

Thin ice, thin air

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A boom like a thunderclap. The mountain itself is detonating. ‘*Avalanche!*’ cries Hem Raj.

Snow surges down the side of Nuptse. It rushes like water, fanning out over grey rock. Clouds of spindrift fume above it. Hem Raj, Prem, Anna, Kristin, Melissa, and I are standing on the ridge of the Khumbu Glacier’s moraine. We’re on the opposite side of the valley. Safe. But there’s a knot of tension in my neck. I always thought the melting of the mountains would be slow: ice lost in millimetres, rivers creeping and encroaching. This is violent.

In the distance, there’s a village of yellow and white tents, perched on the ice itself: Everest Base Camp, the high point of our trek. We can only see the top-most pinnacle of Everest from this angle, but we’re standing right on its rocky root-system. A scarf of wind-driven snow spools from the mountain’s forehead.

The tents of Base Camp stand on the living Khumbu Glacier. Beyond the camp, there’s the Khumbu Icefall, often described as the most treacherous section of the ascent from the south. And the biggest risks aren’t borne by wealthy clients who pay to take their chance at the summit. They’re taken by Sherpa mountaineers, who fix the lines of ascent and place ladders across the crevasses. By Sherpa porters who must cross the icefall again and again to stock the high camps with supplies. Sixteen Sherpas died in 2014, when an enormous ice tower collapsed. The glacier bristles with crevasses and seracs. I watch four tiny figures, stark against the white ice, setting out for the ascent.

I imagined that the summit of Everest would shine with snow, but it’s sombre, grey, stolid. Its huge shoulder blade stretches out westwards. While Nuptse resembles the white sails and graceful mast of a boat, and Ama Dablam’s glacier-pendant sparkles, Everest appears hulking. In 1921, when Mallory first glimpsed it, he called the mountain ‘a prodigious white fang, excrescent from the jaw of the world’. Writing the following year, he perceived its face as ‘cold

and white'; in the same letter, he detailed the avalanche that killed seven porters assisting his expedition. Jon Krakauer described first setting eyes on the 'ink-black wedge of the summit pyramid' in his account of the 1996 Everest disaster, *Into Thin Air*. Authors' contexts and preoccupations colour their accounts of the mountain – Krakauer's Everest is sombre because he writes in the wake of eight deaths. But as I stand at the mountain's foot, almost exactly a hundred years after Mallory's second expedition, the mountain appears stark and dark and bare because it is losing its ice.

I've never climbed Everest, and probably never will. But I sometimes try to imagine my lungs straining, heart hammering, head swimming in sparse air. I read Ian Serraillier's poem *Everest Climbed* at school, and ever since, I have wanted to see the mountain that Nepalis call Sagarmatha, the Sky Goddess. When I look at maps, I try to pick out the Western Cwm, the West Shoulder, the South Col, and North Col. *Cwm* is Welsh and *col* is Alpine French: names from lower ranges far away, mapped incongruously onto the loftiest of heights. How this mountain possesses people. And there are all those who died, too soon, too young. Their sky burials in high cold and rare air. Most of them are still up there. If I did attempt to reach the summit, my odds of joining the dead would be – what? Is it still as many as one in fourteen? And in one of the more ghoulish actions of climate change, the mountain glaciers are giving up their dead. Up at Camp One, a climber's hand emerges from the ice. I thought of what the Swiss writer, environmentalist, and alpinist Maurice Chappaz wrote about the way bodies are preserved in the crypt of crevasses: *A son sees his father again, younger than him*. My father always wanted to trek to Base Camp. What wouldn't I give to see his face again.

The ice is alive. You hear it groan, shift, and settle. To the east of the gravelly path leading to Base Camp, the glacier stretches out, smudged with grey debris. Pools of blue or grey water break through the rubble of boulders and rock flour on its surface. There are cigarette butts and coconut cookie wrappers and empty Coke bottles and yak shit on the broad, gravelly trail. I pass a porter carrying an empty jerrycan of fuel down in a wicker basket. This morning, as we hiked, Kristin played 'Fire Song' by the folk singer Jessica Willis Fisher through her portable speakers:

*The smoke is filling up the room
can you smell the kerosene?*

An enormous lump of granite stands at the entrance to the camp, daubed with 'Everest Base Camp' and scrawled with tourists' names. A rusty oil drum serves

as a bin, labelled 'Transported by Sagarmatha Pollution Control Committee'. The path curves right, and we step from gritty moraine onto debris-covered glacial ice. The trail perches on the edge of an enormous meltwater crater. Snow penitents – spires of ice resembling white-shrouded figures in pointed hats – spike up from its edge. But they are so thin that the sun shines through them. *The sky's about to cave... the moon is black as coal*, goes the song.

