

Paul J. McAuley

Paul J. McAuley is currently working on a very long novel set ten million years in the future. The first volume, *Child of the River*, was recently published by Avon, and the second, *Ancients of Days*, is forthcoming. In his latest novella, settlement of our solar system has inevitably brought alterations to environments like Jupiter's frozen Europa. In turn, these alien vistas have had an effect on us. Both transformations are chillingly explored in...

SEA CHANGE, WITH MONSTERS

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he made it clear that she was taking the job as a favor.

Vlad Simonov pretended to be slighted by her reluctance. He said, "But Indira, what's the problem? It's a fantastic job, and it's not as if you are working."

"I have been working," Indira said. "Now I'm resting."

She had spent two weeks supervising the clearance of an infestation of urchins at the perimeter of a farm collective. It had been difficult, dangerous, tiring work, and she had nearly been killed in almost exactly the same way she had nearly been killed on her first job, when she hadn't really known what she had been doing. She had come full circle. She was beginning to believe that she had killed enough monsters.

Vlad snapped his fingers and leaned close to the camera of his phone. "Af-ter that picayune little job, you need to *rest*? That kind of thing, I do as an ex-ercise. I do it for relaxation! I do it in my sleep, after a proper day's work.. Lis-ten, Indira, I would take this job myself, it is so good, except already I am committed to three others. So I give it to you. With my usual commission of course, but the terms are so generous you will not notice the little I have kept to take home to feed my children."

Vlad's restless, goodhumored energy was apparent even over the phone. Indira laughed.

He said chidingly, “Indira, Indira. You are getting old. You are getting bored. Urchins, spinners, makos, they’re all the same to you. Routine, rou-tine, routine. It hurts me to see you like this. So, I put some pep in your life. To make you think again. To make you love life. Say yes. You will have fun, I promise.”

“Vlad...we are all getting old.”

“Not the *monsters*. While you sit around in your nice, warm, comfortable apt, the monsters are swimming in the cold and the dark, pumping sulfides, getting strong. Indira, this is a very exciting job, and the people who commis-sion it are some kind of funny monks who know nothing about the value of money. You will be rich, even after my tiny percentage is removed. They claim it is a dragon, Indira. You have never hunted a dragon, but I know you can do it. That is why I ask only you.”

“And that’s why I’m taking it as a favor to *you*, Vlad. Because I know no one else will do it.”

Indira had started out as an apprentice to Vlad Simonov; now she free-lanced for him. He was one of the first generation of hunters, one of the few to have survived the early days of tracking the biowar macroforms, the mon-sters, which had been set loose during the Quiet War. Vlad liked to project a buccaneering image. He had two wives and five children. He drank brandy and smoked huge cigars. He had a wild mane of black hair with little lights spidering inside its curls. But there was no safer or more cautious hunter in all of Europa’s ocean.

She said, “A dragon.”

“*Perhaps* a dragon. Are you scared?”

“I’m always scared.”

A pod of urchins had ambushed her toward the end of the last job. She had been finning down a long flaw in pure water ice, leading her diving buddy, a nervous farm worker. The flaw had been polished smooth by methane seep. It had reflected her lights in a bluewhite glare that had prevented her see-ing very much of what was ahead. The urchins had fallen down on her from a crevice. She had doubled up, knocking two urchins off her face mask—their spines left deep scratches in the glass—and had started firing her flechette pistol even as she kicked backward. Her diving buddy had been frozen in fear, blocking her escape; the urchins had bobbed toward her through a dancing dazzle of reflected light. She had coldly and methodically killed every one of them in a Zenlike calm that had thawed to violent trembling as soon as the slaughter was over.

She told Vlad, “I can’t go solo against a dragon. If it is a dragon.”

He said, “You won’t need to go solo. The monks have a big weed farm and their workers will help you. Anyway, it’s probably no more than a mako. No one has seen a dragon for years—they’re probably extinct. The monks see something lurking just beyond their perimeter and make it bigger than it is. Let me tell you what I know.”

Indira’s daughter, Alice, came in two hours later. She found her mother in the workshop, with the luggage pod open on the floor. She said, “You only just came home.”

“I know, sweet.”

Alice stood in the doorway, bouncing up and down as gently as a tethered

balloon. Seven years old, smart and determined. She wore baggy shorts and a nylon vest with many pockets and an iridescent flared collar that rose above her head like a lizard's ruff. Fluorescent tattoos braided her thin brown arms. She had changed them since she had gone off to school that morning. They had been interlocking lizards and birds then; now they were long fluttering banners, red and violet and maroon. Her hair was done up in tight cornrows and decorated with little tags that flashed in random patterns of yellow and green.

Alice said, "Have you told Carr yet?"

Indira didn't look up. She was concentrating on fitting her dry suit into the pod, taking great care not to crease it. She said, "He'll be home soon. How was school?"

"I'm doing a project."

"You must tell me all about it."

"It's a secret."

A pause. Indira knew that her daughter had been down to the service levels of the city again, at the bottom of the ice. She had beeped Alice's location after she had finalized the contract with Vlad. And Alice knew that she knew. She watched solemnly as her mother checked the weapon cases. They were flat metal shells with foam plastic bedding inside. The smallest contained three kinds of specific neurotoxin in glass snaptop vials. Indira made very sure that these were packed properly.

At last, Alice said, "Did you know that the city once hid another name?"

"Of course."

"It was called Minos. Why was that?"

"Because Minos was one of the sons of Europa. Of Europa and Zeus."

When Alice stamped her foot, she bounced a meter into the air. "I know that! It means creature of the moon. He was the king who built a maze under his palace. But why did it *change*?"

"Politics."

"Oh. You mean the war."

Alice had been born ten years after the Quiet War. Like all of her generation, she couldn't understand why the adults around her spent so much time talking about it when it clearly made them so unhappy.

"Yes, the war. Where did you find this out?"

"I saw a sign,"

"A sign? In school?"

Alice shook her head. "Of course not in school. The Goonies—" which was the latest nickname for the soldiers of the Three Powers Occupying Force—have changed all the signs they know about. But they don't know everything."

"Then where was it?"

Alice said, "Carr will be cross because you're going away again so soon."

"That's because he loves me almost as much as he loves you. Where was this sign, Alice?"

"It's to do with my project. So it's a secret until my project's finished."

Indira closed the luggage pod. It made a little whirring noise as it sealed itself up. She didn't want an argument just before she went away, but she didn't want

Alice to think that she could disobey her. She said, "I think we had better have a little talk, you and I."

Later, Carr said, "There's nothing to harm her down there."

"Don't take sides," Indira said.

"I'm not. I'm trying to be realistic. Kids go down there all the time. They like staring out into the dark."

"She dresses like a Ring smuggler. Those lights in her hair..."

"All the kids her age dress like that. They get it from the sagas. It's harm-less."

"Why are you so fucking reasonable?"

"It's a talent I have."

Indira snuggled closer to him. They had just made love, and were both sweating on the big bed, beneath a simulated starscape. Carr liked to keep their room warm and humid. Bamboos and ferns and banana plants surrounded them. The walls were set to show misty distances above a moonlit rainforest. Carr had been born on Earth. His family had migrated from Greater Brazil to Europa a few years before the Quiet War. He was one of the ecological maintenance team of the city; once upon a time, he would have been called a gardener. He was a strong, solid, dependable man. He and Indira had been a couple for nine years now; several months ago, they had started to buy tickets in the child lottery for the second time.

Carr said, "I think it's nice that she wants to make gardens under the ice. A little bit of me, a little bit of you. Did she show you her drawings?"

"Of course she did. Once we had made up after the argument about her going down to the service levels. All those friendly crabs and fish."

Carr stretched luxuriously and asked the bed's treacher for a glass of water. "Citrus, fizzy, ice." He told Indira, "She wants to think that one day there might be a world without monsters." He took a sip of water. He said, "She wants to be a engineer."

"She wanted to be a tractor driver last week."

"That was two months ago. She has been asking all sorts of questions about engineering. She asked me why there weren't any fish out there in the ocean. You know, I think sometimes she tells me things because she knows I'll tell you."

"She's smart."

Carr sipped his water. After a while he said "Why do you have to go away so soon?"

"Because of a monster. One of the angry fish Alice wants to replace with happy, smiling fish."

"There are other hunters."

"You knew what I did when we met, Carr. That hasn't changed. And we need the money to pay for the lottery tickets."

Carr put his water down and folded his arms around her. The hand which had held the glass was cool on her flank. He said, "I didn't even know there was a nunnery on Europa."

"It's a monastery. For monks. Male nuns. Vlad was a bit vague about them and I can't find anything about them on the net. They're some kind of Christians, but not of any of the mainstream sects."

“Whatever. Tell me again why they can’t kill this monster for themselves.”

“I think they tried.” A silence. She took a deep breath and said, “I haven’t told you everything, and it’s only fair that you know. Vlad thinks it might be a dragon.”

Carr said, “They’re extinct, aren’t they?”

“The last time one was killed was over ten years ago. No one has seen one since. But absence of evidence—”

“—is not evidence of absence. So Vlad the Impaler wants to send you out against a dragon all by yourself.”

“We’re not certain it is a dragon. And I won’t exactly be alone. There will be the monks.”

Indira had met Vlad Simonov almost twenty years before, just after the end of the Quiet War. She had been a construction diver then, helping build the city’s first weed farm. Biowar macroforms were getting past the sonar and electrical barriers that were supposed to keep them away from the city’s underside, and Vlad had been hired to clear out a nest of urchins. The things had learned to passively drift through the barriers on currents and reactivate in the lights of the construction site. They were etching away support pylons, and in those days there were still a few of the kind of urchin that manufactured explosives in their cores. Two construction divers had been killed.

Indira volunteered to assist Vlad, and they quickly located the place where the urchins were breeding. It was five kilometers east of the weed farm, downstream of the currents driven by the upwelling plume. It was an area of rotten ice eroded by the relatively warm water of the upwelling, riddled with caves and crevices and halfcollapsed tunnels, rich in precipitated sulfides. Indira didn’t panic when urchins started dropping out of crevices in the ice. They seemed like harmless toys, spiny, fistsized black balls that wobbled this way and that on pulsed jets of water. She forgot that some could be car-rying explosive charges and coolly and methodically killed them with neuro-toxintipped flechettes, not wasting a shot. Afterward, Vlad said that he liked her style, and that evening they got drunk together to celebrate their victory. She thought no more about it, but a few weeks later he called her up to ask if she would like to help out again.

The gengineered biowar macroforms had been delivered to Europa’s ocean by penetrator probes during the Quiet War. Viruses had destroyed the food yeasts (and incidentally had caused the extinction of the indigenous microbes that had lived around the hydrothermal vents at the bottom of the ocean); the macroforms had wrecked the yeast reactors, the mines and the cargo sub-marines, the heat exchangers and the tidal generators.

