The Beardmore

In the Antarctic summer of 1985 I found myself standing at the inland margin of the Ross Ice Shelf, a crevasse-riven, glacier-fed formation about the size of France. A France without baguettes and cathedrals. A totally Paris-less France.

The ice beneath me ran down a thousand feet. Underneath that, the Bible-black darkness of a cold, unexplored sea.

There were reasons why the Ross Sea remained unexplored. A New Zealand fishing boat once pulled from its waters a colossal squid (*Mesonychoteuthis hamiltoni*, to distinguish the species from its smaller cousin, the merely giant squid) more than thirty feet long and weighing over a thousand pounds. That's what they had down there, that and God knows what other creatures. Perhaps only Captain Nemo could have handled it.

To report my location on the Ross Ice Shelf above the Ross Sea, in other words, is another way of saying that I was in the middle of frozen nowhere, perched on the brink of an enormous nothingness. "A silence deep with a breath like sleep" is how one man who died there put it.

Early Antarctic explorers called the ice shelf "the Great Ice Barrier," in honor of the hundred-foot-high vertical wall where it meets the sea. But for those early explorers, and for me, the barrier acted more as a road, an immense, human-dwarfing, windswept road, but nevertheless a well-recognized path into the interior of the continent.

We followed "In the Footsteps of Scott," as our expedition was called, tracing the trek to the South Pole of the great British explorer Captain Robert F. Scott.

As I stood at the edge of the barrier, the question I pondered was pretty basic. Why in heaven's name would anyone *want* to enter the interior of Antarctica? Why would anyone freely choose to experience the most inhuman landscape available to us? It's a boogeyman of a place, good for scaring the wits out of homebodies.

"The highest, driest, windiest, coldest place on earth"—that's a formulation that seems by law to appear in every single piece of writing about Antarctica (the most memorable example: a book coauthored by Leonardo DiCaprio and Mikhail Gorbachev).

No one had even laid eyes on the place until 1820. No one wintered over for a full year until 1898.

Why was I there?

With my thoughts jangled and my inner clock going haywire since the midnight sun rendered night into day, I realized I had no answer to that basic question. No answer at all.

I was twenty-nine years old. With two other team members, I had just spent four weeks walking—trudging, struggling, sledging all our supplies ourselves—across the Ross Ice Shelf. We were ants on an ice cube the size of France.

Our ultimate goal, that of reaching the South Pole, now appeared a vain hope. By our calculations we were fifty-eight days away from 90 degrees south. Our food supply—biscuits, sausage, soup dosed with vegetable oil for added calories—was good for another fifty-five days.

We were already starving. Since we hauled our own provisions for the journey, we had calculated our supply down to the gram: 5,200 calories per day per man. It was not enough. As we labored over the ice cube, our bodies were eating themselves. My weight plummeted: the "South Polar diet," we called it.

Controlled lab research has demonstrated not only physiological but also psychological effects of semi-staravtion: a tendency on the part of the hungry toward the so-called "neurotic triad"—hypochondria, depression, and hysteria. The triad hit me hard. I imagined symptoms, felt listless and low, and experienced periodic spikes of panic over our situation. We gave off the characteristic ketone odor of the starving vertebrate. I could smell it on myself as I wandered a short distance from the camp, late on that bright-as-day evening on the barrier.

South of us, barring our way to the pole, towered the twelvethousand-foot peaks of the Queen Alexandra mountains. The range braced the mighty Beardmore Glacier, over a hundred miles long, the second-largest glacier in the world. To get to the pole, we would have to climb the Beardmore's immense "ladders of smashed glass," as it was described by Ernest Shackleton, the man who discovered it.

In the gross emptiness of the ice shelf, our camp appeared puny and insignificant, a tent with three ice sledges dumped over next to it. Robert F. Scott called this place, where he was nailed by a ten-day blizzard, "the Slough of Despond." "Miserable, utterly miserable," he wrote in his journal. "Slough" refers to an allegorical place of despair in *The Pilgrim's Progress*. The name joins other colorful waypoints on the path to the pole, such as Shambles Camp, Devil's Ballroom, and Butcher's Shop.

Our expedition had broken down. Harsh conditions, personality clashes, and, in my case, devastating self-doubt left us marooned in the most inhospitable environment on the planet. I knew by now that Roger Mear and Gareth Wood, my expedition mates, were hardly speaking to each other. The only thing they seemed to agree on was that they didn't much like me.

