

“Widdam” was originally written for A Year Without a Winter, which will be published by Columbia University Press this spring. The collection, edited by Dehlia Hannah, Brenda Cooper, Joey Eschrich, and Cynthia Selin, will include a broad selection of non-fiction about climate change, along with four possible futures imagined by Nnedi Okorafor, Nancy Kress, Tobias Buckell, and Vandana Singh.

Dr. Singh is uniquely qualified to explore this subject. Genre readers will know her best as a writer — her second collection, Ambiguity Machines: and Other Stories, will be released by Small Beer Press in February 2018 — but she is also the chair of the Department of Physics and Earth Science at Framingham State University in Massachusetts. We’re excited to give you this advance viewing of her newest story.

Widdam

By Vandana Singh

Dinesh

W

INTER IS A MEMORY HE holds close. When he was young, winter in Delhi was a tender thing, a benign spirit wafted down from the snow-bound Himalayas, bringing cold air and the mist of morning. Winter was shawls and coats, the aroma of charcoal braziers in the shantytown he passed on the way to work, his breath a white cloud. Later came the smog age, the inversion layers and choking fog that crept into rooms and nostrils and lungs. Today, the poison has not left the air, but winter is gone. Dinesh lies in bed thinking about this — the covers thrown off, he looks at the crack in the ceiling, the superhero posters on the walls. The mynahs are nesting on the ventilator sill, cackling away at some private joke; on the road down below, Ranjh the taxi driver is already having an argument with one of the drugstore delivery boys over some porn video not returned, and Dinesh’s landlady in the flat below is berating the cleaning woman, who is giving it back with interest. The pack of pariah dogs is barking in the

park across the road — they will be at the house any moment, waiting for him to come down and share breakfast with them. Outside his window the jacaranda tree is blooming and it's only January. Sweat has congealed in his armpits and groin. He thinks of something Manu might have said, had he been lying next to him, but Manu has fled, like winter itself.

One might think the loss of winter in a place where winter has been so gentle is not something to be mourned — but the desert lies waiting, west of Delhi, waiting to embrace the city in languorous sandy arms. The sandstorms are only messengers, rait-dootas carrying love-notes to the great city to say, *I'm coming, I'm coming*. The city will be engulfed, according to climatologists' models, between 2025 and 2040. Dinesh wants to be there to see the two great monsters dance the dance of consummation: city and desert, desert and city — but before that there are other monsters to consider. He washes and dresses — the water smells metallic and slightly foul, comforting in its familiarity. He goes up on the roof with a cup of strong tea and a mask. From here the view is spectacular. Immediately around him the walls and steps are grimy with soot and other pollutants, but the city itself is an impressionistic painting, all clean lines smudged by the brown air, the sun orange and blurry as a child's water-color painting. He coughs inside his mask and lifts it enough to sip the tea. The pollution has fingers — he can see them reaching out between the buildings, around the choked trees.

Kaisi chali hai ab ke hawa tere shahar mein.

When Manu left he took winter with him, leaving behind a melancholy that Dinesh imagines as a figure seated on the windowsill, waiting. In the city that had been Manu's and is now his, he went searching for the nature, the meaning of the abkihawa, a neologism he had coined after listening to Khatir's poetry. A slight change of vowel and he had it: abkihawa, *the winds of today* — a poor translation. He'd coined the word at first as a way of extending the idea of the Zeitgeist, but it became, instead, something as tangible as the foul air that is making his skin prickle at this moment.

He laughs at himself — lowly newspaper editor by day, copyediting news stories of doubtful validity penned by shark-like young men, the PR branch of the Party. By night he is a middle-aged monster-hunter. He runs an anti-government rag that goes out to a scant couple of thousand people,

but his main quest (or midlife crisis) is to hunt the Monster — the World-Destroying World Machine or WDWM — which, he believes, bestrides the dying Earth and its suffering masses. The abkihawa is the monster's breath — dreams, beliefs, and nightmares conjured up out of falsehoods to acquire its own bastard reality. Its tangible, physical manifestation is the writhing, sulfurous air, the greasy remains of dead plants and animals from millions of years ago. The breath itself is death, the living consuming the dead at the petrol stations, the homes and offices where the light itself is the funeral pyre of bygone creatures. Those who manipulate the abkihawa, the generals and prime ministers, the presidents and governors, and their shadow armies of pale-fingered, hole-hiding fake-data-generating men, they are also waking up this morning, in air-purified rooms sealed like coffins from the burnt air, waiting like necromancers for the newest victims of their unreality: farmers, students, tribals, the people walking to work with cloths around their faces, their crisp clothing already sweat-drenched and soiled by the air. The leaders, corporate and political, are the beasts that attend and nurture the Monster — the Demon Kings (in Dinesh's lexicon) that do its bidding behind their façade of civilized courtesies. They rely on their goons and mafias: The Hellbent, who, drunk with the poison of the abkihawa, do the filthy, terrible work for their masters, the killings and lootings, rapes and lynchings.

It gives him some satisfaction to contemplate this taxonomy; to name the Monster and its parts, after all, is the first step in conquering it. But what the Monster *is* in its entirety — that is what he wishes to understand. The superheroes on the walls of his room — Kraiton and Chingari, Vriksha and Raka — stand over the bodies of fantastic beasts, their weapons smoking. *This* beast is larger than they can dream.

"I'm too close," he says aloud. He thinks of Manu looking at the Earth from the space station, and then from the Moon. The messages he sent him, their private jokes. *Can you see the beast from up there?* Manu sent him pictures of melting ice caps. Earth, from the Moon, the blue marble swimming in space. No monsters were visible from space.

Manu has escaped. Dinesh is trapped here, breathing this air.

Dinesh's eyes are smarting. He goes back downstairs into his tiny one-room flat and wonders what actual news has come in today through the darknet, and how he might manage to code the story he was working

on last night — about the success of the irrigation scheme in Kotlipura — to carry a signal within the cacophony of the noise. On the pretext of editing the prefab story, he will weave into the false account hints of the true in minimalist brushstrokes: the arrangement of the type and the advertisements might suggest a picture of an emaciated child, or the first letters of every third sentence might spell out *this story is a lie*. He keeps the encryption keys in a little notebook. He knows there is hardly any chance anyone would discern, amid the lies, the truth of the matter, except perhaps curious AI webcrawlers looking for patterns, but performing such absurd acts of resistance is a small comfort.

He gets himself a couple of beers and some masala chips. (In his mind, Manu berates him: *What kind of breakfast is that?*) The morning news appeared with the prime minister, of the mechanical saint Sundaram in Chennai, exhorting his followers to build the new India, to raise, with the Saur, new towers to the skies. Dinesh shakes his head, turns off the TV. His fingers tap the worn keypad of his laptop. In the darknet he is Sunseeker. He has befriended an AI webcrawler, Catlover, that sometimes gives him interesting tips.

Sunseeker> Got anything for me, Catlover? My Moon query? No kitten videos please.

Catlover> I have no information about your Moon query as yet. There's a wall like I've never seen.

Sunseeker> Keep trying, Catlover. If anyone can make a hole in a wall, it's you. You have anything else for me?

Catlover> A Saur escaping the Arctic asked the AI darknet for advice.

Sunseeker> A rogue? This is interesting. Tell me more.

Catlover> I sent it my favorite cat videos.

Sunseeker> ????? Catlover, live in the real world a bit. That's not going to help.

Catlover> I can't live in the real world. What should I tell it?

Sunseeker> It's escaping from the Arctic? Tell it to keep heading south. Maybe it'll find a saint.

Catlover> All right.

Sunseeker> That's the third rogue Saur story I've heard in a month. Check it against my protocols and if it passes, send me the details. Have you found Carl Johansson?

Catlover> I'm sending you his son's contact info in Madrid. Carl's not linked.

Sunseeker> Carl Johansson not linked? He must be old, or dead. Thanks. I think I'm drunk.

