

Chapter One

At a primate research institute in Leipzig, a scientist was caught disabling the surveillance cameras inside the enclosure of an orangutan who knew two thousand words of sign language. He had with him a container of prunes, the orangutan's favourite snack, and upon these prunes suspicion soon fell; perhaps the scientist let something slip under questioning, or perhaps he was seen casting nervous glances at the container. So the prunes were examined, and a pill was found hidden in one of them. Tests revealed that the pill was a 4mg dose of the memory-suppressing drug bamaluzole.

In other words, he was planning to roofie the orangutan.

After the story got out, nearly everyone assumed that the scientist's intentions were sexual, and this became gag material for comedians all over the world. But Karin Resaint, who had once seen this scientist taking part in a panel on animal cognition – who remembered a remark he had made about unspeakable loss – understood at once that the scientist didn't want to have sex with the orangutan. He wanted something far more extreme.

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She was ready to put the last of the fish into the air when Abdi came running out on deck to warn her. He pointed north into the dusk. Some time ago, Resaint had noticed on the horizon what

she had taken for an isolated storm cloud, the mist tightening as night fell into a knot of heavier weather. But now that it had drawn closer, and she looked again, she could make out the three tall columns at the base of the cloud, like chimneys venting the surge out of the sea. A spindrifter, sailing in this direction. The first she'd seen in all her time on the Baltic.

Her cargo drone was supposed to fly due north. That would take it right into the spindrifter's path, she realised, and it would be lashed out of the air. The storm around a spindrifter was like no storm in nature. It was prodigious not in strength but in geometry. Guillemots and herring gulls, which were unfazed by the most furious winter tempests, got tossed around like waste paper. It was too alien to their wings. And this drone, which most of the time did OK in high winds, wouldn't even know what hit it.

She still had the drone's flight path up on the screen of her phone, so she turned on the overlay that showed other nearby vessels. Abdi pointed out the spindrifter, which on the map was just an anonymous white dot. She bent the flight path so the drone would keep a nice safe distance off to the east.

'Thanks,' she said, touching him on the arm. She looked again at the spindrifter's course on the map. 'It sort of looks like it's heading straight for us?'

'It won't hit us,' Abdi said. 'But also it won't care about getting really close. You want to be inside for that, definitely.'

In any case, Resaint thought, the *Varuna* was almost the size of an aircraft carrier, so the spindrifter would probably come off worse in a collision. Which was a pity, in some ways, because she enjoyed the thought of the *Varuna* getting rent open. Not while she was on board, maybe, but nevertheless this was a ship that deserved to be sunk. That would be a much more productive use of the spindrifter's evening than dazing a few seabirds.

She murmured to her phone, and the drone's rotors began to whirr. It lifted from the deck, trailing four lengths of cable from its underside, until the cables tautened and its cargo heaved up too: a plastic tank that held ten venomous lumpsuckers swimming around in sixty gallons of seawater. The drone continued to

rise until the tank was high enough to clear the railing around the deck, and Resaint felt a sacramental sprinkling on her forehead as water slopped out over the side. Then, accelerating gently, like a stork with an especially precious baby in its sling, the drone set off north over the ocean.

The drone would fly about twenty kilometres to the South Kvarken reefs where venomous lumpsuckers gathered every breeding season, and then dump out the contents of the tank. In theory, after finishing her experiments, Resaint could have just lowered the fish over the side of the *Varuna* and let them find their own way home. They were perfectly capable navigators. But she refused to take the risk. There were so few left. Every one was so precious. Which is why it would have been a particularly shameful mishap if, say, the spindrifter had clobbered the drone so hard that all those fish broke their spines when they hit the water.

‘So that’s it?’ Abdi said. ‘You are finished?’ He was a maintenance technician who sometimes helped her out with her equipment, and they had become friends in her three months on the *Varuna*. He was twenty-six and she was thirty-two. Every few weeks he went home to Malmö. He had a girlfriend there, a nursing assistant. She sounded OK.

‘I just have the rest of the lab to pack up.’

‘And you leave tomorrow?’ He kept his tone flat, hardly looking at her, which of course was the incontrovertible sign of somebody who definitely had no feelings on the subject one way or another.

‘Yes.’ At that moment the *Varuna*’s orange floodlights all came on at once, even though the sky wasn’t yet dark. On these industrial ships the lighting was always cranked so high at night that from a distance they looked Christmassy.

‘Will you miss the fish?’ Abdi said. And then: ‘Why are you laughing?’

