

Conversation Pieces  
Volume 13

# Candle in a Bottle

A Novella

by

Carolyn Ives Gilman





Published by Aqueduct Press  
PO Box 95787  
Seattle, WA 98145-2787  
[www.aqueductpress.com](http://www.aqueductpress.com)

Copyright © 2006 by Carolyn Gilman  
All rights reserved. First Edition, May 2006

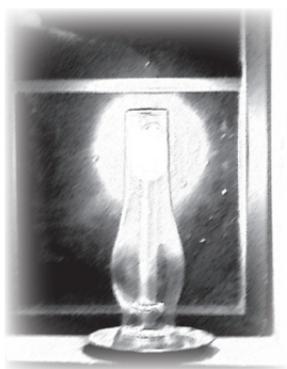
ISBN: 978-1-933500-07-2

First published in slightly different version in  
*The Magazine of Fantasy and Science Fiction*, Volume 91, October/  
November, 1996

Cover Design by Lynne Jensen Lampe  
Cover candle-lantern illustration by Kathryn Wilham  
Book Design by Kathryn Wilham  
Original Block Print of Mary Shelley by Justin Kempton:  
[www.writersmugs.com](http://www.writersmugs.com)

Cover photo of Pleiades Star Cluster  
NASA Hubble Telescope Images, STScI-2004-20  
<http://hubble.nasa.gov/image-gallery/astronomy-images.html>  
Credit: NASA, ESA, and AURA/Caltech





# Chapter 1

The storm hit just as the two travelers were coming to the summit of L'Arc du Sol Pass. All morning the sun had been bright at their backs as they had climbed through pine-covered slopes. When the trail rose above the tree line, they should have been able to see the whole Vaudry Range spread before them, the granite palisades of Mont Chatoyer to the west. Instead, there was only a blinding wall of snow, a visible white noise driven by a reckless wind.

Dominique trudged along in the path Gabriel was breaking. Ahead, his brother was only a snow-caked capote with a nylon pack and shaggy sheepskin boots grown enormous with iceballs. He called ahead, "Hey, Gabe, is this what you meant by 'It'll be fun?'"

Gabriel looked back with a tense frown. His dark hair was plastered down with wet, and the mesh skull-cap of his headnet glistened with drops. He said, "Keep your mind on the trail, Nika."

It had been Gabriel's idea to cut across the mountains on foot instead of taking the sane way around by road. It would have taken at least a week, and more money than Gabriel wanted to spend, to go by public transport. He had argued, "It's only three days to the Institut Sorel by foot, if we cut across the pass. Come on, Nika, you're the experiential one; it's your chance to have a real flesh adventure. It'll be fun."

At the time Dominique had rolled his eyes, knowing what kind of fun you could get into on mountain trails so close to winter. But a glance from their mother had told him he had to go. It didn't matter that he was the younger brother; he had always been the one who had to watch out for Gabriel. And Gabriel was in such a mood that he would risk his life hazarding the pass alone rather than give up.

Gabriel had had all summer to make up his mind to go, but he had frittered away the months, indecision alternating with bitter dissatisfaction. He was the neth-ead in the family, smart and ambitious to do more than work in his mother's shop. But the lack of any obvious alternative had kept him at home, wasting the days in political telecaucuses with others as malcontent as he, his irritation growing till his family had all begged him to do something, anything. Finally, when it was already too late in the season, so that failure was almost inevitable, he had decided to consult the Oracle at the Institut Sorel.

The trail was going down now, writhing to and fro like a thing tormented. Dominique thought he could glimpse a shadow of trees ahead—a good sign. As they came to the last exposed switchback, Gabriel stopped in his tracks and began fiddling with the recorder under his coat. "I've got to change spools," he said.

Dominique stood and waited. Gabriel was recording this whole trek, though the resolution of his equipment would stink. At least a headnet couldn't record the cold or wet; that might improve things. But Dominique still couldn't imagine who would want to experience a mountain hike through Gabriel's eyes. He missed so much.

In the willful way of mountain weather, a shaft of sunlight lit the slope ahead. The view momentarily cleared. Below them lay a circular valley with a single outcrop of rock rising at its center. Upon that lone spire were the buildings of the Institut, like natural outgrowths of the rock itself.

“Gabriel, look!” Dominique said.

“Just a second,” Gabriel said, fumbling with the recorder.

“It’s Sorel!” Dominique said.

The sunlight faded, leaving the scene gray and ominous. Gabriel finally looked up, his hair running in rivulets down his high forehead. “That’s Sorel!” he said, as if his brother wouldn’t know. Dominique realized he was speaking to the recorder. “You’re looking at the center of the intellectual universe, Dominique. That’s the place where the true spirit of Renaissance Dernier learning is kept alive.”

The clouds closed in again. Dominique tried to shake some of the snow from his boots and pack. He felt like a walking glacier. “I hope they have hot baths.”

Gabriel didn’t dignify this with an answer. He headed down the trail again at a pace so fast Dominique nearly had to jog to keep up.

Dominique had never shared his brother’s restless, searching nature. Because he was big, muscular, and easygoing, everyone had expected him to excel in sports or a physical profession. But all he had ever wanted to do was work in his mother’s shop where the finest seismic monitors in the world were made, piecing together photonic components under the microscope with his blunt, dextrous fingers.

It was almost dark by the time they reached the valley and struck out across featureless farmland. Here, in

open fields, the storm truly surrounded them. Right, left, above, and below blended into a limitless chaos of white—no boundaries, no differentiation to make sense of what they saw. Dominique trudged along, sure only of one direction, down.

They struck a road just outside the village of Sous-Sorel. Soon the glow of streetlights cut through the disordered night. As they slogged through knee-deep snow down the deserted main street, fantasies of dry clothes and a hot sauna filled Dominique's mind.

In better weather, the shops along the main street catered to the droves of pilgrims who flocked to consult the Oracle about their futures. Now the streetlights, veiled in haloes of snow, shone only on closed doors and curtained windows. Gabriel stopped, his eye caught by the single lit window on the street.

"Look, a bookstore," he said.

"Just what I wanted," Dominique groaned.

"They'll have free coffee. All bookstores do."

