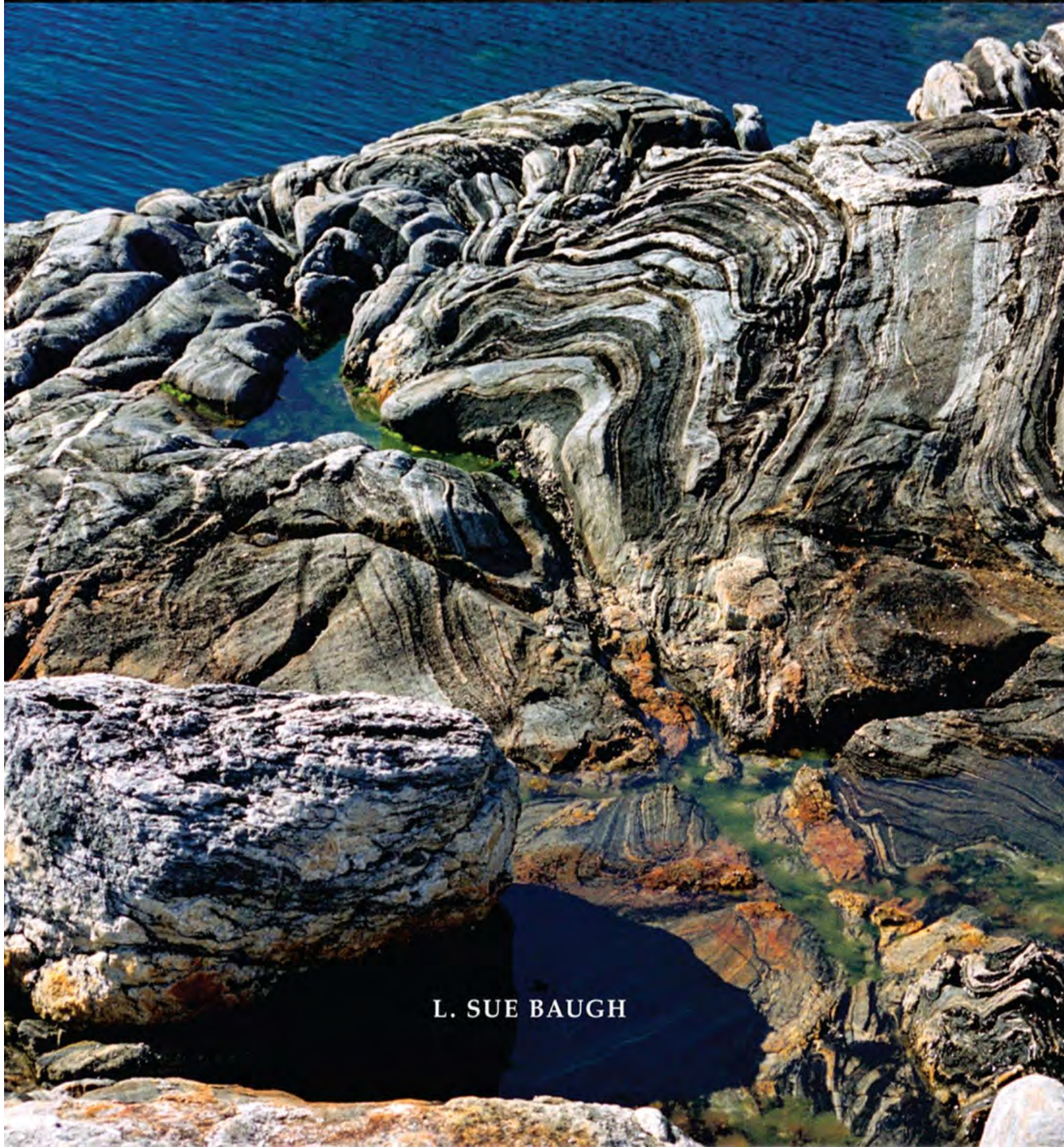


ECHOES OF EARTH

Finding Ourselves in the Origins of the Planet



L. SUE BAUGH

THE ROADS TO MT. NARRYER

As twilight deepens, we pull into

Jailor's Camp and spend our first cold night in the Outback. When we start out early the next morning, we quickly find ourselves in trouble. Not only has our wide dirt road narrowed to a single lane, it's no longer taking us toward the mountain.