Earth had not expected to win the Quiet War quickly. The Three Powers Occupying Force had no plans to decommission the monsters they had set loose, and no one knew how many there were now. They reproduced by parthenogenesis, like certain insects, and they had contained dormant embryos when they had been released. Hunters like Vlad Simonov were the only reliable line of defense against their depredations.

The second job was against a mako that had been systematically destroying

mine intakes at Taliesin. Vlad and Indira spent a dozen hours hanging by the probe of one intake, following it as, like a giant articulated proboscis, it moved this way and that in the black water, tracking mineral-rich currents. The mako came in hard and fast out of the darkness, straight at Indira. She held steady and Vlad hit it with his second shot. Afterward, he offered her a permanent job, and she accepted.

She discovered a talent for killing. She got no pleasure from it, except to do it as cleanly and professionally as possible, and it did not diminish the guilt she felt because she had survived the Quiet War and her parents had not. Only time did that. But she was good at killing monsters. She cleaned out hundreds of urchin nests, destroyed infestations of fireworms that had wrapped themselves around electrical cables and caused crippling overvoltages, went up against and killed makos and mantas and spinners. But she had never before had to face a dragon, the smartest and most dangerous of all the monsters.

Indira took the railway west from Phoenix, along Phineus Linea to Cadmus. The scarp stood to the north, an endless fault wall half a kilometer high. It was one of the highest features of Europa's flat surface. Mottled terrain stretched away to the south, textured by small hills and cut by numerous dikes and fracture lines. Lobes of brown and grey ice flows were fretted by sublimation and lightly spattered with small craters. This was one of the oldest landscapes of Europa. The ice here was almost five kilometers thick.

It was early morning, four hours after sunrise. Europa's day was exactly the length of its orbit around Jupiter, and so, from any point on Europa's sub-jovian hemisphere, Jupiter hung in the same spot in the sky, waxing and waning through the eighty-five hour day. At present, Jupiter was completely dark, a glowering circular black hole in the sky that was nearly thirty times as big as Earth's moon. Indira was in the train's observation car, sipping iced peach tea and watching the beginning of the day's eclipse. It would last three hours, and was the nearest thing to true night on the sub-jovian hemisphere, for when the Sun set, Jupiter was full, and there was almost always one or more of the other three Galilean moons in the sky.

There was a sudden flash of light that briefly defined Jupiter's lower edge as the diamond point of the Sun disappeared behind it. Darkness swept across the ice plain; stars suddenly bestrode the sky in their rigid patterns. As her eyes adapted, Indira could make out the flicker of a lightning storm near the upper edge of Jupiter's black disc—a storm bigger than Europa.

Indira talked with Carr. She talked with Alice and told her what she could see, and tried to patch up the row they'd had.

"Carr misses you already," Alice said. She was on one of the slideways of the city's commercial center. "He says he's going to change your room. It's a surprise." She didn't want to talk about her project. When Indira tried to press her about it, she said, "I have to go. This is where I should be."

The train was full of miners. They were all flying on some drug or other. This was their last chance to get high before they returned to work. They were native Europeans, originally from South Africa. They wore leather jackets and fancy hightopped boots over pressure suit liners. One of them played a slow blues on a steel-bodied guitar; another, egged on by his comrades, tried to chat up Indira. He

was a young man, tall and very handsome, with very black skin and chiseled cheekbones. He spent more time looking at his reflection in the diamond window of the observation car, ghosting over the speeding, starlit landscape, than he did looking at Indira. His name was Champion Khumalo. Indira thought that it was a nickname, but no, all his friends had names like that, or names out of the Bible. Trinity Adepoju. Gospel Motlohelo. Ruth and Isaac Mahlangu.

Once Champion gave up his halfhearted attempt to sweettalk Indira, they all became friends. Indira learnt that two of Champion's brothers went to the same school as Alice. They passed around a bottle of pear brandy and tubes of something called haze. It smelt sharply of ketones and delivered an immediate floating feeling of bonhomie.

The miners were fascinated by her profession. "To clean all the ocean of monsters," Gospel Motlohelo said, "is a noble calling!"

"Well, I don't see why we need to go into the world below," Isaac Mahlangu said. I have been a miner for thirty years and I have never needed to go there. This is our land, the world all around us."

"But the ocean is part of our world," Gospel said. She was the oldest of the miners. Her irongrey hair was done up in medusa ropes wound with plastic wire. There were keloid scars on her forehead; because they spent their working lives on the surface, most miners suffered from radiationinduced cancers. She said, "The ocean makes the land what it is, and so it is important to get rid of the monsters that infest it."

"The monsters are from Earth," Trinity Adepoju said. "That's why we have to get rid of them." He was the guitar player, a tall man even for a European, with a ready smile and fingers so long they seemed to have several extra joints as he moved them idly up and down the neck of his guitar.

Indira remembered a conversation she had once had with Alice. She had been trying to explain to her daughter why Earth had won the Quiet War.

"They have more wealth, more processing power, more people. They have used up their world and now they want to use up all the others."

"Then well have to do things they can't," Alice had said, so solemnly that Indira had laughed.

Champion said, "Even with the monsters gone, we will still live on Earth's sufferance."

His friends nodded, and began to tell Indira their war stories. Many of the miners had been on Europa throughout the Quiet War. Although the population of the capital, then called Minos (the miners called it that still), had at last been evacuated to Ganymede, the miners had been left in their camps. Most had managed to synthesize enough oxygen from water ice, but there had not been enough food.

"We were so hungry," Gospel told Indira, "that we were thinking of eating our boots at the end of it."

Ruth Mahlangu said, "What are you talking about, woman! You are so vain that you would starve to death and be buried in your boots rather than eat them!"

The others laughed. It was true: Gospel's boots were extraordinary, even for a miner, green suede decorated with intricate patterns made from little bits of mirror and red and gold thread.

There were stories of cannibalism. Several camps had been vaporized by the nuclear device that had broken through the crust to allow the penetra-tors containing the biowar organisms to reach the ocean. This was at Tyre Macula, on Europa's antijovian hemisphere. Although the area had been lightly populated, the blast had killed more than a hundred miners and had left a flat plain of radioactive ice and radial grooves hundreds of kilometers long: a bright sunburst scar on Europa's mottled brown face.

Indira had heard all these stories before; it seemed that Europeans would never tire of telling and retelling stories about the war. She had stories of her own, but they were all too sad to bear telling. The death of her family, the two years she had spent as an orphaned refugee on Ganymede. At last, she managed to steer the conversation to the monastery.

Champion grinned. "You're going *there*? That's a good joke!"

The miners exchanged words in a language full of glottal clicks. They all laughed, but the young miner would not tell Indira what they found funny.

"They're very rich there, those people," Champion said. "They have a very big weed farm. They supply fixed carbon to half the mines."

"Their leader is a gengineer," Gospel said.

Trinity said, "He calls himself Rothar. I don't think it's his real name. They say he ran from Earth because they caught him doing something illegal. He's probably doing something illegal out there, too."

"Maybe making more monsters," Champion said. "Maybe he makes one monster too many and wants you to kill it."

"They are strange people," Gospel said. "Not Christian at all, although they claim to be. They call themselves Adamists."

This was more than Indira had managed to glean about the monastery from the net. The miners didn't know many hard facts, but they had plenty of gossip. Their talk grew lively and wild. Three hours after the beginning of the eclipse, the double star of Earth and Venus rose above Jupiter's dark bulk, and then the Sun followed and flooded the ice plain with its light. Trinity took up his guitar again and had half the observation car singing along by the time the train reached Cadmus.

Cadmus was an industrial settlement, several clusters of stilt buildings, storage tanks, a big spaceport that was essentially an ice field pitted with black exhaust blasts, the long track of a mass driver. Indira caught a few hours rest in a rented cubicle. Before she fell asleep, she talked with Carr about the small change of his day. Alice was sleeping. She missed her mother, Carr said.

"I miss her too."

"Be careful," Carr said.

Soldiers of the Three Powers Occupying Force were much in evidence. Two officers were talking loudly in the canteen where Indira ate breakfast, oblivious to the resentful stares of the miners around them, and she had to endure a fifteen minute interrogation before she could board the rolligon bus that would carry her to the monastery of Scyld Shield.

The journey took ten hours. As the bus traveled west, the diamond point of the Sun descended ahead of it, while Jupiter hung low in the east—Indira had

traveled a long way, a quarter of the way around the icy little moon. Jupiter was almost full, banded vertically with the intricately ruffled yellow and whites of his perpetual storms. Their slow churning was visible if Indira watched long enough. Io's yellow disc fell below the horizon and an hour later rose, renewed.

The road was a single track raised on an embankment above a wide plain of crustal plates. Some were more than ten kilometers across; most were much smaller.

Changes in currents in Europa's ocean had broken the plates apart again and again, rafting them into new positions. It was like crossing the shaken pieces of a jigsaw puzzle of simple Euclidean shapes. You could see here that the surface of Europa was a thin skin of ice over the ocean, as fragile as the craquelure on an ancient painting. Triplet ridge and groove features cut across the plates. They were caused by the upwelling of water through stress fractures. The ridges were breccia dikes, ice mixed with mineralized silicates, complexly faulted and folded; the grooves between them were almost pure waterice. They were like a vast freeway system half-built and abruptly abandoned, cut across where the ice plates had fractured or had been buried by bluewhite icy flows that had spewed from newer fissures.

The road the bus was following crossed a groove so wide that the ridge on one side disappeared over the horizon before the ridge on the far side appeared. Beyond it, geysers powered by convective upwellings had built clusters of low hills that shone amidst patches of darker material.

Like Io, Europa's core was kept molten by heat generated by tidal distortions that pulled it this way and that as the moon orbited Jupiter; heat leaking through underwater vents and volcanoes kept the ocean from freezing beneath its icy crust and drove big cellular currents from bottom to top. Cadmus was at the edge of the Nemo Chaos, where a huge upwelling current kept the ice crust less than a kilometer thick. The same upwelling currents that eroded and shaped the icy crust brought up minerals from the bottom of the ocean. It was why the miners were there. Indira saw a solitary cabin crawling away toward the horizon, its red beacon flashing. Every twenty or thirty kilometers, the bus passed the drillhead of a mine, with one or two or three cabins raised high on stilts like so many copies of Baba Yaga's hut. The mines pumped mineral-rich water into huge settling basins. Vacuum organisms grew on the ice and extracted metals, and the miners harvested them.

Alice called Indira. She was enthusiastic about her project. Indira pretended to be enthusiastic, too, but she resolved that she would talk with Alice's monitors when this was over. Her daughter's education was taking a direction she didn't like.