A half decade of planning, raising funds, and untangling problems of supply and transport had come down to this—three squabbling humans just a couple of arguments away from freezing to death. There was no hope of rescue. We had no radios. We were unaware of any human presence within four hundred miles of us. At that moment I was absolutely, positively convinced that my life had ended. More distressing still—if that's possible—my dream had ended.

I had scratched and clawed my way to this point. I had buttonholed famous mentors and explorer-scions such as Sir Peter Scott, Lord Edward Shackleton, and Jacques Cousteau. I had borrowed enormous sums on the basis of no more than my smile (my smile was in debt to the tune of \$1.2 million). Then I slogged on ice-numbed feet to this forlorn point in front of the Beardmore, all in an effort to honor Scott and Shackleton, my boyhood heroes, by walking to the South Pole.

Why? For what purpose? To fail? To die?

Roger Mear was one of the world's foremost mountaineers. Gareth Wood was a meticulous organizer and logistics whiz. What was I? I was a novice. I wasn't a mountaineer or even an outdoorsman. And I was a foolhardy novice. I had mounted an expedition to the South Pole without ever having really been camping before.

Standing out there in the frozen nowhere, we somehow had to find within ourselves the skills to sort out our difficulties and make the dream real again. We had to trek the remaining five hundred miles to our goal—tantamount to walking from the east coast of America to the Mississippi River, but on fissured, hillocky, dangerous ice.

We followed in the footsteps of Scott and his polar party. That meant we were following in the footsteps of death, since the whole party died on their return from the pole. On our trek we had already passed the spot where Scott himself and two of his mates perished, and the place where Captain Lawrence "Titus" Oates walked out into a blizzard in an act of self-sacrifice. Up ahead, at the foot of the Beardmore, was the death site of Taff Evans, the strongest of the group of five, and paradoxically the first to go.

Antarctica itself had it in mind to murder us. Antarctica the inhuman, Antarctica the hostile, Antarctica that cares not a whit whether humans live or die but obviously prefers them dead.

If we had dared to inhale an uncovered breath in some of the insane temperatures we encountered during the previous winter, our teeth could have possibly cracked and exploded like so many tiny artillery shells. In the depths of the sunless months, at a temperature of -80 degrees F., toss a pan of boiling water into the air, and it freezes with an odd crinkling sound before it hits the ground.

Bitter, lethally cold in winter. The lowest temperature recorded in Antarctica—128.6 degrees F at Vostok in 1983—was 39 degrees colder than the lowest recorded temperature on any other continent.

The place had its warmer and fuzzier side, too. It's the only continent that has never hosted a shooting war. Antarctica has no verified homicides, no prisons, beyond petty theft no crime at all—an absence that, as far as I was concerned, merely rendered it all the more strange and inhuman.

It was relatively warm during our summer trek—we would hit a high one day of almost 40 degrees F—but still utterly alien to human life. Journeying to the continent was the closest anyone could get to leaving earth without actually resorting to space travel. Great beauty alternated with sheer terror. False suns hung in the sky, and false moons, too.

I had stared at only ice and snow for so long that I hallucinated shapes in the landscape wherever I looked: a Sioux chief in full feather headdress, the profile of Queen Victoria. In Antarctica, I often got the sensation that I was gazing at the most beautiful person on earth, right at the moment when the mask was pulled off to reveal a frightening monster.

I knew what kind of monster. This was the face of God. Not a kindly, patriarchal graybeard, either, but Spinoza's god, the cold, abstract, impersonal force of nature—not He but It, not Who but That, an ur-god churning out magic tricks, turning midnight into day or lighting up the heavens with the multicolored streamers of the aurora.

So I tried to make a deal. I begged. Isn't that one of the stages of the human experience of death? You deny, you rage, you weep, you try to bargain.

"Just don't kill us," I whispered. The winds that poured off the Beardmore took my words and whipped them instantly away. It was as though I was pleading with the whole continent. "Just don't kill us," I prayed to the monster. "Just don't kill us, and I promise I will somehow do whatever I can do to protect you."

Why 2041?

Well, I was lying. At the very least, not telling the whole truth. Or maybe I just didn't really know what I was saying. I'm embarrassed to admit it now, but that promise I tossed into the polar winds rang false.

I had no intention, at that moment, of doing whatever I could do to protect Antarctica. I had no idea what that might even mean. It just sounded good as an offering to the polar gods. I probably would not have said it, or thought it, or whatever I did standing out there on the edge of the Ross Ice Shelf, had I known what it would actually entail.

It took the greater part of my life, but Antarctica would hold me to the oath I swore, to make every effort to protect it as the world's last remaining pristine wilderness. I spent years trying to duck that promise before I finally embraced it.

