

Between Fire and Ice

Glaciers fashioned the famous profile of Yosemite Valley. John Thaxton climbed to Glacier Point in winter to see the park in its primeval state—white, glorious, and dangerous.

I was climbing a rock ledge when the avalanche started. I had just emerged out of the alpine forest near my destination—Glacier Point, a shelf of rock that is one of the best vantage points in Yosemite. The view was all clouds—a low, flat layer overhead, a motley flotilla below, flanked on either side by rugged canyon walls that evaporated upward into the ether. And at dead center, where I was headed with my camera, sat a woman, denim-clad, alone, on the very rim of the precipice, legs dangling over the edge. I clambered up rocks to take a picture of the cloudmountainscape without intruding upon, or including, the lone woman. As I released the shutter—wondering, having labored to do otherwise, whether I should have included her after all—the silence that I hadn't noticed exploded in a sudden, hard rain. It grew louder by the nanosecond, until it occurred to me, a second or two later, the camera down from before my eyes—that this wasn't rain: It was an avalanche.

The vast cascade of ice and snow poured down the sheer canyon wall, perhaps thirty yards to my left, ominous and graceful and white. Fragments of ice the size of footballs arrived with my consciousness of what was happening, crashing all around me as I dropped to my butt, slid back down the steep rise, and scrambled to the lee side of a giant ponderosa pine. My wife, twenty yards away, was crouched low behind a boulder in a tight stand of small hemlocks. But the woman in denim, whom I spun round to check on, was still sitting there, perfectly unaware of the peril, so ravished by Yosemite's cold splendor that she was oblivious to the implacable power, the essential fearsomeness, of that much falling ice.

I had been to Yosemite before—in midspring at the height of snowmelt, during a week when I actually saw park rangers taking pictures of waterfalls. That's how gorgeous the place is—the employees carry cameras. But this was late winter, when the High Sierra was almost entirely white, the falls almost a parody of grandeur.

I would fly over Yosemite and Glacier Point—where I was huddled—a few days later, in early morning light, when the peaks and snowfields of the High Sierra present bold arrangements in black and gray, dazzling whites, and the blues of shadow. Mount Lyell, at 13, 114 feet the highest summit in Yosemite National Park, looks from above like a charcoal gray and deep

indigo pyramid placed curiously in a desert of windswept snow. But for the wind, which blows it in gauzy banners miles long from the summits, combing it like spindrift from the crests of the highest ridges, snow would have overcome the High Sierra three million years ago and ground down the highest of its peaks from above, even as the glaciers that grew in its cirques continue to gouge out its sides.

“You should do this in summer,” the pilot said, poking the slim radio mouthpiece down from before his smile.

Hatchet-sharp aretes, sinuous black ridges miles long but only a few feet wide, thin lines from the air, sweep east and west from the shoulders of Mount Lyell in long, loping curves that describe a bowl of near-vertical snow. Above and from the north, the deep blue pyramid peak and curvaceous ridges resemble a gigantic mussel shell filled with—and all but buried in—white sand. An adjoining peak with four or five evenly radiating ridges recalls a starfish half-sunk in the sandy floor of the shallow sea that used to be here.

“Late summer,” the pilot added, “when the snow’s all gone. Then you can see the glaciers. They’re blue.”

The small plane banks. A hazeless, cloudless sky rolls down the window like a pale blue shade. To my left a herringboned whorl of black rock and white snow reels past the pilot’s profile. He smiles as he levels the plane, arcs up, and heads for a final flyby over the Lyell and Maclure glaciers, two thousand feet below us by the time we pass.

“Blue as Windex,” the pilot says to the back of my head.

Still smiling, he levels the Cessna. He stays at fifteen thousand feet because there is no turbulence today. I see a rainbow near the top of Yosemite Falls and the dark gray eastern face of Merced Canyon, rising three thousand feet almost vertically from beside the river to the Mecca, the Ararat, the centerpiece of our trip: Glacier Point.

Glacier Point looks down at Vernal and Nevada falls, over at Mount Star King to the southeast and Clouds Rest to the northeast, and straight out at Half Dome looming over the confluence of Merced and Tenaya canyons. Standing on its edge, you get a wide-angle (140-degree) study in what a glacier does to a landscape. Beyond the blue footprints and ski tracks at the brink of the precipice, the foreground drops away into a ten-foot-wide cornice of windblown snow, a drift thrust out over the abyss, undisturbed—no coyote tracks, no raven tracks even. The abrupt loss of the ground twenty feet in front of you does something dizzying to the panorama beyond; the near and far scan at surreally different rates.