"Spend some time with Carr," Indira told Alice. "Help him out."

"I don't like the flowers. Some of them make me sneeze. And the light is too bright in the greenhouses."

"It helps them grow."

"The weeds don't need light."

"That's because they don't photosynthesize."

"I know that. They're—" Alice scrunched up her face and slowly and carefully— "chemolithotrophs. They absorb the chemicals in the water and make biomass, which we eat."

They talked about the metabolism of the weeds for a while. Alice promised that she would ask Carr about photosynthesis. She said that she was doing some

gene splicing in the garden labs, using the cell gun. Indira was encouraging. The more time Alice spent in the labs and the gardens, the less she spent skulking around the lower levels of the city.

The bus had low priority and had to keep pulling into laybys to allow trucks to pass. Indira was its only passenger, and its first for several weeks. It seemed that very few people went to Scyld Shield. The bus grumbled that the monks weren't friendly.

"They tell me to be quiet, and it is a long drive out. I like to talk. It's part of my personality design." The bus paused. It added, "I hope you don't mind talking with me."

"What do you know about the monastery?"

"It was a mine, before the war. The monks have built around the old shaft. But of course, I have never been inside. They don't have a garage. If I broke down, someone would have to come all the way out from Cadmus. It's irresponsible, but that's the way things are these days in the free market economy. No one wants to pay for the upkeep of publicly owned infrastructure."

Someone had probably dumped a bunch of antilibertarian propaganda in the bus's memory. Indira was sympathetic, but hastily told it that she wasn't interested in discussing politics. There was a silence. At last the bus said:

"Many of the trucks come from the monastery. They supply huge amounts of cheap fixed carbon. Glycogens, proteins, cellulose, starches. They supply the bioreactors of most of the mines in this region."

"There must be a lot of monks in the monastery."

"I wouldn't know," the bus said. "Only two of them regularly travel to and from Cadmus. The rest keep themselves to themselves."

Which was what the dispatcher at the bus garage had told Indira. She could have called Vlad Simonov, of course, but she had her pride.

The Sun set. Jupiter's hard yellow light spread across the ice plains. Io had disappeared behind him; a few of the brightest stars had come out. Ahead, something briefly glittered on the horizon, vanishing before Indira could see what it was. The bus crawled on, and an hour later, Indira saw the fugitive glitter again, much closer now. A plume of gas, shining in Jupiter's sullen light.

"There she blows," the bus said.

"What is it?"

"Scyld Shield's methane vent," the bus said. "Most of the mines around here have them."

"Of course."

Methane bubbled up from the hydrothermal vents and collected under the ice crust, occasionally breaking the rafts apart as it escaped through fault lines. Mines vented excess methane to keep themselves stabilized. The methane dispersed, of course, for at 150°C Europa's surface was just above its triple point, but the vent had deposited drifts of dirty white water snow across a huge polygonal plate. The monastery was on a ridge of brecciated ice beyond.

It was not as large as Indira expected, no more than a single silvered dome. The bus took a spur off the main road. It climbed a winding switchback up the face of the ridge and dived into a wide apron hacked out of an ice bench, where half a

dozen tanker trucks were parked in front of a mass of insulated pipes, presumably taking on loads of raw biomass. The bus reversed onto a airlock coupling and said goodbye to Indira.

“I’ll be back in three days,” it said. “I come here every three days even when there isn’t anyone who wants to ride. That is, if I don’t break down. Perhaps you can tell me about the monastery when I take you back to Cadmus.”

The luggage pod followed Indira through the freezing cold flexible coupling into a big, echoing, brightly lit room. Two monks were waiting there. Both wore black robes and a kind of cowl around their heads, topped with square headdresses. Both had untrimmed patriarchal beards, with big pectoral crosses hung over them. The older monk was impassive, but the younger was the first man Indira had ever seen do a doubletake in real life.

They had been expecting a man. Sending Indira had been Vlad Simonov’s idea of a joke.

The two monks left Indira with her luggage pod in the middle of the big, empty space. There were marks on the concrete floor that suggested that it had once been partitioned into many small rooms. A gutted air compressor sat in one corner. She sat down on the pod and tried to call Carr, but her phone wasn’t getting any signal. It was so cold that the smoke of each breath crystallized into a floating frost with a tiny tinkling sound, too cold to sit still and wait.

She began to prowl around. The empty room took up half the dome; a corridor looped around the other half, with little rooms opening off on either side. None showed any sign of recent habitation. There were two service tunnels. One led downward, curving out of sight; she had just opened the door of the other, its ribbed wall rimed with ice and stopped with a locked hatch, when the older of the two monks found her. It seemed that Brother Rothar, the abbot of the monastery, would talk with her.

The old monk’s name was Halga. Indira asked him about the other tunnel as they walked down, and he said that it led to the old mine structure, which had sunk into the ice after it had been abandoned during the war.

“We cut a tunnel to it to see what we could salvage. Now we use it for storage.”

“I didn’t mean to pry. I was just looking around and wondering where I should stow my gear.”

“I think you should talk with Brother Rothar,” the old monk said.

“Is there a problem?”

“Brother Rothar will explain.”

The tunnel wound down a long way. Indira realized that the monastery was like a pin piercing the ice—a pin a kilometer long, with the dome at its head and a winding series of chambers and passages built around its shaft. Brother Halga explained that the whole structure had been synthesized from glass and silicates extracted from the brecciated ice and bound together by diamond wire. Indira wondered how often they had to adjust the shaft because of stress in the icy crust, and Brother Halga told her that the Monastery was built on a breccia intrusion that went almost all the way down to the ocean.

“The surface is covered with ice, but a hundred meters below the surface it is quite stable.”

The old monk had a mild, diffident manner. He did not look at her when he spoke.

She said, “I don’t mean to make you uncomfortable by asking all these questions.”

“We are not used to people like you. To women, I mean.” His brown face, framed by the black cowl, darkened. He was blushing.

They walked on in silence, and at last took a side corridor whose walls, floor, and ceiling were covered in thick red fur. The air was at blood heat. Double doors at the end were covered in some kind of hide, dyed the same red as the fur. Brother Halga opened them, ushered her in, and announced her to the man who stood at the far end of the dimly lit room.

“Brother Rothar,” the old monk whispered, and stepped backward and pulled the double doors shut behind him.

On one side of the room, shelves holding printed books stepped up into darkness. On the other, a stone wall was muffled by an ancient tapestry: an enlarged reproduction of a section of the ceiling of the Vatican’s Sistine Chapel, God reaching out from the clouds to a casually reclining Adam. At the far end of the room, a man was standing in front of a huge fireplace, watching a bank of holos that floated in the darkness to one side. The fireplace was as big as an emergency shelter and held an actual, real fire. The flames crackled and danced above a bed of whitehot pressed carbon chunks and sent little licks of aromatic smoke curling over the monumental lintel, and firelight beat over the Persian carpets that layered the floor.

Indira had been told that the monastery was wealthy, but she had not realized *how* wealthy.

“Welcome,” the man said. His voice was subtly amplified. It boomed and rolled, mellow as good whisky, around the corners of the sumptuous room.

He was an old man, thin and straightbacked; with a shrewd, hawkish face. His dusty white skin was marked with dark blotches. He wore the same black robes as the monks, but instead of a cowl, his bald pate was covered with a black skullcap on which molecular shapes were embroidered in gold wire. Heavy gold rings extended the lobes of his large, papery ears.

“I have arranged for some food,” he said.

He crossed to the side of the fireplace, tracked by a spotlight that came on somewhere high above, and pulled a Florentine chair from a little burred walnut table. A plastic tray of food was set on the table: a sloppy puree of some kind of green leaf; a slab of gelatin seamed with chunks of uncooked vegetable; dry salty biscuits. A plastic beaker held pure water.

Rothar watched Indira push the puree around and said, “The same food is served in our refectory. We are an ascetic order.”

He gestured, and one of the holos floating to the side of the fireplace inflated. It showed a view looking down on a refectory in which about a hundred blackrobed monks sat in rows, ten by ten, along white plastic tables.

She said, “I ate at Cadmus, and then on the bus. This isn’t quite—”

“What you expected? No. It is not what I expected, either. And there is the problem.”

The holo shrank back into the array. Others showed views of a weed farm that seemed to stretch forever. Indira realized that Rothar was showing off. This room; his army of monks; the vast farm.

Rothar said, “I have been trying to talk with Vlad Simonov about this...problem. But he is nowhere on the net.”

He was rubbing his hands over each other. She noticed that when he thought she wasn't looking at him, he made little grabby glances at her body. She wished that she had worn something over the skintight suit liner.

She said, “Vlad is working at a mine on the antijovian hemisphere. He's probably under the ice. What is this problem? When do I start to work? Perhaps I can see the echo traces, and any video you have.”

When Rothar looked at her for a moment, she added, “Of the monster. The monster I've come to kill.”

“Ah. Now. I'm afraid that there has been a misunderstanding.”

“A misunderstanding? You have reported a Dragon Class biowar macroform in your area. You made a contract with Vlad Simonov, and Vlad sent me.

“There is the misunderstanding. You see, we did not expect him to send us a woman.”

“One of Vlad's little jokes.”

“A very embarrassing joke for both of us, Ms. Dzurisin.”

“That's between you and him. Meanwhile, I have a job to do.”

“I'm afraid not, Ms. Dzurisin. I am revoking your contract.”

Indira sat back in the chair and stared at Rothar, who still would not meet her gaze. It came out slowly. Rothar did not want her to hunt the dragon. The monastery was forbidden to women. The bus would return in three days; she would leave then.

“Meanwhile, we cannot work our farm,” Rothar said. “It will cost us a great deal of money. We are very angry with Mr. Simonov.”

He did not seem angry; he had not raised or varied his voice at any time during the interview. He added, “I have arranged for accommodation. Breakfast will be brought to you tomorrow. Expect it at six o'clock.”

“You really do want me out of here.”

“We are a contemplative order. We rise early. By the time you receive your breakfast, we will have already celebrated our first service. We will serve you at the same time that we eat.”

She said, “I need to tell my family about the change of plan, but my phone isn't working.”

“Something to do with the structure, I understand.”

“Then perhaps I could plug into your net. Or are you cut off here?”

“I suppose that you could go outside,” Rothar said. A pause. He added, “You will be quite safe here. We have been freed of the normal Satanic lust that blinds men. Not by chemical or physical castration. Both are unreliable and have unsatisfactory sideeffects. And, of course, chemical castration would involve use of those very hormones that taint you and your kind. No. We have all submitted to nanosurgery that has isolated the neurons that control the lordotic response. We are

incapable of being tempted because we are incapable of arousal.”