They entered along with a gust of snowy wind. There was no one in sight, so they dumped their packs by the door and went looking for the coffee, leaving white footprints on the carpet. When Dominique found the samovar, he poured two steaming cups. Gabriel was wrinkling his nose at the racks of pastel-covered sample books around them. "Inspirational garbage," he said. "You'd think that here..."

"Pilgrims?" said a sardonic voice. In the doorway to a back room stood a stooped man with thin, graying hair and an expression as sharp as the icicles on his eaves. He had a headnet on and eyephones pushed up on his forehead; clearly they had interrupted him in the midst of study.

“We’re not pilgrims,” Gabriel said just as Dominique was about to answer that they were. “We’re here to visit the Institut.”

“Ah. Traveling scholars,” the man said with a skeptical lift of one eyebrow that meant he saw through them.

Gabriel took a gulp of coffee and said, “Don’t you have any better books than this?”

“Oh, this is just the souvenir section,” the man said wryly, handling a sample with a sunrise and flowers on the cover. “The real stuff is in the back. What are you interested in?”

“Everything,” Gabriel said. “Complexity theory, noetic architecture, metadynamics, that sort of thing.”

“That should narrow it down to few million works. The recent classics are in the disk racks on the right wall. If you don’t see what you want, tell the catalog. It’ll suggest some titles. I can print up anything in about five minutes. Most of those works only come on spool or disk.”

Gabriel disappeared into the back. The bookseller came forward to help himself to some coffee. “And what about you? What’s your field of study?”

“Oh, I don’t read,” Dominique said.

The man blew on his coffee. “Ah. Not one of the ‘truly conscious,’ as they would say up on the mountain. The savants can afford to be snobs; they don’t have to live in the real world where the literate are the oddities.”

“There’s no point in learning to read, unless you want to become a savant,” Dominique said.

“And even then it can be a curse.”

Dominique had often thought so but had never been tactless enough to say it aloud, especially in front of Gabriel. All the literate people he knew thought too

much about themselves, always analyzing some inner person that others could never get to know. It made them seem hidden and secretive. In comparison, even women were easy to understand.

Gabriel came out again, looking overwhelmed.

“Too many choices?” the bookseller said.

“Oh no,” Gabriel said hastily. “I suppose I could get all these in the Neige Valley, too, if only my mother’s sysop weren’t such a neanderthal.”

The bookseller eyed him. “Which polity?”

“Allnet.” Gabriel complained about it at least once a day, at home. Allnet was technical and business-focused, and had few of the subjects Gabriel wanted. “If I had any money I’d join Redpath. Actually, I’ve been on it already—day memberships from a friend.”

“I may have met you then,” the bookseller said. “What’s your handle?”

“Really? You’re a Redpath?” Gabriel looked at the man with new interest. “Did you vote in the last election, when Gröder got in? I would have voted for her.”

“Don’t tell them that on the mountain. They think we’re all revolutionaries polluting the datastream.”

“Do they give you any trouble?”

The bookseller gave a contemptuous laugh. “You talk as if they ever set foot down here. Everything they do is by DI remote. Virtual geology, virtual sociology. Why, if they left the Institut, they might have to look at something that doesn’t fit the models. Like rocks or people.”

In a disgruntled voice Gabriel said, “And they won’t even let us have haptic interface technology.”

“They’ve got better than that at Sorel. They’ve got DIs that transmit emotion.”

“No!”

“Yes.”

“I thought emotions were too complex.”

“Well, it takes masses of processing power. More than you or I could afford.”

“I suppose rational thought will be next.”

Dominique’s attention had begun to wander. He heard this kind of discussion all the time from Gabriel and his friends at home, and he found it hard to distinguish the real information from the posturing and rhetoric. He stamped his feet to get the melting snow off.

“I think we’re boring your illiterate friend,” the bookseller said.

Gabriel flushed angrily; he never let his friends belittle Dominique. “Dominique’s got a DI operator’s license,” he said sharply.

For a moment Dominique saw a flash of envy in the bookseller’s eyes. It quickly disappeared behind an affectation of cynicism. “That fits the pattern. I dare say they don’t let *you* have one,” he said to Gabriel.

That hit too close to home. Wounded by the reminder, Gabriel said, “We’d better get going, Nika.”

“Give my regards to the font of knowledge,” the bookseller said.

They shouldered their packs and stepped out into the wind. They had been indoors just long enough to get sweaty and wet under their coats; the air felt twice as chilling.

“What a snob,” Gabriel said as they headed down the street. “You’d think a Redpath would feel more solidarity with regular people.”

Ahead was a large hotel, built to accommodate the summer crowds. “I suppose we’ll be the only ones there,” Dominique said.

“We’re not stopping here,” Gabriel said. His eyes were fixed tenaciously on the rock cliff at the end of the road.

“Oh, Gabriell!” Dominique groaned. “It can wait till morning. The Oracle isn’t going away.”

“I didn’t bring enough money for a hotel,” Gabriel said stiffly.

Dominique stopped in the road with the snow collecting on his eyebrows. Gabriel was supposed to be paying for all of this. “Then where are we going to stay? How are we going to buy a transport pass to get back?”

“I’m not going back,” Gabriel said.

At last everything fell into place. Gabriel hadn’t come to consult the Oracle at all. He had come in hopes of being selected as an acolyte at the Institut. What his radical friends didn’t know was that Gabriel’s disaffection was all personal, not political. He would give up all the ideology in the world to become a savant.

“You’re crazy, Gabriell!” Dominique said. “They don’t take people your age for acolytes. You would have to be trained from childhood to be a savant.”

“I’ve trained myself,” Gabriel said. “I’ve read, I’ve studied. All I’ve ever wanted is access to more information. I can do it.”

“They won’t care about that. People all over the world compete to get into the Institut Sorel. They only take the best.”

Gabriel’s voice was tense and high. “I’ll make them measure my noetic potential. They’ll see.”

There was no arguing with him when his voice sounded like that. If Dominique persisted, it would only be harder for Gabriel to back down. Dominique tried to stifle his frustration. “Did you bring enough money for *me* to get back?”

“Call Mother for some credit,” Gabriel said impatiently. He shifted his pack. “I’m going on up.”

