VINTAGE

EMPIRE ANTARCTICA

GAVIN FRANCIS

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About the Book

Gavin Francis fulfilled a lifetime's ambition when he spent fourteen months as the basecamp doctor at Halley, a profoundly isolated British research station on the Caird Coast of Antarctica. So remote, it is said to be easier to evacuate a casualty from the International Space Station than it is to bring someone out of Halley in winter.

Antarctica offered a year of unparalleled silence and solitude, with few distractions and very little human history, but also a rare opportunity to live among emperor penguins, the only species truly at home in the Antarctic. Following the penguins throughout the year – from a summer of perpetual sunshine to months of winter darkness – Gavin Francis explores a world of great beauty conjured from the simplest of elements, the hardship of living at 50ºC below zero and the unexpected comfort that the penguin community bring.

Empire Antarctica is the story of one man and his fascination with the world's loneliest continent, as well as the emperor penguins who weather the winter with him. Combining an evocative narrative with a sublime sensitivity to the natural world, this is travel writing at its very best.

About the Author

Gavin Francis was born in 1975 and brought up in Fife, Scotland. After qualifying from medical school in Edinburgh he spent ten years travelling, visiting all seven continents. He has worked in Africa and India, made several trips to the Arctic, and crossed Eurasia and Australasia by motorcycle. His first book, *True North*, was published in 2008. He has lectured at the Scott Polar Research Institute in Cambridge and the Edinburgh Book Festival, and is a regular speaker at the Royal Scottish Geographical Society. He lives in Edinburgh.

