reports about its grandeur and beauty to see it ourselves."

"And what is your opinion, now that you have seen it?" asked Chris.

"It is a miracle," replied Aryékwes. "As a young man I led cavalry patrols here to watch the Dwobergones. They sometimes wintered below the gluba in what is now the city's main park! It is as if the aliénes, as you described them, did not just drop a family here, but an entire city."

"In a sense they did. The family they dropped sought to share what they had, and that was attractive. Not only does Mɛlwika grow every year, but so does its influence.

There is a factory in Morituora now, and the feared Dwobergones mine copper to sell us."

"Even the northern addition of Meddoakwés is an influence," agreed ¿jnésé. "We are finishing a new house there and will be very comfortable in it. It will have electricity, a telephone, and running water. I understand you have a convenient substitute for chamber pots as well?"

"Indeed; we can show you later," replied Chris. "I understand your son is taking science, math, and English this term. We are pleased to have him."

"And we are pleased he is now devoting himself to something other than falcons," replied Aryékwes. "He has always loved birds, but he is my third son out of five, so he must prepare to earn a living. The oldest two are army officers and are studying in Endraidha. The youngest should be coming here next term as well."

"We'd really like to see him study something practical," continued εjnésé. "But he has refused to get involved in business, or healing, or teaching. Now he's set on building a flying machine."

"A flying machine?" said Chris, surprised. "Oh yes, I have overheard a conversation or two involving him, focusing on flying machines, and occurring in this very garden. He is indeed fascinated by the idea."

"Is such a thing really possible, based on the new knowledge?" asked Aryékwes, leaning close.

"Indeed it is. There are three approaches to take, and I heard them talking about them all. The first is creating a very large, light weight, airtight bag, perhaps fifty doli high and up to fifteen wide, and heat the air inside. Hot air rises; if the bag is big enough it can lift a basket attached to the bottom, with one or two men inside. But the cost of making the bag would be very high. The second approach is to build something more resembling a bird but putting an engine in the front, like a steam engine, to move it through the air. We cannot yet build engines that are small enough, light enough, and reliable enough for this approach. The third approach is to build a bird-like machine that is light in weight and can glide on the wind. That approach is probably easiest."

"But if it has no ability to flap its wings, how would it get in the air?" asked Aryékwes, skeptically.

"I think the idea is to pull it into the air using one of our rovers. They are fast and can probably get a glider a hundred or two doli into the air, before it flies on its own."

"Surely there is danger that the bird would crash back to the ground," exclaimed Ejnésé. "Would it have legs like birds? Would the man inside land with his feet?"

"The man inside would bring the glider down very slowly on a very smooth field, and it would land on wheels. If he makes a mistake and comes down too fast, he could be injured or die. Flying any of these machines is potentially dangerous. Practice makes it safer, but it is never completely safe. Nothing in this world is completely safe."

"That's true," agreed Aryékwes. "How high could a glider go?"

"It depends on the winds. There are always places where the air is rising and other places where it is descending. If the glider circles inside a column of rising air—like a column of rising smoke, but much larger—it can go up five or ten dekent."

"Ten *dekent*?" Aryékwes was shocked. "That seems half way to Skanda. Maybe halfway to heaven, to Esto!"

"They are much farther away, my Lord. The glider can't go to any of those places; it can only come down. It would not be wise to fly it over the sea because it might come down in the sea. It can't fly at night because the winds are weaker, and there is not enough light to see where to land. But it could fly from here to Endraidha in maybe two hours."

"Really?" He shook his head, unable to digest the idea.

"Are you sure of this, Lord?" asked ¿jnésé.

"I have seen gliders fly, but I do not know how easily we can build them. I have never built or repaired one. Neither has anyone in my family. But we have the books that have the information. I am sure, since Okpétu is studying science and English, he will soon have the information as well, if he seeks it."

"He will seek it," replied Aryékwes. "I am sure the army will want to know about this machine. A man five dekent above the Kwolonelands will be able to see every Kwolone man and horse. I suppose he could take up one of these new cameras and take pictures, couldn't he?"

"Indeed he could. And if we ever can build radios, he could talk to someone on the ground and report what he sees as he sees it."

"Incredible!" exclaimed ¿jnésé.

"I think I should talk to my cousin Tritu of the army supreme council," said Aryékwes. "Perhaps I should invest some of my personal wealth in the effort, but I think the army will want to invest in this machine as well. Do we have any sense how much a glider will cost?"