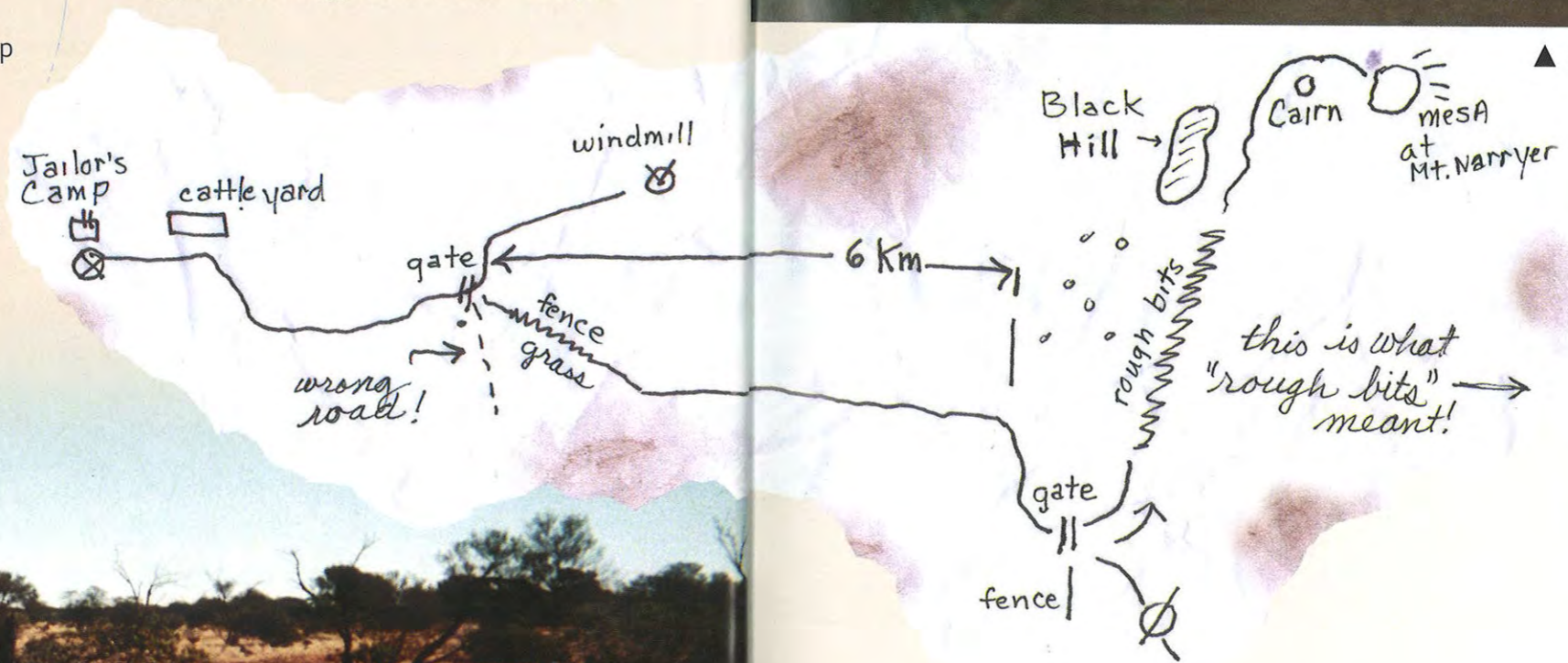
For two hours we drive back and forth from Jailor's Camp, trying to find the right way. We finally stop, get out of the car, and study the rough map Sandy sketched for us. It clearly shows only one route to Mt. Narryer, so why does it keep taking us south instead of east where the mountain lies?

We try to spot a road in the red, arid land around us, dotted with shrubs and shaded by eucalyptus and acacia trees. Then something inside us shifts. We stop looking for a "road" and simply gaze at the land... *The way is here somewhere; what are we missing?*

And then we see it: two faint tire tracks gleaming in the bent grass. The morning sun has reached just the right angle to reflect off the golden stalks. There, curving to the right like a faded ribbon, lies our road to Mt. Narryer.



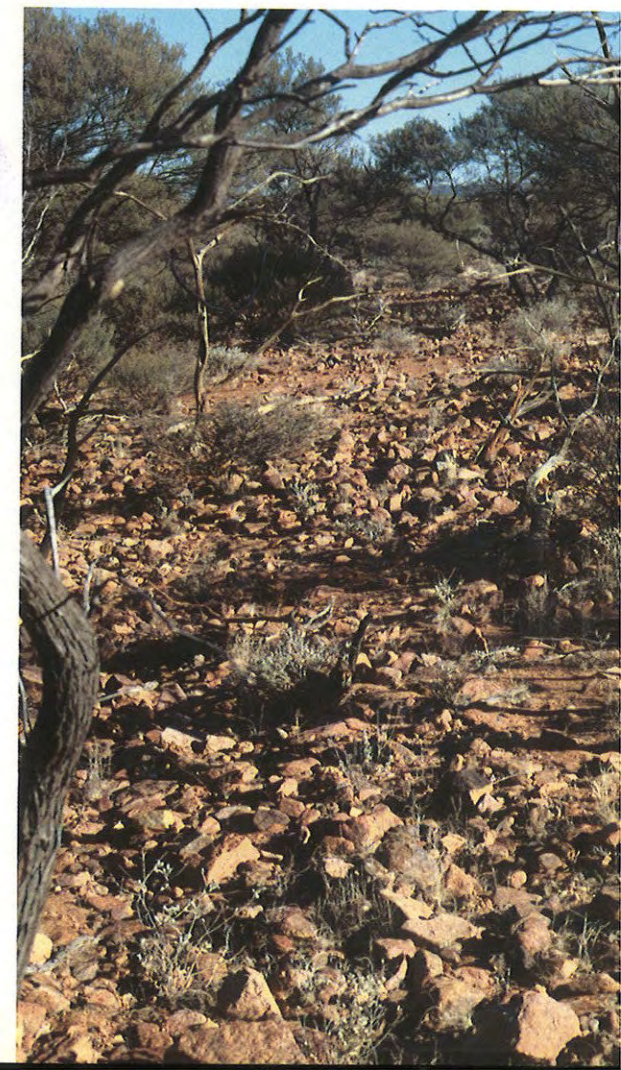
Jailor's Camp was once a holding area for prisoners being taken to the nearest town. It lies midway between the McTaggarts' ranch and Mt. Narryer.



▲ Our first glimpse of Mt. Narryer in the morning light.



The closer we travel to the mountain, the more the land seems to move back in time. Soon the ranch buildings and fences lie far behind us. At one point, even the road disappears into the "rough bits"—rocky creek beds lined with brush and scrub trees. Taking a page from Hansel and Gretel, we tie black plastic strips to the bushes so we can find our way back to the main road again.