www.gavinfrancis.com

ALSO BY GAVIN FRANCIS

True North: Travels in Arctic Europe

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All photographs, unless otherwise stated, are by the author.
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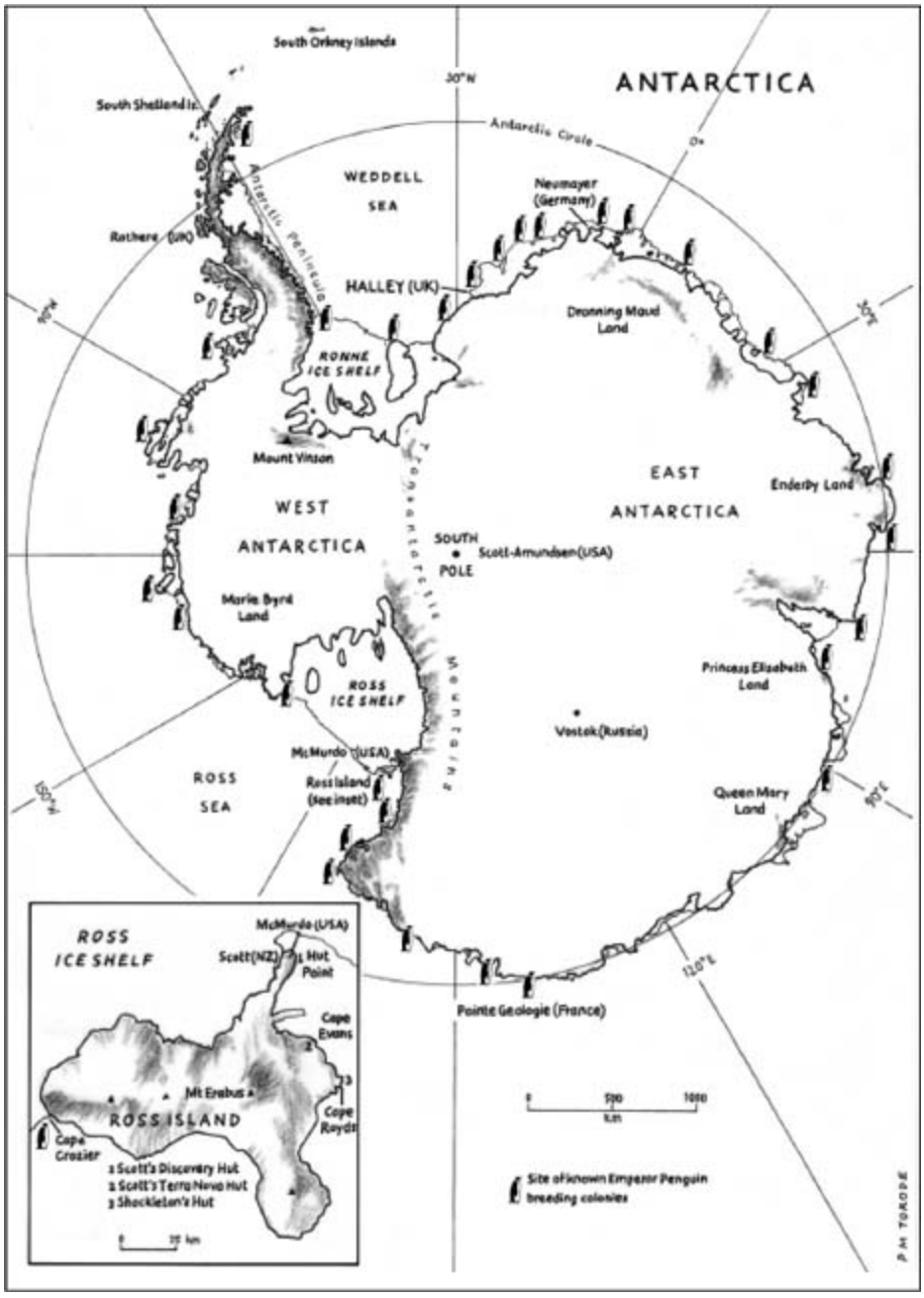
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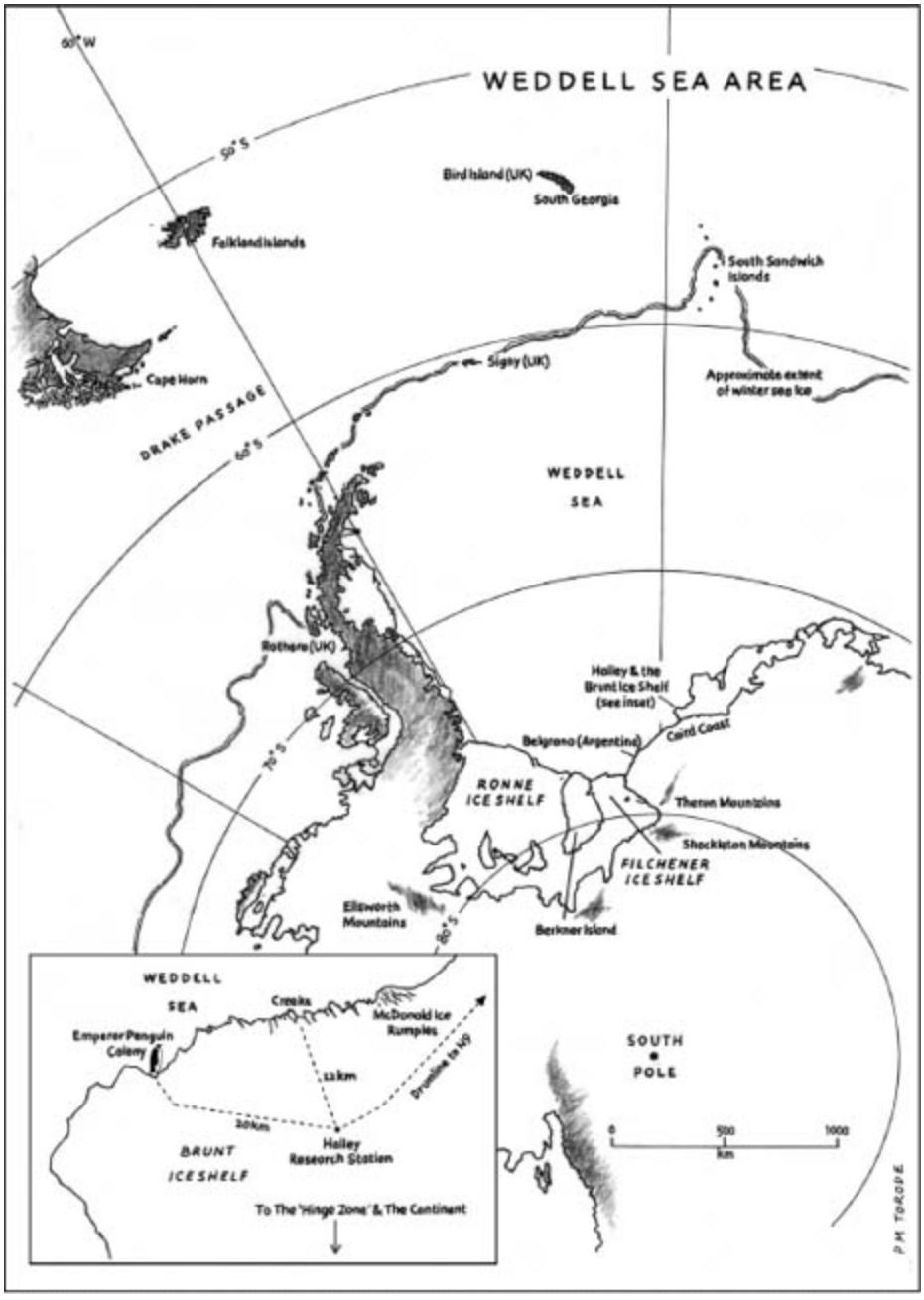
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Direction to UK
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To The 'Hinge Zone' & The Continent

In the hope that book dedications,
like all the best stories, gain in being shared,

to Esa

for the space and the silence

and also to

Allan Thomas, Annette Ryan (née Faux), Ben Norrish,
Craig Nicholson, Elaine Cowie, Graeme Barton,
Mark Maltby, Mark Stewart, Patrick McGoldrick,
Paul Torode, Robert Shortman, Russ Locke & Stuart Colley;

the penguins were good company, but so were they.