"I would hesitate to make an estimate, my Lord, but it's probably five to ten thousand to make something that can fly. If one wants to make several of them, train flying crews, and pay them, obviously it would become much more. Improving the first glider will also be necessary and will cost."

"I understand. Perhaps we could plan another time to talk further, when you have more information and my cousin can join us?" suggested Aryékwɛs.

Chris nodded. "I think that's a good plan. But I would stress that your son Okpétu needs much more education and training if he wants to do this well, and to become the expert at flying. Otherwise someone with education eventually will come along and will take over the effort."

"We will tell him that!" exclaimed εjnésé. "He needs a focus for his life; he needs discipline; and he needs to be pushed. Perhaps this will do it."

"We see Okpétu as being very capable, Lord Mennea," continued Aryékwes. "But he needs direction so that he can apply his talents. We hope we can help him find that."

"That is what all parents hope for," replied Chris. "You are fortunate to have such a bright and capable son."

The doorbell rang. Chris looked up. The housemaid went to the door and escorted Estanu in.

"You have an appointment?' asked Aryékwes.

"I am afraid so," replied Chris.

"Then we will continue on our way," replied the Lord of the Dwobrébas. He and Ejnése rose. Chris showed them to the door and warmly ushered them out. Estanu stood, waiting.

"Hail, Honored friend Estanu," said Chris, offering both hands. "Thank you for coming."

"I would apologize for being late, but I see you were busy with guests anyway."

"Yes. Come to my office." They walked across the garden and dining area; Chris stopped long enough to grab his tea cup. He would be drinking a lot of mint tea today.

They settled into his office; Chris poured tea for Estanu and handed it to him. "You've just returned from the western shore?"

"This morning. I spent a night as an itinerant 'hunter' and was invited to stay with the pole-laying crew; they were very hospitable. So I have a pretty good idea what some of the problems are."

"Laxity?"

Estanu nodded. "I got them talking and they admitted to doing about half as much work every day as expected, to eating high off the hog—supplies are being supplied too generously, I ate very well on the company's budget—and to petty theft and resale of tools and other items, even copper wire. I suspect most of the cost overruns are attributable to the slow and overly expensive pole-laying teams."

"Do you know all the teams are that way, though?"

"The guys encouraged me to sign up; they said all the teams were the same!"

Chris nodded. "Then I had better plan a meeting with Ménu."

May 31, 2001; reread and edited 5/18/13, 7/27/17, 11/3/24

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Power

"It's still so chilly; I'm not used to this," said Liz, pulling her sweater more closely around her shoulders. It was almost noon in Mɛlwika, and one could not walk around without a light coat.

"It may be an early winter," replied Chris. "This is an early date for the first frost.

I suspect a few bold farmers lost crops last night. I'll have to call the maintenance men when we get home and ask them to put the parachute cloth over the roof. I suppose Meddwoglubas was much warmer."

"A bit. They say it's a warm fall."

"That seems to fit the pattern; one hemisphere gets a really cold winter and the other gets a much milder one. Well, we'll see. It's good to have you back."

Liz looked up at him. "Oh, it's soooo good to be home, too! I wish we could stay.

Mom wants to make one more trip to the western shore before the weather closes in to attend some of the unit conventions starting next week."

"Why did she come back?"

"To attend the unit convention here."

"Oh, that's right. I really think the Central Spiritual Assembly, once it's elected, will have to think very seriously about appointing her the equivalent of a Counselor or Auxiliary Board member. We'll need the institution of the learned."

"I agree, but let's not get ahead of the picture."

They were walking in the herb garden, now moved to the park covering the floodplain below Mɛlwika's gluba. It had grown impressively this year and was mixed with flowers as well; many people liked to stroll in it. Liz stopped to admire the stone platform and curved walls just east of the garden, almost at the mouth of the gluba. "My, the theater looks finished!"

"Almost! The iron hemispheric dome still has to be added over the stage. It'll really project the sound, too. The stone benches cut into the hillside are not very comfortable, but when we used this for a town meeting last week many people brought their own blankets or pillows to sit on. It seats 500."

"Really? That's great! And since the factory overlooks it from above, I guess there won't be many non-paying viewers."

"That's right. We'll see whether the theater becomes popular next summer." Chris turned and they walked toward the river. "How's mother's health?"