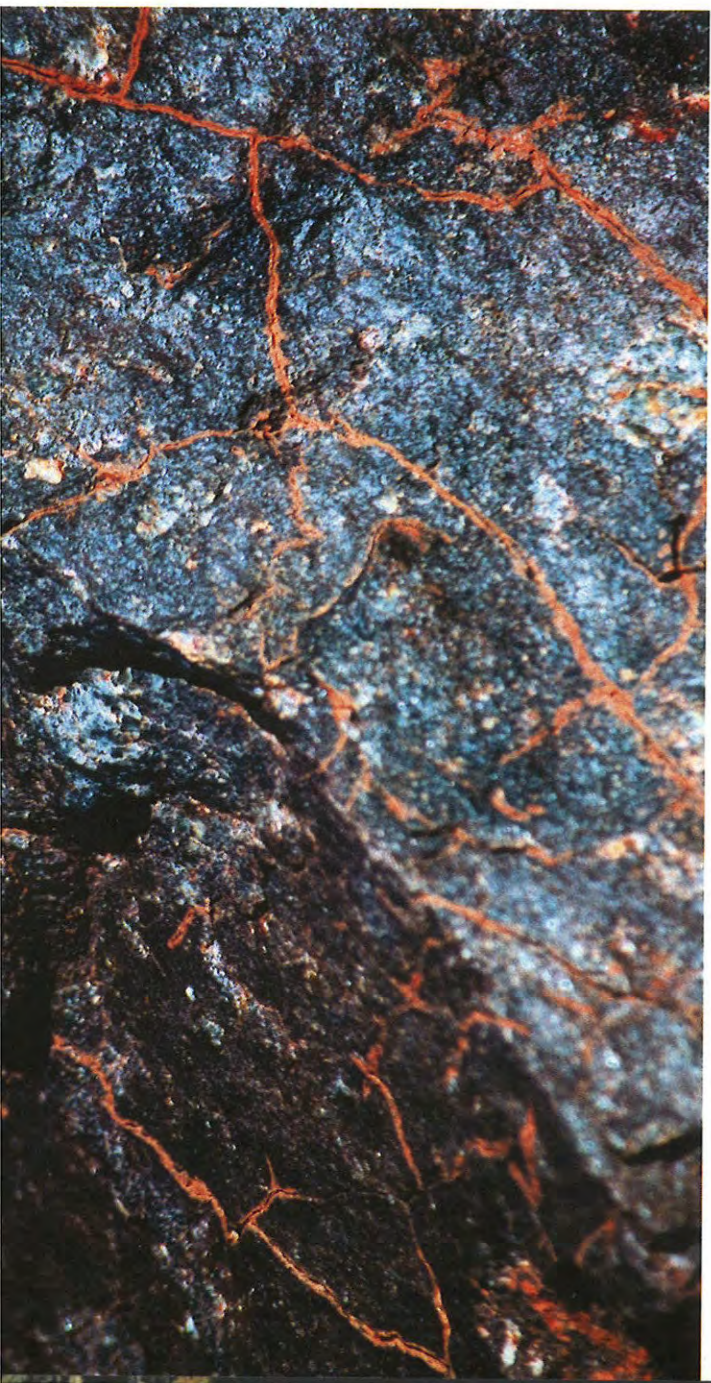


This sandstone formation stands

like a sentinel guarding the summit. A few granite boulders lie scattered about, survivors of even older mountain ranges that arose and eroded away eons ago.

Here we feel Earth's Deep Time rise up through the ground like heat, infusing this place with a profound sense of clarity and peace. We photograph roots pushing through solid rock and the intricate patterns carved in stone by wind and water over millions of years. The mountain's more intimate faces are teaching us a new meaning of the word "slow."







On our last night at Mt. Narryer,

we build a fire in the chill air and share what's left of our food. The mountain flares like a fiery ember as the sun sinks lower.

Beneath the apparent harshness of this land, an ancient web lies unbroken and welcomes two of its youngest children as its own. We are only beginning to plumb the depths of it.

Our fire dwindles, and darkness slowly reveals the Milky Way arching above like a clouded path; the dome of sky fills with stars. All around us, quartz stones glow in the moonlight, mirroring the starry world overhead.

Held between this primal earth and sky, we have never felt so much at home.

*"We don't own the land; we belong to it."
—Australian Aboriginal saying*



AKILIA



Akilia is in a cluster of islands on the west side of Greenland. It is part of the world's oldest oceanic crust.



ISLAND GREENLAND



When these rocks split, lighter minerals flowed into the cracks, preserving Akilia's history in stone.

Akilia Island is strikingly different from the

deep isolation of Mt. Narryer in the Australian Outback. From crowded Nuuk, the capital of Greenland, we take a spine-jarring boat ride across 15 miles of choppy sea dotted with small islands and fishing boats.