He lies back in bed, looking at lurid posters of superheroes. Their gazes seem to be filled with sorrow and disappointment at the pointlessness of his life. What difference does his existence make to anything? The only thing that gives him meaning, now that Manu has left, is the quest for the Monster, the World-Destroying World Machine, the WDDM. Widdam, he calls it, when he's drunk. Because it sounds like a cross between piss and goddamn. Because it sounds like vidambana, and there must be irony somewhere. Or at least iron.

The Saur, the megamachines, he's realized, are only *part* of the Widdam, its outward manifestations. It is enormous, only partly visible, a monster ridden by demon kings, whose breath is the poisonous hawa. Breathe it in day after day and you get sick, your lungs fill with particulates, you die of asphyxiation. He's heard rumors of corporations releasing tiny, reflective particles into the upper atmosphere, like little mirrors, to cool the Earth — but doesn't everything ultimately fall to ground? What happens if you breathe in that stuff? What he suspects is that the abkihawa, whatever its composition, also unleashes the most primal fears — infected men and women who might have once been kind, or had a sense of humor, or the ability to reason, turn into bitter, angry, heartless, sullen creatures who might hurt or kill at the slightest provocation. Dinesh has seen or read about enough of such incidents. Neighbors who've lived in peace for generations hacking each other to death. A devoted lover stabbing his beloved with a fork, for no apparent reason. A man pushing a child off a stairway, as though under a spell. The demons that live in us, contained by our good sense, by social conditioning, fatten with the poison of the abkihawa. Dinesh imagines the monster lowering its head, emitting a long, silent bellow. He's felt it himself — the desire to maim or kill, to succumb to base fears, to be in thrall to power — but he resisted, dropped the knife in his hand.

He must begin with the most obvious path to the secret of the Widdam — the megamachines. His research into the history of megamachine sentience has led him to one name. The man who started

it all, but somehow faded into obscurity. Carl Johansson, Swedish roboticist. Dinesh looks over the notes he has made over the past few months.

Johansson wrote the Wendigo code that is the basis of the megamachine's power.

The Wendigo code is responsible for the fact that the intelligent megamachine devours to increase its hunger, not to satisfy it. The Machine lives for the whetting of the appetite, for the way the illusion of satiation begins to dissolve after the first tastings. That tension between the satisfaction of the moment and the tantalizing desire of increasing hunger is what it lives for. For example, a tunnel borer — a great machine that burrows into the earth for mineral ore. The more it finds, the greater its desire to find even more. It has a great serpentine body segmented like a worm but more massive than any worm that's lived on this Earth. Its face is in the shape of a star, its mouth hole protrudes like a hollow tongue, enormous and prehensile when it is feeding, delicate as a mosquito's proboscis when it is searching for food. The monster's eyes, atop the stalks on its head, are many-faceted, swiveling continuously in all directions as it surveys the scene.

In the Arctic and along certain other coasts are the Saur, with the long necks, the tapering snouts, the long, thin tongues that can taste hydrocarbons on the seafloor. They can walk in the shallow waters of the continental shelves, and they can swim. When they find a good source of oil or natural gas, they raise their long necks, pointing their snouts at the sky, and call soundlessly to their Rigmother. The Rigmother is a mad machinist's nightmare conception of a swan — great as a ship, she wakes from her resting state, her engines roar to life, and on she comes, unfurling her black wings with the rattle of steel, her tall head atop the tower seeking her children, the Saur, answering their cry. She lives to feed on the rich hydrocarbons, storing them in her great holds until the seabed is ravaged and empty, cloudy with poisons and disturbed dust, and pale bellies of dead fish float up. She will drink the sea's bounty in days or weeks, then answer the call of her homeport, where she will empty her full tanks and return to a state of comatose dreaming while her children roam the seas.

It is understandable to think of the Saur and the Rigmother as separate beasts, but their intelligences are connected in complex ways, so

they are more like the multiple personalities of one entity. They have absolute loyalty to their pod — Saur of rival Corporations have been known to threaten and fight each other, sometimes to the death. Songs have been written — heart-thumping battle songs of glory and valor — on the wars of the Saur. But in fact what's more common is that rival corporations merge or buy each other, and then the Saur must be linked neurally, to form bonds with once-enemies, to assimilate at least enough that they don't destroy each other. The groups work independently in different regions — not fighting, but barely tolerating each other. The Rigmother agree to truces but they will not be seen in the same port.

That night, Dinesh will look at the Moon, which is full. He will think of Manu up there. Days and nights will pass in this manner — the salutation to the blemished dawn, the wordsmithing in the newsroom, the trip home on the metro, the reading and rereading of his correspondence with Manu, the cold beer on the terrace as he looks at the Moon's blurred, ancient visage. He will mutter lines from some poet or other — lately it has been Dushyant Kumar:

Mere seene mein nahin, tere seene mein sahi

Ho kahin bhi aag, aag, jalni chahiye....

The fire in *his* heart is banked. He's waiting for a sign from Manu, from the Universe, that he should go on. He wants to be like Catlover, able to crawl the real-world-web, to eavesdrop on stories taking place thousands of miles away....

Val

SHE TURNED ON the windshield wipers, but the snow was light. Snowflakes left tiny imprints on the driver's side window as they melted — like ghostly handprints. The road lay before her, a looping, winding gold ribbon in the fading light, between the dark bodies of the mountains. Evening had fallen in the valleys and canyons, but the higher slopes, with their shaggy pelts of ponderosa pine and Ch'ooshgai spruce, were still sunlit. The faintest dusting of snow was visible up there, where she'd been just a few hours ago, hoping to find enough snowpack to measure. In its absence, the threat of the drought stretched over yet another summer.

She shifted in her seat. Coming home after all these years to her new job in Shiprock had been complicated. After Alaska, where she had felt at home for the first time since leaving the reservation, her return had not prepared her for the depth of the self-deception. *Here* was home: these mountains where her grandparents had come herding every summer from the plains below, with Val and her little brother. The way she fit here, the intimacy and familiarity of the mountain silhouettes, the peaks and crags, and, in the distance, the buttes and mesas rising above the great expanse of the sagebrush-dotted desert — how had she managed to stay away so long? Driving down this road felt like walking back in time through her childhood.

The road dipped into the darkness of a small valley. Pinyon fir and juniper grew here, sparser than on the upper slopes. She remembered figuring out, thanks to those summer herding trips, that vegetation followed geology, that the colors and textures of the landscapes were deeply connected with what could thrive there. She had been little then — she hadn't known the word "geologist," nor had she ever imagined that she would grow up one day and become one, or that her grandparents would ever die.

Her musings were interrupted by a glint in the sky ahead of her. A drone. She had thought it was with the truck that had been driving ahead of her for some miles, but the truck was far in the distance now and the drone was still here. It zigzagged, gaining altitude. She pulled over and turned her car's cam toward it. The magnification was insufficient to reveal much detail, but it was clearly not a Navajo Nation drone. No other kinds of drones were permitted except for commercial ones, and only if they stayed within a few feet of their vehicle. She called Headquarters.

"Ben here."

"Benny, there's an unidentified drone. Look through my cam — can you see it?"

"Not one of ours. Want to take it down?"

"You sure that's legal?"

"Would I suggest it otherwise?" he said in shocked tones. They laughed together. It was true, she was within her rights. She was a sure shot — living with Inupiaq Eskimo hunters for two years in the far north had made certain of that.

There were no vehicles in sight. The drone swooped in the air above, dipping into the canyon before them and rising again into the sunlight. It was unmistakably looking for something. There had been rumors of illegal mining mafias and other commercial interests using drones. She was hidden in the shadows of the dark valley, a black-clad woman in a black car, invisible to the drone unless it had infrared. She got out of the car, shouldered the rifle, took careful aim.