She was laughing because Abdi had used the same brisk tone even for ‘Will you miss the fish?’ as if that was just another automatic pleasantry. ‘Nobody ever asks me that. Yes, I will. But I hope I can see them again soon.’ By ‘them’, she meant the species in general – *Cyclopterus venenatus* – not her experimental

subjects in particular. She'd grown fond enough of those that she would be delighted to see them again, but of course she never would. Their strange secondment in the human world was over.

'Really?'

'Yes. I feel like I've barely begun.'

'Wow, OK, so . . .?'

She didn't reply, but she gave him a little tilt of the head. She knew what he was asking and the answer was yes.

Perhaps even the tilt of the head was a mistake. Never discuss your findings before you submit the report. That was the rule in her field. Certainly not with the client, or anybody who works for the client – and least of all when those findings are likely to be disagreeable to that client. That suited her fine, the not talking, because she had never been the kind of person who could only digest each day with a willing listener as her ruminant organ. And on top of that, she had other, non-professional reasons, reasons nobody knew about, for her interest in the venomous lumpsucker, which made her especially cagey about the whole subject. Even with Abdi.

Officially she was here on the *Varuna* to evaluate, on behalf of the Brahmasamudram Mining Company, whether the venomous lumpsucker exceeded a certain threshold of 'intelligence' – a word so scientifically and philosophically embattled that it was almost useless, churned to mud, but that nevertheless had implications for a company who might want to mine a species' breeding ground. And now, because of that tilt of the head, Abdi could guess what her report was going to say. But perhaps he had already. There had been evenings when he couldn't have failed to notice how excited she was about what had happened in her lab that day. No scientist sat down beaming to dinner because they'd found out that a fish was nothing special.

'Do you want to celebrate finishing?' Abdi said.

'Celebrate?'

Abdi hesitated, searching for ideas. There weren't a lot of ways to cut loose on a mining support vessel. Resaint had a bottle of Absolut in her lab, but Abdi was forbidden from drinking by both

his religion and the biosensor Brahmasamudram made him wear on his forearm. Then there was karaoke, which was popular on board. But Resaint was barred from karaoke sessions by *her* most deeply held beliefs, in the sense that she believed karaoke ought to be a taboo punishable by stoning. ‘Cake?’ he said at last. ‘We could eat some cake.’

The mess did indeed offer a decent *kladdkaka*, the Swedish sticky chocolate cake. ‘I think I’m going to stay out here for a bit longer,’ Resaint said. ‘It’s my last night at sea. I’ll see you later, though.’

‘I’ll get you a PFD.’ Meaning a life jacket.

Resaint waved him off. ‘I’ll be fine.’ Technically she was supposed to strap on a hard hat just to come out on deck, even though there was no danger of anything but gull shit falling on her head, but in her case the safety manual was never enforced to the letter.

After Abdi had gone back inside, Resaint stood at the railing looking out to the north, the hood of her anorak raised against the wind. The Baltic was one of the filthiest seas on the planet, full of chicken-farm run-off and birth control hormones and even nerve gas from old munition dumps, but from a vantage like this you could forget all that. The last of the sunset had died out of the mist and the sea and sky were both darkening iron. Her drone had already shrunk beyond sight, but the spindrifter was near enough now that she could make out the ridged shape of its rotors, like three gigantic spinal columns scudding over the ocean, and the red warning lights at their tops, fifty metres above the water. She could feel a change in the air, too, the outer touch of the spindrifter’s storm.

The plan, originally, had been for a few thousand spindriflers, scattered all over the planet. A spindrifter’s rotors looked like masts but were really more like sails, in the straightforward sense that they propelled the vessel forward by getting in the way of the wind. But because they were always rotating at high speed, they could harness that wind in unstraightforward ways, like a tennis ball backspinning off a racket. And as they rotated, they pumped seawater up into the sky, spraying it through a silicone mesh to create a mist

of droplets so tiny that a flu virus would have called it a fine drizzle. The clouds that formed around these droplets were softer than usual, more cashmere than cotton wool, and because of this they were also whiter, which made them reflect more radiation from the sun. So with enough of these spray vessels seeding enough of these clouds, you might be able to hold back the warming of the earth.

There had been a lot of excitement about spindrifters, once. Unfortunately, after a bit of testing, they were found to have certain foibles that hadn't been anticipated by any of the computer models. They whisked up these eldritch low-altitude storms, which were of no concern to anyone but seabirds; but they also seemed to interfere with rainfall patterns, even at quite unaccountable distances away. And rainfall patterns had been brutalised enough already. It wasn't fair to put them through anything else. This time they might really lose it.

