

## REQUIEM FOR THE FUTURE

Writing a novel about catastrophic climate change.

I can't remember when I first heard about global warming. It's such a familiar subject, it feels as if it's always been part of my life, but that can't be true. I can't have known about it for more than fifteen years, and it was certainly a matter of time, a few years or so, before I took it seriously. The horrendous consequences of desertification do form one of my childhood memories though. One of the first things I ever wrote was prompted by a school trip to Lake Turkana in Northern Kenya, an area suffering severe drought at the time and still today. It was an elegiac *cri de coeur* about deadly injustice and direst poverty entitled 'The Sadness Of Dried-Up Rivers'. I could still picture the emaciated people we saw for months afterwards, and it was a long time before I could rid myself of a basic feeling of deep disquiet. At first I found it hard to visualize the concrete impact of global warming: my only picture was of a woman in Northern Kenya with the flesh hanging off her bones, who had clung to my arm and insisted over and over that I couldn't leave until we'd overcome the drought – together. 1 or 2 degrees, 60 or 80 centimeters, 450 or 500 parts per million - it was obvious the projected, fiercely disputed figures implied grim consequences, but I couldn't get a sense of them, I couldn't see them, my imagination didn't spark into life. As a citizen I was helpless, and as a writer I felt dependent on second-hand images.

So I probably would never have embarked on a novel about global warming if I hadn't been troubled by a dream, or rather a nightmare. It was of a man lying prone on a scree-covered slope, surrounded by what had once been a glacier. The man was a glaciologist, and he had lost the object of his study and his lifelong passion. He seemed infinitely sad and defeated. That was my dream, and it imprinted itself all the more deeply on my memory because it hadn't arisen out of anything even remotely to do with my life. I'd never seen the man, and, at that point, I didn't know a single glaciologist, nor had I really had any close dealings with glaciers myself. Years earlier, I had traveled to the source of the Ganges on the Gangotri Glacier and, without dwelling on it particularly, had written, 'In the Himalayas, the glaciers are thawing, as if humankind has left the freezer open'. I had also quoted a prophecy in the thousand-year old *Brahmavaivarta Purana* that one day, when the sins that are washed off in the *Ganges* have become legion, the river will hide itself away under the earth. Incidentally, the media recently announced some good news on that score: rather than in 2035, as had previously been claimed, this won't happen until 2050. But, other than that, I hadn't had anything to do with glaciers when I had the dream.

I couldn't seem to brush it off. The more I thought of the man who had lost his glacier, the deeper he seemed to spiral down into existential doubt and disillusionment about the nature of civilization, which brought with it a thoroughgoing rejection of

our economic system, way of life and structures of belief. To paraphrase Goethe:

Er sprach zu mir, er sang zu mir;  
Da war's um mich geschehn;  
Halb zog er mich, halb sank ich hin  
Und ward kaum noch gesehn.  
(He spoke to me, he sang to me;  
Resistance all was vain;  
Half was I pulled down, half sank I in,  
And ne'er was seen again)

So the two of us set out in search of release or a cure, and, for a time, we found them in the place where the ice and the glaciers have so far escaped the great thaw, the Antarctic. I imagined the former glaciologist signing on to a cruise ship as lecturer, expert and guide. The Antarctic's pristine state exhilarates him, obviously, but, at the same time, he feels tormented by the knowledge of what will become of it when humans take over. Visions of its rape and plunder are triggered by the slightest events, a soldier tossing away his cigarette butt in penguin breeding grounds, an accident involving another ship, passengers' arrogant or thoughtless remarks. The Antarctic is the last sacred grove on earth, and the idea of it being destroyed is so unbearable to him that he comes to a conclusion: it is incumbent upon him to prevent humans encroaching on it any further.