"The new combination of medicines has helped her strength a lot, but I think her improved health is principally the result of two other factors: she's adjusted to Éra's bugs, after four years, and she feels an urgency, now that she can handle the language, to spread the Faith while she still can. I doubt she has a lot of years, but she can still do quite a lot."

"People love her! And they respect age, of course. She can do things you and I can't."

"And she has."

"What about Estodhéru? Is he alright?"

"Yes, I think so. He truly believes, and he has a spark in him to serve the Faith without causing troubles. He won't have an ego problem, either; he seeks to be a servant.

He's talking about a Constitution for Lewéspa and a ten-member council—one representative per village—that elects an annual secretary, who carries out executive decisions. It's quite remarkable."

"That is remarkable. I doubt the Réjé will object, either, since she has established the principle of the independence of the Lords in political matters."

"Well; that was spring. The army raid on the printing press was approved by the palace, and Gugéndu's furious; that's what Mitrané told me, anyway. I guess he called Estodhéru to drum up support. He plans to raise the matter in the Consultative Assembly."

"Oh, I know! He's approaching various people. It'll be a fight. This world has seen battles between the Lords and the palace since the Great Drought began." They walked out of the herbal garden and down a path along the river. To the right was an expanse of grass; the main area of the park for kids to run, and a few were. "So, the Bahá'ís on the western shore are ready for the unit elections?"

"Yes, definitely, and for local Spiritual Assembly elections in the spring. Almost everyone attended one deepening program or another. There's quite a lot of enthusiasm; everyone's talking to friends and relatives about the Faith. There are villages where there's a lot of interest. But the local Lords need convincing that these groups of people won't cause trouble; that's the big limitation."

"Of course." Chris chuckled. "Any progress on mother's piano?"

"Oh, yes, they're working on it quite actively! And it'll cost you."

"I'm sure it will. I hope the result will sound good."

"So do I."

They reached Broad Street, which ran from the first citadel and the first génadema building to the north addition. It was mostly lined by shops and provided a lot more space for each merchant than the marketplace in Ménwika did. They stopped to buy a loaf of bread. When they came out of the bakery, Chris showed his leather money pouch to Liz. "Look. In here I have a new gold ledhay, several silver dhanay and some of them are newly minted, a couple of the new copper dontays—that sounds strange, I guess people are saying rudhays—and paper money. It's almost all new."

Liz peered into his pouch, amused. "We can be blamed or credited for almost all of this!"

"That's right. The palace has to be careful not to mint too much; there will be inflation. But they're also anxious to pay for the Mɛddoakwés addition, which is getting very expensive."

"I have to go see. Beautiful?"

"Oh, yes, and it's being planned as a five to ten-year expansion. There will be more every year."

"So, that's where the increase in tax revenue has gone."

Chris nodded. "Ménu has expanded his construction business more than you can believe. He employs almost three hundred men in Mɛddoakwés and over a hundred here in town. His profits alone must be fifty thousand, maybe a hundred thousand. He's hauling stone, making brick, carving wood, painting, and has contracts for half the palace and several of the new houses. He told me the long-term budget for building the new palace and temple complex is three million dhanay and the army is spending as much on its facilities."

"Incredible." Liz shook her head. "I'd rather see it go into education or health. At least some of it comes back to Mɛlwika."

"And I can't get Ménu to part with any of it. He's also too busy to finish construction contracts I signed with him last spring. Though, admittedly, I'm glad now that he didn't build the new administration building I contracted. I really couldn't have paid for it."

"Is the situation improving?"

Chris shrugged. "Some. The new arrangement of packing advanced classes into three days a week has increased commuter students, but many can't pay much. This week the City Council will discuss the question of paying city teachers to take courses. Many are essentially taking them anyway, so I hope the resolution passes. That will generate a few thousand more dhanay per year. I also hope to get more money from the palace for the two hospitals; they're losing money now that people are using them more extensively. With any luck we may get more money for the commuter students as well. It's equally possible the crown will turn the matter over to the consultative assembly, though."

"That would be a long wait."

They entered the old west gate and approached the classroom building. "How are the widows doing?" asked Liz.

"Near as I can tell, very well! May and Lua can fill you in better, of course. They are already complaining of lack of space, even with the use of half of the top floor of the classroom building. They're turning out lace and embroidery in large quantities, and the restaurant and jars of preserves are incredibly successful."