Indira stared at him. “I see,” she said, although she did not understand why he had told her this. Unless it was another form of boasting. At last she said, “I still want my fee.”

“Of course. We would not dream of renegeing on the contract. Goodbye, Ms. Dzurisin.”

Rothar made no signal, but at the far end of the room, Brother Halga opened the big double doors.

The old monk took Indira back up the helical tunnel and, left her in one of the dome’s empty cells. It was as spartan as the room in which Indira had lived with her foster parents in the refugee center on Ganymede, three meters long and two wide, a bare concrete floor and fibreboard walls sprayed with thick resin, the only furniture a fold-down shelf bunk and a combination shower and shitstool. Brother Halga assured her that it was like all the other cells in the monastery. If that was true, then no wonder Rothar could afford a real fire, all those old books, the ostentatious decor. Like any other pseudoreligious sect, the devotees did the work and the leader got the geld.

Her phone still wasn’t working. And she could not lock the door of the cell. She left the luggage pod outside and told it to keep watch, but found that she could not sleep. It was too cold and she could not switch off the light, only dim it. And something somewhere in the dome made a roaring noise at unpredictable intervals, shutting off with an explosive bang and a dying series of rattles that emphasized the unnatural silence that followed.

Memories of hiding in the city’s service tunnels crept around the edges of her consciousness. She resisted them.

The whole thing was ridiculous. An order of misogynist monks, a megalomaniac leader who was quite possibly a mad scientist, a secret passage. And a monster, of course, haunting the vast dark ocean at the basement of the monastery...It was like one of those old gothic sagas.

The monks had some kind of religious phobia about women. Fine. Europa was big enough for all kinds of eccentrics. The original charter, drawn up by the first settlers and suspended but not revoked after the Quiet War, had expressly allowed freedom of belief and speech. Let them get on with their devotions; maybe they could keep off the monster by prayer alone.

It was nothing to do with her. And yet, of course, it was. Rothar’s cold indifferent dismissal had cut her deeper than she liked to admit.

She tried the phone again. Still no luck. It was two in the morning, and she knew that she would not sleep now. She decided to go outside and try her luck with the phone there, and opened the door and told the luggage pod that she needed her pressure suit.

Indira supposed that the airlock was monitored, but found that she didn’t care. She crossed the brightly lit apron, where the trucks squatted over their shadows all in a row, like supplicants, and left the road and climbed to the top of the ridge. Jupiter sat at the eastern horizon, exactly where he had been sitting when the

bus had arrived. A crescent of darkness was eating into the bottom of his disc. His yellow light tangled long shadows across the rough, dark ice.

The phone still wasn't working. Indira went a long way, in long easy lopes that barely touched the ground, until, about two kilometers out, the phone suddenly woke and started scanning channels. She had to go another kilometer before she could get a steady signal.

It was half past three in the morning. It was half past three in the morning all over Europa. No one had been able to divide the moon's 85.2 hour day in a sensible way, so Europeans kept universal time. Indira left a message with Carr's avatar, saying that she was fine but the job hadn't panned out, and she would be coming back in a couple of days. She put a priority call to Vlad, and his avatar made various excuses until she cut it off and said, "This is an emergency. *I'm flying the black flag*."

Which was the ridiculous piratical code phrase that gave access to the less public of the avatar's functions.

The avatar, which looked exactly like Vlad, down to the tiny lights crawling in its bushy black hair, suddenly froze in the little window in the upper righthand corner of her helmet's visor, then reformatted. It said, in a voice that was clipped and neutral, now not Vlad's at all, "Of course, *druzhok*. What do you wish me to do?"

The avatar could not contact Vlad—he really was working—but it was able to give her some more information about the Adamists. As the miners had told her, Rothar was some kind of gengineer. His birth name was Gregory Janes. He had been born in Canberra. Presently he was claiming asylum as a political refugee in the occupied territory of the Outer System. He had been working for the government of Earth's Pacific Community, but precisely on what was obscured by contradictory rumors, most of which were almost certainly black propaganda. There was speculation that he had worked on the biowar macroforms before the Quiet War, and that the monastery was able to supply so much biomass because he had improved on the productivity and growth of standard weeds.

Rothar had not founded the Adamists, but had taken them over after the death of the charismatic mystic whose acolyte he had become—another crime lurking there, perhaps. The Adamists were an extremist separatist group, the kind that only the pressure cooker of Earth could have evolved. Their creed was simple. They believed that God had created Adam and Lilith as the first of a race who would worship God on Earth as angels did in Heaven. But Lilith had been murdered by Satan, who had then created Eve by ripping a rib from Adam while he had been sleeping. All men since Adam had been tainted by Satan's mark, fallen but redeemable; all women were the handmaidens of Satan. The avatar told Indira that much of the Adamists, creed was mixed up with considerable misuse of genetics, involving the Y chromosome and homeoboxes, and asked her if she wanted a précis. She told the avatar to skip it. She had heard enough to know that she was glad Rothar didn't want her to work for him.

"And tell Vlad that I'll see him when I get back," she said. "We'll have a lot to talk about."

She had kept walking as she talked with the avatar, along a folded ridge above the silver dome that capped the monastery's shaft (and the shape of the monastery,

she thought, was as graphically symbolic as the tapestry in Rothar's palatial office). The regolith here was gravelly, marked with tracks and the cleated prints of boots, scored and ridged with fretted humps of bare ice. She had begun to follow a road, she realized, a wide road that had once taken a lot of traffic.

Europa's surface was one of the youngest in the Solar System. Every part had been flooded and reflooded by eruptions of water and slush ice from the ocean that covered the moon from pole to pole beneath its icy crust; Europa had very few craters because most had been buried or eroded by the constant resurfacing. The landscapes of Mars were billions of years old and the planet was covered in gardened regolith—debris from meteorite strikes—to a depth of more than a kilometre. Ganymede's much younger regolith was merely meters deep; Europa's was no more than a few centimeters. But like any moon with almost no atmosphere, the ordinary processes of erosion were so slow that they might as well be nonexistent. A footprint could last a million years before it was erased by micrometeorite bombardment.

And so it was here. Indira had stumbled upon the road that had served the original mine. All around, the surface was marked by, dozens of years of activity. Parts of the road had been worn through to ice; the ice had been eroded into knobs and long slides, shot through with cracks and columns of bubbles frozen into place. They glittered like diamonds in the helmet light of Indira's pressure suit, diamonds glittering up at her wherever she looked.

She still had a couple of hours before she was due to be woken. She did not relish spending it in the spartan cell of the creepily uninhabited dome. Instead, she decided to explore.

The suit's radar soon gave her the location of the old mining station; it was below her, buried in the ice. It had probably been built on some kind of insulated raft with superconducting thread dispersing waste heat to radiators in the ocean far below, and its systems must have been left running when it had been abandoned. Presumably, its owners had expected to return in a few weeks. But something—perhaps a quake caused by the Tyre Macula nuclear device—had deflated its insulating raft, and perhaps some biowar macroform had destroyed its heat sink. The dome had sunk slowly through ice melted by its own waste heat.

Indira was tracing the perimeter of the dome when her proximity alarm beeped. A moment later she saw a figure duck behind a fold of ice. Someone was following her.

She circled around, keeping as low as the pressure suit would allow. No sign of the figure, either visually or on radar. She crossed the old road again, crept in toward the place where she had last seen the figure.

A square hole had been cut into the ice, and steps led down into darkness.

The monks had excavated the old entrance and later reburied it, but a stress fracture had collapsed and partly reopened the long, steep shaft. Indira climbed over a flow of glassy ice and found the airlock.

It was still operational.

The mysterious figure could be behind the door. What the hell. She cycled through.

The airlock walls had been deformed by the pressure of the ice into which it

had slowly sunk, but someone had sealed up the cracked seams with swathes of black resin. There was air beyond it, the usual seven hundred millibar nitrox mix of European habitats, but Indira kept her suit sealed. It was very cold, 50°C although not as cold as the surface. If the monks had wanted to store things, they could have just left them outside the dome. Unless they were things that would be damaged by vacuum ablation. Unless they were things that the monks didn't want others to see.

Speculating about just what those things might be, senses alert for any sign of the person she had followed, Indira wandered through the old mining base.

It had been abandoned in a hurry. Perhaps its crew had spotted the incoming missile whose nuclear warhead had blown a hole in the crust to the northwest.

Metal equipment lockers lined the corridor that led away from the airlock. Their locks had been cut out and their doors hung open. There was a big rec room in what must be the center of the dome. Food boxes were stacked along one wall; broken furniture along another. Ice crystals had gathered here and there in little drifts, crunching under her pressure suit's boots like dry beach sand. Overhead, the curved ceiling groaned and creaked: the structure was compressed all around by the ice into which it had sunken.

The dormitory corridor was littered with paper and infoneedles. The rooms were as small as the cell Indira had been assigned. She looked into one. It was half-filled with a shocking intrusion of ice, its surface glistening blue-white and smoothly sculptured like a muscle flayed of skin, its depths dirty with suspended silicates. In the next room, bedclothes were frozen with the impress of the man who had last slept there twenty years ago. His clothes were still scattered on the floor, stiff and sparkling with frost. Posters of lithe young women scaled the wall. One pinup stirred against a feeble backglow. She cupped her breasts and began to say something, then froze and rastered back to the beginning of her cycle and stirred again.

As she turned away, Indira heard something above the poster's scratchy entreaties and the creaking of the stressed dome. Footsteps were coming along the curving corridor—then a beam of light slashed through the air, turning suspended ice crystals into fugitive diamonds! Somehow, the person she had been following had managed to get behind her.

Fearing a trap, Indira dodged clumsily back into the room. In her bulky pressure suit, she was like a monster intruding on a child's bedroom. The poster lit up again, and she tore it down and wadded it in her stiff gloves until its scratchy voice died. She killed her helmet's light and hunkered inside her suit, listening intently, her heart beating quickly and lightly.

She had hidden from the soldiers of the Three Powers Occupation Force when they had begun to evacuate Minos. She had been eleven, as stubborn then as Alice was now. The city had been a prime target for the biowar macroforms. Its heat exchangers and its turbines had been destroyed, its yeast reactors had been poisoned. With no food, no power except feeble battery power, and its environmental cycling running out of control, Minos had surrendered while the rest of Europa was still notionally at war. Indira had hidden during the evacuation because she had been possessed with the romantic notion that she would join rebels who in reality were little more than an invention of the Occupation Force's black

propaganda unit.

She had been found, of course, but she had missed boarding the heavy lifter that had evacuated the rest of her family. And which, in the long slow orbit between Europa and Ganymede, had been crippled by an explosion in its antimatter pod and lost all power. Its crew and passengers had either suffocated or died of cold. Indira hadn't known about that until she had arrived at Ganymede. She had spent the two years as a refugee convinced that she had killed her parents.