Whereas the Arctic's neighbors are champing at the bit to exploit its mineral resources (a state of affairs that has recently led to diplomatic wrangling between Russia and the USA and nearly provoked a military incident between Canada and Denmark), the Antarctic Treaty, which remains in force until at least 2048, prohibits all commercial exploitation and freezes any territorial claims to the region. People may already envisage the end of the Arctic as sober fact, but the Antarctic can still be saved. This dichotomy will determine the structure of my novel, a Manichean one. As its protagonist puts it, 'The Arctic and Antarctic, ladies and gentlemen, represent radical antitheses. One is seasonal ice, the other a continent. One is inexorably melting; the other is a sheet of ice four thousand meters deep. One is doomed to destruction; the other relatively well protected and by no means yet lost. One is a mirror of our destructiveness; the other a symbol of our enlightenment. To summarize: bad above, good below: Hell above, Heaven below. These, ladies and gentlemen, are the twin poles of our future.'

It's easy having an idea. Tallying it with the facts, imbuing it with plausibility and credibility isn't that hard either. The real difficulties start when you try to commit it to paper. Writing not only fleshes out ideas, it also throws up a host of problems. How do you write about the Antarctic, which can only be visited for brief periods? How do you write about the last Terra Nullius, a land that no state owns and no one inhabits? How do you write about a landscape that has barely featured in literature, humans tending to

leave undescribed places they don't inhabit. Searching through the world's literature under the keywords *iceberg* or *glaciers*, it's amazing how little comes up. Very few authors have devoted themselves to the Antarctic. The American writer Nathaniel Hawthorne, for instance, was actively prevented from joining Wilkes' famous expedition because 'the style in which this gentleman writes is too wordy and ornate to transmit a genuine, levelheaded impression of the atmosphere of the expedition. Furthermore, a man so talented and cultivated as the aforesaid Mr. Hawthorne will never be able to grasp the national and military significance of any discoveries it may make.' That, at any rate, was the explanation given by an American politician, since the question as to whether an author should be permitted to go to the Antarctic was debated in the House of Congress. I, on the other hand, simply had to email a Norwegian shipping company.

A ship, then, as the scene of the action, a non-place in motion, its destination uncertain. Ships have always been the paradigmatic setting for escalating tragedy, isolated as they are on the perilous high seas, far from life's usual tamed rivers, closed spaces, in which representatives of humankind can indulge their folly. Sebastian Brant used the conceit in his morality play cum satire *Der Narrenschiff* in 1494. His trenchant mixture of castigation and instruction focused on the seven deadly sins, of which only two are significant now and of relevance to the novel: pride and gluttony. Almost 500 years later Katherine Porter wrote *The Ship of Fools*, a

remake, which, as she explained, envisages the craft as ‘a universal image of the ship of this world on its journey into eternity,’ stopping off in the, by now, all too imaginable hell of National Socialism. The universal image is exactly the same as in Brant’s time; only the conception of eternity has changed.

And so I embarked on one of the luxury cruisers that ply between Ushuaia in deepest Patagonia and the Antarctic Peninsula in the austral summers. We sailed down the Beagle Channel, past landmarks graced with names such as Mount Misery and Cape Deceit, Last Hope Bay and Fury Island, which seemed a good sign from a literary point of view. I soon succumbed to the poetry of an unfamiliar landscape, and sought ways to express it. ‘Waking early, I go out for a run, sixty fast laps on the weather deck in the sleepy grey light. The waters circling the Antarctic flow round me, and so there we are, the ocean and a man who’s just woken up, doing our clockwise laps together, it reminds me of the temples in Ladakh over ten years ago where we used to perform the ritual circling of the deities first thing in the morning before the start of another exhausting working day, not in order to ingratiate ourselves with the locals, as we were accused by narrow-minded Westerners, always quick to dismiss any desire to broaden one’s horizons as an attempt to curry favor, but because it seemed obvious to us we should do our own, small, bit towards preserving the cosmic equilibrium. The water groans like magma, the waves climb to no more than a few meters – this is a relatively calm crossing.