"I know; I even saw a few jars for sale in the market in Isurdhuna. I'm glad they're doing so well. I think the time has come to rename the organization the 'women's cooperative.' The women's group in Tripola is doing well, also; Gugéndu's wife is a big patron. And we now have a group in Mɛddwoglubas."

"Good. I gather the Meddoakwés group is not doing so well, though."

"I'll find out," said Liz. They entered the house. Since most of it opened to the central garden, it was chilly inside. Chris was surprised to see workmen busily installing the folding wall that enclosed the dining room from the courtyard. The housekeeper must have made a decision on her own. He nodded to the men, then turned to Liz. "I've got an appointment at the bank, so I had better go. Pray; this one will be tricky."

Liz nodded. "Alright."

Chris stepped into their bedroom to change into a more formal weri, then hurried to the bank. Weris were not well designed for chill; he was cold as he walked across town to the bank. He saw John and Ménu go in just ahead of him; according to the clock, they were a bit early. Chris also saw Estanu converging on the door, so he hurried along.

They all arrived in Yimanu's office at about the same time. Glasses of hot tea were lined up and waiting for them. They all greeted each other with the usual pleasantries, though Ménu clearly was worried, and Estanu's presence made him nervous. The two men were competitors for many building contracts, and Estanu was often unhappy by the prices the Miller family charged for building supplies he needed.

"We are here to discuss the cost situation on the power and telephone lines from Mɛlwika to Néfa," said Yimanu. "As you all know, this is a routine meeting we hold

every month to discuss the project's status. I had thought more investors would have representatives here today, but the five of us are enough."

"Why, may I ask, is Estanu here?" asked Ménu. "He's not an investor or a contractor."

"I've invited him," replied Chris. "But first, let me ask you whether you have a better sense of the cause of the cost overruns. We've now exhausted the project's original budget and we have 2/3 of the lines laid. Funding the rest will be an awkward and delicate task, and will endanger the entire legal arrangement."

"Only if people continue to object to army involvement," said Miller. "Chris, these sorts of overruns often happen in big projects. They can't be helped."

"Do you have evidence that this was unavoidable?" asked Chris. "If so, I'm sure it will make it much easier to convince the other partners to provide more investment."

"Evidence? No, no one has time to audit the books," replied Miller. "But no one else audits their books, either!"

"That's beginning to change," replied Yimanu. "We now have access to much better accounting techniques than in the past. Everyone is adopting them. And the bank's involvement in this project assumes careful cost accounting. It is the legal basis of the bylaws of incorporation. Otherwise, trust breaks down."

"Well, maybe people should just trust us more!" grumbled John. "We're doing our best to track expenses, but we can't always keep up."

"How far behind are you?" asked Yimanu.

"It varies," replied Ménu. "Some expenses haven't been entered into the books for three months."

"That's a serious delay," said Yimanu. "The bank's books are updated every night."

"And the telephone makes it possible," added Miller. "I understand the bank uses a third of the long distance time."

"Correct; we're spending over 3,000 dhanay a year on long distance calls. But our customers pay for it; they're given a choice between two-hour clearance of a check and two days, and many prefer paying one dhanay and getting the clearance in two hours. But this is a distraction from our purpose. I assume the cost overruns do not come from the wire-making or the preparation of utility poles?"

"No," agreed Miller. "The charge for wire and for poles is exactly as we had predicted. We have not charged the full amount because we have not delivered all the wire and poles, because it has not yet been needed. We work one month ahead."

"What about the Gordha line?" asked Chris. "I gather it's coming in closer to projections?"

Miller nodded. "We're doing that line ourselves, rather than the consortium. We've got a good supervisor on the work and it appears it's coming in at the projection, or maybe five percent over. I'm not completely sure because we're behind on the accounting."

That interested Yimanu. "So, do you think the supervisor is the problem?"

"I would hesitate to say that until we have more information," replied Ménu a bit curtly.

"Maybe we can provide more information, then," exclaimed Chris. "I asked Estanu to look into the matter himself." Chris looked at Estanu, who was careful to look at Yimanu rather than Miller or Ménu. He began.

"I had to go to Tripola on other business, so I walked along the road where the crew was laying the line from Tripola to Endraidha, stopped to talk to them, introduced myself as a hunter, and was invited to spend the night. After a jug of wine, everyone relaxed and talked. They admitted to working half as hard as they could or were expected to, laying half as many poles per day as expected, stealing some supplies—they shared food very generously with me—and asking for far more supplies than they needed. That easily explains a 25,000 to 30,000 dhanay cost overrun."