Empire Antarctica

Ice, Silence & Emperor Penguins

Gavin Francis

Chatto & Windus
LONDON

PREFACE

A Glimpse from the Ice

It is a wonderful place[1] we are in, all new to the world, and yet I feel that I cannot describe it. There is an impression of limitless solitude about it all.

Ernest Shackleton, The Heart of the Antarctic

AUTUMN IN ANTARCTICA: sunrise and sunset merge in firestorms of light that seem to warn of the coming darkness. At 75° South the polar night of winter will last three and a half months. Light in Antarctica is refracted and reflected between ice and sky as though through a hall of mirrors; the continent bathes in the colours of flame as the autumn days grow colder. Last year's sea ice has all been broken out by the storms of summer. It is April, soon after the autumnal equinox, and the refreezing of the sea is already well advanced. Emperor penguins are returning from a summer fishing, fat and gleaming, to mate on the new sea ice close to the edges of the continent. They are the only species evolved to survive these coasts through the winter. That they breed through it, carrying eggs on their feet as they shuffle through the darkness, is one of the wonders of the natural world.

It is a twenty-kilometre journey from Halley Research Station to the nearest rookery of emperor penguins. The breeding ground is one of the largest in the world – some 60,000 emperors breed there every autumn. Halley's coast is far across the grinding gyre of the Weddell Sea ice fields,

that graveyard of ships, and is accessible for only two months of the year. So remote, it is said to be easier to evacuate a medical casualty from the International Space Station than it is to bring someone out of Halley in winter. Affectionately or otherwise, some residents call it ‘Starbase Halley’. I have come here to live for a year on its empty plains of ice, and today I want to get down to the new sea ice to watch the gathering of the emperors.

Our skidoos are kept covered by tarpaulins to protect them against the blizzards of autumn. It is cold for the season, approaching 40°C below zero. Russ, one of Halley’s scientists, has agreed to accompany me; it is considered too dangerous to go alone. Though we leave paraffin heat lamps burning for an hour under the tarps it takes us a further hour to start the skidoos. We take turns pulling on their starter cords until our arms ache, but finally the engines sputter into life.

The ice is roughened by the wind and sculpted into gelid waves, a dead ocean. A gentle rise of ice-covered coast, named the Caird Coast by Ernest Shackleton for one of the sponsors of his *Endurance* expedition, ramps away on our left towards the South Pole. Despite the heated handgrips we have to keep stopping and flailing our arms like windmills, trying to get the feeling back into our thumbs. Each time I stop, Russ pulls up and waits for me. When he stops, I do the same. As we drive we make our own avenue of noise, but when the engines cut it is possible to hear the skittering of the snow against the silence; a muted sound like distant applause.

In high latitudes the sun seems reluctant to set, lingering over its elision with the frozen earth. It glides so gently that its dying colours bleed skywards for hours after it has dipped below the horizon. I realise that I have never seen the sun hover in just this way, flattened and ragged-edged, a tear in the cloth of the sky. Edward Wilson, the doctor, naturalist and visionary who accompanied Captain Scott to

the Pole, said of Antarctic sunsets: ‘it seems far-fetched[2] to go into chemical details to describe a sky . . . but the light of incandescent potassium does exactly’. For the reds Wilson imagined burning strontium, flaring into the polar night. I have never lived so far from plants and this autumn my mind turns instead to botanical comparisons – the rainbow seep of chlorophylls. The reds are anthocyanins, the oil-rich crimson of autumn maple. The solar penumbra is carotene, the brushed gold of fallen cherry leaves.

We reach a hut on the ice cliffs above the penguin rookery, coated with ice precipitated from the wind. When I reach to unload the skidoos I stop suddenly as if called, noticing the fine grains of snow that swirl in eddies around me. They are ‘diamond dust’; tiny, almost weightless fragments of ice that do not sink, but float. Like mirrors they catch the light, animating the air.

Using methylated spirits I prime the stove. Kerosene begins to curdle around minus 40°C, so it is necessary to heat it with meths before it will ignite. With numb fingers I strike seven or eight matches until one sparks. Outside the moon rises in the east, a tangerine moon that springs to a sphere as it escapes from the distorting mirages along the horizon. High above us, noctilucent clouds reflect the last blush of sunset all the way from the Antarctic Peninsula, far into the west. By the time we have set up it is too dark to visit the penguins; they will have to wait until the following morning.