I want to leave myself marooned on the barrier in 1985 for a while, in order to relate the story of how I got there.

I am the first person in history to have walked to both the North and South poles. No matter where I go, that is the descriptive sentence that precedes me. I remember Sir Edmund Hillary, conqueror of Everest, cautioning me before I attempted my second pole walk. "Are you sure you want to do this?" he asked. "Once you've done it, it doesn't matter who you are or what else you do, the pole walks are going to come up. Are you sure you want to be married to it?"

Then he added, a shade wearily, spoken by a man who knew, "Because it gets a little tiresome after a while."

In my heart of hearts, I knew that the sentence should be amended with two words. I was the first person in history *stupid enough* to have walked to both poles. From the coast of McMurdo Sound, Antarctica, nine hundred miles to the South Pole. From Ellesmere Island, Canada, five hundred miles to the North Pole.

I am a slow learner. It took almost every step of both those journeys

to realize what that promise whispered to the Beardmore winds might entail. The greatest threat to the polar regions is human-induced climate change. Present-day, fossil-fuel-burning, carbon-emitting industrial civilization is burning the candle at both ends, burning the planet at both poles.

So two tasks complemented each other. We have to stop the ice from melting, and we have to prevent the Arctic and the Antarctic from being exploited. My promise to be an advocate for the polar regions, and for Antarctica in particular, meant that I had to join others in the fight against global warming, people such as Al Gore and Robert F. Kennedy, Jr., organizations such as World Wildlife Fund, Greenpeace, and the U.N.'s Intergovernmental Panel on Climate Change.

The promise is embodied in the title of this book and in the name of the organization I founded: 2041.

The year 2041 is when the international treaty protecting Antarctica begins to come up for review. It's the year when the fate of the last great wilderness on earth will be decided. The year 2041 first became important to me in that context.

But as the disaster of climate change loomed into sharper focus, 2041 took on a larger meaning. I began to register other mentions of midcentury trends and deadlines, and 2041 became a sort of signpost for a time when a number of cataclysmic environmental developments might converge. The year 2041 is when

- greenhouse-gas emissions, if they follow current trends, will rise to 700 gigatons per annum (700 billion tons annually), a level projected to induce a five-degree rise in average global temperature over the next century. Global warming will have become a reality, triggering extreme weather patterns, rising sea levels, and resource shortages that will cause widespread disruptions to life as we know it.
- given current use patterns and rates of increase in energy demands, global oil production will drop below twenty-million barrels a day—the accepted level necessary for sustaining industrialized civilization.

- soot from the coal plants and "black carbon" from cooking stores in China and India, falling on the surface of glaciers in the Himalayas, will cause them to absorb more rather than reflect sunlight, shrinking them by 75 percent and disrupting the water supply for billions of people.
- sea levels will have risen .5 meters, given current trends in accelerated glacier and ice-cap melt on the margins of Greenland and Antarctica. A half-meter rise renders untenable one-tenth of human shoreline habitation. For example, half the roadways in Cairn, Australia, will be underwater. Extreme sea level—the measurement of high seas during hurricanes and storm surges—will displace 200 million people and impact a fifth of the world's population, over 1 billion people.
- the last Alaskan polar bear will have starved to death in the wild—again, extrapolating from current trends, in this case of bear-habitat destruction and population decline. All in all, in 2041 extinction rates on earth will have approached an unimaginable threshold, with 1 million land-based species gone forever.
- the last of the snows made famous by Ernest Hemingway will have melted off Mount Kilimanjaro in Kenya, and the last of the glaciers will have disappeared from Montana's Glacier National Park.

I came to see 2041 as a time when, if we don't change our ways now, today, our lives and, more important the lives of our children will have been irrevocably harmed. I wake up every morning with a number in my head, a ticking clock that measures the time that is elapsing until January 1, 2041. Ask me how many years we have until that date, and I'll be able to tell you. I have put a counter up on our 2041 website, tracking the days. The fuse is lit, the hourglass is turned, time is running out. It's like one of those digital timers on the bombs in action movies. *Tick*, *tick*, *tick*.

I confess that the whole 2041 concept is partly an inspirational

tool. It marks the date not of an inevitable cataclysm but of a simple review of operations for an international treaty. Will the world suddenly blow up on 1/1/2041? Probably not. Am I a wild-haired doomsayer carrying around a placard reading THE END IS NEAR? I try not to be.