Now her suit's microphone picked up the sound of footsteps, boots rattling loudly on plastic tiles whose adhesive had given way in the intense cold. Going past, dying away.

Indira stayed in the dark for two minutes, then cracked the door. Dark and silence beyond. She used infrared to track the footprints of whoever had been following her. One set, leading away down the curving corridor.

The airlock must have been alarmed. Someone had come to check. To look for her.

A new section of corridor had been roughly welded to an opening cut in the dome's skin. Metal stairs led down. As Indira descended, her suit reported that it was growing warmer, a strange inversion given that warm air should rise. But then she reached the highceilinged corridor at the foot of the stairwell and discovered the heat engines that crouched on either side, humming laboriously, their coils shining with frost. Heat was being pumped out of the dome and transferred...where?

To somewhere behind a doglatched door with the universal trefoil symbol for biological hazard in black on fluorescent orange.

Indira hesitated only for a moment. She was still fully suited. If she was exposed to any biological agent she could sterilize her suit by returning to the nearvacuum and 150°C of Europa's surface.

The heavy metal door was latched but not locked. Its seals gave only momentary resistance. It swung open on its massive hinges and she stepped over the sill.

It was an airlock. She waited while it cycled. When the door on the far side opened, her suit's temperature sensor registered a sudden rise of fifty degrees as air gusted unfelt around her, and lamps came on in the big room beyond. They hung from chains under the high ceiling. They registered only in the infrared. Indira swept the beam of her helmet's light from side to side. Beneath the lamps were rows of big square tanks linked by grey plastic pipework, crusted with yellowish salts and holding various levels of stir, black water. Seawater, she realized, the salty, sulfurous water of Europa's ocean. The temperature was just above zero. The air was 90 percent nitrogen and 10 percent carbon dioxide, with traces of hydrogen sulfide, sulfur dioxide, and hydrogen.

All of the tanks were empty. The recirculating pumps were switched off; the incubators ranked along one wall held only racks of flaccid salterusted plastic sleeves. The tiled workbench that ran along one wall was marked with chemical stains and the places where machines had once rested. A brown glass vial had fallen behind a strut; Indira turned it over in her clumsy gloves, smudged frost from its label. It had held the mixture of restriction nucleases and DNA ligases that was commonly used to insert genes into bacterial plasmids for cloning, either for

identification of gene product or use in engineering.

Indira secured a sample of water from one of the tanks and went out through the lock on the other side of the room. It cycled her into a long, rising corridor. At its far end, she stepped through an open hatch and found herself in the curved corridor of the dome which capped the monastery. Down the curve of the corridor, a red light flashed insistently. It was the emergency beacon of her luggage pod.

Without prompting, the luggage pod said, "Several people came after you left. They tried to open me. I responded with a class two defense as specified in subsection two paragraph three of the—"

Indira set the helmet of her pressure suit on the floor and said, "What did you do, exactly?"

"I activated my alarm and gave two warnings. After these were ignored, I passed a high amperage, low voltage current through my outer frame. One of the men who was trying to force me open was rendered unconscious."

"Did they manage to open you?"

"Of course not. After I defended myself, they went away." The pod added, "Two of them had to carry the man who had been incapacitated."

"By incapacitated, do you mean dead?"

"The shock was sufficient to cause unconsciousness but not death in a healthy adult human, as specified in subsection—"

"You've probably landed me in a whole world of shit."

The pod said that it did not understand this remark.

"Trouble."

"I am sorry," the pod said. "I had believed that I had contained the problem."

"Open up. I need to stow my pressure suit."

By the time Brother Halga appeared, to announce that Rothar would speak with her again, Indira had desuited and run the sample of water through her chemical sniffer. Brother Halga did not mention the attempt to open the luggage pod; neither did Indira.

As before, Rothar was standing in front of the roaring fire. If the room was a symbol of his power, then the fire was its focus. Her breakfast waited for her on the little table. Gruel, watery coffee, and a sticky, pale yellow liquid that was, Rothar said, mango juice.

Her pressure suit could supply better food, but she drank the coffee to be polite. It was weaker than any of the excuses she had made up, as she had walked down the helical corridor with Brother Halga, to try and explain why she had trespassed in the old mining station.

"You will work for me after all," Rothar said. "There have been...developments."

"I'm not sure that I want to. And surely a man would be better than a mere woman."

"Ah. You have been researching us."

"A little. But I only need to know a little to realize how much I dislike the entire idea of you and your crew."

Rothar smiled. He had small, widely spaced teeth, like those of a young boy prematurely grown up. He said, “We do not despise women. We pity them, as we pity all of humanity. We are a contemplative order that prays for redemption from the mark of Satan that is imprinted in each of our cells.”

“That’s very nice of you.”

His smile went away. “You will work for us, Ms. Dzurisin. Or forfeit the penalty clauses of the contract you have already signed.”

“From which you released me.”

“Only verbally. Do you have a recording? I thought not. Then you have no proof that it ever took place.”

“For a holy man, you don’t set much store by the truth.”

“None of us are holy, child. And besides, a small lie will sometimes serve a higher truth.”

Which could justify anything, Indira thought. No wonder religions had caused so much trouble on Earth.

Rothar said, “It should not take long. You are an experienced hunter, and I will provide experienced divers to help you. We have men here from all trades. We aim to be selfsufficient. By the way, I hope our laboratory impressed you.”

Indira looked at Rothar but said nothing. If he wanted to accuse her, she could accuse him of trying to tamper with her equipment. She had a pretty good idea of what the monks had been after. And there was the matter of what she had found in the water sample from the laboratory.

“We no longer use that facility,” Rothar said, “but it has provided the basis of our farm’s profitability. Which is why—” his smile came back— “we will have to search you thoroughly after you have finished. Whether you catch the monster or not.”

“Oh, I’ll catch it.”

Meaning, I’ll show you what a woman can do, and shame you for your presumption that I’m less than you are merely because of my sex.

She didn’t put the two things together. Her discovery, Rothar’s aboutface. After all, the story about the weed was entirely plausible; he couldn’t know that she had evidence that he must be lying. She thought that it was a matter of pride. His. Hers.

The two men who had been assigned to accompany her, Brother Fergus and Brother Finn, were competent and professional, but did not bother to hide their disgust at having to work with a woman. Fergus was dark and wiry and nervous; Finn was blond and burly and quiet, and one of the tallest men Indira had seen, overtopping her by half a meter. His head, covered with the hood of his dry suit so that only his face showed, was as big and bumpy as a boulder. His beard was white, and as fine as cornsilk; like Fergus’s, it was done up in a kind of net. Both monks made it quite clear that they thought that this duty was an insult to their dignity. Neither offered any information about the dragon. No sonar signals, no video grabs, no chemical traces.

“We know it is there,” Finn said.

“Still, I would like to see what evidence you have,” Indira said. “It would

confirm that it is a dragon. The neurotoxins I use are class specific.”

“It is a terrible monster,” Fergus said. “That’s all you need to know. We can no longer work the farm because of it.”

He folded his arms defiantly. They were suited up and sitting in the pressure chamber. Finn and Fergus wore black dry suits and black stabilization jackets; Indira’s suit was white, her stab jacket yellow. Their scooters made the chamber crowded; they had to rest their feet on them. They were ready to go, but Indira insisted on talking first. She wanted to establish a plan of action and emphasize that they must stick to it. She did not trust them. She had filled her airtanks herself, and done all her suit cheeks alone.

Finn said, “We know where its lair is.”

“Lair?”

None of the big macroforms lived in the ice. They were creatures of the open water, spending long periods drifting in upwelling plumes, fixing carbon and storing energy for their attacks. And occasionally reproducing. They had been designed to operate for years—overdesigned, as it turned out. The Quiet War had been a rout.

“It lives in the ice,” Finn said.

“Near the farm,” Fergus said.

They were a double act. The idea appeared to be to give away as little information as possible. It didn’t matter. Indira had worked with less—although of course she had never worked against a dragon.

“We can do most of the work,” Fergus said.

“In fact,” Finn said, “if you give us the neurotoxins we can do it all.”

Neurotoxins were the major expense of hunting monsters. They had been tailored to specific classes of biowar macroforms by the wizards who had engineered them. They were bought on license from the Three Powers Occupying Force, and only hunters were licensed to use them. Grey chemists had tried to isolate the specifics, but they were mixed with several thousand closely related chemicals. Indira had guessed that the vials of neurotoxin were what the monks had been trying to take from her luggage pod when it had zapped one of them. Having failed to get the neurotoxins, they were stuck with her.

“I have already caught and killed one like it,” Finn said, deadpan.

“She doesn’t need to hear that,” Fergus said, with sudden violence. “You were told—”

Finn punched him on the side of the head and the little monk banged against the steel wall of the airlock and shut up, although he glared at Finn with genuine hatred. But Finn was smiling at Indira. He had about a hundred teeth, as gleaming white as an ice cliff. His blue eyes glittered with psychotic intensity.

He said, “I really did. Do you want to know how?”

Indira laughed.

“You’re making a fool of yourself,” Fergus said, and flinched when Finn stuck his massive fist in front of his face.

Finn said, “I didn’t have any fancy gear. No nets or shock bombs or toxins. I fought it one on one. We fought for days. The water boiled with the fury of our struggle. It took me down to the bottom of the ocean, thinking it would crush me and drown me. But I was too strong. It tried to escape then, but I held onto it. I

broke open a vent and seared off its fins and its teeth with the lava that spewed out.”

As he spoke, in a low voice as monotonous as Rothar’s, he brought his face closer and closer to Indira’s. His pupils were huge, so that his eyes were all black and white. Sweat stood out like oily droplets on his smooth, pale skin. His breath smelled bad: acetone, butanol, sweet rot.

Indira was sure that he was flying on something. Perhaps drugs were part of the devotions of these strange, sinister monks. She said, as calmly as she could, “That’s a good story.”

“It’s the truth,” Finn said. “You don’t believe it but that doesn’t mean it isn’t true.”

“We don’t know how many are out there,” Fergus said. “No one knows how often they reproduce. There could be hundreds out there. Thousands.”

“We didn’t need to bring anyone in,” Finn said, still staring at Indira. “I can handle it.”

Indira thought of the tanks in the laboratory under the old mining camp. The analysis had showed traces of metabolites and degradation products consistent with the presence of animal metabolism, although her sniffer had not been able to identify the type of animal. Perhaps Finn had caught a monster. Perhaps they had kept it in one of the tanks they had used to develop their strains of weed, although she doubted that it had been a dragon. A spinner, perhaps a juvenile mako. But not a dragon; even a newborn dragon would have torn up the lab. But why hadn’t they simply killed it? What had they used it for?