Inside the hut paraffin lamps breathe light and heat into the air. The wind is only fifteen knots but climbing, and comes in gasps and snorts down the stovepipe. The space between the inner skin and the outer shell of the hut has filled with snow that found its way in through small cracks in the roof seals. Blizzarded snow here gets into any recess, packing itself tight as if smoothed into place by tiny hands. As that carapace of snow melts it drips into three buckets that we arrange carefully around the hut. Russ is good

company and the only sounds are the hiss of the stove, the sighs of the wind, and the metronomic tap of the melting snow.

The qualities of the emperor penguin are extraordinary. They are the only bird species that breed on sea ice, and the only penguin that may live their whole life without touching land. They are the largest living penguin, weighing in at double their nearest rival, the king penguin of the subantarctic islands. Male emperors incubate their eggs uninterrupted for the longest time of any bird or reptile, two months, all the while shuffling with the egg balanced on their feet (albatrosses incubate longer, but they take turns at the nest). Masters of endurance, they weather the coldest and windiest habitat on earth. They are the only penguin that shows no territorial aggression, having realised that in order to survive personal space is a luxury they cannot afford. They live through storms of hurricane-force winds and temperatures as low as minus 70°C, leading Apsley Cherry-Garrard to observe that in his opinion no creature on earth has a worse time. By the end of their incubation the males have fasted for four months, burning eighty per cent of their fat reserves before beginning to break down their own muscles. The little fat they leave on their bones is just enough to fuel their walk back to open sea at the completion of this fast, a journey of over a hundred miles across rough and broken sea ice. Though they are in some ways closer to reptiles than any other bird alive they produce a milky fat-rich substance to feed their young, as mammals do. The process is astonishing: although starving themselves, the males slough off strips of their own stomach lining, each laden with fat globules, to feed their newly hatched chicks until the females return. The chicks can double their weight on this food.

To survive their appalling environment emperors have evolved the highest density of feathers, the smallest

relative size of eggs, and the smallest relative surface area of any bird. They dive deeper, and longer, than any other bird. One tracked emperor plunged over half a kilometre beneath the sea, to a depth that would squeeze it over sixty times atmospheric pressure, and they can stay down for over twenty minutes. Most birds have strong pectorals, bulky muscles that force a downbeat capable of carrying the sky. Emperors have to carry the oceans, and so as well as strong pectorals they have rippling back muscles to force their way down through water columns weighing hundreds of tonnes. Edward Wilson, on the *Discovery* expedition, tried to capture some for their skins. Scott wrote of the attempt, 'It is no easy matter[3] to hold an Emperor; they are extraordinarily strong both in their legs and flippers . . . more than one of the party seem to have been temporarily floored by the wild dashes of the intended victims.' A Dundee whaling crew once tried to capture an emperor by strapping two leather belts around its wings. Like a Victorian strongman the bird simply inhaled, and the belts snapped off.

The Kalevala, an epic of Finnish folklore, describes a 'beauteous duck' who with her eggs becomes the earth and sky. Several Native American creation myths involve *loons*, diving birds like penguins credited with bringing mud from the seabed to create the earth. An indigenous human society has never developed on Antarctica. If it had, the emperor penguin would surely have been worshipped.

Lying in my bunk I listen for the cries of the birds carrying from the rookery. For the last three months the penguins have been out among the monstrous icebergs and reeling floes of the Weddell Sea, where Shackleton's ship *Endurance* was crushed and sank. Emperor penguins do not mate for life. Each autumn they wait to see who has survived the year, making and breaking allegiances anew. The penguins' cries are their songs as each chooses a mate

for the year ahead. They have an ethereal polyphonic sound, vaguely metallic, like steel reeds all tuned to different notes. It is as recognisable to the penguins as a barcode is to a computer, or a human face is to us.

There are three iron anchors hammered into the ice near the cliff edge, and in the morning we lace those anchors with rope. After coiling it carefully we throw the rope over the edge and watch it unspool to the bottom of the cliff, forty metres below. I can see the emperors down on the sea ice, their black bodies quivering in the haze like iron filings to a magnet.

Russ clips into his harness, and threads a metal figure-of-eight around the rope's fast end. The wind is getting up, probably reaching twenty knots, and the contrast between the cliff edge and the sea ice below is threatening to dissolve in a thickening pall of spindrift.

'Check?' I ask him.

'Check.'

He jumps backwards off the ice-shelf cliffs and plunges towards the frozen sea surface, trusting himself to gravity and the burning friction of the rope. I begin to clip into my own harness in order to join him. Then, unexpectedly, he stops.

'Everything OK?' I shout down.

The rope is still hanging tight. He hasn't unclipped from it yet.