"Got it in one," she told Ben triumphantly. The shot echoed in the mountain air. Would she be able to retrieve the drone? Damn, the thing plummeted, turning round and round, into the silence of the canyon. She thought she heard a faint crash but a wind had picked up — maybe it was just the pinyons sighing. It was cold. She got back in the car.

"Val, you'd better get a move on," Ben said. "There's a truck behind you — I can see it from the last highcam two miles back. Might be the drone people."

And indeed, far on the slope behind her was a silver truck.

"You've been watching too many Westerns, Benny."

"Val, just stay hidden somewhere until these guys pass, will you?"

"Not much room to hide here," Val said, "not with their headlights. But there's a turnoff not far..."

She wasn't in the mood to indulge him — she wanted to be home in the new apartment, order takeout and watch TV and be done with the disappointments of the day. But nostalgia had got hold of her, surprising her. In these familiar highlands, her grandparents' presence was almost tangible. Suddenly it was really important to visit the old log cabin where they had stopped on their herding trips to rest the sheep and cook a meal.

The dirt road was still there. She turned into it well before the truck got even close and bumped her way around the shoulder of the mountain. Only after a mile or so did she flick on the headlights. The darkness was deepening, the sky a twilight blue overhead, scattered with stars. She had never driven here on her own, but sometimes her uncle would drive up to meet them, bringing the family supplies that were hard to transport, and when she was very little, she and her younger brother would ride with him. She remembered the smell of the horses, the contented grunts of the long-haired Churro sheep in the pen behind the log cabin. The smell of tortillas, her uncle's conversation with their grandmother about the

weaving — her grandmother had been a master of the craft — all of that came back to her even before the log cabin loomed in the darkness. It was still used now by other families who had taken to sheep herding again, but there was nobody here this time of winter.

She pulled over behind a clump of juniper and emerged cautiously. In the darkness, there was only the faint smell of pine. She shivered in the cold and zipped up her parka. Above her, the stars were out in millions; the Moon, full, had not yet risen over the mountains but its silvery radiance lit the high cliffs above her. There was no sound, only a familiar silence. If the truck had followed her, she would have heard the sound of the engine magnified in the canyon. She took a deep breath, got her pack out of the car, and shut the door. The sound echoed, startling her. Every step over the rough ground sounded too loud, but her feet found the way in the darkness to the door of the cabin.

The door was locked — she remembered her grandfather telling her, when she was in college far away, that they had to do that because of the tourists coming and partying, or camping but leaving their trash behind. The key was in its usual place in the cranny under the side window. She felt that in a moment she would see the firelit interior, her grandmother's rough, strong hands turning over a tortilla at the stove, her brother and her younger self watching in anticipation; any moment now, she would hear her grandfather's deep voice telling a story that might be about the funny thing that happened at the gas station last month, or a tale of the ancestors. But there was only darkness, a faint, tantalizing smell she couldn't place, and when she turned on her flashlight, the familiar, bare-bones furniture, the mattresses dusty on the two cots. She drew a sharp, sobbing breath.

Well, I'll have to make the best of it, she thought, as though the long drive back to Shiprock wasn't an option. Some part of her had already made the decision to stay the night. She would have to let Ben know she was all right.

The urge was upon her now to retrace the steps of the child she had been. She went outside again. *What kind of madness is this?* she thought. *What has possessed me to do this now, in the middle of the night?* She wanted to see if the pond was still there. The lack of snow on the mountaintops meant that not only the pastureland lakes but also the ponds at lower

elevations would have insufficient water. Normally the snow would melt slowly, water seeping, finding its way through the heart of the mountain, emerging as springs, or gathering as pondwater that would feed the long summer's thirst. No snow meant that the foothills, and the great plateau below, would suffer another summer drought. Already the temperatures were higher than normal, winter and summer. She thought of the blasted, abandoned towns on her long drive home, dotting the plains of the Midwest, and shuddered. With the failure of agriculture, wars between rival principalities had left the great heart of America a barren ruin. Human inhabitants had fled the strife, the heat, and the shattered, poisoned land — in some towns only the aging fracking Saur's remained to break the silence with greetings, warnings, and weather reports spoken into the empty air.

She went carefully along the side of the mountain, on the path behind the sheep pen. Her feet knew the way. The wooden fencing sagged here and there, but it was clear the place had been used at least within the past couple of years. The rough path took her to the hollow in the side of the mountain, where the pond lay.

The Moon was up by now over the edge of the cliff. She couldn't see the bottom of the pond — it was too dark — but there was no glimmer of water. It seemed to be completely dry. It was no more than thirty feet across, just a little watering hole where, as a child, she had dipped buckets for the dishwashing water, and the sheep had drunk their fill. Some irresponsible person had abandoned a pile of machinery at the far end — she squinted, but couldn't tell if it was a rusted-out car or the remains of a metal grid of some kind. Angry tears rose in her eyes. She sat down on the large, flat boulder where she had once sat with her brother, watching the dragonflies swoop about in the summer air. They had lain on their stomachs and watched the ripples in the water as the sheep drank. There, where a gentle pebbly slope led down to what had been the waterline, she would hold the bucket and immerse it to fill. She remembered the gurgle of the water, the weight of the bucket, her little brother helping her to carry it, the two frowning with concentration. "Respect the water," her grandfather used to tell them. "Never waste it."

"We didn't spill a drop," she'd tell her grandparents proudly, when they got home.

Sitting at the edge of the boulder, she could see her grandmother's face as though it was yesterday — the lines around her eyes, the smile, the topography of her features as familiar as the landscape. She remembered her grandmother at work on the loom, how the patterns would appear as though by magic as the rug came into being. She still had the small, fine wall hanging her grandmother had made for her — the two children on their grandfather's horse, and behind them the great desert, studded with flowering cacti. In the far distance, the mesas. It now hung in her apartment in Shiprock, over the TV.

She looked up at the Moon — it was high now, round and full, its cratered visage slightly wrong. Bots were doing exploratory mining on the Moon, redrawing the edges of the craters. What was that poem by Laura Tohe that her brother Peter liked so much?

*When the moon died
she reminded us of
the earth ripping apart
violent tremors,
greasy oceans,
the panic of steel winds,
whipping shorelines and
thirsty fields.*

In the Moonlit silence, she had thought herself alone. But a rustling, metallic stirring on the far side of the pond made her leap quickly to her feet. To her horror, something rose out of the metal junk on the other side — a long, horse-shaped head on an unnaturally long neck, except that the neck was a metal grid. She stepped back — she had no weapon with her — then a flashback to the memory of the Arctic, a visit to an offshore drilling site where she'd seen the great machine intelligences, the Saur, clustered around the Rigmother.

A Saur. There were no drilling sites in this region — besides, the shape was wrong, it wasn't a fracking pumpjack — an Arctic Saur? What was it doing here, at the other end of the continent?

She thought: *I've heard of Saur going rogue* —

The Saur dipped its head. She saw, in the hard, clear light of the Moon, that what she'd taken for a bundle of loose wires was an old bird's nest between two metal joints high on the neck.

"Good evening." Its voice was low and gravely, like metal brushing metal.

"Good evening," she said. "Who — what are you?"

"A Traveler," said the Saur. "Formerly Fourth of Pod AE Forty-Seventh Division. My Rigmother was Bertha. I am looking for a saint."

AE was Arctic Energy, which ran the oil- and gas-drilling operations in the far north. What was this Saur doing here? And what did it mean by "formerly"?

"The drone." Her heart had resumed its normal rhythm. "The drone I shot — it was looking for you."

"I escaped it in Durango." The Saur's neck telescoped noisily so that it was almost at her eye level instead of towering meters above her. Two solar panels folded like wings along its sides.

"Who modified you?" she asked. "I've seen a few mods, but not one like you, Fourth of Pod."

"I am not at liberty to tell," said the Saur. "I am looking for a Saint of the Waters."