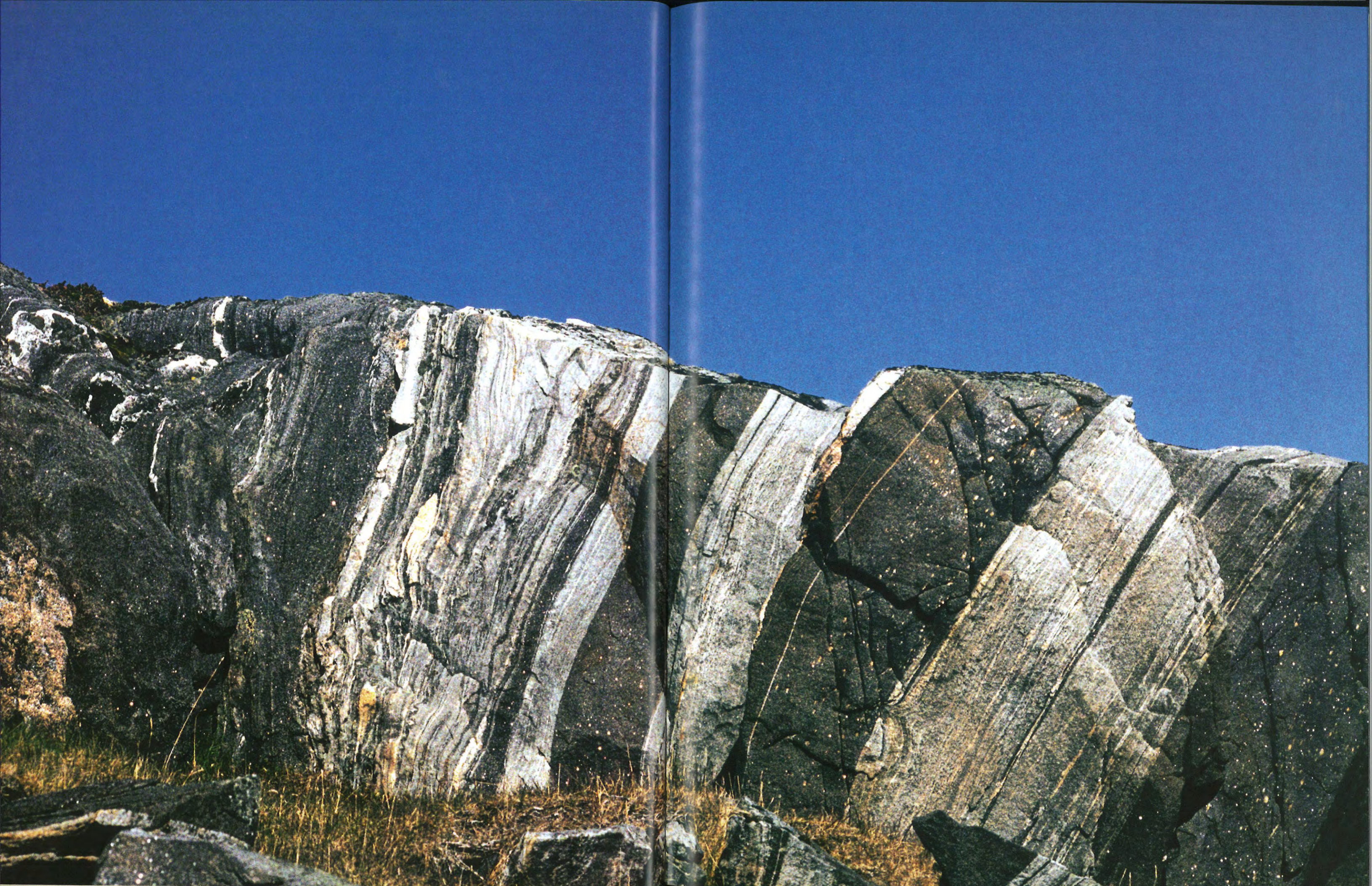
Arriving at Akilia, we scramble off the boat and crawl on our hands and knees like children over huge granite boulders to reach the island itself. Later we learn that crawling onto an island is the Inuit way to show respect for its spirits. That accidental courtesy will serve us well here.

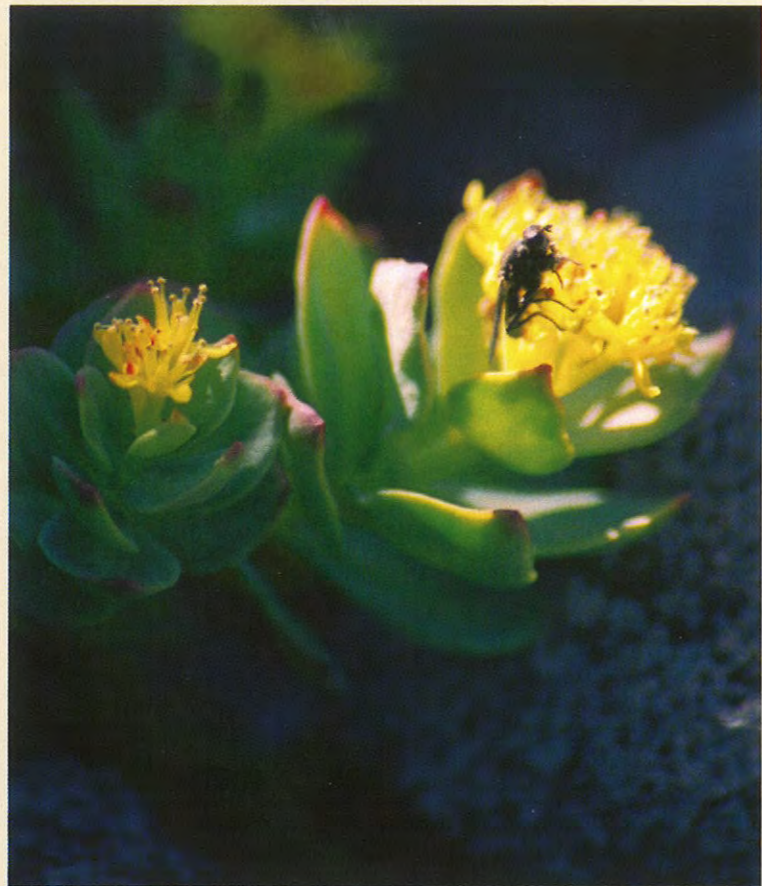
Akilia allows us to see and sense the restless forces that shaped its 3.8-billion-year-old stone. As Earth's massive plates pushed this land northward from the south pole, the stone softened, split, and folded, creating the vivid patterns and formations we find on the island.

This power connects us to the turbulent violence and creative fire that are constantly bending and shaping us as artists.

Akilia teaches that out of great pressure and change, great beauty can emerge.