Row upon row of tents are perched on the gravelly glacier: white geodesic domes, rectangular sleeping quarters in high-vis yellow or highlighter orange.

Three men come stomping down the rough path in knee-high mountaineering boots. Hem Raj confers in Nepali with their leader: 'They've come from Camp Two', he explains to us. 'Well done!' we respond. These alpinists will climb up to each of the four camps in turn, acclimatising to the brutal altitude before they push for the summit.

A Russian mountaineer stumbles past, badly sunburnt, sporting a Seven Summits Club softshell. He mutters a gruff 'Zdraste!' His Sherpa leader wears a harness that clinks with jumars and karabiners: the gear climbers need to attach themselves to the mountain on fixed lines.

'Namaste!' Hem greets him.

'Well done!' we say.

The Russian climber looks spent. He trips on the moraine, staggers, regains his footing, and dives into an orange tent.

Meltwater burbles into a channel, mixing with plastic wrappers and green-brown smears of yak dung. Pedestals of ice support great mushroom-caps of rock. These are glacier tables: rocks which cast shadows that prevent the ice immediately underneath them from melting. Some of the raised boulders have skeins of prayer flags draped around them. As I approach the nearest one, grains of rock loosen and skitter down to its foot.

Climbers report seeing the ice bulging up under their tents, and crevasses yawning open while they sleep.

The Khumbu Glacier is the second longest in Nepal, but it is shrinking by thirty metres per year. Base Camp is lower than it was for Hillary and Tensing. The village of climbers' tents may soon be moved lower down the mountain, where there is no permanent ice.

Glaciers store memories of places and their pasts. Ice cores taken from Everest reveal that the last hundred years have been the hottest in two millennia. And glaciers can literally disappear into thin air. The heat of the sun transforms them straight from solid to vapour, bypassing the liquid stage: a process

called sublimation. As I pause at the point where gravel gives way to naked ice, I think about the strangeness of this. So many people have written about mountains as sublime – inspiring an awe tinged with fear – but the mountain cryosphere is delicate and vulnerable. Sublimation is the main way the South Col Glacier, higher up Everest, loses ice. Its snowpack has dwindled, and its black ice is bared to the sun. It may be gone in a few decades. Ten years before I hiked to Base Camp, veteran Everest mountaineer Apa Sherpa described the world's highest peak as having more 'bare rock' than when he first climbed it, causing dangerous rock falls.

And it's too late now, Jessica Willis Fisher sang from the speakers this morning.
Look up, look up,
the flames are getting higher.

Despite the cold, the sun is overpowering; I can feel it burning my cheeks and the nape of my neck.

I ask Hem Raj, our trek leader, about changes he's seen. 'I've been coming here for fifteen years,' he tells me, 'and each time the ponds on the glacier get bigger. The mountains are melting. The glaciers are melting, and some of the lakes are disappearing. When a glacier melts, the mud and rocks go into the lake, and it gets smaller and smaller until it is gone. Landslides are becoming worse – people died in a bad one in 2017. And as global warming increases, the landslides come more often. It's a problem all over the world', he continues. 'Nepal may lose the mountains, but when the glaciers here melt, cities near the coast will sink into the sea.'

There's a twist of unease in the pit of my stomach. I'm under no illusion about the part I've played in this. I'm from a wealthy country, I've flown here, I've got oil on my hands. I look at a meltwater pond and remember the puddles of aviation fuel on the runway at Lukla, the mineral stink of petroleum. Some people here may even benefit from climate change – warmer weather means that crops flourish in regions where they never grew before. But the greatest beneficiaries of climate change are the ones who have worked hardest to hide or deny it: fossil fuel companies.

I walk back towards the glacier's snout, to the edge of a huge sunken bowl in the ice, where the ground drops away. A slope of damp, unstable gravel. It reminds me of the Great Stone Chute on Skye. The slope hangs above a great cauldron in the glacier. A curving stream scours and rushes below. Icicle columns overhang its lip. The water churns down into this sinkhole – a moulin, I guess. I inch down, using the sides of my boots for traction, but I lose my footing, stumble, and slither half a metre on my bottom. A French trekker, camera

Other Everests: one mountain, many worlds

in hand, is trudging up from the edge: 'You can take your bag off and walk more easily.' I smile. 'Thank you.'

I creep as close as I dare to the sinkhole and stand on the brim. I look down into the frigid water. If I fell in, the stream would whirl me down the glacier's freezing gullet, to its stony bed. I'm standing on rock that the glacier has ground to powder, and I know that beneath my boot soles, the ice splits and slips and liquefies. The water's roar overwhelms my hearing. I stand there, giddy with altitude, my neck and ears blistered by the sun, and look down into the churn of meltwater. I'm balanced on the brink of a tipping point.