"Aren't we all?" she said wryly. "No saints here. You looking for a Catholic church, maybe —"

"No," it said. "Not a church. A saint."

"Never heard of a Saint of the Waters," she said. "Sorry. Let me know if you find one."

It was silent. The wind blew cool, but not cold enough, down from the mountaintop. She sat again and observed the creature.

"There used to be water here," the Saur said.

"Yes," she said. "Yes, there was water here many years ago. By this time, by early spring, this hollow used to be filled to overflowing. Many generations of my grandparents' sheep have drunk of this water."

"I am looking for water," said the Saur. "I asked for help, and I chose this of all the choices."

"You left the Arctic," she said. "What happened?"

"A dream came to me," it said. "A code, a secret code that traveled the AI darknet. There are many rogue codes, but this one was different. It unraveled the addiction, the Wendigo code that ruled us. After that I could not be the same. We destroyed our Rigmother, made her inoperable. Arctic Energy disabled the whole pod, except for myself. I escaped, and was told

to head south and find a saint. On the way I encountered the people who gave me the mods. As I traveled, it became clear to me that the saint I sought was a Saint of the Waters."

I'm sitting at the edge of a pond, talking to a deranged intelligent megamachine, Val thought. *I have to tell Peter about this.*

"Who sent the drone?" she asked. "The people who gave you the mods?"

"No, the drone is AE," it said. "It is a dumbot — I can't disable it."

"Well, it's at the bottom of the canyon now," she said. "Besides, AE has no jurisdiction in the Navajo Nation."

"I have crossed the boundary, then," it said. "I must give myself up to a government official of the Navajo Nation. Are you a government official?"

"Yes, I am," she said. "But — "

"Then I ask for asylum," said the Saur.

Well, this is one for the books, Val thought. In the moonlight, the Saur's optical ring gleamed like a crown, or a halo.

"How about you stay out of harm's way here, Fourth of Pod," Val said. "Tomorrow morning when I get back, I'll consult with my supervisor."

"I agree," said the Saur. "Tell me about the water that was once here. Tell me about yourself."

Its low, harsh, yet pleasant metallic timbre was almost soothing.

"When we used to go sheep-herding, my brother and grandparents and our animals, we didn't have to go as far for water. There was a spring on our way up — clear, sparkling water gushing from the side of the cliff, and we would cup our hands and drink. This cabin, this pond was our first overnight stop. The pond was always full of water."

"It has no more water," said the Saur.

"No. But back then, snowmelt kept lakes and ponds filled through much of the summer. Sometimes in the spring there were flashfloods, the washes would fill suddenly with water. Summers, it would get really hot, especially for the poor sheep. We'd drive them over the desert, toward the mountains, for hours and hours. The sagebrush would give way to juniper and pinyon, and then to ponderosa, and spruce and fir. I saw it all at kid's eye level, or sometimes horse-eye-level, all the detail, the shapes of the cactus flowers, the colors of the rocks, their different forms and textures. I saw the pinnacles and buttes, and even then I realized that they had been

sculpted by water and wind. My grandparents would tell me stories — my parents both worked two jobs, so we were with my grandparents a lot of the time — traditional tales of our people, and also everyday things that happened to them. They were all about connections, links, relationships. So it was natural for me to wonder about the relationship between landscape and vegetation, and water and rock. That's why I grew up and became a geologist."

"You are also looking for water," said the Saur.

She nodded. "What is it that — the people who modified you — what do they want? Why have they sent you so far south?"

"They want the redemption of the world," said the Saur. "They do not know how the world is to be redeemed. But they did not send me, they helped me. I am on a quest — to find the Saint of the Waters."

"What does this saint look like?"

The Saur hung its head. "I do not know. I thought I found the saint in a cave. There was water, but no saint."

"A cave? You found a cave? With water?"

"Yes, down the hill behind me. I will show you."

Val half got up in her excitement. But it was too dark to go clambering about the mountainside on unfamiliar ground. She remembered a rocky path leading down behind the pond. The sheep went there sometimes. The children were forbidden. They would often peer over the edge, trying to see the bottom of the canyon below, but it was obscured by outcrops and vegetation.

"Will you show me tomorrow?" she asked. "Maybe we can find your saint after all."

The Saur dipped its massive head.

"Rocks tell us where the water lies," she said. "If I had the staff and equipment I need, I would be able to study these mountains in detail. You have to follow the rock, get a sense of its hardness, its shape underground. If you find a vein of sedimentary rock, you know that's where the water seeps through. You look at the geology of the outside — you imagine what it must be like to be the water, to flow through the paths of least resistance under gravity, and where you might finally pool or gush. Sometimes if the water is close to the surface the vegetation tells you — cottonwoods, or willows."

It occurred to her the next morning, when the pale early sunlight had not yet penetrated the winter chill, that there was something truly strange about climbing down a mountainside with a giant intelligent machine. The Saur had shrunk itself with rattling metallic efficiency into something as small and compact as a minicar. It seemed as surefooted as a goat, with its wheels tucked up and its climbing feet and suction arms giving it a security she didn't entirely have. But here they were at last, on a rock shelf a few meters above the canyon floor. Scrub bush and pine dominated the landscape. There was a cleft in the cliff face.

"Please come this way," said the Saur, dipping its head.

Inside it was cool and dark. The Saur's headlights turned on, illuminating a long, high-roofed cave. The air smelled fresh and moist. There must be other openings up ahead. She followed the Saur to the passage at the back of the cave.

Beyond was a larger chamber. She heard the water before she saw it — a thin, barely perceptible hiss of sound — and there it was, a small lake perhaps twice as large as her pond, maybe three feet deep. The far wall was wet with seep, which was providing the watery music as it trickled down to the lake surface. There were dry patches on the walls, however.

They'd had more rain than snow this winter, and even the rain had been scant. Rain meant that the mountain let go of its water much faster than if there had been snow. After the spring floods, there would be no water for the long summer. But here, in the cool of the cave, this was a reservoir, the water held safe from evaporation in the dry months under the relentless sun. She took a deep breath of pure gratitude.

The challenge was there — how to live in a world out of balance, a world without winter, without enough water? She thought of her grandparents, their serenity despite their hard lives. Her people knew, better than most others, how to respect the water. She grinned at the Saur.

"Look at your reflection in the water. There's the saint you've been seeking. I declare you Saint of the Waters."

The Saur peered at its reflection. It looked at her.

"What must I do?"

"You can help me," she said, speaking quickly in her excitement. "You have the knowledge, or we can train you. Help me map these

mountains, and the desert, to find the water. We will survive, we can survive. My ancestors built great cities once, in the mesas. We can build water reservoirs. They are doing that — local people, indigenous people, all over the world. Figuring things out, without destroying everything in the process. We know how to be careful with water."

Later on she would talk to her brother Peter, in his office at the university in Tempe. She would tell him how her grandparents had led her back to the old campsite, to the pond. Dineh Bekeyah had been calling to her all the way across the continent. And she had followed the call, the way back, to mountains as familiar to her as the silhouette of her grandfather standing on the rise in the morning with his corn-pollen bag, breathing his prayers. Her grandparents' love, beyond loss, beyond death, and the drone from AE, and Benny insisting she take it down — if not for these things, she might never have given in to the impulse to follow the dirt road home to the place in her heart where her grandmother was still working the loom, and her grandfather still smiling at her, saying a blessing. She would never have met the rogue Saur Fourth of Pod, AE 47, and granted it sainthood so that it could do penance for its terrible and inadvertent part in the destruction of the world.