Minutes seem to pass. 'No, I don't like it,' he yells back up. 'I can't see the penguins any more.'

There is another silence.

'The contrast has gone . . .' His voice is becoming muffled, and then between gusts of wind I catch his words again: '. . . coming back up.'

As I lean out over the edge to hear him, a gust blows light snow from the sea ice up a funnel of the cliffs, gelling my eyelashes in ice. The stubble on my chin is fusing with the ice in my balaclava, stiffening my face to a marble mask.

The temperature is milder today, minus 30°C, but the wind is climbing too strongly to think of going down on to the sea ice to watch the emperors. Under high winds sea ice twists and flexes like a living skin, but it can also splinter and crack. We prefer not to take the risk.

And instead of disappointment I can feel *mirth* rising inside me. I begin to smile, my skin tugging against the shell of ice building inside my balaclava. There is a silence beyond the wind, a sudden trusting contentment, my awareness of it heightened by the fact of being in this place and so close to these remarkable creatures. I could be meditating in a silent room for the way I feel my pulse rock in my limbs, my chest, my gums. Awareness spreads like a rising tide: the sucking vacuum of my tongue on my palate; tiny itches appearing and disappearing over my skin; the dry pressure of air in my windpipe. The blizzarding snow around me is so empty of contrast that when I look into it, I can see streams of blood cells coiling through the backs of my own eyes, nourishing me like sap through greenwood, a scarlet surge of blood defying the endless and enveloping whiteness of Antarctica.

CHAPTER ONE

Imagining Antarctica

> *Some deeper quest[4], or so I think, must lie beneath this pilgrimage to behold the emperor penguin. In my case the quest must have something to do with my lifelong need not to simplify my life – though I need that too – but to 'simplify my self'.*
>
> *Peter Matthiessen, End of the Earth*

IT IS SAID to be one of our oldest stories, embedded in humanity's DNA, when a young man goes to a far-off land in search of a terrible or wondrous beast. *The Epic of Gilgamesh*, Jason and the Golden Fleece, *Beowulf* – they all fit the template. Bruce Chatwin added his Patagonian journey to the list. For years the idea of Antarctica had murmured in my ambition; a desire to go to the remotest land on our planet, to see one of the most wondrous beasts alive.

I wanted to live alongside emperor penguins in Antarctica. As a boy my most cared-for possession was a copy of Gerald Durrell's *The Amateur Naturalist.* I was a diligent member of the Young Ornithologists Club and had memorised my *Children's Illustrated Book of Birds*. When the thrill of local birdwatching waned I read about birds that never entered the seas or skies of Scotland. On a trip to Edinburgh Zoo I became fascinated by penguins' waddling, boisterous gregariousness. There were glass cutaways in the penguins' tank, it was possible to watch their underwater transformation from ungainly waddlers into lithe muscular

hunters. They were so different from any kind of bird I knew that they captured my attention and my imagination.

Later I travelled in the High Arctic and loved the bright true purity I saw in the landscape there. But the Arctic is a ceaselessly roiling frozen ocean where birds and mammals shun mankind (or, in the case of polar bears, hunt them). I learned that penguins, on the other hand, showed no fear of human beings. I was enthralled by the idea of Antarctica, its solidity, silence, enormity, the mythical space it grew to occupy in my imagination, and wanted to meet for myself the birds that lived in it. I saw photographs of ornithologists sitting in rookeries surrounded by thousands of emperor penguins, relief on their faces, as if they felt accepted at last into avian society. I wondered if there at the end of the earth I might learn something from the emperors, of the purity of living in the physical senses, of a life without tangles of motives or the radio-chatter of the mind. They seemed to offer a welcome all too rare in the natural world, perhaps even a kind of forgiveness.

As I learned more about Antarctica I became captivated too by the stories of the early expeditions, particularly those of Scott, Shackleton, and the US Navy admiral, Richard Byrd. In the lush green afternoons of Scottish summers I read of Scott's march to death on the Ross Ice Shelf, of Shackleton's miraculous survival against all the odds, of Byrd's winter alone, manning a meteorological station through months of polar darkness. Edward Wilson, Scott's doctor and chief scientist, held a special fascination for me because of the stories of his tenacity, his kindness, but most of all his love of emperor penguins. I wanted to experience the Antarctic winter that these men had described so vividly, and see for myself that continent that for each had become an obsession.

