'THE BOOK OF UNCONFORMITIES' REVIEW: OF THE GAPS IN DEEP TIME; LIFE IS filled WITH UNCONFORMITIES, REVEALING HOLES IN TIME THAT ARE ALSO fissures in FEELING, KNOWLEDGE AND UNDERSTANDING.

Our lives, our histories and our prehistories are defined less by the seamless accumulation of everyday events than by jarring dislocations that seem to come out of nowhere. Cataclysms—think 9/11, or Covid-19—rupture time, leaving permanent scars that may be deeply personal or felt across entire communities.

A quarter-century ago, the life of anthropologist and author Hugh Raffles was dislocated by the unexpected deaths of his two sisters: Franki, during a childbirth of twins, and Sally, by suicide three months later. Stunned by grief, he began "reaching for rocks, stones, and other seemingly solid objects as anchors in a world unmoored, ways to make sense of these events through stories far larger than my own."

The Book of Unconformities

By Hugh Raffles Pantheon, 374 pages, $30

Following "Insectopedia," his exploration of the intersection of the human and insect worlds, and "In Amazonia," a portrait of the South American rainforest, "The Book of Unconformities" is the author's almost metaphysical account of his search for solace among the stones. Counterintuitively, his closure came not from the stones themselves but from the gaps between them, hence his subtitle, "Speculations on Lost Time." Geologists call these gaps "unconformities" because the rocks below do not conform in time to those above them. Mathematics has its famous incompleteness theorems, written by Kurt Gödel in 1931. Geology finds its counterpart in unconformities, where incompleteness rules the rock record.

In a high-voltage jolt of insight, Mr. Raffles converts what might seem a dry scientific concept into a potent literary metaphor to help anyone whose sense of time has been fractured by loss. "Life is filled with unconformities," he writes, "revealing holes in time that are also fissures in feeling, knowledge, and understanding; holes that relentlessly draw in human investigation and imagination yet refuse to conform, heal, or submit to explanation." "Unconformities" is so rich in erudition and prose-poetry that I read it like a glutton, tearing off big bites of lost time until I was sated.

One gap pulled out of the past: June 1788 at Siccar Point near Edinburgh, Scotland. Three men in a boat look shoreward to scrutinize a wave-gnashed bedrock cliff. Their leader, James Hutton, points out to his companions, John Playfair and James Hall, the irregular surface between tilted gray strata below and flatter beds of red sandstone above. This surface—the first unconformity ever properly documented—was the missing clue Hutton needed to understand how staggeringly deep time really was and how the Earth behaved like a colossal recycling machine: eroded gaps in uplifted places provide the sediment needed to fill growing voids in subsided places. Like our lives, the Earth is a composite of losses and gains.

Another gap, more than a century later: Three Arctic explorers, the Greenlandic-Danish Knud Rasmussen and his Greenlandic Inuit companions, Arnarulnnguaq and Qaavigarsuaq, stand on the observation deck of a Manhattan skyscraper in late 1924. The full contrast between this constructed urban scene and the natural emptiness of the circumpolar Arctic is a jarring collision. Arnarulnnguaq explained: "I see things more than my mind can grasp; and the only way to save oneself from madness is to suppose that we have all died suddenly before we knew, and that this is
part of another life." She was experiencing a human unconformity, the sense of having two seemingly separate lives within a single individual bracket an unknowable gap in time.

Between its dramatic prologue and epilogue, "Unconformities" has six chapters, which can be read in any sequence. Each has an earthly title and is copiously illustrated, mainly with photographs. One hundred pages of notes ground the author’s vivid writing in rock-solid scholarship. Mr. Raffles opens with "Marble," an extended riff on the time-gaps recorded in the landscape of New York City that uncovers the places where bedrock, now hidden under the urban grid, once provided a playground of geologic discovery. His global tour continues into the stone ruins of Neolithic Britain ("Sandstone" and "Gneiss"), with a visit to the Outer Hebrides of Scotland, and then crosses the sea to Iceland ("Magnetite"), which reveals his fascination with the Norse sagas and the dramatic consequences of subterranean events. The whimsical-sounding "Blubberstone" is named for the amalgamation of whale blubber and beach gravel and tracks the time-ghosts of abandoned whaling and mining settlements in Spitsbergen, Norway. "Iron" is a suitably fire-and-ice story of a meteorite "strewnfield" on the Greenland Ice Sheet that juxtaposes the celebrated histories of Arctic exploration, natural history museums and early anthropology with hidden back stories of eugenics, racism and sexual exploitation. The epilogue, "Muscovite," is mostly family memoir that brings our focus back to the profound and terrifying dislocations of the Holocaust.

Human unconformities, Mr. Raffles concludes, allow us to caulk the seams of more mundane time with mystery and myth. And they allow us to reboot our lives "in new and unexpected ways." He makes his caulk by mixing discrete stories together into what geologists call a "mélange"—a large, chaotic mass composed of isolated fragments smeared together by tectonic forces. In modern New York City, the mélange includes histories of early Dutch traders, the terror of 9/11, indigenous genocides, 19th-century real-estate developers, emancipated slaves, extinct ice-age creatures, the author's first job as an immigrant busboy, and the voyages of Henry Hudson. In modern London, stories of ancient Troy and Roman Britain jostle against personal anecdotes of drunks, judges and lost loves.

The joy of "Unconformities" is in Mr. Raffles's language, most exquisite in the form of lists that invite readers to slow down and savor a catalog of names and images. Obsessed gem-hunters in New York City sought "iridescent blue pyrrhotite, delicate coraline aragonite, lustrous marcasite, opaque smoky quartz, semitransparent calcite, fully transparent rock crystal, blood-red rutile, hairy sheets of mountain leather asbestos, gem-quality brown tourmaline, prismatic gypsum, flaky muscovite, silky tremolite, silvery foliated talc." The "psychedelic ripples and baroque bands" on a glacier-scuffed outcrop of gneiss in western Scotland were "buried, reheated, sheared, and recrystallized, crushed, twisted, stretched, pressed, and folded" and "warped and recast in such tortured ways that their original features . . . were thoroughly erased." Other lists include exotic places, vertebrate fossils and epochs of deep time.

One special treat for me was Mr. Raffles's glowing embrace of the Romanian writer and University of Chicago professor Mircea Eliade, who used stone to descend beneath the "spiritual barrenness of modernity" to the "transhistorical, transcultural sacred." This downward and backward travel in space and time to reach the symbolic reality of bedrock mirrors the Transcendentalist trajectory of Henry David Thoreau in his masterpiece, "Walden." The naturalist Loren Eiseley's "The Immense Journey" (1957)—in time, not space—follows the same downward path to the symbolic satisfaction of stones and bones.

Mr. Raffles, a fellow practitioner of "descendentalism," keeps his own collection of stones "on the polished wooden ledge by my window on Ninety-first Street" as "not so much a map of the world as the world itself." Having been lifted up from the Earth's crust, they now overlook the transience of
daily life, of the "songs of birds and crickets" and of "children running" beneath a "mauve sky on a hot summer evening."

"The Book of Unconformities" is a poignant and healing descent into deep time and its relevance to the human experience.