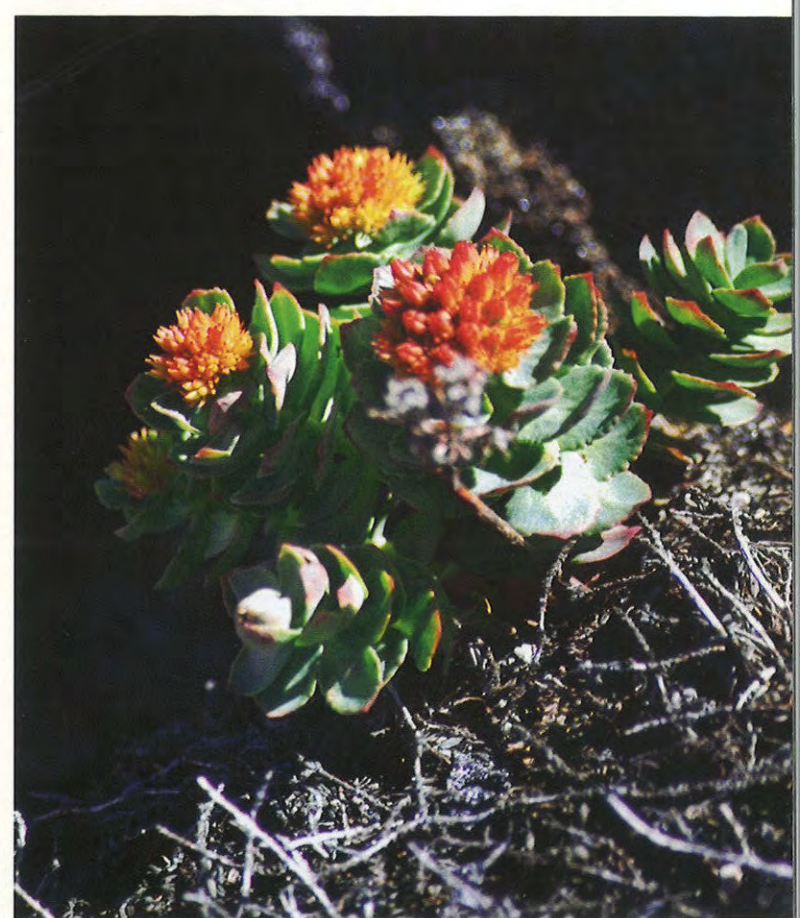
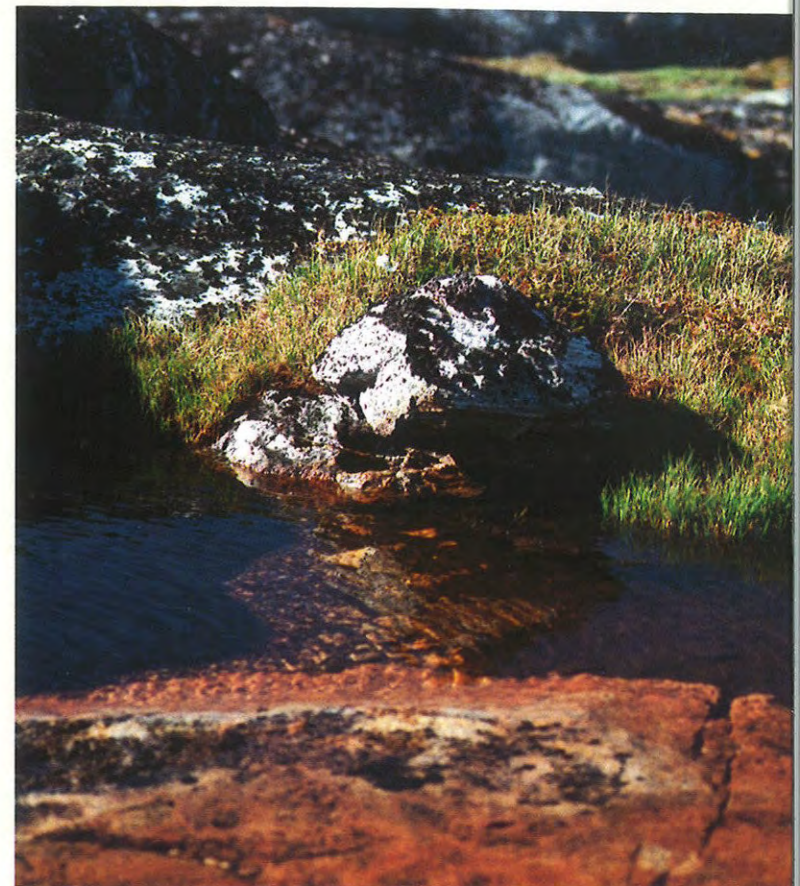




Rugged lichen and small,
bright flowers draw our attention now. We don't know the names of any of the plants; it's enough that they belong here.

As we move closer to each one, there's a strange feeling of recognition, as if in some child-like way we know each other. Maybe the spirits are trying once again to give us knowledge. Then the feeling passes, and we focus instead on how tenaciously these delicate plants hug the ground or how firmly they attach themselves to rock faces to weather the storms that lash Akilia.

The paradox of such softness and stone never fails to intrigue us. In this radiant light, even pools of water can change into gold.





BLACKTAIL

For the only time in our travels,

we will not make a journey together. Lynn must return to Switzerland, so Sue continues on, joining a group led by outfitters to raft the Colorado River. The goal is to reach Blacktail Canyon, where the river has exposed stone 1.7 billion years old. Only in Blacktail can we actually touch its ancient surface.