Normally you're guaranteed to run into a storm in the Drake Passage that has to be ridden out before you can coast into the paradisiacal peace of Terra Nullius, the eye of the hurricane. I complete my laps in time with the circumpolar current that drives 150 million tons of water, birds glide through the half-light, cutting the cold air with their sharp wings, two laps make a figure of eight on its side, white petrels rise in steep arcs, black petrels fall like judges' gavels, diving for fish in the troughs between the waves' gleaming ridges, and I wheel on, round and round, and with each step the ship under my feet recedes further into oblivion.'

The Antarctic is not an easy place to reach or to grasp. Adverts featuring cuddly penguins have only been enticing tourists to visit for twenty years (roughly as long as we've been aware of the full danger of global warming). Before then the Antarctic was a virtually inaccessible, if not actively threatening, place, as in the Polynesian myth of Hui-Te-Rangiora, who sailed further south in the sixth century than any warrior before him, persevering until the ocean curdled, then set hard, so hard and cold that the hero turned away with a shudder and headed home. Amundsen and Scott's expeditions seem equally mythic because we can't truly comprehend them. For a long time Shackleton appeared a phantasmagorical creature, the Antarctic a creation of Edgar Allan Poe. Coming here, one is still confronted with civilization's furthestmost frontier, the last genuine wilderness.

My favourite poem when I was younger was *The Rime of the Ancient of Mariner*. Samuel Coleridge had never seen an albatross and nor had I at the time, but the bird with the largest wingspan of them all provided him with a metaphor that seemed incredibly vivid to me. I couldn't forget either it or the sailor who, having killed the sacred animal, is compelled to carry its body round his neck, as if it were humankind's true cross. Now, with majestic albatrosses gliding overhead, the poem came back me, and it seemed an appropriate foil for a story set in the present. A black crow and a white albatross. On one side: "*Prophet*" said I, "*thing of evil. Prophet still, if bird or devil!*" On the other: "*The spirit who bideth by himself / In the land of mist and snow, / He loved the bird that loved the man / Who shot him with his bow.*" My story would be born up by two poems that have fascinated me since I was a teenager. Perhaps the most significant impulse behind any literature is a desire to recapture the passions of one's childhood.

Standing on the weather deck, looking out, it seemed easy to forget civilization entirely (your hearing barely registers the quite throb of the engines): no planes, driftwood or ships' masts in sight, only wind and waves, ancient formations of ice and rock, their shapes morphing in ways that have nothing to do with us, and silent birds writing ephemeral messages across the monochrome sky that we have no idea how to decipher. Icebergs: storehouses containing the freshest water and the cleanest air there is on earth, locked in crystals thousands of years ago, which they now release by melting

as they slowly process through the sea. Ice began to intrigue me more and more. It is not only the most varied of all the elements, by turns a solid, a gas or water, but also one of the earth's foremost memory stores. The European Project for Ice Coring in the Antarctic has already drilled bores to depths that correspond to a span of 900,000 years, and at every stage of their descent, our planet's history has been rendered visible. Gradually I felt something like affection for ice stirring in me.

Our ship pushed on through a natural channel enclosed on either side by white walls that rose as far as the eye could see, with, up ahead, only the shimmering black surface of the glassy water. The world had imperceptibly been transformed into a chalk drawing on a blackboard. We stood heavily muffled and crowded together on the weather deck, silent and unmoving as though we were witnessing a consecration. Ours was a humbled silence, the expression of a feeling of being overwhelmed that had been building for days, since we sighted our first albatross, our first iceberg, our first whale, our first jagged islands. In the Antarctic you start to feel you're an imposition simply by virtue of being human. It is an incongruous feeling that engenders misanthropy. Or, in the glaciologist's case, suggests that humanism is not sufficient in itself anymore. His despairing uncertainty is fuelled by the pockmarks of human settlement on the edges of the Antarctic. Ruined whaling stations, mainly, those rusted over killing sites you

find in places like South Georgia. He can't bear such a frenzy of destruction, not even the historical fact of it.

