



Alexander Kumar survives winter in Antarctica. Pictures by the author

NOWHERE LAND



JUST A FEW MONTHS AFTER answering the job advertisement for what may be the coldest and loneliest job in the world, I had packed my mind and body for a year away from home and the adventure of a lifetime.

The temperature outside falls below minus 80 degrees. Welcome to the coldest place on earth. I am a 29-year-old Oxford-based British medical doctor living at Concordia Station, a French-Italian research station and one of the most remote outposts on the planet. It is located in the world's most extreme environment.

I came to conduct research for the European Space Agency's



human spaceflight programme and, just before winter began, also took on the challenging role of the station's doctor.

If I could travel to the moon from here it would only take three days – far less than the three weeks it took to fly from London to Hobart and then to sail by icebreaker across the Southern Ocean. People say that once you have seen your first iceberg, you have seen them all. Nothing can be further from the truth. Like clouds, all inspire the imagination with their many shapes and forms, contorted by Antarctica's surly winds and the gentle passage of time. You soon realise this land is like no other. In Captain Scott's words, it really is "the uttermost end of the world".

Arriving into the coastal station, Dumont d'Urville, I was greeted by a 60,000-strong rookery of Adélie penguins, as pungent as they were adorable, forming penguin rafts in the waters. The journey wasn't over. I took a five-hour flight inland in a Twin Otter. En route we stopped to refuel, bundling out for a moment into the Great White Silence – specks of dust on a blank white canvas. Perhaps God had forgotten to paint here, I thought.

I flew on, into a romantic and desolate, blanched ode, remembering the lines of *Ozymandias*. Before me, glistening in the 24-hour polar sun, stood "Two vast and trunkless legs of stone... The lone and level sands stretch far away." The two cylindrical Concordia towers, three

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THIS IS A JOURNEY TO THE GREAT BEYOND

storeys high, were to become my living quarters for this past year – a fortress protecting its inhabitants from the beautifully bleak exterior.

Nothing lives outside our station for over 1,000 kilometres, in nearly all directions. Our nearest neighbours are the astronauts orbiting the earth on board the International Space Station, and then some Russians living at Vostok station.

It is strange to think that I have only seen the same 13 faces for the past year. With my own beard, grown to protect me against the winter, I barely recognise one of those faces.

Our crew is predominantly French and Italian, with myself the only British member, and



Concordia's resident meteorologist, Igor, our lone Russian. In waving away the last plane and contact with civilisation last February, our fate felt similar to the crew of Sir Ernest Shackleton's vessel, *Endurance*, which became sealed and locked in the ice. A frozen pancake sea of icy white surrounds us as far as the eye can see.

As a team, we eat, sleep, exercise, conduct science and survive alone. We were completely isolated for nine months until the next plane dropped by, in November. Our 'vessel', Concordia, has become our home and sanctuary, frozen into the ice since it was built in 2005.

Living in an Antarctic station can be likened to living in one of the Old West frontier towns – a continual sense of not knowing

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WINTER MARKS THE BEGINNING OF THE WORLD'S GREATEST MENTAL MARATHON

if or when you may strike gold, in terms of the many scientific discoveries waiting to be made. We conduct earth science research including glaciology, meteorology, seismology and astronomy, alongside my own research (on the adaptation of human health and well-being to this extreme environment), and trying to help in arranging the jigsaw pieces involved in sending a manned mission to Mars and back.

Antarctica's ice layer protects and hides its secrets like a thick skin, stretched over the bedrock many thousands of feet below. Recent efforts at Russia's Antarctic Vostok station tapped the veins of the sub-glacial lakes, which flow deep beneath the surface, which

may harbour evidence of life forms of our distant past. But as yet this continent's secrets remain teasingly elusive.

Ice cores plucked out of the 800,000-year-old ice have told a story of their own – the impact of mankind on Earth and climate change. Century-old equipment was used in the discovery of a hole in the ozone – earth's own flesh wound, which may yet scar over.

As winter sets in, you stop living and start surviving. Temperatures plummet below minus 80. In May the sun sets for the last time and a blanket of darkness falls, leaving you to endure three months of 24-hour darkness. Lack of oxygen due to high altitude disturbs your sleep, as your circadian rhythm dangles precariously from a thread

spinning uncontrollably over the world's time zones, leaving you gasping as you wake from unforgiving, vivid dreams.

The cold and isolation begin to seep in and your mind begins to stretch uncomfortably, as your senses become blunted by the sensory deprivation. Life turns from Technicolor to black and white, marking the beginning of the world's greatest psychological marathon. Once you enter the Antarctic winter, you begin a personal journey of discovery like no other. The days tire on and you begin to fatigue too, but you can only move forward. Hope beats high, for there is light at the end of the tunnel.

Every so often, you have otherworldly visitors. Flickers

of green cut through the darkness and shake your senses. The *Aurora Australis* (Southern Lights) break the monotony, offering fleeting, boisterous dances above you.

With the return of the sun, life is resurrected. The Austral summer opens up through one of the most magnificent seasonal changes found anywhere on the planet. Coastal life springs into action, becoming the center of attention and focus for summer visitors above and below the ocean's swirl. Towering icebergs are toppled and sea life is stirred by the Antarctic circumpolar currents, from the dramatic Drake Passage to the historic Ross Sea.

Tourists are bedazzled by the hopelessly raw wilderness that awaits them at the bottom of the

In pictures: Snapshots of life at Concordia, a French-Italian research station over 3,000 metres above sea level on the Antarctic Plateau.

world, where they are welcomed by penguins and splashed by whales. Antarctica is one of the natural world's last undisturbed playgrounds, and I consider myself extremely fortunate to be able to share a glimpse of it with others.

It is a place of dreams and nightmares, testing any traveller to voyage to it – and deeper still into its winter. Visiting Antarctica, whatever the season, may as well be stepping through a wardrobe – a journey to the great beyond. This fairytale world that awaits is extraordinarily magical and magnetic, leaving your imagination bewitched and haunted for life, and your soul entranced and addicted, craving a return to marvel at its true, honest and calming beauty. 