Dominique stood and watched his brother labor on down the buried street, his empty footsteps following. Gabriel hadn’t brought enough money because he wanted to twist the arm of fate, to eliminate all other possibilities. But fate didn’t work that way. As usual, Gabriel had set himself up for failure.

Gradually, Dominique’s vexation faded. With a resigned certainty, he knew what was going to happen. Tomorrow morning Gabriel was going to come trudging back down that road from the Institut, rejected, his grandiose hopes in tatters. Then he would need someone friendly by him. Dominique couldn’t leave his brother to face such a bruising alone.

When he caught up, Gabriel gave him a swift glance. “What are you doing?”

“I want to see the Oracle, too,” Dominique lied.

Gabriel was too preoccupied to see through him.

The lights of the village ended where the black cliff began. Up the rock face a steep winding road ran, carved into the volcanic outcrop itself. Above the height of the village roofs the wind had scoured the road clean of snow. As he climbed, Dominique hugged the rock face, for the wind tugged as if to throw him off like a snowflake into the swirling void. Gabriel seemed energized by the proximity of his goal; he pushed on fast. His flashlight beam bobbed up the road ahead.

The road passed between two pillars of weathered rock and into an open courtyard. Only when he saw the windows did Dominique realize that he was surrounded not by the natural mountain, but by the buildings of the Institut. There was not a simple Euclidean shape in all the structures around him. No wall rose

straight without fracturing into a thousand angles before it reached the roof. One artfully eroded spire was topped by antennas and a satellite dish. In a window high above, a single candle burned.

“Why would they use candles here, where they have all the most advanced technology in the world?” Dominique said.

“It must be symbolic; everything here is,” Gabriel explained in a tense undertone. “It probably means they choose not to use all the technology they have. They are too wise to be ruled by machines, as pre-Renaissance people were.”

Before them stood a shadowed, irregular arch where a towering door kept out the night.

“You’ll have to have a question to get in,” Gabriel said.

“What sort of question?”

“They only admit those who can puzzle the wise.”

“I couldn’t puzzle anyone here if I tried,” Dominique said.

“Well, you’ll have to, or wait outside all night.”

There was no knob or catch, and they searched in vain for a bell or knocker. Frustrated, Gabriel finally shouted out, “Hello! Anyone there?” His voice echoed in the courtyard and died.

Dominique stamped his feet to remind them who was in charge. His breath blurred the air in front of him. At last a nearby shutter clattered open and an acolyte peered out. She wore a headnet on her shaved skull, with lowered eyephones that gave her a blank, inscrutable expression.

“You are being obvious,” she said.

Gabriel whispered to Dominique, "Let me do the talking." Raising his voice, he said, "We've come to consult the Oracle."

"Are you riddles? Do you make the night wise?"

"We came all the way from the Neige Valley on foot. We nearly lost our way in the blizzard. You can't turn us back."

The acolyte looked into space, like someone watching a virtual scene. "Pilgrims," she said indifferently. "They say they walked here."

She listened a moment, then turned back. "What question will you give us?"

"You're no savant," Gabriel said. "Why should I tell you?"

Dominique stared at his brother, startled by his impudence. But the girl only shrugged and backed away from the window; a gray-haired woman in a high-collared saffron dhoura looked out. Her eyes were also masked behind the headnet visor. "Very well, puzzle me," she said.

Gabriel drew a tense breath, then said distinctly, "How close is the possible sphere?"

The savant laughed. "That's obvious. It's as close as your ear. Try again."

Gabriel licked his lips, disconcerted. He had obviously expected that one to work. But he had another ready. "Is it right to indict the mild mirage?"

This time the savant was silent, considering thoughtfully. At last she said, "That will be currency enough." She turned to Dominique. "And you?"

"Think of something," Gabriel hissed.

Apparently, they wanted gibberish. He had to pluck some disconnected words from his brain and wire

them into a sentence. He stammered out, “Why does the secret candle cry?”

The savant frowned. “Are you sure it does?”

Dominique said, “You’re being obvious.”

The savant was silent for a very long time. At last she sighed and said, “Very well.”

Dominique almost laughed. It was easier than he had thought to puzzle the wise.

Before them, an irregular crack split the massive door down the middle, and the two sides fell back into the wall. Automatic lights came on in the room beyond. Gabriel and Dominique stepped through, into the Institut Sorel.



From the windows of her chamber, the Voice of the Rinpoche of Sorel sometimes looked out on the sea, sometimes on the broad avenues of Paris or Abouta, or on the many other places the Institut monitored. Tonight the windows showed only the Vaudry Range, veiled by snow and night. The Voice sat cross-legged on her mat, her fingers in the jnana mudra, the headnet covering her skull.

In ages past, her ancestors had been Brahmins, statesmen and scholars; but she had shed all class and ethnicity in twenty-five years at Sorel. Her straight black hair was bobbed at the level of her jaw; she had not combed it in three days. Her eyes were darker than normal, puffy with grief.

As she stilled her concentration, the headnet wakened to the signal of alpha waves. The energies of the discontinuous interface focused on her optic nerve, and a vision floated before her. It was a visual metaphor of human civilization. It looked much like a

landscape, which it was—the fitness landscape within which culture could continue to evolve and prosper. There was a plain on one side, a range of mountains on the other: Oracle’s heuristic representation of the stable and chaotic states. A path snaked along the edge of the mountain range, sometimes forking, sometimes whole. Branches that dipped too far into the rough topology of chaos usually disappeared or looped back into the changeless plain of stability. With a finger the Voice traced the middle course, the one that balanced just on the edge, in the terrain of complexity. In that narrow ribbon lay the path of maximum fitness, where extinction events and leaps of adaptation were part of the mathematics of existence.

The Voice focused on the edge of the graph, where the landscape ended in a blank cliff. As she swooped lower with a speed that would have given anyone else vertigo, the seeming simplicity of the model dissolved. The path of civilization parted into a myriad of intertwined threads over a rugged hodgepodge of hills and craters. She focused on one of the threads till it, too, resolved into an intricate, twining rope of variants wound around a central strand. That strand represented the cultural matrix where Sorel lay. If she had gone down in scale by more orders of magnitude, she could have resolved the graph to the very level of individual savants’ work. Few places on earth were scrutinized as closely as Sorel.