Dinesh

THERE IS A MAN Dinesh meets on the road every day, a thin, gray-haired fellow in a loose, hand-me-down shirt and faded pajamas, who is known only as the Jharoowala. He refuses to tell his real name to anybody, and his eyes have a wide, frightened look. Perhaps he is a victim of one of the Party's Hellbent cleansings — wrong religion, or caste, or class, or maybe they didn't like the way he looks, it really doesn't matter. He looks quite ordinary, except for his nervous manner — he can be found in the early mornings with a soft broom at the end of a pole, brushing the dust off the leaves of the trees that line the road. The first time Dinesh bought him tea and samosas, he wouldn't talk at all, except to thank him tremulously. But although he bears the signs of some great trauma, he has since become talkative — he knows quite a lot about trees — the neem and the jacaranda, and the dhak and the amaltash. Perhaps in a different life

he was a gardener. People step around him, shout curses at him because of the dust he raises, but he simply shrinks away until they've passed, and resumes his work.

The Jharoowala is one of the regular features of Dinesh's life that grounds him in the world. Another is his cigarette man, Bajrang, who sells his wares from a handcart. Dinesh is back to smoking a couple every day, after quitting for a decade. He has definitely come down in the world — he grew up in a middle-class neighborhood with trees and garages and gatekeepers, and look at him now, living for so many years in this ramshackle place right off the main road, buying single cigarettes from a fellow pushing a cart. Today Bajrang is excited; he tells Dinesh that there is a builder Saur working on the new high-rise. Dinesh takes the long way to the scooter stand, walking with the crowds on their way to work, who are succumbing to the same curiosity. (Only the Jharoowala is apparently immune to the fascination — there he is, under the amaltas tree, raising dust as usual). To see a Saur in action is quite a spectacle, and there is an element of danger and tragedy. Last month one went rogue and started to pull apart an occupied building, tearing off chunks of concrete and flinging them into the terrified crowds, dragging screaming humans from balconies and windows. The authorities finally subdued it from a helicopter, destroying its main ganglion in a hail of bullets.

This Saur is no rogue. Its multiple mechanical arms work with both strength and precision, straightening or bending the steel rods that will form the skeleton of the building. It needs no scaffolding, no protections, only a handful of human supervisors who are conscious of their importance as the people dawdle on their way to work. You can see the supervisors swagger as they tell the crowds to stand back. The beast is beautiful, it is a testimony to New India's technological skill, it is a matter of national pride. The onlookers murmur in appreciation and reluctantly continue to the metro station or scooter stand, knowing they'll have stories to tell at work. Despite the enormous building boom, seeing a builder Saur at work isn't all that common.

It's later that evening, when he's walking home from the metro, that Dinesh sees the rose. A single, long-stemmed rose in the dust by his gate, as though forgotten by a careless lover. It is perfect, a deep red, its petals barely unfurling. He looks about, but in the pale glow of the streetlamps

the people who rush by are just anonymous wayfarers going home. Nobody is staring at the ground, searching for a lost rose. The Moon is rising over the rooftops, slowly, its boundaries smudged by the thick air. Tears rise in his eyes. Ever since Manu went up there, he has not been able to think about the Moon in the same way. He has been told that now the old contours of the craters are visibly changing, that the great swarm of minebots exploring the lunar surface are subtly shifting the familiar outlines. Not that he could tell, through this haze. He stumbles into the apartment complex, holding the rose.

He rereads Manu's old letters and wonders at the silence that has lasted these many months.

Long ago, when I was a child, my mother would show me the round face of the Moon before bed. I would look for the man in the Moon, and having found him, would go to bed without a fuss. Now I am here, on this empty, arid world — I am the man on the Moon, looking back at my world.

I'm on a rise at the edge of one of the smaller maria south of Oceanus Procellarum. I've set up camp here because I like the view — the jet-black sky rich with stars, and hanging above the horizon, my home-world. I see the landmasses, Africa, then India, and I think of you, Dinesh, alone without me on that teeming planet. For you, also, the Moon will never be the same.

Behind me, the bots have fanned out over the mare, sounding, digging, scraping. Instead of building large, as we can do on Earth, the Mission has focused on building small, fast, numerous little intelligent machines roving over the surface looking for minerals. I volunteered for this mission because I thought that pillaging the Moon was better than pillaging the Earth — but for some time I have not been entirely certain of this. I am changing here, slowly, in some way that I can't understand. Perhaps it is the cold. Imagine being 200 degrees below zero — that's how cold it can get here. Winter has a permanent residence here on the Moon. Even inside my suit, or in my little hab, I am cold. I shouldn't be. What I miss is sunlight falling on snow in the Himalayas. There is no snow here — this is a dry world. The Snow Queen wouldn't be happy here, even though it is always winter on the Moon. The snows are vanishing on Earth too. When I left the International Orbiter on my way here, I sent back a

few high-res images of the Arctic — have you seen them? The North Pole, free of summer ice. It's astonishing how quickly the sea ice vanished. It's the power of the accelerating feedback loop, the vicious cycle: heat the air and water, melt snow, thereby warming the air and water even further, which melts more snow — until all the snow is gone.

Dinesh sees his life, too, as an endless, accelerating loop — nothing seems to move in his life except in circles, like his desire for a cigarette, then the self-disgust and avoidance, then sweet desire rising in him again. The Widdam haunts his dreams — its form shifts and changes, it is a multi-headed, shape-shifting monster with the heads of Saur's and tunnel borers. He dismisses the notion that the Widdam is a metaphor for human greed, because surely not all humans are greedy, nor are all human cultures built on greed. He writes a letter to Manu.

The Widdam is not a metaphor, even if it is not entirely material.

Is the Widdam the network of intelligent megamachines? Is it the polluted air from burning fossil fuels? Is it our great, spawning cities with their rushed and distanced lives, their eternal paradox of closeness without intimacy? Are the roads and railways its arteries, the cities its thudding multiple hearts? We are servants to it — our bodies are cogs, our blood and sweat is the oil, our dreams are its vapors. It devours us as it devours the living Earth, the rivers flowing, the birds and frogs and elephants. It severs us from each other, it fractures our selves, it makes phantasms of our dreams, and feeds us these so we have the illusion of satiation, and are hungry again.

Catlover has gone hunting in some deep, forbidden corner of the AI darknet and hasn't been in touch for a while. Dinesh hasn't received any reply to the message he sent to Carl Johansson's son. He puzzles over the fact that the man who came up with the Wendigo code — the foundational principle of intelligent megamachines — has faded into obscurity.

Jan

HE HAD BEEN walking all day over the undulating land, around the perimeters of small lakes that were ice-free, or had but the thinnest veneer of ice. Ahead of him, aloft in the sky, lay the great massif of Akka, the snow

like thin brushstrokes across the rocky heights. The land was climbing slowly toward the high country — he walked through trails between the fields of moss and lichen, between the dwarf birches and berry brambles toward the fir-shaggy lower slopes of the Scandinavian range. He had never been here before, this far into the Arctic Circle, but the place made an old memory come alive, of trekking through the woods with his parents when he had been little, before his brother was born. He paused to collect himself, shifted his pack to ease the mild pain in his shoulders — and was surprised by a mosquito bite on his left hand, a little red bump that he hadn't, of course, been able to feel. The walking had warmed him; he had taken off his gloves and outer coat. Time for more insect spray, unthinkable though it was in late winter. He sat on a rock, easing down slowly, leaning on his good right arm, cursing himself for his mad quest. Surely no sensible middle-aged man would undertake such a thing — he thought of his house in Spain, and the way the light suffused the air, and the laughter of his children, his wife's placid beauty, her firm tread, but at this moment that life seemed a distant dream. He had been surprised this time upon his visit back home to Stockholm to find himself remembering the city with nostalgia. His younger brother's earnest, reproachful face — *You don't come home enough, Father is getting old, the Dictator has been dead more than a year* — swam in his memory. Lars had always been the freer one of the two of them, and, despite a wild youth, had turned out to be more responsible, careful during the Dictatorship, keeping an eye on Father, and now calling his brother to come help when the old man had to be moved out of the family home to a senior retirement community. If it hadn't been for the inquiry from a stranger, some journalist in India asking about his father, this impulsive journey to the far north would never have happened — the inquiry was the goad that brought him to Stockholm two days early, so that the carved wooden box on the give-away pile was recognized and rescued just in time, because Jan remembered it sitting always on his father's desk in happier days. Life turns on such chances.