After three days of rafting the rapids, our group finally reaches Blacktail at mile 120. We follow the canyon's narrow passage into a chamber whose basement layer is a dense, ancient stone called Vishnu schist. The rock seems bowed under the weight of the continent resting above it.

But these walls speak of loss as well as strength. The rock layers reveal that nearly one billion years of Earth's history is missing—eroded away by rains and scouring winds. With no fossil traces left behind, we will never know what lived and died here throughout all that time.

The canyon's walls are a

haunting reminder to us:

CANYON

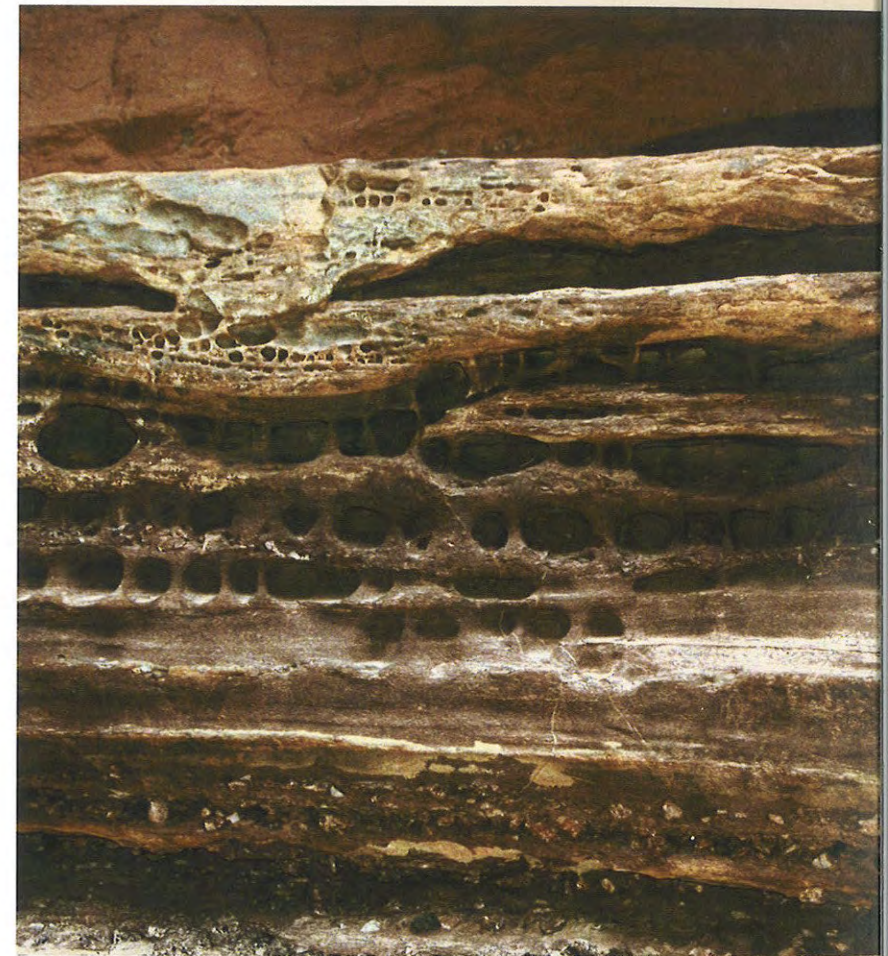
GRAND CANYON,
UNITED STATES



*Our knowledge is shaped
by the stories
that survive.*

(Over)







ACASTA RIVER

NORTHWEST TERRITORIES, CANADA

Our floatplane pitches and rolls as we skim low

over the immense tundra of northwest Canada. We clutch our stomachs while the pilot homes in on a small, unnamed island on Acasta River. Here the oldest skin of Earth, four-billion-year-old Acasta gneiss, lies exposed to view.

Our pilot finally eases the plane down on the choppy water and taxis toward the site. We're dismayed by the steady mist, but it enhances the green and blue-black tones of the gneiss, giving it the look of whale skin. We imagine the huge mammal surfacing for air from the depths of the Canadian Shield, the bedrock of North America.

Earth's memory is intact here; this greenstone has witnessed the formation and drift of continents and the entire rise and evolution of life. Deep Time is captured in feldspar, apatite, olivine—the poetry of stone that tells us this skin has survived all of Earth's cataclysmic changes and still nurtures life.