'The tanks of diesel are lined up in neat rows like gravestones; it must have been like a pot that's always on the stove, this bay; a lot of cooking went on here. A whole factory for dismembering whales; now time has dismembered the factory in turn, processed it into ruins. The silence weighs down on the decrepit sheds; no skua darting about these days, they've moved on. In my imagination, the whale-oil tanks still give off their reek; my chest feels tight walking around all these rust-covered instruments of slaughter. Some of the sheds' roofs cant at a sheer angle from the corrugated iron floors to the clouds; an asbestos-contaminated area is marked off by red boards. Outside the boiler shed where they reduced the bones, three figures pull on an iron chain and lean backwards, as if they're playing tug-of-war with an invisible whaler; giggles reach me like flakes of snow on the wind. I long to get some distance on it all, but the snow-covered mountains are like distant wings flanking the flensing deck, death's stage. Between some ship's propellers and anchors - out of action, all they can do is sprawl about like grotesque flotsam - a few Gentoo penguins keep watch; the mocking looks under their red bills seem like an invitation to leave. By the mole the *Albatross* lists, as it has done for decades, and its harpoons pointi at the land.'

'If the Antarctic goes, the human race will go with it,' declared an unattributed quote in the ship's planner. I realized that, if it was to succeed, my novel had to convince readers to take this sentence literally and identify with the glaciologist's radical zeal (or delusion, whichever you will). Ideally they should see themselves and their destructive potential differently. Such ambition!

*Kälteidiotie*, 'cold madness,' is a German medical term for delusional behavior brought on by exposure to cold. When a person is freezing, at a certain point he imagines he's hot and starts to undress, even though his body is undergoing acute hypothermia. Humanity is suffering heat madness, the glaciologist thinks. We keep on turning up the temperature even though the heat's killing us. When someone freezing to death reaches the *Kälteidiotie* stage, they're no longer in a position to save themselves.

I came back from the Antarctic determined to write the novel and, for research purposes, went to visit a leading glaciologist. He listened politely to my story, then asked how old my protagonist was. "Your age," I answered spontaneously, to my surprise. In his early- to mid-sixties, in other words, a scientist, who'd spent his life researching and, over time, had started to question what he was doing. When he'd started his long-term research project on the glacier as a young graduate student, he'd naturally proceeded on the assumption that if one analyzes a problem correctly, one will solve it. If we understand how something lives, then we can keep it

alive. Once the mediums deliver their findings, the future will reveal itself through measurements. Conclusive proof is all that's needed to improve the world; progress is simply a question of precise study, supporting evidence is a blueprint for how to make correct decisions. This was the start of the seventies, when the Gaia hypothesis was the subject of fierce debate among young scientists. The same Gaia who was once worshipped at Delphi, where the future was ecstatically revealed. There the mediums went into ethylene-induced trances. Nowadays we produce ethylene in enormous quantities; it is in our clothes, in the objects we use for our daily needs, in our bodies, and so civilization has become anaesthetized against seers. Back then the glaciologist was also convinced that he and his colleagues were consulting a higher authority, Nature, on the basis that the more exact the questions you pose, the more precise the answers you get. "The laboratories were the oracles of the time, as far as I was concerned. And now? What is now? We sit on this ship. Have we lost our bearings? No. I say that categorically: I never lost my bearings, I just never thought of something, because I never for a moment considered it as a possibility: I never thought they'd turn a deaf ear to our warnings. What we said would have the force of law: that's how I imagined it. But prophecies have proved stronger than projections. And now we've stumbled into this blind alley, all that's left for us is to put our eyes out."