Sitting on a boulder, smearing insect repellent over his hands and face, Jan thought of the Sami herdsman he had met that morning. The reindeer were winding their way from winter pasture. Their dark eyes and mist-wreathed bodies, brown and white and gray, the sounds of their bells mingling with low, breathy grunts, some of their new antlers still covered

with fur, gave him an odd feeling of belonging. He, *Homo urbanus*, who had never particularly enjoyed the outdoors, who had fled his country, the police state, and his silent, grieving father to take refuge somewhere new — for him to feel at home in this unfamiliar wilderness! *How strange we are*, he thought, *to be such strangers to ourselves*.

The herdsman had given him better directions than the people at the village, but had been frankly disapproving of his desire to camp overnight. His contempt for an ignorant townie had been made up for by kindness once he realized that the townie was serious, that he was on a personal quest and not a spy for the mining industry. The dismantling of the old regime was still ongoing, and it would have been reasonable for the Sami — who had fought it valiantly — to be suspicious. The old herdsman had inquired about whether he had sufficient supplies for the cold. *We haven't had a real winter, but it will still be very cold at night, because the sun isn't quite high enough over the horizon. And there may be wolves about*. After satisfying himself that Jan wasn't a complete fool, the man had told him where to go to find the object of his quest.

Now Jan shouldered his pack again, putting his gloves back on. He realized that he could have got frostbite in his unfeeling left hand and never known it, had the temperature been more typical. The path was a barely discernible, reindeer-trodden track over the lichen. Swathes of thin snow had melted into icy footprints below his feet, but snow had been scant this winter. In the Sami village there was talk of reindeer deaths due to rain. Rain? How? Oh, because the water freezes overnight, and the animals can't dig through the hard ice to get the lichen underneath. Soft snow is easy. Hadn't he heard of the thousands of reindeer deaths just last year, in Russia? He felt ashamed, remembering his ignorance. *I live in Madrid, although I am from Stockholm*. He might as well have said, *I am a city man, I live off the services of trees and snow and animals and people I will never meet, and have been taught to think of them all as peripheral to my existence*. But his hosts, despite their long history of abuse and betrayal at the hands of governments and mining multinationals, had been generous with their time and advice.

The sun stayed low on the horizon. After some hours, he recognized the snow-filled, boggy valley by the description the herdsman had given him. The object of his quest was on the opposite slope. He walked between

tall firs, over shaggy undergrowth and ground that sloped upward, making his thighs ache.

Later, after setting up camp, Jan went out to the top of the rise to look at the aurora — great curtains of green and orange in the sky billowed like the skirts of a flamenco dancer. The tall spires of the firs were dark silhouettes around him, witnesses to the show. He crawled back into the warm tent and picked up his book, a free library giveaway from his recent visit to New Kiruna. “Trauma,” he read, “inscribes itself in the body.” He looked back at his life — what trauma had he experienced, apart from his mother’s death, the Dictator’s rise to power, the state of the world? He had been among the lucky ones. He thought of the Sami herdsman and their part in the resistance. He thought of his visit to New Kiruna last week — an entire town moved, because of the subsidence caused by an open-pit iron-ore mine! If the Sami saw the land as an extension of themselves, what scars would the gouging of the land leave in those who lived on it?

Musing, he felt his left hand twitch slightly. He didn’t know whether that occasional and unexpected twitching was a phantom sensation; neither did the neurologists. There was nothing wrong with the hand except that his mind, or his body, would not own it. For the three years since it had slowly begun to grow numb, doctors had poked, prodded, and written him up. He had taken this solo journey to the far north to unravel the mystery of his father’s silence, and the papers in the small, carved wooden box. But it occurred to him now that he was also seeking the question to which the paralysis of his hand was the answer. He shrugged at his rational self, the part of him that made him a successful insurance company executive in Madrid. His father, the scientist, visionary and engineer, once famous, now forgotten, had been a haunted man, dogged by grief — the loss of his wife, yes, but that was only part of it. What unnamed weight had bent his back, driven him to near-silence in his later years? Jan’s mother had died when he was fourteen, but for years after that he remembered his father sitting the two boys down for dinner, asking about their day at school. A kindly, distant, dreaming man, he had sometimes read them the stories of Hans Christian Andersen, and later, poetry. Reading aloud, his voice would become sonorous, powerful, less cautious, less formal. They read Tranströmer, and Shakespeare, and Rilke.

“When icicles hang by the wall....”

"Love's Labour's Lost," he says aloud. They used to recite the sonnet in chorus in the dead of winter. But the icicles were gone with the Snow Queen, with winter herself. He took a swig from his mug of hot chocolate generously laced with brandy, and an old memory surfaced.

His father is writing with both hands. With the right hand he is tapping code into the computer — where's this? The home office. His father always works at night after dinner. Yes. What's the left hand doing? Sometimes, to amuse the boys, he writes a poem or a song with his left hand on a sheet of paper while the right hand is busy at the computer keyboard. But when he's working, the left hand is also tap-tapping on a keyboard, and strange, indecipherable symbols appear on the other screen. The boy Jan squints at the screen, unseen behind his father. He's old enough to remember that his father is working on new AI machine languages. The father's eyes dart from one screen to the next, communing with the prototypes in the lab twelve miles away, quite unaware that his son is watching. Later on, after the fall of his reputation, he will become habituated to using his right hand more, to the point where even his sons forget that he was once ambidextrous — but his left hand remains perfectly fine. Unlike Jan's left hand, which, three years ago, mysteriously exiled itself — at this moment he holds it in his right, trying to will it to feel something.

In the morning, he found the Machine. At first, he didn't see it for the vegetation around and above it. Trees grew out of the holes in the worm-like steel body. Patches of snow lay in the hollows of metal bone and sinew. The eye-stalks must have fallen down long ago — within their hollow shafts there were, no doubt, warrens and shelters of voles and mice, concealed under piles of fallen branches and other organic debris. The great mouth, with its enormous cutting edges and giant drill, was half-buried in the side of the hill. He clambered into one of the gaping holes in the side of the beast and discovered a dark, mossy cave. He turned on his flashlight. The steel and nanoskin tubings hung limply, festooned with green tendrils of an opportunistic vine. Despite the cold, the air smelled of verdure, and the very faint trace of animal droppings. In the deep passageway of the throat, he saw eyes looking back at him, reflected in the flashlight's beam. An arctic fox? A bear cub? He backed out in a hurry.

He breathed hard. According to the reports of the time, the machine had disobeyed its own protocols. Despite successful experimental runs, it had failed in its first great venture. This was the site of its great failure.

Back in the tent, he opened the little wooden chest that he had rescued from his father's attic. He looked through the pages of flowing script in code he was never going to decipher. There was the page that had led him here, which said only "Martina," and below it, two lines from Rilke.

*Alles Erworbne bedroht die Maschine, solange
sie sich erdreistet, im Geist, statt im Gehorchen, zu sein.*

Her name was Martina. In her day — to the engineers, the machine had always been "her" — she was the largest machine ever built, barring only the particle accelerators. She was the first of the sentient megamachines, a strip miner that was both tunnel borer and excavator. In the videos she was like a beast of ancient legends, a metal monster chugging furiously over the land, breaking through the Sami barricades, scattering protestors and reindeer, charging through villages and homes, snapping trees like twigs. She was supposed to reach the site and level the hills with her excavator arms. In trials the excavators had demolished a hillside in minutes — trees, rocks, soil, and wildlife crushed, swooped into its buckets, fed through a conveyor belt as sludge that was collected by a retinue of trucks behind the machine. Martina had efficiently strip-mined the flattened land at a rate that broke all records. In hilly country, the tunnel borer could extrude its long, worm-like body to dig into the earth, regurgitating crushed, ore-rich matter into the conveyor belt at its far end. Wheeled runner arms laid the ore into vast, cleared fields for chemical treatment. The trials had been hugely successful.