At the edge of the chasm where the data ended, she commanded Oracle to construct a hypothetical future. Gray hills and valleys appeared where all had been blank, and Sorel’s path snaked forward, then veered sharply into the domain of chaos. Frowning, the Rinpoche’s Voice ordered the assumptions changed, and a

new landscape built itself. This time the Institut's line careened off into the plain.

She opened her eyes and the display disappeared. She rose from her mat and went to the window where the blustery snow traced wild paths on the air. The courtyard and Institut buildings looked solid and stable in comparison. It was an illusion, of course: rock was merely a snowstorm on another scale.

Oracle had been showing omens of instability for months now. She had seen it in other cultural lines, but none had ever given her such unease. This time, change would affect Sorel; and as Sorel went, so went a good part of human civilization.

"Naidu?"

The uncertain footsteps, the wavering voice, made her close her eyes for a moment, wishing the present away. When she turned, the old man was standing in the doorway.

"Go back to bed, Rinpoche," she said. "You should be asleep."

"Why? What time is it?" he said, rubbing his forehead anxiously.

His obsession with time was a new aspect of his growing dementia. As memory left him, so did the capacity to judge the passage of time. The gridwork of sequence had collapsed upon him, making all events equally near, equally far. Though he could not say so, it clearly terrified him. He slept with a watch clutched in his hand.

Naidu crossed the darkened room. His watery eyes fastened on her headnet, and he said, "Is that mine?"

"No, cheri, it's mine," she said.

"Where is my DI? There's something I need you to do."

“I’ll do it tomorrow. There will be time.”

They had had to take his equipment away. The last few times he had tried to operate her had been too agonizing. She had had to share his wandering thoughts, his confusion, his childlike rage. It had been so unlike the Rinpoche she had served—and loved—for fifteen years. As his Voice, she had known his deep reasoning, his unfailing moral core, from the inside. His mind had been one of immense clarity, honed by a lifetime of training, perfectly suited to lead Sorel. They had compared him to Aquinas and Bourassa. She had been his eyes on the outside world and had thus collaborated in the masterwork of his leadership.

“I shall become an organism once again and know life uncontaminated by mind,” he had said in a lucid moment when it first became clear that the usual cures were not going to work on him, that there was still something about the human brain that even Sorel didn’t know.

He still looked like that person, though somehow slacker, less animate. She knew she ought to love this body, this organism, for the man who had once inhabited it, but all she could feel was disgust at it for having betrayed him.

He fussed a little about going back to bed, but she finally got him to lie down and switched on the hypnotic display they had installed on his ceiling to keep him calm. When she returned to the outer chamber, the snowstorm had intensified; ice crystals ticked against the windowpanes. The room felt cold.

Very few people in Sorel, and no one outside, knew of the Rinpoche’s condition. They were training another Rinpoche, but he was only seven years old. In the meantime, they could only guess at what their beloved

leader would have done. In all of Sorel's history, there had never been a worse time for the crisis Oracle was predicting.

The few savants who knew the situation would often say to her, "You knew his mind better than anyone; you shared it. You must know what he would do." And gradually, from telling them her best guesses, she had grown in their eyes—she, a mere parlant, no more than a body trained to house another's mind. She knew nothing of leadership, yet now learned people deferred to her. She would have traded it all away to feel his firm mind guiding her.

She closed her eyes again, and the graph appeared in the air. This time she gave the Rinpoche's private access code and called up the detail of the Institut's inner workings. She searched for instabilities, straining the graph's strands one by one. The savants all thought the imbalance was societal, but she could not shake the feeling that the crisis would come from within.

That did not simplify the problem. Sorel was a society in itself, complex with history. It was the oldest of the great institutes founded at the beginning of the third millenium. In that era, the mechanistic sciences that had briefly seduced humanity with their technological prowess had dissolved into conflicting sects, all claiming to have the true key to reality. The old sciences, blinded by their materialism, counted as "real" only what could be detected or measured, which limited reality to matter, energy, space, and time. Pattern was merely a property of these. But in the Renaissance Dernier scholars discovered the crucial nonmaterial constituent—information. Soon matter, energy, space, and time were seen as mere properties of information.

No longer would researchers spend their efforts dissecting things to learn how they ran; instead, they would compute the governing algorithms that gave all things their shape and structure. They would leave the material and delve into the real.

For centuries, Sorel had been the world center of information mechanics. In these irregular buildings, savants had mapped the mathematics of epidemics and rumor propagation. They had unlocked the metadynamics of economies and population growth and the fitness landscapes of nation-states. As the principles of social ecology emerged, humankind could finally hope to graph its way to a world without eruptions of disorder like poverty, crime, or war. Even now, after centuries, civilization was still (as the mathematics said it must be) a balancing act—but because of Sorel it was no longer a blind blunder.

The Rinpoche's Voice sighed and cut off the display, gazing out into the snowy courtyard. The Rinpoche had loved Sorel, and for him she loved it, too. She hoped she would not live to see it threatened.



The room the two pilgrims entered was the most distracting space Dominique had ever seen. The red glowing ceiling was not a surface but an intricately coved and recoved three-dimensional fractal. In places you could see deep into the recesses of the pattern, where the color became profound as wine; in others, the self-repeating cavities devolved quickly into the texture of sponge. Connecting ceiling to floor was a forest of glowing cords of every dimension, from microfilament to thick optical cable. Their colors changed in waves, beckoning the visitors forward.

The savant from the window was standing beyond the forest of lightfibers, her eyeshades blank as eggs. As the two pilgrims came up, she said, "Our building is an allegory. Acolytes contemplate it for many years until they discover the principles it signifies."

She paused. Unfathomable thoughts seemed to populate the silence. "I cannot promise that Oracle can answer your questions. But in every situation, unpredictability exists. Come with me."

Beyond the first room, the floor fell away, and they found themselves threading single file across a transparent bridge above an upside-down room. Somehow, the curtains hung erect below them. Candles burned in sconces, their flames rising serenely downward. For a dizzying moment Dominique had the feeling that he was the one reversed and wanted to turn his head around. Gabriel pushed him on.