There was another motive: the silence I imagined there in Antarctica drew me south. My life in Edinburgh often seemed frantic. There were always so many people to meet,

things to learn, tasks to complete. At school, medical school and then in work, a succession of well-meaning teachers and mentors steered me towards a high-achieving career. But it felt wrong; I sensed that I needed to take a different path than that of the vertical career ladder and wondered if going to Antarctica might help me decide what to do next. When my life felt filled with obligations and responsibilities I found respite on long cycling and walking trips, periods under canvas or in trekkers' huts where for days I would see no one and feel no need to speak. These trips always felt too short, and I wanted to throw myself into an extended stay somewhere remote, a place where for weeks and months I would have few responsibilities and unlimited mental space. Antarctica seemed like the only place that could also offer me that time, space and silence, while still ostensibly working as a doctor. I hoped that having so much time to think might make it clearer to me what path to take in my own future; whether to aim for a life of travel and expeditions, or commit to a profession and put down roots.

While still at medical school I learned that to 'winter' in the Antarctic – spend a full year there – I would have to land a job with the British Antarctic Survey, known as BAS. Of all the stations maintained by the British government only three have resident doctors, and of those three only two are part of continental Antarctica itself. Of those two, Rothera is based on an island off the Antarctic Peninsula, a glaciated serration of peaks that juts across the Antarctic Circle. The Peninsula is the continent's extended finger, whetted by storms and testing the winds off Cape Horn. Only Halley is deep inside the Antarctic Circle, on an ice shelf calving from the body of the continent itself. And of all the BAS stations it is only at Halley that there is a breeding rookery of emperor penguins.

So there were three doctor jobs on offer when, as the leaves in Edinburgh coppered and fell, I took a train to Plymouth to

be interviewed by the BAS Medical Unit.

I told them that I liked space and silence. I said I had hitched, hiked and camped alone all over the European Arctic. I said that I wanted to see for myself what it would be like to live through the polar night of an Antarctic winter. I had written to them for advice six years earlier, while still a medical student, and so they already knew that this was no sudden impulse, no escape from a failed love affair or a career's dead end. They asked how I would cope with the claustrophobic pressure cooker of a tiny society where escape was impossible, and I told them that as long as I could safely take a walk outside I would be able to keep my peace. They told me that at Halley, once the ship had departed, there would be no way in and no way out for ten months. The only communication would be by dial-up satellite modem for text emails, and there would be no Internet access. I said that as long as I could take a trunk full of books I would be happy. They noticed that I liked to travel and asked how I would manage to spend a year in the same place, tied to a base that would be my only means of survival. I told them that maybe I had travelled enough and that it was time for me to stop for a while, gather my thoughts and experiences, and unravel them on the widest, blankest canvas on earth.

It was rumoured they only took you if you made it clear you would accept working on any base, as Antarctic logistics often forced a last-minute change of deployment. 'Which would you prefer?' they asked.

'Halley would give me silence and space . . . and the emperor penguins,' I told them, 'but I also love mountains and the sea so I would be happy on South Georgia or Rothera. I would be happy to go wherever you wanted to send me.'

Later that evening my telephone rang. It was Iain Grant, the senior medical officer of the BAS Medical Unit. 'How

would you like to spend a winter at Halley?’ his voice said in my ear.

My hands shook so much that the telephone drummed against my ear. ‘I would be delighted,’ I said.

That night I didn’t sleep.

What was it, this continent to which I was headed? The Arctic has been written about and imagined for more than 2,000 years, but the imaginative tradition of Antarctica is still young and pliable; its very blankness lends it mutability and a sense of possibility. Antarctica has a younger cultural heritage than either railways or electric lights, both of which were invented long before anyone knew for sure there was a continent in the south at all. Its landscapes – in terms of geography and in terms of the mind – are still being worked out. When Antarctica was named it was just a blank on the map. Our ideas of it were forged only a century ago during what has been termed the Heroic Age of exploration, when creeping groups of humans, led by men like Robert Scott, Ernest Shackleton, Roald Amundsen and Douglas Mawson, arrived at its edges carrying flags, pemmican and reindeer-fur sleeping bags.

And it was in Antarctica that the Heroic Age fizzled out, the shrill nationalism and empire-building anxiety of the early expeditions lost in the quagmire of two world wars. Its final stages were almost pitiful: Germans flew bombers over the Weddell Sea coasts, spraying thousands of tiny swastikas. By the 1940s Britain, Chile and Argentina had all claimed the Peninsula and thinly disguised ‘scientific’ bases sprung up along its coasts like mushrooms.

I have always studied a land’s history as I travel but Antarctica’s paucity of history was paradoxically one of the things that drew me to it. I loved the idea of its *blankness*, the absence of worn paths or cultural memories. Ideas about it are so recent that its interior was probed in the same years that physicists in Europe and North America

began to unravel quantum physics. Scott's *Discovery* expedition took place as J. J. Thomson wrote his famous paper 'On the Structure of the Atom', his *Terra Nova* expedition as Ernest Rutherford revealed that the mass of the atom was concentrated in a nucleus. These expeditions involved colossal investment for their time, with few guarantees of return – the rush to claim ownership of the continent was the 'space race' of its day.