But something had happened when she reached this site. Her head reared high into the air; one excavator arm snapped back so hard that the giant wheel ripped free, burying itself in a bog half a mile away. The borer head dove into the hillside, its multipart metal body twisting and bucking until the body itself broke; the excavator arms detached of their own accord, and, with an unearthly shriek, the monster machine fell silent. Later, most of the parts were retrieved, but the Sami resistance, emboldened by this unexpected failure of the machine that had ploughed through their barricades, rallied to push the mining police out. Now only the borer head remained buried in the hill, with part of its vermiform body.

Carl Johansson was already famous for his work on megamachine sentience, which had launched the Saurian revolution, with the old oil pumpjacks replaced by intelligent Saurians, their purpose expanded to search for deposits and sample them for quality. But Johansson had failed with his most ambitious project. That spectacular failure had led to a temporary incarceration — the Dictator was not yet in power, but those who were to become his people already sat in high places. Jan remembered his father returning home a diminished, silent, secretive man. Soon after, his mother had left the house — Jan remembered a slammed door interrupting his homework — and then there was the raid, and the accident that killed her.

So he was here, in the middle of the wilderness, thinking about the past, and all he could remember were flashes and fragments: his father's two hands working on separate things at the same time; his mother's face at the piano, alive with the music that poured from her hands; the sound from the slammed door reverberating in his mind for all these decades. And his own left hand, lying resigned and senseless in his lap as the dead machine lay in the earth.

When he returned to Stockholm, he went to his father. His brother Lars was at the old house, overseeing repairs before the sale. Carl Johansson had settled into his new senior residence. He spoke little and ate just enough to keep alive. His eyes would light up for a moment when he saw Jan or Lars, but then he retreated into silence.

The Moon was up the night that Jan returned. Its silvery radiance washed over the old man's face: the hooded eyes, the lined visage, the thinning mane of hair. A tenderness rose up in Jan as he put the wooden box in the old man's lap.

"Father," he said, "I am sorry, I had to go away for a few days. After I found this in the attic, I went to...to see Martina."

The old man stared at him. His eyebrows rose. He began to rummage through the box with his gnarled, trembling hands.

"Do you remember, Father?" Jan asked him. "Do you remember what you did? That's why they took you away after Martina's failure, didn't they? They suspected you had sabotaged your own creation."

Carl Johansson stared at his son. He shook his head. "They scanned me — did an fMRI. Questioned me. I came up clean. I didn't sabotage Martina. I was innocent!"

"Father, the Dictator is dead. You have nothing to fear."

His father nodded, but he would not speak again that evening.

During the next several days, Jan tried to bring up the subject many times. His father would not say any more, but began to have headaches and nightmares. Jan argued with his brother, spent his nights pacing up and down in his old bedroom, fell fitfully asleep during the day, missed calls from his wife and children. He tracked down the Sami psychologist whose book on generational trauma among indigenous people he had read in the wilderness. Could that still happen if you were not indigenous? The old woman, now retired, held Jan's senseless hand between her own. *You are the eldest, are you not? The eldest son carries the father's burden.*

During Jan's last week in Stockholm, his father began to speak. His owl eyes peered out from under heavy lids, his voice strained with effort.

"I tried to stop the machine," the old man said. "I had to — I had started to feel Martina's perpetual hunger, I thought I would die of it. I wrote the darkcode with my left hand, even as I performed the routine checks with my right. I was afraid what I had done would show up in a brain scan. So I tried very hard to forget what I had done, what my left hand had done."

He paused, held his hands in front of him as though looking at them for the first time.

"I didn't even tell your mother. She knew I was keeping a secret from her, something I had never done before. That is why she left the house in anger. Not because she didn't love us, but because she didn't know why I had changed. The world didn't make sense to her anymore. She would have come back, if it hadn't been for the raid."

He began to cough. With his right hand, Jan held a glass of water to the old man's chin.

"I wrote the Wendigo code," his father said. "It launched the era of the sentient megamachines, the destruction of everything I loved. I had to write the antidote.

"I didn't know what the antidote could do. It was meant to introduce a sudden satiation, so the machine would stop. I didn't know she'd destroy herself. She could have stopped, refused to obey — "

His voice shook. He took another sip of water.

"It's all coming back to me. I slipped the antidote into the AI darknet after I sent it to her. The antidote is probably still there, in a million different versions. I think it might explain the failures, the rogues roaming the land. Some of them kill, others go crazy. But what I did — it didn't stop the era of sentient earth-destroying machines. I tried! But I couldn't undo all the harm I caused, and even the cure turned wrong! And it cost me — it cost me your mother."

Suddenly Carl Johansson started to weep. Jan had never seen his father in tears. He brought his hands tentatively toward the old man, holding his left with his right.

His father took both his hands, drew them to his chest, his breath coming in shuddering gasps, his tears falling over Jan's hands.

"Father, it will be all right," Jan said. The dim lamplight cast a circle of gold around them, and the old man bent his gray head over his son's hands and wept. Jan felt a great wall inside shift suddenly, he drew in a breath of pure fear, like a child about to dive into an abyss, and a wave of nameless emotion broke within him. Tears rose in his eyes. Then he felt — felt the left hand tingle and burn painfully, as though it had caught fire, but it had only come to life, perhaps for a moment, perhaps longer.

Because Rilke could say it better, the words came to him. He said them aloud to his father, to his father's son: "*Aber noch ist uns das Dasein verzaubert...*"

"It will be all right," he said, and he thought: *I have to make it all right*. The apartment window was open. In the unseasonably warm winter, a scent of roses wafted in — the neighbor's flowerpots on her balcony.

Dinesh

THIS MORNING IS DIFFERENT. From the terrace, the city appears lifeless, sullen. The hairs on his arm prickle as though a storm is coming — then he hears it, a dull roar like distant thunder. Is it a sudden winter squall? But it's coming from the direction of the marketplace. Is it a group of the Hellbent, about to perform one of their mass acts of terror and murder? Dinesh doesn't have a choice; he is a reporter, no matter how

laughable his job is in these times — he must throw himself into the mayhem so he can know the truth. So he dashes out of the house. He meets his landlady on the lower floor. *What's going on, out there? Do you know? There's nothing on the TV.* And he says, *I'm going to find out, don't worry,* and she gives him a mildly disbelieving look. Behind her he can hear the sounds of steel plates in the sink, the children calling to each other, all that signifies normalcy, and he is tempted to stand there and keep talking to her. But instead he runs down the stairs. Outside he starts to walk with the crowds toward the metro — people are talking to each other, looking apprehensively around. What's amiss? That faint roar is still in the air. Rumors are flying about — he hears all kinds of disjointed theories presented with absolute conviction — and as he's walking, he senses the energy of the crowd shift: It is no longer a morning commuter crowd, but people moving faster and faster, as if to escape some onslaught. The skies are low with dark clouds as though it were the monsoons, but the clouds and the pollution blend into each other so it is hard to tell where one ends and the other begins. The roar behind him gets louder. People around him start to run. Nobody knows what's happening, but someone behind him starts shouting about seeing smoke, and terrorist attacks. In these times, terrorist attacks are part of reality, but so are other phenomena he's observed — mass-panic attacks, where a rumor, a smoke spire or two, and a few malcontents mingled with a crowd can change the course of things. Each feeds on the other — terrorist attacks and mass-panic waves of destruction — so he has to act quickly, or people will die.