On the other side they came to an octagonal room with doors in each wall. In the center was an eight-sided settee with all seats facing outward. The savant said, "You may wait here. I will seek the voyant."

Nervously, Gabriel asked, "Will it be Voyant Raspail?"

The savant's face was uncommunicative. "She is the only voyant we have."

She stepped into a framed painting, and disappeared.

Dominique threw himself down on the settee, but Gabriel paced nervously.

"Voyant Raspail!" he said, his voice hushed as if someone might be listening. "Dominique, do you know what that means?"

"What?"

"She is the greatest voyant who has ever lived. In the last few years there has been a series of amazing discoveries out of Sorel. I can't explain them; it's too

complicated. But they say there is another great paradigm shift coming, a breakthrough in our understanding of the world. And it's all due to Raspail."

"And she will tell our fortunes?" Dominique asked skeptically.

"Oh don't be such an idiot!" Gabriel exclaimed. "The Oracle will give us an extremely sophisticated aptitude test. We'll find out what we're good for."

"I know what I'm good for."

"Well, I don't."

They waited in silence for a long time. The air was still chill; Dominique noticed that the snow on his pack had not melted. At last the savant emerged from one of the doors.

"Oracle is ready for you," she said. "Which of you wishes to go first?"

"Me!" Gabriel nearly shouted. "Me," he said again, in a controlled voice.

The savant gestured him through the door.

Alone, Dominique paced, trying to warm up. At last, curious, he opened one of the doors. Beyond was a long hallway lined with doors. Simultaneously, dozens of Dominiques opened the doors all down the hall and stared back at him. He hastily closed it again.

Presently the savant came out from yet another door. "We are ready for you," she said.

"I don't really need this, if it's any trouble," he said.

She stared at him in such a way that he meekly went where she pointed.

The room beyond was completely dark. When he stepped forward, the touch of his foot set off a reaction in the floor, and azure galaxies swirled away from his glowing footprint. By its light he saw that he was at the base of a spiral ramp. He followed the ramp up,

treading on sparks and hurricanes. At the apex a chair stood, reflected in the polished floor as if floating in still water. Dropping his pack, he gingerly sat down.

The light faded. He turned around and saw, hanging in the air behind him, a bubble of distortion, like a spherical heat wave. It could only be one thing: a discontinuous interface like the ones the headnets created to feed information directly to the optic nerve. But those were microscopic; this one was big enough to encompass an entire brain.

It moved slowly toward him. He drew away, unnerved. "Sit back, please," a voice said.

Reluctantly, he turned around and settled back against the headrest, clutching the chair arms. Thousands of people had done this without any harm.

Merging with the DI bubble was like sinking past the surface of a lake. Lights traced fireworks across his vision—at first senseless, then resolving into a pattern of fishes sporting in a rainbow sea. He watched, intrigued, then realized he was beginning to see a hidden, three-dimensional image. As he gazed into it, he found himself standing inside a massive cathedral dome with sunlight pouring through a window in the ceiling; yet the sporting fishes were still there. As he moved he brushed something and realized there was another image hidden under this one—a tactile image. He raised his hands to feel it, but then the vision ceased.

When he returned to the waiting room, Gabriel was sitting on the settee, chin on his fists. Dominique sat down beside him. "It was beautiful," he said.

"What was?"

"The Oracle. Didn't you think so?"

"All I saw was some lights."

They waited in silence.

The savant stood before them. “Gabriel,” she said, though the brothers had never mentioned their names. Gabriel jumped up and went through the door she indicated. “Dominique,” she said, and pointed to another door. “The Rinpoche has asked to see you.”

Surprise stopped him cold. The Rinpoche? What would an enlightened being want with him?

The figure at the other end of the long room was larger than human scale; his head nearly brushed the tall ceiling. Feeling dwarfed, Dominique forced himself forward. After several steps he realized that he was growing, or the room was shrinking around him. It was all a trick of distorted perspective. With another three steps he grew a foot and saw that the person waiting was merely a small, dark-skinned woman with bobbed black hair. No one superhuman. Not the Rinpoche at all.

When he came to a halt before her, she smiled, but the expression looked sad on her face. “Dominique,” she said, “I am the Voice of the Rinpoche of Sorel.”

He had to force himself not to draw back. It *was* the Rinpoche, in a way. The woman was a parant: she was transmitting to the Rinpoche all she witnessed, and he controlled all she said and did, when he chose. Dominique couldn’t meet her eyes without wondering who he was seeing: herself or the puppeteer controlling her from outside. But they said you could never tell the difference. He realized he was staring and looked down self-consciously.

“Oracle’s reading of your noetic pattern was very interesting,” she said, and held out on her hand a small crystal globe enclosing what seemed to be a dandelion puff. He looked at it, then at her again.

“Do you know what this is?”

“No.”

“It is a diatom graph. The best representation we have found for a human mind. Each mind has a characteristic fingerprint, a habitual way of working. We call it noetic architecture. Of course, this model is vastly simplified. But it is your diatom graph.”

Intrigued, Dominique took it from her hand and turned it around in his. Inside the glass was a tiny sphere of colored branches, all radiating from the center in an intricate network. “So it was just a brain scan Oracle did?” he asked.

“No. A brain scan maps neurons. The diatom graph shows the informational patterns of brain functions. You see, it is not the neurons that make us human. It is their rules of organization. You might say this is a picture of consciousness.”

“It’s very beautiful,” Dominique said.

“That is no coincidence. What we call aesthetics is only our way of perceiving high levels of informational organization. In this universe, information is always growing more complex. And as it grows complex, it grows more beautiful.”

“Can I keep it?” Dominique said.

“No, I will need it a little while longer.”

He gave it back to her. She held it up to the light, studying it. “How does it happen that you never learned to read?”

Startled, Dominique said, “You can tell that?”

“Oh, yes. Literacy creates a fundamental change in brain functions, a characteristic trace on the diatom graph. Yours shows no hint of it.”

“I really didn’t need it,” he said. “All I do is make and repair seismic monitors. If there are any instructions, the processor reads them or shows me.”

“That is very lucky for us,” the Rinpoche’s Voice said.

“What?”