Ménu was angry. "You had no right to do that!"

"I authorized it and we even paid him to make the inspection," replied Yimanu calmly. "When the investors are getting 2/3 of what they paid for, they have a right to find out why."

"Ménu, we are not asking you to resign, nor do we plan to ask Estanu to take over," said Chris. "We are here to figure out what to do, not to blame you."

That calmed him somewhat. "I have long worried about the oversight of the field workers," he conceded. "Perkésu generally gives me short, general reports. He doesn't like accountability; he wants to be his own boss."

"Do you get the impression he visits the field teams?"

"Yes; but not very often. He has spent most of his time working from an office, usually in Tripola."

"Considering that the telephone lines are usually turned on soon after they are laid, he could easily telephone in orders for supplies to an office and be based in the field," said Yimanu. "Or for that matter, passenger and freight steam wagons are constantly passing the teams; they could be asked to deliver messages."

"If purchasing were done here and all supplies sent by steam wagon, I think you'd save money," added Estanu. "That's what I do; my teams in Mɛddoakwés have very limited authority to buy building supplies. They have to telephone in their orders to my office, where purchasing is monitored carefully. It's also put into the books immediately."

"I am afraid we need to hire more accountants," said John. "I don't think you can appreciate the problems we've had since late spring. Demand for everything has nearly doubled. Good accountants are hard to find; I haven't been able to hire any more, so they're keeping track of almost twice as much money."

"I've got a new crop coming along," said Chris. "And several of them need part-time work. You can assign them basic tasks. That'll help you catch up."

"You have to have better accountability in the field," said Estanu, rather quietly so as not to offend Ménu.

Ménu looked at him. "I think we need a new field coordinator. But they are very hard to find."

"What about the coordinator for the Gordha line?" asked Yimanu.

Ménu shook his head. "That work finishes next week, but he has already told me he's going home to his village for the winter."

"What about Dengéstu?" suggested Chris. "He is coordinating the Nénaslua Grange, but that takes very little work in the late fall through early spring. I bet if he came back here one or two days a week to handle some office work for the project and oversee the Grange, he could spend the rest of the week in the field."

"He knows how to make men work hard," agreed Yimanu. "And they don't mind, either."

"Well, they do mind if he fires them," said Chris, with a smile.

Ménu nodded. "I'm willing to do that."

"Good," said Yimanu. "Do you think you can finish the line for twenty thousand?"

"Twenty thousand?" exclaimed Ménu. "Two thirds of the line cost 87,000!"

"No; two thirds cost 72,000, the difference is your profit," replied Yimanu, patiently. "You should not earn profit on the cost overruns. And if the remaining line is built for the correct amount, the cost would be 24,000, but everyone says the end of the project is the most profitable, because the workers are the most efficient."

"But these workers have not been efficient!"

"You said the Gordha line came in close to cost."

"I think it did; we don't have the accounting finished."

"I suggest this compromise," said John. "We'll finish the line for twenty thousand, if half of that is an investment from us. In other words, we'll invest ten thousand into the line and get paid twenty thousand plus the appropriate percentage."

Yimanu looked at Chris. "I think the investors would agree to that, and the bank could loan the rest."

Chris nodded. "Alright, that seems like a good deal to me, too. The only thing I'd add is this: twenty thousand is your entire remaining fee, regardless of further cost overruns. You have to assume some of the risk."

Ménu was unhappy about the entire deal, but John nodded. "Okay, we'll do it.

This is a project I had already invested in. I want to see it finished right."

"I really don't want a share of the line," said Ménu, protesting.

"Then it'll be my share," replied John. "And when it finally makes money, the profit will be mine as well."

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Ten days later John, Yimu, Chris, and Amos took Miller's private steam wagon and coach to Gordha for the dedication of the new dam. They left shortly after dawn to arrive in time for the noon dedication.

The new facility was very impressive. The Gordha Gluba was closed by a wall of clay covered by rocks 83 meters high; so high that the spillway was ten dɛkɛnt south of town, in a low spot in the north-south trending ridge. In front of the massive pile was a bridge of sheet metal—left over from the construction and a permanent addition to the town—and the powerhouse where the turbines and generators were located. The river, at that moment, was trickling through only; they had shut it off completely for the final installation of the turbines and it had just begun to flow again.