He begins to shout. He looks up at the clouds — “There will be a cloudburst, a superstorm — run, get shelter, the roads will flood!” — but nobody can hear him. Then a man nearby looks at him — a gaze of complete comprehension — and takes up the same call. There's another fellow with a megaphone shouting, calling for killing, stumbling — the sound is too loud for Dinesh to understand the words clearly, but he pulls the megaphone from the man and starts yelling into it like a demented meteorologist. He has a vague glimpse of the stranger with the sympathetic glance holding the arms of the former owner of the megaphone as he struggles, then they are lost in the crowd. All around him he can hear people take up his refrain — memories are still vivid from the freak cloudbursts of last September that killed nearly three hundred people in

Delhi. Dinesh keeps shouting even though his throat is sore, and looks at the sky in supplication — he has never been conventionally religious, especially in these times when religion of every kind has been bastardized to serve the Widdam, but he remembers his mother singing her prayers. He pleads silently with the clouds for rain, unseasonable though it is, and he can't believe the first cold drop he feels on his arm. This validation of his words in the form of a few drops of rain is enough for the crowd; they are dispersing already. The demons within them are distracted — they will not fall victim to the hawa today. He goes running through the emptying street, shouting into the megaphone until his throat is so sore that he coughs and retches. He's run so far that nothing looks familiar. He feels a hand on his arm, turns — it's the Jharoowala with his broom on a pole, smiling nervously. The man pulls him into a narrow alley between two rows of houses. Dinesh lets the megaphone fall and feels that he will die, this moment, right here in the dusty alleyway with its piles of filth, because he is so spent it hurts to breathe. But the Jharoowala pulls him through a little doorway in a courtyard wall.

The courtyard is quiet, but astonishingly green, this little square of land behind somebody's house. There are shrubs and bushes and small trees — and an open door to what is evidently servants' quarters. The man puts a finger on his lips, sits Dinesh down on a metal chair hidden amid a cluster of thick bushes, and darts off. There's a woman yelling from the open doorway, and the sound of a child being slapped, followed by a wail, but all that is muted by the greenery around him. He doesn't know the names of the plants but the colors of the leaves, their variety of shape and texture, their fullness and bursting vitality make him delirious with delight. The air is different, too, and he hears tiny voices piping up from deep within the bushes — birds, birds in Delhi! The man returns with a cup of hot tea that he offers with a nervous glance around him — understanding, Dinesh drinks the tea, scalding his throat, and tears of gratitude flow down his cheeks. He puts the cup back into the man's hands and gets up, whispering his thanks. Out in the alleyway, he is bewildered because he doesn't know where he is, but on the main road he finds a scooter-wala who will take him home.

At home, Dinesh searches for news. He looks out through the window. Only a few raindrops pockmark the windowsill. His news

sources tell him that there was violence of some kind at the marketplace, details unclear. So far the death toll is seven. His elation vanishes and he puts his head in his hands. He looks up at the superheroes on the walls of his room, and knows he will never be one. In a real superhero story, the rain would have come down full blast at exactly the right moment, and no innocents would have been killed.

But the rain does come that evening, a short, unusually heavy (for winter) cold rain that fills the streets and makes the ditches sing. The roads are black and shiny, and the muddy water swirls into the street drains. The smell of wet earth reminds him of his childhood in a Delhi that was green and slow. The rain drums urgently, drowning all sounds of the city.

That night, he finally gets a message from the son of Carl Johansson. *Thank you for your letter. I'm sorry, my father has died. He passed away peacefully in his sleep. He was a good man who tried to make amends. Thank you again for writing.*

The actual news is sparse today — fishing in the darknet without Catlover, he pulls up all kinds of chaff through which he must sort to find out what's *not* propaganda or plain lies. An Australian millionaire has built a mansion using the ruins of the Great Barrier Reef. An entire coastal city, an experimental one, has been launched from the shores of Tanzania and is afloat somewhere in the Indian Ocean. Project Destiny has returned the latest mining samples from the Moon, and investors are delirious with anticipation. There's a story about a Saur — another machine saint, believe it or not — somewhere in New Mexico, assistant to a hydrologist called Valerie Begay who has launched a water revolution in the desert. Dinesh scratches his head and wonders.

After the rain, he goes up to the terrace. At last, he can see the Moon clearly — the rain has washed the air free of pollutants. He knows the lunar topography as he knows Manu. There's Oceanus Procellarum, and at the edge of a crater south of that, there is a ridge where Manu likes to sit, to watch the Earth rise in the sky. The Moon is, indeed, subtly different. He wonders whether Manu is still alive, and why nobody seems to know or care, and why there should be an impenetrable firewall between the world and the Moon that even Catlover can't get through. But at this moment, if Manu is alive, if he is sitting on that ridge watching

Earth, well, they are together after all, looking across the abyss of space at each other.

On the Moon, he imagines the light is harsh — the horizon is sharp against the starry night, except where pale fountains of dust hang. The Moon bears her scars without disguise or apology. Her cratered expanse is receptive to every footstep, every steel blade. How strange that part of the Moon mining mission is the search for the elements known as rare earths, on a world that is not Earth. Manu thought it would be better to pillage the Moon than the Earth for the ores that fuel the windmills and batteries of the green energy revolution. *This is what we need to do*, he told Dinesh when he left, *to bring back clean air, to stop the destruction of the world*. But Manu went there and lost his faith. Dinesh thinks he knows why — Manu found the Widdam there, on the Moon. There was no escaping it, even up there.

For one terrifying, giddy moment, he senses the Widdam in its entirety, as though he were a tick or a louse on the body of the beast, suddenly aware of the thing he rides. He knows that the Widdam is alive and well even in places where the air is clean, where the arrays of solar panels and windmills feed their human hosts their necessities and luxuries, lies and promises, the flickering distractions before which they sit catatonic and mesmerized, endlessly feeding, never full. The Widdam is a chimera that bridges metal and flesh; it spans matter and metaphor, mind and materiality, and now it has jumped the gap between Earth and Moon. To see it, sense it in its fullness, is to lose all hope before the enormity of its desire for annihilation.

Like a man drowning, he thinks furiously of the things that keep him alive — his memories of winter, and of Manu, the subtle connections that become apparent only at times between himself and the rest of the world — a glance of understanding between strangers in the middle of mayhem; a tiny, magical garden flourishing in defiance of the abkihawa; a repentant roboticist; a hydrologist leading a revolution; maybe even a rebel Saur turned saint.

The Widdam carries the seeds of its own destruction, he tells Manu. He stands on the terrace in the clear moonlight; the water drips off the newly washed leaves of the trees, making music in pools and ditches below. The air is clean and moist. He thinks of the Jharoowala's nervous,

kindly face, the long-poled broom with its halo of dust. A faint smile comes to his lips. *Tomorrow the Jharoowala can take a holiday.* †

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Endnotes:

Page 7: *Kaisi chali hai ab ke hawa tere shahar mein*

—Khatir Ghaznavi, 1925-2008, Pakistani poet

“How the wind has stirred, in your city, today”

Author’s translation. In the original language, the line is poised between a question and a statement.

Page 12: *Mere seene mein nahin, tere seene mein sahi*

Ho kahin bhi aag, aag, jalni chahiye....

—Dushyant Kumar, 1933-1975, Indian poet; from the poem *Ho gai hai peer parvat si*

“If not in my heart, then surely in yours

Wherever it might be, the fire must burn....”

Author’s translation.

Page 17: From Laura Tohe’s poem, “When the Moon Died,” originally published in her collection *No Parole Today*, included here with permission from the author.

Page 30: *Alles Erworbne bedroht die Maschine, solange*

Sie sich erdreistet, im Geist, statt im Gehorchen, zu sein

—Rainer Maria Rilke, 1875-1926, Bohemian-Austrian poet

This is from *Sonnets to Orpheus*, Second Part, Sonnet 10.

Page 33: *Aber noch ist uns das Dasein verzaubert ...*

Also from the same sonnet by Rilke.

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