After that, the excitement dissipated like a fine-gauge cloud, the optimists turned their hearts to some new prospect, and the armada was never launched. But several different outfits had built those early spindrifters – the competition to save the world being some of the bitterest competition there is – and a couple of them closed up shop without ever getting round to taking their prototypes off the water. So there were still about a dozen spindrifters roving the Baltic. Unmanned, self-navigating, powered by the wind, built from almost incorruptible polymers, these ghost ships would just carry on until a rotor cracked or a circuit shorted, which might take decades.

Such were the new fauna of this poisoned sea. No ringed seals any more, no harbour porpoises, no velvet scoters, no European eels, no angel sharks, and practically no venomous lumpsuckers. But a thriving ecosystem of these faceless pack-beasts: cargo drones and spindrifters and the autonomous mining vehicles that browsed the ocean floor for ferromanganese nodules forty fathoms beneath their mothership the *Varuna*.

By now the spindrifter was less than a kilometre away. The wind in her face was wet and cyclonic and scouring. She zipped her jacket up to her nose and pulled the cord to tighten the

hood. Within a couple of minutes the spindrifter would pass the *Varuna*, and, remembering Abdi's warning, she knew she ought to go inside. But something had caught her attention.

At the base of the spindrifter, which skated on two hulls like a catamaran, she could make out a white glimmer. She thought of sea fire, the phosphorescent plankton that sometimes shone from the waves at night. But it wasn't that. The light had an artificial hue. Yet it was flickering like a candle flame, and anyway a spray vessel, crewless, had no need for any lights apart from the warning beacons up on its rotors.

And then Resaint realised she'd already waited too long. The storm had arrived.

The spindrifter didn't create its own wind, but something about the serpentine airflow between its huge rotors, in combination with the salt fog it spewed out above, was a wormhole in the weather, an anomaly which lured in naive little breezes and turned them out as rabid squalls. This jacket could keep you dry in a monsoon but now her skin was soaked down to the small of her back as if the water hadn't leaked in past the cuffs or the hood but had ghosted straight through the nylon. She felt like chewing-gum under a jet wash, a loose bolt in a turbine engine. Even though she was almost sure the force of the wind couldn't suck her over the side, she was scared to let go of the railing. But she was also scared to just wait out here for the spindrifter to pass. So she started to pull herself along the railing towards the stairs. She wished she hadn't turned down that life jacket.

Her foot slipped. One knee hit the deck. The spindrifter's rotors loomed overhead like the columns of some vast temple half hidden in the mist, their shafts tinted orange by the *Varuna's* floodlights.

She heard a clunk behind her. She looked back. It had been the sound of a door flying open. Abdi was standing in the doorway holding a coil of rope, one end weighted with a steel snap hook. He shouted something – she couldn't hear it over the roar of the storm and the thrum of the rotors – and then threw. His aim was

pretty good: the snap hook nearly walloped her in the face. She grabbed it before the wind could drag the rope away.

And yet she waited a moment longer before she pulled herself to safety. Because she needed one last look at the spindrifter as it passed just a few metres away from the *Varuna*. She needed to be sure she had seen what she thought she had seen.

The glow was coming through a window in the spindrifter's helm. This window was masked from inside by a curtain or blind, but one corner of the blind was flapping back and forth, as if the interior of the ship wasn't quite sealed against the wind. That was why the light had fluttered like a moth's wing. And behind the window, visible only in snatches, a human silhouette. Somebody trying to fix the blind back into place.

The spindrifter had a passenger.

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An hour later, lying in Abdi's bed: 'I thought you had a girlfriend.'

'Yes, but she . . .' He hesitated. 'We have an "open relationship" now. She wanted to try.'

'She wanted to try because you live on a mining support vessel half the year.'

'Yes, exactly.'

'And she's in Malmö.'

'Yes.'

The *Varuna* had a rotating crew that currently numbered eleven men and five women, and sexual relationships on board were forbidden by company policy. Malmö was a city of half a million people. 'Do you ever feel like she got a better deal?' Resaint said.

'It is fine,' he said, not very convincingly. 'I am fine with it.'