Fergus leaned over and dared touch Indira’s knee. His black eyes were liquid with what Indira thought was genuine concern. “He gets wired up,” he said. “Don’t worry. We’ll look after you.”

Finn said, “No more talk. We go.”

Indira told him to wait. She had already checked her equipment, but now she wanted to check it again in front of the two monks, to show them what she had, to show them that she meant business, to puncture their contempt. The spear gun with its hollow tipped spears. The taser. The percussion bomblets, the sticky bomblets, the flares. The diamond mesh drift nets. The sonar. The motion detector. The sniffer.

Both monks watched her closely, but said nothing. They carried nothing but ordinary spear guns and knives; a pouch of the kind of explosive charges used by construction workers hung from Finn’s harness.

“All right,” she said at last. “Let’s do it.”

Fergus allowed a little water in. Although it was filtered to remove its chemical load, it still had the rotten egg stench of hydrogen sulfide. Indira could feel its cold through the layers of her suit.

They busied themselves in the small space, rinsing their face masks in the water and then spitting in them and rubbing the spittle over the inside of the glass of the visors so they would not fog up, checking the seals of their hoods and the straps that fastened the fins to their feet, their weightbelts and the harnesses that held their tanks, putting on their face masks and adjusting regulator mouthpieces.

Fergus carried a little video rack and he switched on its lamp for a moment; harsh light flooded the chamber, bleaching out all colors. Then he opened the valve

all the way and water gushed from the floor vent, filling the chamber in a few moments.

The water of Europa's ocean was at an average temperature of minus ten degrees centigrade. Although its freezing point was reduced because of its heavy concentration of salts, much of the water beneath the icy crust was half frozen into slush: grease ice and firm ice; brash ice and bergy bits. In places, though, currents driven by plumes from hydrothermal vents at the bottom of the sea, fifty kilometers below the surface, carried relatively warm, mineral-rich water to the bottom of the ice crust. Sometimes, currents driven by especially active vents melted the ice crust, and water and slush spilled across the surface of Europa like lava.

Mines and farms were built over vent plumes. Mines sucked up the mineral-rich water; farms grew genetically engineered weed in the European equivalent of tropical seawater enriched with fertilizer.

Even so, the water that flooded the chamber was at a freezing two degrees centigrade. As it rose around Indira, an intense ring of cold gripped her body, rising with the water and inducing a terrific headache right between her eyes. It was as if she had gulped down a liter of ice cream. The cold of the water was already sucking heat through her thin gloves. It stung the little bits of exposed skin where the seal of her face mask did not quite meet the seal of her hood; then the skin went numb. She bit down hard on the, soft plastic regulator that filled her mouth and concentrated on her breathing until the first agony of immersion passed. The air that hissed through the regulator at each breath was dry and metallic.

Fergus was staring at a little handheld videoscreen. It switched every two seconds to show different views of black water under ice. His voice said in her earpiece, "Looks clear."

Finn said impatiently, "They said it was clear. They switched on the lights to make sure that it was clear."

"But the thing can travel fast."

Their voices were thin and muffled and flat, subvocalizations picked up by throat mikes and processed for clarity.

Indira said, "I hope it does come to us. Then we won't have to go far."

"We'll find it," Finn said, and hit a big red button with his fist.

The chamber rotated with a grinding noise. They spilled out into the black water, dragging their scooters with them.

They were in a wide shaft. The bottom of the shaft loomed above, a massive blister of steel studded with grab rails and red and green lights. Someone moved behind one of the thick bullseye ports. The two men angled away and Indira followed. The white vee of her scooter hummed, its vents pushing out water in muscular streams on either side of her, pulling her toward the open water below.

The two men were heading straight out at a fast clip past the finned radiators that bled waste heat into the ocean. They had not waited for her. It was a challenge, a typical male gesture. Indira paused to gauge the current, chose a long flat curve that would carry her ahead of them, and throttled up her scooter's reaction motor.

She had expected the farm to be big, but it was more than twice the size of her wildest estimate. The maintenance lights were on, and she could see that racks of weed stretched away on all sides of the bottom of the shaft, hundreds upon

hundreds of them. Each rack was thirty meters long and five meters wide, bolted to its neighbors in a hexagonal array with orange floatation buoys at each corner; each array was linked at its six points to neighboring arrays and to pylons fixed in the ice roof of the ocean. Weed dangled down from ropes attached to the wire stretchers of the racks, filmy ribbons that in the weak lights glistened violet or purplish red or the reddish brown of dried blood. Mature weeds were a hundred meters long. The whole—weed, racks, rack arrays—flexed sinuously in the current, like the hide of a gently breath-ing beast. A haze of molecular sulfur, the waste product of the weeds' carbon fixation, smoked off it.

Unlike the green plants that decorated Phoenix's public and private spaces, weeds did not need light to grow; the lights were for the workers who maintained the rafts and cropped mature blades. Green plants harvested light energy and used it to transfer hydrogen ions and electrons from water to carbon dioxide, forming the simple sugar glucose, with oxygen as a byprod-uct. But no light penetrated Europa's kilometersthick ice crust and there was no free oxygen in all its deep ocean: a fish would drown as quickly as a human. Like the indigenous microbes of Europa and chemolithotrophic bac-teria of Earth, the weed used reduced inorganic compound containing nitro-gen or sulfur or iron instead of water and light to turn carbon dioxide into sugars.

Most available carbon on Europa was in the form of carbon dioxide dis-solved in the ocean beneath its thick icy crust. There had been proposals to crash a carbonaceous chondrite asteroid onto Europa to supply carbon that could be processed by vacuum organisms, but no one had been able to work out how to do this without splitting the crust and resurfacing half the moon. Shortly before the Quiet War, there had been a halfhearted attempt to reach agreement between the five inhabited moons to establish a carbonmining fa-cility at one of Jupiter's Lagrangian points, but the plan had foundered in ac-rimonious arguments about sharing the startup costs of purchasing mining rights to a suitable asteroid and moving it into orbit.

Before the war, Europeans had augmented their expensive greenhouses by drawing up water and using it to grow gengineered yeasts in big tanks, uti-lizing metabolic pathways copied from the indigenous microbes that grew in the crushing blackness at the bottom of the ocean, around the hydrothermal vents that opened along ridge faults. The European vent microbes had been the only known extant lifeforms in the Solar System other than those of Earth. Their genetic code had been based on triplet base sequences strung on a DNA double helix, reinforcing the modified HoyleWickramasinghe panspermia hypothesis that all life in the Solar System, including the long--extinct Martian microflora, had a common ancestor. On Earth, certain bac-teria had combined and evolved into multicellular eukaryotes, into plants and fungi and animals. Perhaps this step required an oxygen atmosphere -and the more efficient energygenerating metabolic pathways it could sup-port; in Europa's anaerobic ocean, nothing had evolved beyond the level of colonial microbes, which had formed crusts and sheets, lacework baskets and vases, and vast beds of long filaments, around the hot, black, mineralrich water that issued from the vents. Life had not spread from these refugia; the rest of the ocean had been a sterile desert.

Tailored biowarfare viruses released in the Quiet War had destroyed the industrial yeasts and the native microflora. Afterward, a Pacific Community cartel had introduced licensed strains of chemolithotrophic weed. Even with the premium license tax, the weeds were a cheaper source of fixed carbon than algal ponds or hydroponic greenhouses. Those supplied luxury food items; the weed provided the base input of fixed carbon to Europa's expanding population, just as vacuum organisms growing on the methane and carbon monoxide ices and tars of carbonaceous chondrites supplied fixed carbon to the new Kuiper Belt settlements.

In the midst of the monastery's huge weed farm, Indira overtook Finn and Fergus and turned her scooter to face them as they vectored toward her. Her arms ached slightly and she worked one and then the other. Her headache had crept downward, a mantle of numbing cold that penetrated the dry suit and its three underlayers—a fleece liner, a quilted undersuit with a little skull cap, the liner from her vacuum suit. Her fingertips were numb inside the thin gloves; the little bits of exposed skin between hood and face mask were slivers of stinging pain. This would not go away. This would get worse. Yet she felt a thrill of elation vibrating in her core. She was here. She was doing her job. The close possibility of death made her more alive than at any other time. It was not something she could talk about, even with Carr. Only other hunters could understand it.

Above was a rippling ceiling of hexagonal arrays of racks, with blades of weed trailing down like hair; below, fifty kilometers of black water. No sign of any movement down there on her sonar. The chemical sniffer that sampled water every few seconds showed no trace of metabolites specific to biowar macroforms. Her regulator valve rattled; dry air hissed. She checked the elapsed time on her mask's headup display—she had six hours of air in the two tanks she carried on her back, another hour in the emergency bottle clipped to the scooter.

"I think she's made a point," Fergus's thin, processed voice said in her ear-piece, as the two monks swung in beside her.

Boys' games.

She said, "I want to look at the damage this monster did."

Finn: "That's where we're going."

Fergus: "It's at the southern edge of the farm."

Finn: "You follow us. Enough hotdogging."

Yes, boys' games.

She let the men lead.

They traveled a long way through the cold and the dark. Two kilometers, three. An endless skimming fall below waving ranks of weed. It occurred to Indira that she had seen no one working the farm's racks. Surely there should be at least a hundred people out here, harvesting mature plants and stringing new ropes thick with sporelings. When she asked, Fergus said, "That's because of the monster. Which is why *we're* out here."

"You must have a lot of pressure chambers to handle the traffic."

"We manage."

Was that Finn or Fergus? Now she began to wonder how the monastery managed such a huge farm. Where were the facilities for servicing the huge numbers of divers that must be needed? Rothar had shown her the refectory filled with monks

as a demonstration of his power—but there had been no more than a hundred men. Did all of them work the farm?

The creepy feeling, which she had shed as soon as she had powered out into the cold dark water of the ocean, began to return.

At last, an hour after they had set out, they finally reached the damaged section. It was near the edge of the farm. It was extensive: at least a hectare. Lights were blown or dimmed to a greenish glow. Whole sections of racks had been twisted free of the supporting pylons, and dangled disjointedly. Other sections were completely missing; presumably they had fallen away to crushing darkness at the bottom of the deep ocean.

Weed grew over broken racks and twisted wire stringers, made complex knotted barricades that waved to and fro in a strong southerly current. Indira had to keep blipping her scooter's throttle to stay in place. There were patches in the weed that looked as if they had been harvested very recently. It had been done by someone who knew not to cut at the gnarly node where he weed gripped the rope, knew to leave a length of blade to allow regeneration. The cuts were fresh, no more than two or three days old. Had the monks tried to salvage their crop after the monster had wrecked this section? If so, then why hadn't they salvaged all of it?