Our culture claims we exert

dominion over the planet,

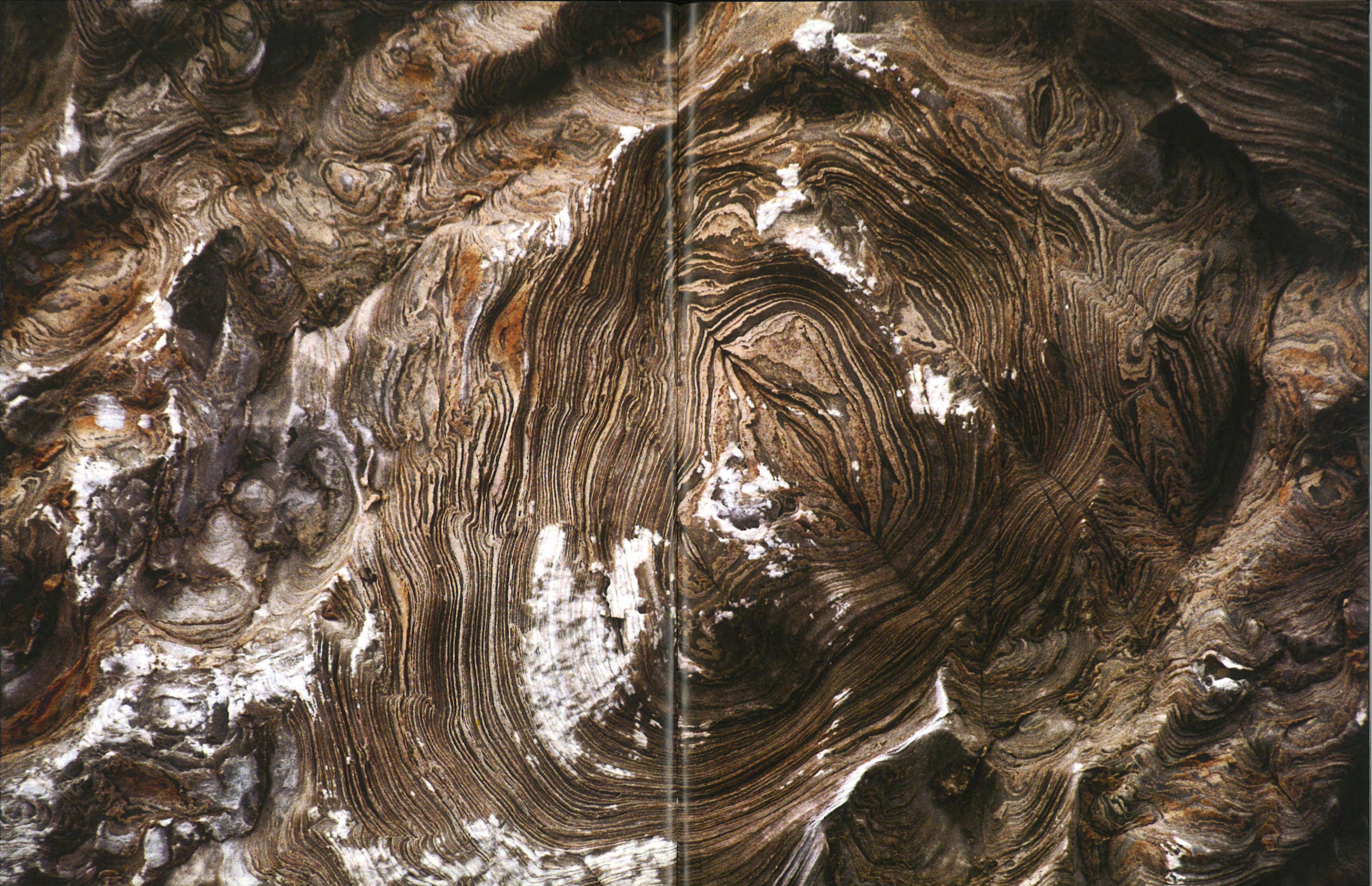
but the stone tells another story:

we are utterly dependent on Earth for our survival.











SHARK BAY

WESTERN AUSTRALIA

We hurry to take our last pictures before the

morning tide completely submerges the stromatolites at Hamelin Pool in Shark Bay. The tidal waters, ten times saltier than the Indian Ocean, are already lapping at our boots.

We have traveled here to visit one of the last colonies of living stromatolites in the world. They are all that remain of the huge, reef-like communities once found along every shoreline on Earth.

At first, these light-gray to nearly black stromatolites appear lifeless. Yet the top layers are teeming with colonies of bacteria whose lineage stretches back into Deep Time and whose forbearers helped build the world we know.

These humble survivors are not

only among the most

enduring of species,

*in many ways, they are
the ancestors of us all.*





We split up and follow whatever

calls us, whether it's the profile of a solitary stromatolite or the jellyfish that pulse nervously as our shadows brush across them. These small creatures, accompanied by fish the size of minnows, appear and disappear like smoke among the stromatolites.

The water is too cold for wading, so we stick a waterproof camera under the surface and snap a few pictures. The blurry focus adds a surreal touch to an underwater stromatolite speckled with light (right).

We feel a growing sense of affection for these bacteria and their squat columns and mats. Even though there's a huge evolutionary gap between us, somehow they evoke a sense of kinship.

We see more stromatolites farther out in the bay and step carefully across the columns to reach them. Absorbed in our work, we forget about the tide.