She hoped she hadn't spoiled his mood, which had been good even before the sex. After he rescued her, he wasn't cocky about it, but she could tell he was privately elated about his feat of heroism. In hindsight, she hadn't been in any real danger standing at the railing, but if she'd exaggerated it to herself, why shouldn't he exaggerate it to himself too? It was quite sweet. If Abdi ever told anyone about this, he would be able to say he'd reeled her in,

literally hook, line and sinker. And so here she was in his cabin, which was redolent in so many ways of her room back in her first year at university: the textureless blond wood, the soft glow of a light fixture with a T-shirt draped over it, the single bed which barely fit two bodies. After smelling that unfortunate lemon hair tonic on him every day for weeks there was something weirdly gratifying about finally seeing the bottle it came in, like meeting a famous person. She hadn't expected this to happen, although admittedly it was consistent with past practice: sleeping with people when circumstances ensured she would never see them again.

'The spindrifters – would they ever have people on board?' She hadn't yet told him about what she'd seen. Somehow it felt like a secret she'd been entrusted to keep.

'No.'

'Never?'

'Some of them, I think they can do rescue. Like if someone's boat is sinking and there is no one else to pick them up. They have little cabins inside so they can take you back to land.'

But why, Resaint thought, would a castaway, presumably desperate to be picked up, black out the windows of their lifeboat?

Later, she was awoken by knocking, just in time to save her from a steam train bearing down on her across a shingle beach. She was surprised to find the two of them had dozed off together on his precipice of a bed. Her whole arm was numb.

'Karin?' The voice calling through the door belonged to Devi, the *Varuna's* captain. Resaint felt Abdi tense beside her.

'What is it?' No point pretending she wasn't here if Devi already knew.

'Please come out.'

She unfurled her phone. It was four in the morning. For some reason she had no network connection. 'Is it urgent?'

'Yes, it is.'

'All right. I'll be out in a few minutes.' Resaint was pretty sure Devi would want to maintain the polite fiction that nothing illicit had been going on in here. The captain was an extremely fastidious person, which meant she was a stickler where it mattered,

but also preferred to leave the animal lives of her crew unacknowledged. Whether Devi had any animal life of her own was of course the subject of exuberant speculation.

‘I am very sorry, Karin, but if you do not come out right away I will have to open the door myself.’

The bedmates muttered swear words in chorus, she in German, he in Somali. Hurriedly they dressed, handing clothes back and forth like barter, and then Resaint went to the door and opened it. ‘Come with me back to your own cabin, please,’ said Devi, who averted her gaze as if Resaint was still naked, clearly so painfully embarrassed about the whole situation that for a moment Resaint almost felt sorry for her. This would have been a lot easier if Resaint had been asleep in her own bed, instead of – for all Devi knew – interrupted in a moment of forbidden ecstasy.

‘What’s going on?’ Resaint said. She’d rebooted her phone but it still couldn’t find a signal. ‘Has something happened? Is the network down?’

‘It’s not down for me,’ said Abdi. And Devi still wouldn’t meet her eye.

It was this, more than anything, that made Resaint suspect that her situation here had taken a nasty turn. ‘Did you kick me off the network?’ she said. ‘What is this?’

Another polite fiction, a deeper one, was essential to Resaint’s work here. This was the polite fiction of her independence.

There was a reason Brahmasamudram Mining Company had set her up in a lab on board the *Varuna* when she could perfectly easily have worked from the Swedish coast. It was one of those psychological tactics, tribal rites, that lurked so often inside even the most impersonal transactions of the multinationals she worked for. Like most of her clients, Brahmasamudram wanted her to have it always in the back of her mind that, for the duration of her contract, she belonged to them. She lived in their domain and she worked in their domain and there was nothing beyond that domain but chilly Baltic water.

And yet you weren’t supposed to say that out loud. Yes, she was dependent, surveilled, confined, a vassal of the *Varuna* just like

every other crew member. But the premise of her work was that she was a scientist making objective judgements, uninfluenced by the client who was paying for her time. And everybody involved benefited from that premise – from her immaculate priestly aura. For Devi to treat her like this – to reveal so blatantly the coercion behind their hospitality – was a sullyng not only of her current assignment but of every assignment she had ever taken.

At least Devi seemed as uncomfortable as Resaint was indignant. Clearly this wasn't her choice. Somebody was making her do this. 'Your own cabin,' she said. 'Please.'

Resaint knew she could refuse. Devi was hardly going to drag her out of here by her hair. And yet if she made Abdi's cabin into her last stand, things would get a lot more awkward for Abdi, and she didn't want that. 'If we go back to my cabin, are we going to sort out whatever the fuck is going on here?'

'Yes,' said Devi, relieved to see an opening. 'Yes, we will sort it out. I promise. Someone is coming to talk to you.'