She said at last, "I've only seen pictures of what a dragon can do, but the damage to the racks is consistent."

"I told you," Finn said. "I told you that I caught one."

Indira ignored this. She repeated what she had told them when they had first met. "This is a snoop dive. We'll look around and then we'll go back and make plans. It should take no more than another hour."

"She feels the cold," Finn said.

"I feel the cold," Fergus said, and switched on his lights and took shots of Indira against the wreckage, moving around her with dainty frogkicks. "Just for the record," he said, when she protested that they were wasting time.

"We do waste time," Finn said. "We go to its lair. Time to finish this. One way or the other."

"Not here," Fergus said. The thin synthesized voice somehow conveyed alarm.

"I know not here. Come."

And then the big man was powering off into the dark beyond the wrecked edge of the farm. Indira followed hard on his heels, riding the smooth water in his scooter's wake to conserve her own scooter's power. She did not believe the story about a lair, but she knew that she would have to look. And then she could begin to make her own plans. She would kill the monster today or tomorrow, and then she could go home.

Another long fall through black cold water. Once, she looked over her shoulder to check that Fergus was following, and saw that already the lights of the farm had dwindled far behind: a linear constellation of little sparks set in the vast cold night of the ocean. They were skimming along just beneath the icy roof. It was not flat, but undulated in long smooth swales, eroded by the relatively warm upwelling current. It glistened blue and green in the wide beam of the lamp of Indira's scooter. Fringes of fiery platelet ice hung down everywhere, delicate

growths that softened the swelling contours of the ice.

Now the roof angled down—a smooth intrusion in the undulating ice, an upsidedown hill. Indira followed Finn down the long slope. Her depth gauge pinged at every twenty-meter contour. She had nanoformed scavengers in her blood that prevented both nitrogen narcosis caused by high pressure and bubble formation caused by too swift ascents, but the scavengers only worked within certain limits.

They went down almost two hundred meters; then the slope steepened into a vertical wall, and they dragged below its inverted crest. Beyond was a chaos of slab ice where part of the crust had broken away and reformed. Habitat-sized chunks of ice stuck out at all angles, transparent blue ice shot through with white stress marks, like a jumble of giant, rough-cut gems. Finn slowed and Indira slowed too. They drifted beneath the jagged chaos and came to a stop near a black rift that led back into the ice a long gently curving slot like a grinning mouth.

“This is where they went.”

Indira did not know if Finn or Fergus had spoken—the distortion of their treated subvocalizations and a sudden surge of adrenaline in her blood obliterated the subtle distinction.

“We will get them back.”

Was that the same voice? Fergus had drifted a little way beneath Finn, who was shining a strong lamp into the rift. Fluted ice reflected its red light in a thousand splinters.

“We finish the matter now.”

That was definitely Finn.

Indira’s chemical sniffer was flashing urgently. She called up the display. Strong metabolic traces, but no positive identification. Were there several types of macroform here? She started the sniffer’s analytical program and said, “There’s something in there. In a few minutes I’ll know what it is.”

She turned up all her lights and cautiously edged into the mouth of the rift. A faint but steady current issued from it. The sniffer’s HPLC kicked in and started to flash spiky lines as it separated the unknown metabolites. She called up the chemical signature of a dragon as an overlay. And there it was, buried amongst traces of other complex chemicals which the sniffer was unable to match against its library.

“Got you,” she said, and something flew past her, a quick flash leaving a wake of bubbles that rose around her like a silvery rope.

Her backbrain recognized what it was and she turned away in reflex before she realized that someone—Finn or Fergus—had fired some kind of self-propelled explosive charge into the rift.

Then it exploded.

The pressure wave clamped around Indira, lifted her, shoved her against the roof of the rift, took her again and dragged her down amongst the glistering smooth hummocks of its floor. Big chunks of ice fell with her, through a haze of chips and fragments that washed to and fro in the crosshatched froth of aftershock currents.

Someone was shouting, a thin voice like tearing metal. “Not this way! Not yet!”

Somehow, Indira had kept hold of her scooter. She killed her lights and crouched amongst ice rubble. Strong, freezing cold currents washed back and forth

over her. There were lights hung beyond the slot of the rift's mouth, two clusters of lights, shining their high beams here and there. She realized that she had been set up. They would kill her here and blame the monster. Because of what she had seen, even if she did not understand what she had seen. Because she was a woman who had dared to trespass on men's territory.

And then something big shot past her. Someone screamed and one of the clusters of lights went out.

It was the dragon.

It doubled back, quick as thought. Indira tried to untangle her spear gun. She had an impression of something black and sleek, with two big fins or flippers that curled around a mansized bundle.

Then it was past, swimming strongly into the depths of the rift. Gone.

It had taken Finn. Fergus's small figure hung some distance from the entrance. "Keep away," he said, as she angled toward him. "Keep away. I'm armed."

She kept going. A spear shot wide, disappearing into the black water to her right. She gunned her scooter and slammed into Fergus before he could re-cock his gun, spun him around, uncoupled the air hose from his face mask.

His masked face was obscured by a sudden flood of silvery bubbles. He waved his arms in blind panic. She counted to ten and stuck the hose in his hand.

"All right," he said, when he had it back in place. "All right."

"You wanted me dead."

"Rothar said it was necessary. He said you would be bait for the monster."

"You were going to video it. You thought I would be almost certainly killed by the dragon. After all, I'm only a woman. And if I *had* killed it, you would have killed me, and made up a story."

Fergus didn't deny it. He said, "Finn wouldn't wait."

"He was a coward. Well, he's dead now. That's what dragons do."

"It has our workers," Fergus said, pointing toward the rift. It was just visible as a shadow crescent cut into the ice blocks of the tumbled roof, at the edge of the overlapping circles of their lights.

Indira said, "If it took them in there, then they're as dead as Finn."

How many had the dragon killed? There were about a hundred monks now, but many more than that would have been needed to maintain the farm....Indira was very cold, and found it hard to follow any thought to its conclusion. Every few seconds, a tremor passed over her entire skin. That sleek black shape. Bigger and faster than anything she had ever seen before...

Fergus made a choking, squealing noise. It was laughter, translated by his throat mike. "Oh no," he said. "At least, they were alive a couple of days ago. They came out to feed. The dragon was with them. They ripped up the perimeter of the farm and disappeared before we could get at them. You, you're one of the dead, though. Rothar has seen to it."

Then he kicked out with surprising strength and broke free. She let him go. If Rothar was determined to kill her, one little monk wouldn't be much of a bargaining chip.

Fergus was a solitary star dwindling through the ocean's black volume toward the distant constellation of the farm. His voice came faintly to her.

He said, 'Finn really did kill one. It was small, but he killed it.'

And then: "Don't try to follow me. You don't have enough air..."

Indira had almost used up one of her two airtanks. Apprehensive alarm suddenly fluttered in her chest. She switched to the second. Gas hissed through the regulator but there was no oxygen, and suddenly she couldn't get her breath. Nitrogen. The fuckers had somehow filled her second tank with nitrogen! She switched back as red and black began to blot out her vision.

She had about half an hour's worth of air left, and the trip back would take at least an hour and a half. She had insisted on filling her airtanks herself, but Finn or Fergus must have done some kind of switch, changing the compressor's inlet from the standard nitrox mix to pure nitrogen. She checked the emergency bottle in her scooter, but she already knew. It had been filled with nitrogen, too.

She did not have enough air to get back, but there was one place within reach where she could get air. The two men had not planned on the monster killing one of them. Finn's scooter with its emergency bottle was gone, still falling toward the true surface of Europa, a fiftykilometer fall that might take three days. But perhaps his main tanks were still intact.

She had no other choice. And there was the mystery of the workers. Still alive, Fergus had said. Something had harvested patches of weed. Something was producing the chemical traces that overlay the dragon's metabolic signature.

She realized then what the workers must be. What the laboratory had been used for.

She turned and powered back into the rift.

Finn's explosive charge had brought down a big ice fall, but the dragon had punched a hole in the middle of it. Indira shot straight through the ragged gap. She didn't have time to waste.

The passage went a long way, rising in a gentle lefthanded curve. It was as smooth as a gullet. The gleaming ice walls confused Indira's sonar, and she switched it off. The sniffer told her all she needed to know: increasing concentrations of the complex mixture of metabolic exudations, including the dragon's fingerprint of methylmalonic acid semialdehyde, α -ketoisovaleric acid, and a triple peak of phosphatidic acids.

When the passage suddenly opened out on all sides, Indira slewed to a stop and fired off a fan of flares. They ignited as they floated away, a string of harsh white stars that starkly illuminated the lower half of a vast chamber. Indira's heart was beating quickly and lightly, driven by anticipation and dread. If this was *not* the monster's lair, then she was fucked. She didn't have enough air to get back out into open water.

The flares floated higher. The chamber was easily twice the size of the Buddhist Temple in Phoenix. Chambers like this were common in the lower part of Europa's icy crust, opened by stress flow and carved wider by intrusive currents until they grew too big, even in Europa's low gravity, and collapsed. It was floored with chunks of ice that had fallen from the ceiling high above and fans of ice rubble

slumped from the fluted walls. The chunks had been worn as smooth as pebbles by currents of relatively warm water.

Movement at the edge of the shifting shadows cast by the string of floating flares sharpened the quick beat of her heart. Belatedly, she remembered to switch on her sonar. A cluster of small signals, things the size of a human child. Had the monster reproduced, then? Yes, but not more than once. That was why it had killed Finn. As for these...

She guessed what they must be a moment before she worked out that the regular signal beyond the cluster of child-sized creatures was that of a set of racks bolted to the ceiling of the chamber. Of course. They had started their own weed farm; the currents that flowed through the chamber were as rich in sulfides and ammonium as those in the open water.

Then a big signal was suddenly coming straight at her, angling down like a guided missile, brushing through the picket line of flares and sending them spinning. She barely had time to get out her spear gun and aim it. There was a very fine tremor in her arms, but now that it was happening she was quite calm.

The thing came on and she did not fire. It was so very fast! She did not fire, and at the last moment revved the scooter and shot under the monster as it swept over her.

She rolled in its wake and brought up her spear gun again as she came around. The dragon had already turned. It hung there in the glare of her lights and the drifting stars of the flares.

She had seen pictures and brief video sequences of dragons, but she had never seen one in real life. No one had seen one in real life for more than ten years. Until now, she had not realized how beautiful they were.