The first men who seem to have approached it were the crew of Captain James Cook's second voyage to the Southern Ocean. Cook discovered South Georgia and sailed on past the trailing banner of volcanoes that make up the South Sandwich Islands, searching for the mythical continent Terra Australis Incognita. Cook couldn't get through and, being no stranger to hubris, added that because of the density of the ice no one would ever be able to get further south than he had managed. He did comment that there must certainly be land at some distance to the south, because the immense icebergs he encountered had clearly calved from a hidden continent. Joseph Banks, the acclaimed naturalist on Cook's first voyage, had been replaced for the second journey by a Prussian of Scots descent called Johann Forster. Forster brought back drawings of the king penguin of the subantarctic latitudes, *Aptenodytes patagonicus*, from South Georgia. The name, which had already been given to the penguin in 1768 by the Welsh naturalist Thomas Pennant, means 'the featherless diver of Patagonia', an inaccurate description on two out of three counts: it no longer lives in Patagonia (though it does live in the Falkland Islands) and does indeed have feathers. It was thought to be the biggest penguin, and was accorded its royal name. No one had yet properly described the closely related and even bigger emperor.

Sealers swarmed over the subantarctic islands from the 1820s. James Weddell, a sealer from Leith, reached further south in 1823 than anyone before him and named the ice-

choked sea east of the Peninsula after his sovereign. Perhaps George IV didn't want to be associated with such a forbidding place; the sea later took Weddell's name, along with the fattest and southernmost of the seals he encountered.

In the 1840s the Royal Navy arrived in the indefatigable form of Sir James Clark Ross. Ross, reputedly the most handsome man in the navy, had already spent fourteen winters in the Arctic and located the North Magnetic Pole. Now he wanted to locate its southern counterpart. In wooden ships, strengthened against the ice, and custom-made with a minimum of compass-confounding iron (the *Erebus* and *Terror*, later lost with Sir John Franklin), Ross charted the coastline, discovered a sea, and named an immense mountain chain of land for his snub-nosed Queen back in London. But he still had no idea if those mountains were the tips of islands or part of a great continent.

At the end of his voyage he took emperor skins back to London where they were examined by John Gray, the great taxonomist of the British Museum. Gray thought it was the bird Forster had described on his voyage with Cook sixty years earlier, and gave it the name *Aptenodytes forsteri* – a posthumous honour for a historical mistake. In his book of the voyage Ross describes how difficult it was to kill these birds, 'until we resorted to[5] hydrocyanic acid, of which a tablespoonful effectually accomplished the purpose in less than a minute'. He goes on to discuss how the chasing and capture of them was a great source of entertainment for his men: 'they are remarkably stupid,' he wrote, 'and allow you to approach them so near as to strike them on the head with a bludgeon'. But the bird continued to be confused with the king penguins seen on Cook's voyage. P. L. Sclater, secretary of the London Zoological Society, was still trying to sort out the issue as late as 1888 with his paper *Notes on the Emperor Penguin.*[fn1] Describing the mix-up he wrote: 'Several modern authors[6], however, under the influence of

the craze for “priority”, have chosen rather to call the Emperor Penguins *Aptenodytes patachonica*, which, as the bird has never been found in or near Patagonia, is not maintainable, even under the most stringent view.’

In 1841 Ross first gazed on the peaks of Victoria Land, Herman Melville embarked as crew on his first whaling ship, and a baby of Scots descent was born in Ontario who would go a long way to unravelling the mystery of Antarctica. John Murray emigrated back to study at Edinburgh, and first sailed in high latitudes as a ship’s surgeon on a whaling vessel to Svalbard. Preferring the study of the world’s oceans to the practice of medicine in the 1870s, he joined the *Challenger* expedition as assistant scientist. With Charles Wyville Thomson, professor of natural sciences at Edinburgh, he embarked on a four-year tour of the deep oceans of the world. For the work he did on it he is considered the father of oceanography: he discovered the Mid-Atlantic Ridge, the existence of deep ocean trenches, and was the first to observe how wind-blown Saharan sand changes the chemistry of deep ocean sediments. In 1914, knighted, his car spun out of control and he was killed close to Edinburgh. He is buried in his local graveyard, just outside South Queensferry.

In 1893 he addressed the Royal Geographical Society with a lecture entitled ‘The Renewal of Antarctic Exploration’. He presented a speculative map of what he proposed might be a continent, derived from soundings and dredgings, and called for the British Empire to lead the way in mapping the blanks. He also proposed that the anglophone world follow the Germans and call this hypothetical continent ‘Antarctica’. From simple observations at sea he deduced the polar plateau, its high-pressure weather systems and the volcanic range of mountains down one side. His paper inspired Scott’s *Discovery* expedition of 1901–4, which found exactly what Murray had expected it to.