Receiving me in his modest office, the professor showed me satellite images of the death of a glacier. It was one of the most depressing things I have ever seen in my life. Within a matter of years the glacier suffers huge losses in mass and volume. Its surface grows darker, which in turn means it absorbs more of the sun's rays—a deadly escalation, which scientists call the Run-Away Effect (Point Of No Return might be more poetic). Finally the glacier simply crumbles into pieces. 'Nothing but fragments, scattered limbs, as if its body had been torn apart by a bomb. The precipice was still covered but further down, in front of us there were only scraps of dark ice dotted across the slope like building rubble waiting to be carted away. All the life had melted out of it. The landlord warned me: "I've told you this'll be hard for you, it's not a pretty sight." His voice is like vapour in my memory, he said later in the evening over beer and *Tafelfleisch*. I got out of his car in silence and stumbled bewildered from one patch of ice to the next, as if I was drunk or blind. "I can't help thinking of when we used to get epidemics up here," the landlord said, "and the farmers would say goodbye to the cows that had to be put down." I couldn't even do that, I felt paralyzed, my mind was a blank. I knelt down by one of the remnants, and under the coal dust and the soot-blackened surface it was pure ice. I rubbed my fingers over the cold end and then over my face as I always did; my ritual greeting. In the past I could scoop up handfuls of fresh snow, my hands would get so cold, my whole face would come alive. I licked my index fingers. It tasted of nothing, nothing.'

The professor also explained why it's impossible to calculate disasters in advance. Models have yet to be invented which can estimate all the variables, the multiple effects that can intensify the warming process, for instance the impact of the additional greenhouse gases that will be released if the permafrost melts. Domino effects can't be modeled. It's not a linear process. Small inputs can turn everything on its head, like an iceberg's tendency suddenly to flip over (you can see some blurred examples of this on YouTube), which is why cruise ship passengers aren't allowed to set foot on them. And there's another problem: Individual environmental solutions render the system more unstable and lead to a potentially infinite number of unpredictable outcomes. To use a mythological trope, complexity theory means that, having gone out of kilter, our earth is a labyrinth in which most of the paths lead to a new calamity. As I listened to him, my reserves of optimism melted away. It's completely the opposite with politics: people say you have to do A so that you can get to B: problem solving is a linear process. 'What happens next?' I asked him as I was leaving. 'I don't know,' the professor said in a calm voice. 'But one thing seems certain. So far it's always turned out to be worse than specialists like me have anticipated. There's nothing to suggest this will change.'

We humans deal with probabilities and plausibilities in completely irrational ways. In *Aanlsag op de Vrijheid*, which has just come out

in Holland, Juli Zeh and I argue that modern humans have lost their instinct for danger and risk, and are thus easy to manipulate. To give an example: It is totally absurd that we read more in the papers about terrorism than global warming. Many of us comfort ourselves with the thought that it hasn't been definitively proven that global warming will have catastrophic consequences. And of course it hasn't, but it's plausible. Almost all of us have taken out insurance at some stage in our lives against fire or flood, although it's well known that less than one per cent of people with insurance need any form of assistance. We insure ourselves because there's a plausible risk. Often it's the wrong risks that cause us anxiety. If we want to have a child after forty, the doctor warns us that there's a two to three per cent chance of having a Downs Syndrome baby. We're scared. The probability seems so high! But the same doctor will also tell us the probability of our getting pregnant is two to three per cent. That frightens us too. The probability seems so low! The glaciologist has grown up with Heaven and Hell, sin and atonement, angels and demons. He knows Genesis pretty much by heart: 'And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.' What if we've fished the oceans to extinction? he wonders. What shall we have dominion over then? He knows the Psalms as well. 'For thou hast made him a little lower than the angels, and hast crowned him with glory and honor. Thou madest him to have dominion over the works

of thy hands; thou hast put all things under his feet: All sheep and oxen, yea, and the beasts of the field; The fowl of the air, and the fish of the sea, and whatsoever passeth through the paths of the seas. “(Psalm 8.5-9). Once he attended a debate with a catholic theologian, who mocked trendy scenarios of the world’s destruction. When it was time for questions, he raised his hand: “You must be fine with it though. You long for the end of the world, don’t you? From your apocalyptic perspective, CO2 emissions must seem like a divine handout to help us get to where we need to be.’ That’s an outdated view, the theologian countered. If one wants a more contemporary perspective, one needs to study the Pope’s pioneering remarks on the subject. Naturally the glaciologist looks up the sermon in question and finds a medley of recrimination: ‘One of the first indications of a new way of looking at things appeared about the time of the Renaissance with Galileo, when he said that if nature did not voluntarily answer our questions but hid its secrets from us, then we would submit it to torture and in a wracking inquisition extract the answers from it that it would otherwise not give. The construction of the instruments of natural science was for him as it were a readying of this torture, whereby human persons, despotlike, get the answer that they want to have from the accused.’ (Cardinal Ratzinger, subsequently Pope Benedict XVI.). Not the church but science is to blame. We need a new form of spirituality, thinks the glaciologist, one that will do away with the gulf between humans and nature and the ancient, originally Persian belief in the apocalypse. He is sure about one thing though. The