The dragon's body was streamlined and compact, a long wedge of muscle twice her length, gloved in a flexible carapace of long black bony scales. Its fused rear flippers fanned out horizontally like a whale's fluke, far wider than the span of her arms. Its pectoral fins were stretched out like bat's wings. Three of the long fingers grew through the thick membrane they supported; they were tipped with long, sharp, black claws. Its mouth was wide and had a shark's humorless grin, with several rows of backward-tilted rip-saw teeth. Not for feeding—it had no digestive system, fueling itself by pumping sulfid-rich water through internal lamellae dense with symbiotic carbon-fixing symbiotic bacteria—but for attack. It was gaping wide now. Its forehead was humped and swollen, with a band of warty protrusions, electrical sensory organs on which it relied more than sight, although it kept one rolling blue eye on Indira. That eye was unnervingly human; she had the uncanny impression that someone was buried inside the monster's carapace, peering out at her.

No, not at her, she realized. At the spear gun and the spear racked ready for firing, at the spear's explosive hypodermic tip, its charge of tailored neurotoxin. Even if it discharged into the water, the neurotoxin would be enough to paralyze the dragon, perhaps for long enough to kill it. If it could not pump sulfid-rich water over its symbionts, it could not generate energy, and after all this activity, it must have depleted the stored energy in its battery muscles. It would quickly die.

Indira raised the spear gun and watched the dragon shift with precise flicks of

its winglike pectoral fins, keeping its rolling blue eye on the tip of the cocked spear. For the first time in her life, she saw her quarry not as a monster, but as another thinking creature.

Carefully, slowly, she inverted in the water and laid the spear gun amongst watersmoothed ice rubble on the floor. Came back rightsideup.

The dragon hung there, watching her. Smaller shapes gathered high above and behind it, shadows moving to and fro against the guttering light of the flares, which had floated up amongst the hanging blocks of the ceiling. She could hear a faint chirruping of crosstalk.

Still moving with dreamlike slowness, she took the emergency bottle from her scooter and vented it. The dragon sculled backward from the column of bubbles. Oxygen was poisonous to its symbiotic bacteria. But this was only nitrogen, and the dragon eased back to its original position.

Still moving slowly, Indira took off her harness. She was careful not to tangle the hose that led from the one functional airtank to the regulator in her face mask. She vented nitrogen from the second tank. This time the dragon did not shy back.

It knew.

The regulator valve rattled more deeply each time she drew a breath. The airtank was almost exhausted. She hung there in front of the monster, staring at its blue eye, small under the ridge of its swollen bony forehead. It must know that she was not like its enemies. Her dry suit was white and her stab jacket was yellow: compared to the monks' utilitarian black, she was a tropical bloom. And all biowar macroforms had a good sense of taste. It must be able to tell that she was releasing a different set of chemical signals into the cold water, that she was not a man.

The regulator rattled, and suddenly she could not breathe. It rattled again and her rib cage fully inflated, but she could not draw any air. She tried not to panic. She knew that she could hold her breath for more than three minutes. She tapped the regulator, tapped the airtank.

The monster watched, immobile, unfathomable.

Indira stripped off her face mask, spat out her regulator and clamped her lips against the pressure of the freezing water. She wanted so much to breathe.

A rapid fire of clicks and chirps.

The cold salty water stung her eyes when she opened them. Something shot down, swooped between her and the dragon, dropped something, and shot away.

Finn's harness and his airtanks.

Indira dove for it. The mouthpiece of the regulator was halfbitten through, and the airtank it drew on was empty. She prayed that Finn had not switched over to his second tank before the dragon had killed him, jammed the regulator in her mouth, tasting Finn's blood and sputum, twisted the valve to the second tank, and drew a deep shuddering breath.

A bullet of freezing cold sulfurous water hit the back of her throat. She choked on it, bubbles leaking from her mouth, and then realized that she was breathing again.

More clicks tapped through the water. Small figures swooped down out of the darkness beyond and above the dragon. They hung in the black water on either side of its smooth bulk, gazing down as she hooked the hose of Finn's airtank to her face

mask and turned it on full to purge the mask of water as she fastened it over her face. They were half her size—Alice’s size. Thick smooth coats of lustrous grey fur, sad brown human eyes, long vibrissae on either side of snouts swollen to the size of melons—they must rely on echo location as much as sight. They had the long, half-fused rear flippers of seals, but short, stout human arms where their pectoral flippers should be. Their hands were long-fingered, spread wide to show the webs between.

The farm workers. The creatures Rothar had engineered and used as slaves to increase the wealth of the monastery. The creatures that the dragon had freed.

They clicked to each other using the flat, grinding teeth in their narrow jaws. They did not have the symbionts that fed the biowar macroforms. They needed to eat weed. They had to stay near the farm. But the dragon had shown them how they could live free. They could steal racks of weed and use them to start their own farm.

The dragon moved forward. The long terminal finger of one of its pectoral fins scratched something on a table of ice. And then it flicked its body like a whip and shot away into the darkness. The workers trailed after it, kicking strongly through the water. One hovered for a moment, watching Indira, and then a sharp chorus of clicks sounded and it turned and followed its companions.

Indira was alone. Cold and dark pressed all around the little bubble of light cast by her scooter’s lamp. She finned over to the flat table of ice, traced the crude but legible letters the monster had gouged with its clawed finger.

No more war.

Indira got back to the lock with less than an hour of air left. They had to let her in. She showed Finn’s explosive charges to the cameras and mimed slapping them against the hatch to make it clear that she would blow her way in if she had to.

Rothar came to her as soon as she had cycled through. A burly monk stood just behind him. Indira was cold and exhausted, and her dry suit stank of hydrogen sulfide, but she straightened her back and looked right at Rothar. She did not bother to look at the bodyguard.

She said, “Finn is dead.”

“I know.”

“The dragon killed him. Your workers were with it. They gave me Finn’s airtank. That’s how I survived your attempt to kill me.”

She glared at Rothar defiantly. He was looking at a point somewhere behind her left shoulder. The dark blotches on his white face were vivid in the red light of the chamber. Only a slight tremor in his jaw betrayed the effort with which he was suppressing his emotions.

Indira said in an angry rush, “You tried to steal my neurotoxins, but when you failed, you knew you would have to let me go after the dragon. And you wanted me out of the way after I saw the laboratory, but you couldn’t just get rid of me—too many people knew I was here. So you sent me out without enough air. The plan was that either the dragon would kill me and Finn would take my spear gun and kill the dragon, or I would kill the dragon and run out of air, and Finn would mutilate my body to make it look like I’d been fatally wounded by the dragon.”

Rothar told his bodyguard to stand outside the door, and said mildly, “If you

had given us the neurotoxins or let us take them, none of this would have happened.”

“You had to kill me after I found the laboratory.”

“Not at all. We tried to open your luggage pod as soon as you went outside to use your phone. But it was too welldefended and I had to implement a second plan. The only way to get your neurotoxins was to take them from you in the ocean, and the only way to take them from you was to kill you. I let you find the laboratory so that my community would condone your death because you had discovered our secrets.”

Indira was too tired to feel either hatred or fear. She said, “You were certain the dragon would kill me. You expected it. After all, I’m only a woman. Fergus was supposed to video my death. And if I did kill the dragon, then I couldn’t be allowed to live because it would make a mockery of your creed. Either way, I had to die.”

Rothar did not deny it.

“Instead, the dragon took Finn because he had killed one of its scions. I don’t know what happened to his body.”

“We will hold a service in memory of his soul.”

“Your workers have escaped you. They will start their own farm.”

Rothar said, “They will have to come back. They need certain vitamins and amino acids that the weed cannot provide. They know this.”

Perhaps they had eaten Finn’s body. Or perhaps they had taken it with them. It would take a long time to even begin to decay in the cold anaerobic ocean. She said, “I don’t think they’ll be back.”

“Then I will raise some more.”

“And meanwhile, your farm will fail. And perhaps your new workers will escape too. How intelligent did you make them?”

Rothar smiled. “Intelligent enough.” He paused. He said, “Not as intelligent as the dragons.”

She understood. She said, “You were a gengineer, on Earth.”

Rothar looked at her for a moment, looked away. He said, “I was part of a team, Ms. Dzurisin. Unfortunately, I was not working on the dragons, or I would not have needed your neurotoxin.”

“But you used that knowledge to gengineer your workers when you came here. Those blotches on your face—they’re from some kind of accident, aren’t they? You couldn’t get it treated, because then people would know that you had been working illegally. Finn killed a dragon, a juvenile. At first, I thought you caught it because you wanted to learn the secret of how the macroforms can live off the ocean, but now I think he killed it because he could.”

“Finn was a useful man, but his propensity for violence could not always be contained. I did not need to learn any secret, Ms. Dzurisin. I already know how the dragons and the other biowar macroforms live. My workers are a type of macroform that was not used in the Quiet War. I altered their genotype to make them dependent on the weed they grow, but otherwise they are just as they were designed.”

“The dragon that sired the one Finn killed came here looking for its scion. And found the workers.” Indira stared right at Rothar. She said, “I didn’t kill it. But you’ll want to pay me anyway.”

Rothar said, with a note of amusement, “I don’t think so.”

“I think so. I found the dragon but I didn’t kill it, and that’s why you’ll need me to negotiate with it.”

Rothar folded his arms. He said, “We will talk, in my study. Get changed, Ms. Dzurisin. Get warm. Think about what story you will tell your colleagues once you leave here.”

She knew then that she had won.

The bus pulled away from the monastery and began to descend the road that switchbacked down toward the plain. By human clocks, it was the middle of the night; on the surface of Europa, at 2°S 84°W, it was just after dawn. The small, shrunken Sun stood just above the flat eastern horizon. Above it, Jupiter showed a wide, narrow crescent, a bow of yellow light bent toward Europa. Out there, on the plain of ice plates crosshatched by triplebanded ridges, everything had two shadows.

The bus said, “Did you find the monster? Did you kill it?”

“I found something else,” Indira said.

She thought of her daughter and her dreams of sea gardens full of benign animals. She thought of all the children of Phoenix, staring with avid fascination into the darkness of the ocean. She thought of the workers, and the monster that had adopted them. It was smarter than its makers knew. Perhaps it had learned wisdom in the black depths of the sea. Who knew what thoughts, what philosophies, the dragons spun as they hung in the cold and the dark and pumped lifegiving water through symbiontrich lamellae? Perhaps one day, Alice and her generation would find out.

Indira would have to talk with the other hunters. There must be no more hunting for dragons. *No more war*. Perhaps they could help the workers, set up feeding stations where the creatures could get their dietary supplements of vitamins and essential amino acids. Perhaps they could learn the workers, chattering *patois*. Make contact. Cooperate. And begin to make the ocean a place in which to live.

Indira said, “I think I might have found something that Earth can’t do.”

The bus didn’t understand. Indira wasn’t sure that she did, either, but it didn’t matter. Alice and all the other children would.