She smiled at him, but this time he had the feeling the smile was coming from far away. “The graph shows you have an aptitude that would have been spoiled if you had learned to read. Most people don’t know it, but literacy can actually make a person less suited for certain tasks.”

“Like what?” Dominique said.

Instead of answering, she said, “We practice two sorts of training here at Sorel. One is the analytical model, in which our acolytes learn to divide and classify. Rationality is segregated from fantasy, thought from feeling, desire from discipline. It is a process full of polar opposites, and from it our savants emerge. You will never be a savant.”

Dominique laughed. “I didn’t need Oracle to tell me that. Gabriel’s the smart one in the family.”

“But there is another sort of training. In it, intuition and synthesis are the goals. We teach these acolytes no analysis. They learn sensory and spatial skills. Dream, desire, and reason are integrally connected. It enables them to make intuitive leaps and grasp whole pictures. These are the acolytes who become our voyants. That is what we wish you to be.”

There was a silence as Dominique slowly absorbed what she was saying. He felt like a gyroscope that had suddenly stopped spinning. “A voyant?” he stammered. “Me?”

A note of urgency crept into her voice. “Noetic patterns like yours are extremely rare and getting rarer. Normally, we would not accept an applicant older than five or six years. But our situation has become an emergency.

We have only one voyant. You would become apprentice to Raspail.”

“Hold on,” Dominique said. This was going too fast.

“Yes?” the Voice said.

“What *is* a voyant, anyway?”

If she was surprised at the question, she didn’t show it. “Oracle creates graphs so complex that no screen or hologram can display them whole. The only screen Oracle can draw on is the human brain itself. Humans are still the ideal decoders.”

“So that’s what the voyant is? The screen?”

“In a manner of speaking. Voyants’ brains are specially designed to receive and sort enormous amounts of information.”

“And you think I could do it?”

“I don’t think. I know.”

Gabriel wouldn’t believe it. Plain, predictable Dominique, the brother without the brains, wanted by the savants of Sorel. Dominique nearly laughed at the thought of telling his brother the unlikely news; then, as the scenario took on more reality, his thoughts skidded to a halt. Gabriel would be furious. And what would his mother do? It was impossible; his life was built on a scaffold of obligations.

“It’s really nice of you—” he began.

“Let me show you something,” the Rinpoche’s Voice broke in. She stepped back, and Dominique saw in the shadows behind her a cylindrical holo vitrine. She typed quickly into its keyboard, and an image appeared.

On the floor of the vitrine was a heap of bright yellow symbols shaped like jacks but moving like tiny bugs. As Dominique watched, they milled around; finally, out of the disordered heap grew a structure a little like a honeycomb. Then, as Dominique was just

about to conclude that the show was over, the honeycomb abruptly collapsed and the bugs went into a flurry of activity. Presently another structure emerged, reaching higher toward the middle of the vitrine. This time multiple honeycombs were built into interlocking towers and cross-braces.

“You can watch it for hours,” the Rinpoche’s Voice said, “and the same events recur, but never in the same way. Each time a state of order is reached, it persists for a while, then collapses and reforms in a state of higher complexity.”

“Oh,” Dominique said.

“I am showing you this so you will understand how important it is for you to stay here. This model demonstrates a principle we call self-organized criticality. A system with this property exhibits long periods of stasis followed by bursts of rapid change. Many complex systems show this kind of behavior. Biological evolution, for example. Also economies, cultures, and nation-states. All dynamic systems, left to themselves, tend toward greater order and organization. Ecosystems evolve toward a state of perfect balance, cultures toward equilibrium. At last, each system will become deadlocked in a state of advanced efficiency. This is called an ‘order crisis.’ The system becomes so perfectly adapted that it cannot change or grow. Eventually, the slightest change results in a spontaneous outbreak of randomness in which order collapses into creative inefficiency again. In both biology and history, mass extinction results—in the one, extinction of species, in the other, extinction of cultures and ideas. But once complexity is re-established, so is flexibility and growth. It is impossible to predict what type of change will occur, but that it *will* occur is mathematically certain.

“One of our savants, who studies our present society, believes we have been locked in an order crisis since the middle of the third millenium. She is convinced we are on the brink of a phase transition into a period of chaos that will result, eventually, in a new and higher level of order. Whether this is good or bad is a subject of great debate among the savants. Regardless, it is highly probable that Sorel will be in the midst of this change. In fact, the pebble that starts the avalanche may be here, anywhere around us.”

The shifting light from another breakdown of order in the holo vitrine reflected on her face as she looked seriously at Dominique. “The whole world is about to change, Dominique. The work we do here may determine the course of that change. We need you for that work to continue.”

He thought of home, and the Neige Valley, and his friends. How permanent and trustworthy it had always seemed. If the savants were right, then all the obligations tying him to home might cease to exist.

All he had done was come to keep Gabriel company in a crazy quest. He had never even wanted Oracle to tell his future. Now it seemed his future would be changed no matter what. For a moment he wished he had never come. He had been happy in his ignorance.

“You have to stay, you see,” the Rinpoche’s Voice said.

“What if I can’t do the work?” Dominique protested weakly.

“You can.”

“You sound pretty sure.”

“I’ve never seen a diatom graph I was surer of.”

“Well, all right,” Dominique said. “Maybe for a while.”

She smiled. “Welcome to Sorel, Dominique Cadot.”

The Rinpoche's Voice held out her hand again; this time, in it was a small crystal chip. "Take it," she said.

Dominique picked it up. It was a communication device of some sort.

"I must ask one more thing of you," she said. "We know that Sorel is balanced on the edge of change; we do not know what the trigger will be. We are all inside the pattern; it is difficult for us to see it. As Raspail's apprentice, you will have access to many things going on at the Institut. Watch for the random factor. Let me know where it is, if you see it. Press your thumb against the crystal now."

He did as she said. Nothing happened.

"Good," she said. "Now it will respond only to you. If you wish to communicate with me, press your thumb against it again. I will know you have found something."

She took the chip from his hand, peeled off an adhesive backing, then said, "Turn around." When he did, she placed the chip behind his ear and pressed it to his skull. Startled, he felt it with a finger. "For safekeeping," she explained. "Don't worry, it's waterproof."