It is terrifying. Which may be why everybody wants to go there. In summer, hundreds of people gather on Glacier Point—for hundreds, one imagines, of reasons. But one Thursday night last winter, there were just four of us staying overnight, on a guided tour conducted by the Yosemite Cross-Country Ski School.

Having set up base camp at the Ahwahnee Hotel in Yosemite Valley, we signed up for the second half of a mid-week package that included two days of instruction before the ski trek out to the overnight lodging at Glacier Point—a three-thousand-square-foot Quonset hut about forty feet from the edge of the abyss. We discovered, upon arrival, that its most picturesque amenity was a three-quarter ax, at rest beside a pile of logs wider than the opening of the stove. Being the only gentleman in attendance, and having rather a talent for splitting, I split up a storm, realizing with my first shot that this was an activity to be done in one fell swoop. I had never, it occurred to me, split wood indoors; each stroke of the ax reported like a howitzer in an empty subway tunnel. The wool army blankets on the row of cots ten feet beyond the brick hearth leaped up at each stroke with Busby Berkeley precision. I suggested that everybody leave while I split. They did.

The trek begins at Badger Pass, from which we ski to Glacier Point, a ten-and-a-half-mile cross-country trail that starts with a two-and-a-half-mile downhill run. At first the sun is right in my face, the landscape blinding, the snow slow, a bit slushy. Then, as the trail curves north through a chiaroscuro of sunlight and shadow, I almost lose my balance. When I pass from light to dark, I hear the hiss of my skis changing pitch, feel the sharp drop in temperature, lean into it, open my eyes. In the shade the snow is pale blue. The trail curves, my knees bend, my pupils constrict against a vast blast of white ten seconds down the trail. I can see no detail whatsoever in the white, and so I stare into it, blinking, squinting, hearing the hiss of my skis.

The downhill run levels out into a mile-and-a-half stretch of undulating plateau and then drops steeply for a mile to Bridalveil Creek. The creek is a noisy black pattern among huge white spheres and cylinders, under curving silver shelves of ice. The air in its col is thrillingly cold. From here we ski uphill for four unrelieved miles, then stop for lunch at the edge of an open ridge. We eat ham and cheese sandwiches as we take in a sweeping view of the Clark Range, just south of Mount Lyell.

“It’s best to keep your sunglasses on while you eat,” our guide tells us, “and if you feel yourself sliding, or any dizziness or anything, fall down. Don’t think about—okay? Just fall down.”

I wonder what sort of organization would adopt as its slogan *JUST FALL DOWN*.

Framed by dark forested ridges on either side of us, the Clark Range arcs below the sky in a jagged horizon. Ravens wheel slowly and croak overhead, their shadows racing by us as they pass. A Clark’s nutcracker swoops through the view, screams from the top of a pine.

I keep on. What will take an hour to ski up tomorrow, I ski down in ten minutes this afternoon, smiling widely as I glide out of the woods and gradually slow to a stop right in front of the hut, which is below me. All but the chimney and dugout entranceway are buried under snow. I gloat over not

having fallen the whole day as I see my wife, also smiling, descending in parachute-hue purple through the pines, driving a pair of ravens before her.

Gawking at the view, I take off my skies, absentmindedly, perpendicular to the ridge.

“John, your ski!”

From where I lie on my belly in the snow, squinting over sunglasses too caked with it to see through and the cold white blurry rim of my headprint, I see a great field of luminous, pale blue ice filling the Yosemite valleys and canyons rim to rim, a few high black-and-white domes and ridges projecting above it. It is an uncannily accurate picture of what I imagine it looked like three million years ago, during the first and most extensive of the Pleistocene glaciations. As I study the landscape, snow melting down my shoulders and neck and wrists, my sunglasses hopelessly fogged—I remember, yet again, that the essential dialectic in this world is that between radioactivity deep in the earth’s core and the infinite cold of interstellar space; in a phrase, between fire and ice. These two forces, with crystals and time, created this landscape of dizzying, awesome beauty.