But throughout my years of working in leadership groups and inspiring people to take action, I've learned that it is invaluable to understand a task in terms of urgency and deadlines. That's how to get people off their duffs—by making them aware of the ticking clock.

Notice that all the predictions for 2041 are predicated on "if current trends continue." Hitting a wall in oil consumption, species decimation, sea levels, global temperature—all these outcomes are not inevitable. They can be addressed, changed, or averted by concerted international action.

On the other hand, a few climate-change activists and sober-minded scientists aren't talking in terms of 2041. They're talking 2020. I might be an optimist. We might not have three decades. We might have only one. The question is, when do changes to the biosphere—the place on the earth's surface where life dwells—take on an unstoppable momentum?

Where the crisis is clearest, where the threat is most immediate, is in the land that I love, Antarctica. That's what has led me to take up the challenge of climate change, to become an environmental advocate and an inspirational speaker. To preserve Antarctica, we have to change the world.

The world's first oil industry did not start in Ohio or Pennsylvania or Texas. It started in New England, and its product was not petroleum pumped from subterranean cavities but oil extracted from the boiled blubber of bowhead, right, and baleen whales, sea mammals that were harvested at the point of a harpoon.

Imagine that we are working in the whale-oil industry in Nantucket in the nineteenth century. It was a vast and sprawling enterprise, providing light and energy (and whalebone corset stays) to the world. But the industry took the whales to the edge of extinction. As workers in the enterprise, we would have witnessed its total collapse over the course of just a few decades. Our Silicon Valley ceased to be. Our livelihood vanished.

Standing dumbfounded in once-bustling Nantucket, among the shuttered warehouses and ghost hulks of the whaling port, what would be our reaction? We might ask ourselves the perennial question of the unprepared and self-deceived: *What's next?*

Well, thanks to John D. Rockefeller and Standard Oil, we found a new source of energy. The new Nantucket was, Houston, Texas, then Dubai and Brunei and Scotland. But we find ourselves on the down curve of the slope, in the dwindling phase of the market.

What's next? What has our modern-day Nantucket, the petroleum industry, given us? Great things, there's no argument about that. Central heating and light and transport, a rising standard of living, better health and cell phones and iPods. Our amazing contemporary world.

But really, what's next? The sooner we pose that question to ourselves, the sooner we grapple with it honestly and in good faith, the less likely we will find ourselves standing in a shattered modern-day Nantucket.

We need a new method of supplying ourselves with energy, and that method needs to take into account green concerns. It needs to be sustainable. It needs to supply us with light and heat and transport in such a way that it does not cook the atmosphere.

The gates to the last-discovered continent have opened wide. More people journeyed to Antarctica in the last decade than in all the years since it was first sighted. It's been only a century since Roald Amundsen, Robert F. Scott, and Ernest Shackleton made their epic expeditions of exploration. Could it be the case that climate change will have a devastating impact on a place that was first explored only a hundred years ago? Can humankind really screw things up just that fast?

To be able to look forward, it helps to look back. The first part of this book is an account of my expeditions to the South and North poles—how we did it, the obstacles along the way, the changes to my thinking because of my experiences. A backward look at what

brought me to look forward, with urgency and hope, to the year 2041.

An integral part of my biographical history, and thus a second integral part of this book, is what transpired long before my time, during the history of discovery in the polar regions, now recognized as the Heroic Age of Antarctic Exploration. First and foremost, the endeavors of my personal triumvirate, Scott, Shackleton, and Amundsen, but also of those intrepid souls who came before them.

The year 2041 happens to mark the bicentennial of British naval officer James Clark Ross's charting of the Antarctic coastline in 1841, an expedition that I have always considered as the true beginning of the Heroic Age of Antarctic Exploration. Ross—who gave his name to the ice shelf I stood upon in 1985—has held a place in my pantheon of heroes ever since I was a child. Before the age of steam, commanding HMS *Erebus* and HMS *Terror*, two tublike former mortar-launching boats under sail, he displayed an astonishing vault-into-the-unknown bravery easily the equal of Columbus.

Before Ross, the map notations of the Antarctic Ocean read like this: "Many Isles & firm fields of Ice; Islands of Ice innumerable; Vast Mountains of Ice." This was *mare concretum*, the frozen sea, crusher and sinker of ships, a hazard that had halted every sail captain before him.

Ross plunged forward. He entered the pack ice on January 4, 1841, and five days later he emerged into the open sea that would, like the ice shelf he discovered, later bear his name.