"Now you must meet Raspail," she said. "Please don't tell her about the chip."

Dominique forced himself not to finger the device any more. It made him vaguely uneasy to have something to hide from his tutor, as if he had been commanded to spy on her.

Across the room the door opened, and a tall woman entered. Her citrine academic gown looked hastily thrown on over a plain gray dhoura. As she crossed the distorted room, seeming to cover yards with each step, Dominique watched her face. It reminded him of Mont Chatoyer: raw contours made beautiful by the

insults of time. Her grey-silver hair was cropped close; her slightly slanting eyes had deep lines beneath them.

She came to a halt before the Rinpoche's Voice. "Raspail, this is Dominique," the Voice said in a calm tone. "He has agreed to become your apprentice."

The voyant glanced at him, and muscles tightened in her face. "You can't saddle me with another assignment now," she said in a low, tense voice.

"He is not an assignment; he is an opportunity. You have seen his diatom graph."

"Yes," she admitted reluctantly. "Can't we send him to another institute?"

"No. We need him here. We need *you* to train him, Raspail."

For an instant Raspail closed her eyes as if to withdraw from the conversation; when she opened them again they were burning. "Have you told him the truth about the training?"

"What is the truth?"

Raspail turned on Dominique fiercely. "Becoming a voyant is hard. Harder than anything you can imagine. You must give up all that you think of as your self. There is no way to survive it without fire inside. There can be nothing in your heart but the will to be a voyant."

The Rinpoche's Voice said calmly, "And yet people have been doing it for three centuries."

The voyant was trying to scare him off, though he didn't know why. Dominique might not have had fire inside, but he also didn't scare easily. "I've done hard things before," he said.

Her expression was as dismissive as Gabriel's. He felt tired of always being discounted. He wanted to prove that she was wrong about him.

"Try it, Raspail," the Rinpoche's Voice said.

For a moment the voyant stood like an embattled spire defying entropy, too stubborn to fall. Then her stiff shoulders twitched in what might have been a shrug.

The Voice turned to Dominique. “Wait in the ante-chamber for a moment.”

When Dominique reached the eight-sided waiting room, he found Gabriel standing there, hands stuffed in his pockets, brows boxing one another. “This was a total farce,” he said. “They couldn’t tell me a damned thing I didn’t already know. So much for the Oracle; I could have gotten better advice from a fortune teller. Let’s go.”

So they hadn’t offered him a place as an acolyte. “Gabriel—” Dominique started.

“It was just a character analysis, no guidance. It didn’t settle anything.”

“Gabriel, I’m not going back. You’ve got to tell Mother.”

Slowly, Gabriel focused on him. “What?”

“They offered me an apprenticeship. To work with the voyant.” In the face of Gabriel’s disappointment, Dominique felt obscurely ashamed.

Gabriel’s eyes widened as he saw his brother in a new light—the light of his own failure. “Here? A voyant?”

“It’s only till they find out I can’t do the work.” Dominique tried to grin. “Listen, can I send you a message at the hotel tomorrow?”

“No. No, I’m not waiting around.” Gabriel started off stiffly toward the entrance. “Enjoy your life,” he said bitterly over his shoulder.

“It’s not my fault, Gabriel!” Dominique called after him.

Gabriel didn’t pause. Dominique stood, half furious, half hurt, unsure whether to go after him. A hand

touched his shoulder. He looked around to find Raspail at his side.

“Let him go,” she said softly.

“But he’s my brother!” Dominique said.

“You have lost him,” Raspail said. “He is just the first of many things. You will have to learn to lose, and lose, and lose, if you want to be a voyant.”

The words were harsh, but there was a furtive compassion in her voice, a human face frozen under ice. He sensed that she was talking about herself, and not him at all.

The moment was gone; now she was tense and stern again. Saying, “Come,” she started toward one of the doors. Dominique glanced one last time after Gabriel, then followed her.

There was a maze of corridors. Voyant Raspail’s pace picked up, till she was striding on ahead of Dominique. Down a long, dimly lit passage lined with doors her footsteps echoed impatiently. When she reached an enameled doorway she jerked it open and plunged through, into a comfortable apartment. Dominique stood in the doorway, still breathless from the walk, feeling unwelcome and uncertain what to do. Preoccupied, Raspail threw her gloves on a table, then without a word crossed to a bedroom door and slammed it behind her.

In the silence Dominique realized that someone else was sitting across the room in the darkened window seat with a book on his lap, staring at Dominique with wide and startled eyes.

“Hello,” Dominique said awkwardly. “My name’s Dominique.”

“I am Aristide,” the other said. As he set the book aside, Dominique saw that he had not been reading,

but tearing the pages into intricate patterns. Aristide stood, brushing a snowfall of shredded paper onto the floor, then approached cautiously.

He was about Dominique's height, but thin as a mannikin of twisted wire. His dark eyes looked huge in his pale face. Neglected curls of black hair fell in his eyes. "What do you want?" he said.

"I guess this is where they want me to stay," Dominique said, shifting his pack. It was beginning to feel heavy.

Aristide had an intense, unblinking gaze. "These are the voyant's chambers," he said.

"I know."

"Who told you to come here?"

"The Rinpoche's Voice. Listen, I don't want to barge in. Why don't I just go tell them this isn't working out?" He began to back away.

"No!" Suddenly, Aristide's hand shot out to stop him. His eyes searched Dominique's face for the truth. "They really sent you here? They'll let me keep you?"

Laughing to cover his confusion, Dominique said, "I guess so."

A smile lit Aristide's face. It seemed to brighten the whole room. "Come in!" he said excitedly.

Feeling welcome for the first time since setting foot in Sorel, Dominique stepped in.

A second look around revealed the eccentricity of the room. On one table, a huge multicolored mound of candle wax dripped from the edge onto the floor, studded with bits of shiny foil and surmounted by two wings broken from a ceramic angel. The carpet had been carefully unraveled on one side and rewoven to climb the wall in purple tendrils on the other.

“Does this place ever get normal?” Dominique said, rubbing his eyes wearily.

“Do you like to eat?” Aristide asked intently.

“Are you kidding?” Dominique’s stomach growled at the thought.