The entire tribe turned out to witness the ceremony. The Mɛghɛndrɛs were 4,000 strong, but rarely more than half were in Gordha; the rest were scattered in hamlets or out herding animals. Today almost all were present, plus a thousand from neighboring tribes as well. The crowd seemed almost as large as the one gathered in Mɛddoawkés for the

Grand Court. It made some guests, unused to Tutanɛs, nervous. Fortunately the day was warm and sunny, perfect for a celebration.

Generals Roktekester, Perku, and Tritu were there, as was Crown Prince

Meméjékwu and Lady Awster, representing their mother, the Réjé. Lord Walékwes gave a

grand and long speech welcoming all of them, then all of them replied with speeches of
their own, praising Gordha and the Meghendres or hailing "progress." Mennea and Miller
were invited to speak as well, then Lords Andruleru, Ekwanu, and Méneghues of the

Dwobergones, Mémenegones, and Kaiteres respectively.

Ten speeches took three hours, but the audience loved it. Miller fought sleep; Mennea listened stoically. Then Roktekester and Walékwes rose, walked to the dam, and turned a wheel to open a penstock. Water poured out and the crowd cheered. Then Miller and Roktekester pulled a lever to start the turbine, and a string of electric lights began to glow.

The crowd, most of whom had never seen such magic, went wild with excitement.

Then everyone headed up to the main street, because the food and drink were waiting.

Chris noted John's foul mood. "Well, John, at least you now have electricity."

Miller shrugged. "I need a thousand kilowatts immediately, but it'll be months before I can get that much. The Majakwés is at its lowest this time of the year; there's no snowmelt, and we haven't had rain in several weeks. The reservoir has ten doli of water in it. If they run the turbines full speed they'll make a few hundred kilowatts, and Gordha gets to use it for free, so I have to pay for the electric company's six Gordha employees all winter and get maybe 400 kilowatts at night."

"But once the spring flood comes, you'll get plenty."

"And by then we'll have balanced the line, so it doesn't produce power and voltage fluctuations," added Amos. "That'll take part of my time for months."

"The western shore line is already consuming your time," added John. "In retrospect, I wish we had waited another year. I barely have the ability to make the wire and the utility poles, Ménu did not have the ability to string the lines properly, and there's still insufficient demand for the phone line or the power. It was a very expensive investment and I could have used the resources better. And now that we're graveling roads up the Arjakwés, I could have built two dams myself farther upstream and built power lines for much less."

"I agree; this has complicated the development of the bank and soaked up investment money that could have gone to other things," agreed Chris. "But we now have a line and we'll soon get power. And it's been good for Gordha. Did you see main street? They've paved it, they have piped water along it, they've built a public bath, and they're even putting up a clock tower! The daily steam wagon service has been shuttling wheat straw here for months; we won't make the profit we made two winters ago, but their animals will do much better this winter. And everyone benefited from the faster, cheaper trade."

"We have a lot more cheap leather goods and cheese in Mɛlwika, it's true," agreed Miller. "But I didn't invest in either of them, or in the city water or bath. You can be altruistic, Chris, but it's not my interest."

"You know, I think this place may look better than Bɛllɛdha," said Amos, changing the subject. "It's still a bit smaller, but it actually has more services."

"The génadema is better and the clinic is definitely more successful," agreed Chris. "I bet it has more phones, and we know it has more electricity!"

"Unfortunately," agreed John.

"If anything, Belledha has been declining since spring," added Chris. "The market for their copper collapsed last year, and now the market for their silver may collapse once the Lewéspa mine starts producing."

Miller saw General Roktekester approaching. "I don't think I want to see him. He sent me a letter the other day asking whether it would be possible for the army to get 1,000 dhanay of free electricity for ten years, in partial compensation for building this dam."

But they all smiled as the General approached them, and they all shook hands and greeted him.

"A great day, a great day," said Roktekester. "The dam and the wires cement Gordha into the circle of civilization permanently. You heard Dukterésto's proclamation that it was now a royal city? The Réjé will visit annually, just like other cities. Soon there will be townships rather than tribes up here in the mountains."

"That will take time," commented Chris. "We need to think what assistance to bring to the other tribes, especially."

"Yes; roads, schools, clinics, piped water, electricity," agreed Roktekester. "I'll approach the Réjé about the roads during the winter. It's worth the army's investment; the roads will help us move, too." He turned to Miller. "There's another week of cleanup work here, then the army team leaves. Over the winter they will coordinate the repairs of the canal leading to the Dhedhuba and the dam and penstocks. The latter are in

surprisingly good shape, for their age; the Sumis clearly could make quality cement. Do you want to build turbines and generators for it? The site has almost as much potential as this dam."