“Are you all right?” my wife asks from behind.

I nod as best I can with my face in the snow; wave reassuringly with the hand on the ski.

From about four hundred to two hundred million years ago, the continental shelf of proto-North America occupied the space that Sierra Nevada occupies now. At that time the Pacific beaches were in what is now western Nevada, and the North American tectonic plate was floating west on the earth’s plastic outer mantle. The Pacific tectonic plate the while was floating east, with the result that during mid-Jurassic time, circa 150 million years ago, the two plates met, pushed against each other with platonic force, and then one slid beneath the other. It was a subduction scene. The Pacific plate underrode the North American plate and started melting into earth’s semiliquid outer mantle, injecting upward, as it plunged, a massive linear chain of volcanoes and a vast underground reservoir of magma, the Sierra Nevada Batholith.

“Need any help?” my wife inquires.

After the batholith hardened, a period of uplift thrust it through the sedimentary floors of the shallow seas off the coast of Nevada and eleven thousand feet into the air. Twenty million years of snow and fast rivers eroded it down to rolling hills of a few thousand feet; and then, twenty million years ago, it started to rise again, and it’s still going. What sculpted it as it grew into the spectacular landscape I see, raising my chin over my headprint, is the same stuff I flick off my nose and sweep from the top of my sunglasses: ice crystals. I see more as my breath melts the rim of my headprint—I see all the glaciers that endure here, right now, at the very threshold of the Holocene. It tickles my nose something fierce

“Going to stay there all night?”

Glaciers form and break down more quickly than other geological formations, and they flow beneath the weight of their own gravity, shifting internally along myriad crystal planes as they range, busily seeking, continually changing. They move upon the landscape when, under the weight of those above, the crystals below rearrange themselves, slipping along planes by melting and refreezing a ten-millionth of a millimeter at a time. When the crystals of the pre-Taohoe ice sheet moved their ten-millionth of a millimeter downstream, they plucked their colleagues of quartz and feldspar right off the valley and canyon walls I’m looking at, in some places in vast and elegant planar sheets. They gouged the V-shaped canyons of wild ancestral Sierra rivers into the wide and flat-bottomed U shapes of the Merced and Yosemite valleys.

Like tributary streams, tributary glaciers followed the landscapes of least resistance to larger ones, sometimes flowing into them hundreds of feet above their base. When the glaciers retreated, the valleys of these overhead tributaries were left hanging at the tops of sheer rock faces, like the one over which Nevada Fall, below me and to my right, plunges 594 feet in a cataract of billowing white. I wonder at the geologic history of narrow, noisy, black Bridalveil Creek, which I saw from a turnout two days ago, watching a rainbow rise where it spilled into the puffy white silence of Bridalveil Fall.

Still bellyflopped and squinting toward the horizon, I can almost see the giant planar joints that the Sierra Nevada Batholith fractured into. It rose with a giant wedge of earth’s crust. Rivers and glaciers followed, eroded those fractures, sculpted them, dammed them with sediment, filled them with lakes, turned them into flat marshlands and meadows at the bottom of deep romantic chasms full of clouds and rainbows. Voila—Yosemite.

We ski back the next morning, and that night we dine late at the Ahwahnee, in the cradle of comfort, if not civilization. I peer over the top of the wine list as the waiter tells me the crab is local. Outside the window where we sit, about a mile away, Glacier Point rises above a dark green canopy of ponderosa pines. Trying to see it through the darkness, I see instead a reflection of the room behind me—the twenty-four foot vaulted ceiling, the row of chandeliers, the dark ebony sheen of the baby grand at the far end of the room, the face and hands and sheet music of the player, a field of candle flames, a man in a tuxedo pouring champagne.

I taste it—lovely—as the pianist segues from Satie to Gershwin. The dining room at the Ahwahnee is a classic—rustic, elegant, big as an airplane hanger, yet strangely intimate. As we leave it, smiling, we notice a blue dungaree jacket and denim nor’easter hat lying on a couch in the cavernous lobby. Beside them, her back to us, elbows on her knees, and her chin, I imagine, resting upon her hands, sits a dark-haired young woman in a black sweater, staring at the fire. We move one tenn-millionth of a millimeter

toward her without breaking pace, smiling wider as we head to our room with its view of Glacier Point.