“Good! We can order some food.” He took Dominique’s arm and dragged him into the kitchen.

The table was occupied by a tangled tower of interlocking forks. “Don’t touch it, it’s for Raspail,” Aristide said. He then produced a well-thumbed menu for the autoserver.

Dominique liked to cook almost as much as he liked to eat. He was soon able to select enough raw ingredients for a decent paella. A little more hunting revealed a pan. Aristide had gotten distracted among the dishes. As Dominique began to chop vegetables, Aristide took two overturned cups and made one chase another across the counter. One of the cups was yipping.

This was not how Dominique had imagined the brilliant savants spending their time. “So, where are you from, Aristide?” he asked.

The cups paused and turned to look at him, their handles turned up inquisitively. “From?” Aristide said as if the word were nonsense. The cups turned and raced thumpingly over to the cutting board, where they sniffed garlic, then shook in delight.

“Your home. You know, where does your family live?”

Aristide pushed a handful of black hair out of his eyes. “Oh. I don’t know.”

“You must have come here pretty young, then.”

Aristide smiled craftily. “I didn’t come here. I was made here. Raspail invented me.”

He fitted two salt dishes over his eyes and coffee mugs over his hands, then began to walk around the

kitchen stiff-limbed and stub-armed, like a mechanical man from an ancient cinema. Dominique laughed. But a footstep from the bedroom next door made Aristide quickly drop the act and whisk the dishes back into the cupboard. He perched innocently on the counter. “She doesn’t like me to wear the crockery,” he confided in a whisper.

“What exactly do you do around here, Aristide?” Dominique asked, dumping oil into the pan.

Aristide stared as if he’d asked the purpose of the floor. “I am Raspail’s apprentice.”

“Oh, really? I didn’t know she had one already. That’s what I’m going to be.”

“You?” Aristide looked as if he couldn’t decide whether to collapse in laughter.

“That’s what they tell me.”

A thought occurred to Aristide; as it crossed his face, it wiped out the laughter. “Is this because of what I did yesterday?” he said.

“I don’t know. What did you do yesterday?”

“I imploded a datamass. It was just a fluke, a back-wash in the processing flow. I didn’t do it on purpose.” He looked at Dominique apprehensively. “It was Savant Barrère’s. She’s working on historical dynamics and the coming phase transition. Have you heard of it?”

“I think so.”

Aristide leaned close and whispered, “I wiped out all her data. We don’t know if she has a copy. Raspail hasn’t dared to ask her yet.”

Dominique paused, spoon in hand. The paella sizzled in the pan. “That sounds kind of serious,” he said.

Aristide began to laugh uproariously. “The savants are going to slit my throat when they find out.” He sobered abruptly. “They don’t know yet, do they?”

“I don’t know. I don’t think it has anything to do with my being here.”

Nevertheless, Aristide fell silent and thoughtful. Dominique dished up two plates of food. He wolfed down two helpings, standing at the counter, while Aristide toyed un hungrily with his. Glancing across the stove, Dominique noticed how delicate Aristide’s hands were—fragile and fine, as if blown out of milky, translucent glass. He looked up and found the apprentice watching him. He smiled, but Aristide crossed his arms defensively to hide his hands.

“What kind of work does an apprentice voyant do?” Dominique asked.

“Didn’t they tell you?”

“Voyant Raspail tried. All she could say was how hard it was. I figured she was trying to scare me away.”

Aristide paused. “If I answered, you would think I was trying to scare you as well.”

“Just tell me what it’s like to operate the Oracle.”

Aristide’s eyes looked past Dominique, toward some horizon that wasn’t there. “You should ask what it’s like *not* to operate Oracle. Compared to Oracle, everything else is like being a fish in muddy water. All you know is upstream and downstream. There is no sky, no landscape, only murk.”

“So you think I ought to stay?”

Aristide turned eyes oddly drained of emotion on him. In a flat voice, he said, “If I were you, I would get out of here as fast as I could, and run till they could never find me again.”

Dominique was no longer hungry. He put down his fork to study Aristide, wondering what he meant. “But you’re still here,” he said.

“I said if I were you.”

They said little after that. Aristide went back out into the living room and set to work shredding his book again. Dominique wandered around, yawning hugely. At last he said, "Where do you want me to sleep?"

"There's an extra bed in my room," Aristide said, and got up to show him.

It turned out to be no more than a cot, but Dominique gratefully tossed his pack under it, then tossed himself on top.

There was a nightstand between the beds, placed against the window, and on it burned a candle with a glass hurricane shade over it. Dominique stared at it, in his drowsiness struggling to grasp a revelation he felt ought to be there.

"I know," he said. "We saw that candle earlier tonight, when we came up the road to Sorel. I asked Gabriel why anyone would want to light a candle here."

"Dominique," Aristide said seriously, "Do dogs fall in love?"

Dominique was too sleepy to make sense of that. "I don't know," he said.

But as soon as he burrowed under the pile of quilts and lay still, sleep eluded him. All that had happened kept swirling through his mind.

When he turned to look, Aristide was lying on his bed, head propped on his fist, watching the candle. Its yellow flame cast a gentle light on his face. He looked pensive, as if remembering something from long ago. "Why do you light it?" Dominique said at last.

"Down in the east wing they teach the acolytes to model flames in mathematics," Aristide said.

"Did you learn to do that?" Dominique asked.

"No. I was never an acolyte. They couldn't let me learn to read. But I have seen the mathematics modeled

by Oracle. I have seen a flame created from formulas instead of wax. At this scale it looks simple, but on the molecular level it's incredibly turbulent. The surface is wrinkly, and inside it's all stretched and distorted. Did you know that a flame is the opposite of a living thing?"

"No."

"It's an information-conversion system, just like a plant or a person. But instead of building patterns, as life will, it destroys them. It's a little pocketful of entropy."

Those were the last words Dominique heard before drifting off to sleep.

Later that night he roused long enough to see that the candle had burned down to a stub. He reached out to snuff it, but Aristide lunged out and caught his wrist in a steely grip. "Don't touch it," he said through clenched teeth.

"Sorry," Dominique stammered. "I thought you were asleep."

As he tried to fall asleep again, he could see the glint of Aristide's eyes watching him from out of the darkness.