spiritual can only consist of that which one has experienced and developed oneself; it cannot admit of anything prefabricated.

‘Aren’t you afraid of hell?’ she asked suddenly just after we’d woken up and were still lying under the sheets facing each other, her arm stretched over the gap between the two beds so I could massage her fingers. I took a long time answering because I had to shake off a feeling that this would be the last time we woke up together. ‘Hell is not a place,’ I said at last. ‘Hell is the sum total of our failings.’

Naturally this story needs the glaciologist’s subjective voice: a furious, wounded, intransigent, radical voice. But its dualistic structure also allows a second level that, apart from anything else, will convey his sense of being a lone voice in the wilderness, a prophet unrecognized on his own planet. This level is the cacophony of the world, its excess of voices, the terrible juxtaposition of prattle and speech, the media’s unending pronouncements. This second level of the story must dissolve the hero’s bitter fate in a verbal stew, which will sound as follows:

‘What a body, I’d give that a 10. No one gives a damn. It’s just luck, isn’t it? Don’t beat yourself up about it, just dive in and help yourself as long as stocks last. No one’s going to call you up on it. Sir, distress signal on 406 MHz, around 15:21. What a perfect body; melt that in your mouth! Emergency radio-beacon? Yes, sir. Which ship? We don’t know yet, sir. The frescoes were restored last week;

the chapel is going to be closed all summer; I'm sorry you've come such a long way for nothing. We need longer operating times for all the plants, an industry spokesman explained, we can't put ourselves under pressure. Cancelled. A question for your guest? Bishop Böhnke? Yes, for His Eminence. I'd like to ask him: what if Noah never came down from the mountain with his ark? What would that mean? It is an honor and a very special pleasure for me tonight to introduce one of our leading scientists. No one's going to call you up on it. We have to write in all the blank spaces, there might be something lurking there that could get us into trouble. I've got a location, sir: W64'33 S 43 ' 22. All crows...I'm sick of it...under Heaven...the felt air temperature was higher...are black...what a perfect figure...wishes are coming true here...a divertimento for this dreamy afternoon, as per request...obviously it's smoother sailing in the lee...cancelled...you've got to serve the fish with more butter...it's already a done deal... the museum has unfortunately been closed, water damage, the roof was old and unsound, it happens if you put off renovation...Something's not right, sir, we've lost radio contact with the *Hansen*.'

If you work on this subject for a long time, you end up obsessively thinking like a specialist and parading your irreconcilable realizations before you wherefore you go. These are

- Catastrophe is bearing down on us faster than we think.
- Small steps won't be enough. Some of us are still debating whether to use energy energy-saving lightbulbs. This may help

- develop a critical consciousness, but it is all but irrelevant to the outcome of the crisis our climate is undergoing.
- It is already too late to adapt humanely to the situation without there being a large number of victims. Whatever we do from now on, we won't be able to avert certain disasters. Warming may sound cosy, but in social terms it means mass exodus, famine, war. Every living system in the world is in retreat, because we are degrading the biosphere. The prime culprit is our exploitative, disposable economy and its dependence on fossil fuels. Capitalism's pathologies are called consumption and waste. The only force in the world powerful, rich and communicative enough to change the situation is the one causing it. It's not going to do so, so we have to prevail over it.

What can literature do except describe someone who resists?