"Few people of the present day are capable of rightly appreciating this heroic deed, this brilliant proof of human courage and energy," wrote the great Norwegian explorer Roald Amundsen. "These men sailed right into the heart of the pack, which all previous polar explorers had regarded as certain death."

James Clark Ross would be rewarded with sights never before seen with human eyes, the "spectacular and theatrical" mountain ranges of what he called Victoria Land, after his queen, and the smokeplumed active volcano he would name Mount Erebus, after his ship. Most impressive, though, was the sheer ice face of the barrier—the "Perpendicular Barrier of Ice," as he labeled the Ross Ice Shelf when he wrote on his chart. The sight of the barrier stunned the seamen aboard the *Erebus* and the *Terror*. Wrote one:

All hands when they Came on Deck to view this most rare and magnificent sight that Ever the human Eye witnessed Since the world was created actually Stood Motionless for Several Seconds before he could Speak to the man next to him.

This man, a ship's blacksmith, wished he was "an artist or a draughtsman" so he could convey the beauty of what he saw. Another, the *Erebus*'s surgeon, never the left the deck for twenty-four hours, so mesmerized was he by the unbroken wall of ice.

Reading about Ross as an adolescent, I was convinced that here was the perfect calculus of the explorer. To head off into the unknown, face an insurmountable obstacle, overcome adversity, and be the first to lay eyes on unimaginable wonders.

There are a couple ways to approach stories like this. One way, the easiest way, is to get swept up in the adventure of it all. Ross faced what was considered certain death and went forward anyway? Wow! But another way is to consider what it took for Ross and people like him to accomplish what they did. What elements of courage, leadership, and foolhardiness made up that fateful decision to brave the ice pack?

So, yes, there is an element of adventure in the accounts of our own polar expeditions. None approaching that of James Clark Ross and other early explorers, of course, but ice crevasses crossed and shipwrecks survived and leopard seal attacks warded off.

But behind these stories, and I think more important than them, are leadership ideas gained by painful experience. Lessons learned by early explorers, and ones that I discovered following behind them. These ideas are the true human legacy of Antarctica. They apply to any enterprise where team building and long-term effort are natural, essential elements. They comprise a third important element of this book.

From the first, my focus on leadership has always concerned the question of how leaders go the distance. How do they sustain leadership over the course of an arduous, extended expedition? During a political administration? Throughout the history of a business? I have come to believe that leadership might be in abundant supply in this world—after all, many people will step forward and offer to lead—but sustainable leadership is a rare and vital commodity.

One reaction of listeners when I tell our story continues to surprise me. They enjoy the descriptions of a forbiddingly beautiful land, which most of them will probably never visit. But more than that, they want to know how I put together my expeditions. How did you do it? Amid the nitty-gritty details of mounting a complicated enterprise, building a team and enlisting support, they sense the most immediate application to their own struggles, their own lives.

My most cherished hope is that the ideas of sustainable leadership, developed during treks and expeditions, can in some small way be applied to the biggest environmental test facing us today—how to keep the planet human-friendly and hospitable to life, reversing the degradations of the industrial era.

I never want to be pigeonholed and filed away dismissively in the "green" box. To me, the environment isn't a cause, it's a totality. Where environmental issues meet leadership concepts, where dreams meet the effort to make them become real—in that crucial and ultimately compelling area is where I want this book to live.

The year 2041 is a deadline and a challenge. If we don't renew the treaty, if we allow mining and drilling to rip the guts out of this starkly beautiful, austere, terrifying continent, it won't just mean the failure of my insignificant, mostly ineffectual efforts. It will mean our failure as a people, as a species, to protect the planet that gives us a home.

I'll be honest with you. In the beginning, the fragile polar environment was not much on my mind. I organized my first Antarctic expedition to test myself and, as I stated, honor my heroes, Robert F. Scott, Ernest Shackleton, and Roald Amundsen. Even after I arrived at the pole on January 11, 1986, after a trek of nine hundred miles, I still thought primarily of adventure, not conservation.

That's because, as a young boy, I had fallen under the sway of bad influences: swashbucklers, sea captains, and intrepid explorers. Any plans my parents might have had for me to lead to a quiet, straightforward, *normal* life were disrupted by the allure of the heroic quest, which I first discovered in a movie I watched on TV in the warmth of my own home in Britain when I was eleven years old.

Excerpted from ANTARCTICA 2041 by Robert Swan with Gil Reavill. Copyright © 2009 by Robert Swan. Excerpted by permission of Broadway, a division of Random House, Inc. All rights reserved. No part of this excerpt may be reproduced or reprinted without permission in writing from the publisher.