A *New York Times* article from 1904 entitled ‘Antarctica: The New Continent’ reveals how only in the early twentieth century was Terra Australis Incognita being revealed: ‘Some day this[7] southern land will be better known. From all that has been seen of it there is little prospect that it will be found to be of any economic importance. But it is quite certain that the ardour for exploration will not subside as long as there remains a land of continental proportions whose extent and shape have not been accurately defined.’

Cartographers call the blank spaces on maps ‘sleeping beauties’. There are not many sleeping beauties left, but Antarctica is one of them.


“ANTARCTICA” Larger Than Europe or the United States the New Continent

The South Pole's Vast Frozen Empire, a Half-solved Problem for the Daring Explorers Who Have Braved Its Inhospitable Coasts and Barriers of Icy Mountains.

Henry David Thoreau, the great American recluse and prophet of the beauty and value of wilderness, did not believe that we should travel great distances to experience new landscapes. He believed ‘the best place for each is where he stands’, which for him was the woods of Massachusetts. On hearing of some natural marvel that a speaker had experienced in Canada or distant Arizona, he was likely to sniff: ‘I have the seen the same thing here, at Walden Pond.’ On 30 August 1856, he wrote in his journal: ‘It is in vain[8] to dream of a wildness distant from ourselves . . . A little more manhood or virtue will make the surface of the globe anywhere thrillingly novel or wild.’ His vision of the natural world has so deeply influenced modern American literature that the prose poet Annie Dillard in one of her essays merely called him ‘the man’, imagining that any reader of her own work would immediately know who she meant. His example of travelling deeper into the

possibilities of our lives as they are, rather than to exotic countries, has been inspirational for many seekers of a simpler life, as well as a few impressionable and idealistic schoolboys. The following quote has hung on my wall for twenty years:

> I learned this, at least[9], by my experiment: that if one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined, he will meet with a success unexpected in common hours. He will put some things behind, will pass an invisible boundary; new, universal and more liberal laws will begin to establish themselves around and within him; or the old laws be expanded, and interpreted in his favour in a more liberal sense, and he will live with the license of a higher order of beings. In proportion as he simplifies his life, the laws of the universe will appear less complex, and solitude will not be solitude, nor poverty poverty, nor weakness weakness. If you have built castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them.

Following Thoreau's advice I should not have been preparing to cross the globe to live on a polar ice shelf and watch penguins. I had an advancing medical career, a close family, a good circle of friends, ample opportunities for personal growth and reflection. I had even (and this story is not uncommon among those destined for long postings overseas) fallen in love just a few months before departure. My new girlfriend Esa thought I was mad to want to live in such a place. Sometimes I agreed with her, not about wanting to reach Antarctica, but what did I think I was doing, leaving just as my life was entering this new phase, and at the beginning of a new relationship? I should have found ways of simplifying my life in Britain, digging foundations in familiar ground. But then in an essay entitled 'Thoreau' by Ralph Waldo Emerson (who knew him well), I found the following statement: 'He seemed a little[10] envious of the Pole, for the coincident sunrise and sunset, or five minutes' day after six months: a splendid fact, which [Massachusetts] had never afforded him.' Although I knew it was ridiculous to seek justification for my choices in life

from an American misanthrope dead 150 years, I was pleased that if any landscapes could have tempted Thoreau away from his beloved woods it was the high latitudes beyond the polar circles.

Thoreau might have felt at home in Antarctica. Those polar sunrises were coloured like northern forests in autumn, or spilled animal blood. Nature seems fond of certain colours, certain patterns, and goes on using them. Even the haemoglobin of blood and the chlorophyll of leaves are chemically very similar structures, branched wedding dances of carbon and nitrogen in identical ring arrangements called porphyrins. Only the metal ion in the centre of the ring varies, rust-red iron for haem, and the green glint of magnesium for chlorophyll, as if swapping the bride for the groom had made all the wedding guests change colour.

A year after I was interviewed for Halley another autumn was reddening the leaves. I had passed that year in Edinburgh, Latin America, and then in six idyllic months training with the BAS Medical Unit. With the help of military doctors based at the Derriford Hospital in Plymouth I had learned to give general anaesthetics, analyse my own blood samples, trephine human skulls and drill out rotten teeth. I was relieved to learn that ninety-nine times out of a hundred I would be able to treat appendicitis without laying hold of a scalpel. I had been welcomed into specialist clinics on every subject I might encounter, from audiology to X-rays.

On the day of my departure my parents drove me from Scotland to Immingham in Lincolnshire. None of us spoke much on the way down. Scooped out of the muddy wallow of the river Humber, Immingham is the largest container port in the British Isles and was the place I would join the ship that would take me to the Antarctic, the RRS *Ernest Shackleton*.