Miller considered. "I'm sure we will need the power eventually, but it will be at least five years."

"Maybe not," replied Roktekester. "We've been reviewing the plans for the palace and army headquarters. The new plan calls for electric lights in every single room; enough to use the room at night, too." He turned to Amos. "We want 100 telephones for each as well. We can afford them and we've gotten used to using them."

"Excellent," replied Amos. That would double the world's supply of phones and bring in a tidy sum.

"How many rooms are you talking about lighting?" asked Miller, with considerable interest.

"About the same number; two hundred. The offices are relatively small and one worker in each, but there are large public rooms as well. I think we'll need about two thousand light bulbs per year. It sounds really expensive, but candles and the people to light and extinguish them cost much more. There's only one catch, though; we need a guarantee that we'll have power. No blackouts during eclipses."

"I think we can do that," said Miller, looking at Amos. "If we set up the system so that the palace and army headquarters are never cut off when demand soars. Under those circumstances, an additional dam and generator are probably prudent."

"Especially since there's more," replied Roktekester. "I want my cousins in Lepawsa to have access to electricity and telephones. They now have five dams, but the

water is not used for generation. I am also increasingly concerned about Bɛllɛdha; working the slaves and prisoners harder is not a solution for the falling copper and silver prices. Furthermore, private investment has been exhausted by the line around the southern shore, and there's less investment for a northern line. So I want to propose to the Réjé that the army build a northern line from Mɛddoakwés down the Arjakwés Valley to Nuarjora, then around the northern shore through Lɛpawsa. That's a longer route than originally considered, but will include more villages. A branch from Nuarjora south to ɛndraidha would also be prudent. The army would lease the lines back to the power and electric companies at a low long-term rate."

The four of them listened, surprised. Miller no doubt realized that he'd make a lot of money on the poles and wires. "It seems to me that the investors in the long-distance electrical and telephone systems can't object to our effort because we will be providing a backup system," continued the general. "It will double the phone connections and the amount of power that can be transmitted. It will stimulate two poor regions of the realm that need it. Besides, it is ridiculous that the army does not do it; our budget is several million dhanay per year! We have the manpower. The new recruits can erect the poles. A month of physical labor per year is good for the rest of the army."

"I'm sure we can approach the investors about the offer," said Chris. "You're right, a reasonable leasing rate would be very attractive. Since the northern route wouldn't have as much use for telephones, also, it would increase the army's access."

"That's another reason for the proposal; the government would have a line of its own," he agreed. "In fact, in a few years we may want to run a government line around both shores with the switching done in the army garrisons, so that we have more privacy.

But that's farther into the future." He turned back to Miller. "This is part of the context for the request that the army and palace be granted a thousand dhanay per year in electrical service. Maybe a better way to put it would be that we want a lease for the use of the dams we build."

"A thousand is an awful lot, though," replied Miller. "Considering you probably use only three or four thousand a year in power."

"True enough," agreed Roktekester. "I am sure our need for electricity will keep increasing every year; it is very useful. Perhaps we should increase the lease every year as our need for power grows, and set it at about ten percent of our total bill. We don't need to be paid back tomorrow for building the dams; we can earn it back over a long time."

"If you took the same approach to roads, maybe you could justify building more and improving them more," suggested Chris. "The government could charge an annual road use fee for every steam wagon. You'd pay for the roads over a century and would have the income to maintain them."

"We may do that," agreed Roktekester. "But I think right now, the Réjé wants any new taxes to be approved by the Consultative Assembly. That's one of its purposes." He pointed up to the main street. "Are you gentlemen coming to the party? The army garrison has prepared a feast for everyone; we're trying to build better relations."

"We're coming," agreed Miller.

They turned to walk up the hill to the main road. Roktekester hurried on ahead to speak to Lord Walékwes. "That's a big surprise," said Amos.

"Roktekester is generous when he's in a good mood; and this has made him happier than I've seen since the Arjakwés Canal project was finished."

"He loves to build things," agreed Miller. "Thank God the army gets its excitement building things instead of oppressing the population!"

"Widumaj has something to do about that," replied Chris.

June 3, 2001; reread and edited 5/18/13, 7/27/17; reread and lightly edited, Dec. 4-5, 2023 and November 2-3, 2024.