ANCIENT MINERALS WITHIN US

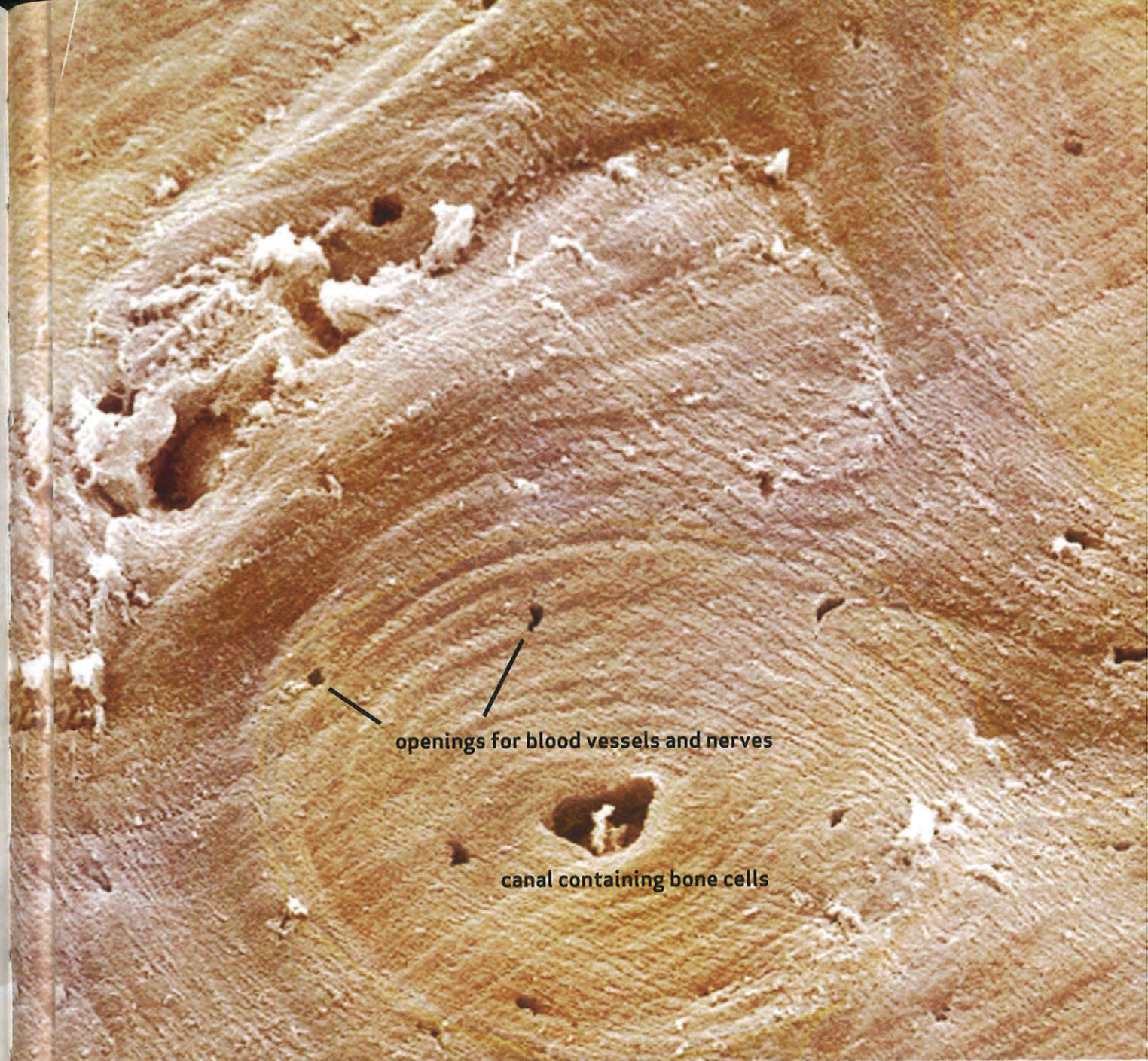
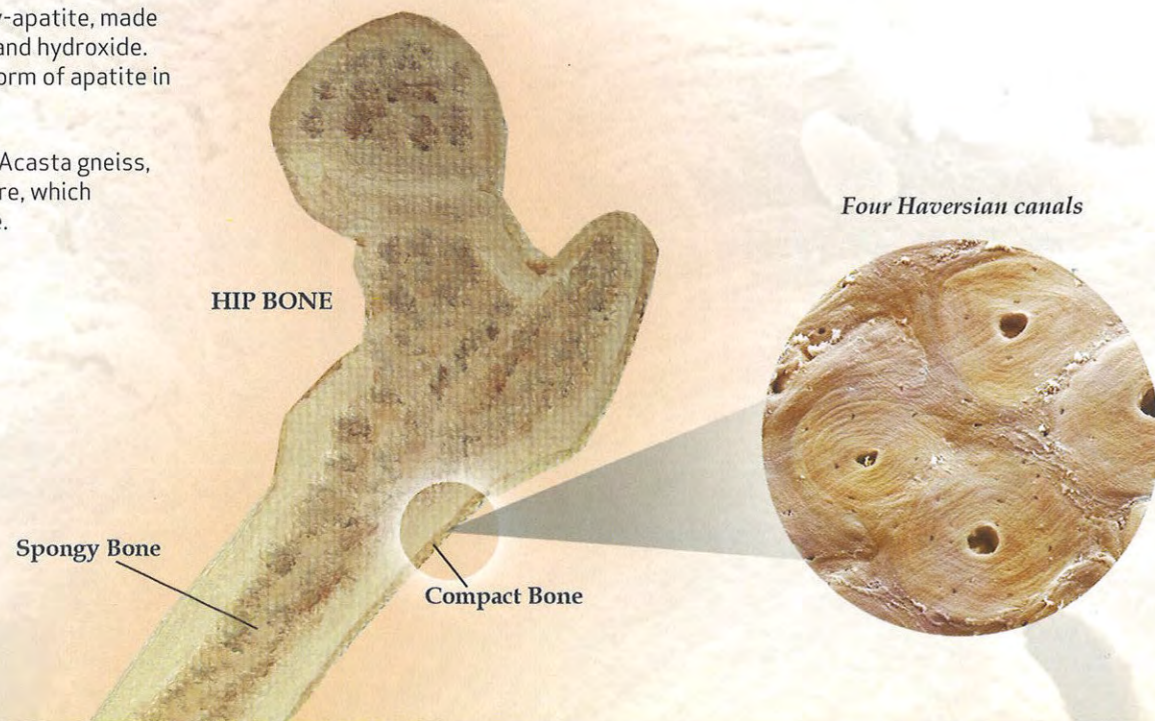
As we reflect on our journeys, we
discover that the connection we sensed between ourselves and ancient stone, that “feeling in the bones,” was more literal than we knew. The mineral apatite, found in the oldest rocks such as Acasta gneiss, makes up most of our compact bones and teeth.

Without apatite, human bones would bend like rubber, unable to bear our weight. Layers of our bone are built and sustained by structures such as the Haversian canals shown below and at right. The canals contain new bone cells, while tiny openings allow blood vessels and nerves to pass through.

Seen up close, these structures echo the wind-carved swirls and hollows of weathered stone. The similarities are fitting. Four and a half billion years ago, minerals were used to build the first rocky crust of Earth and—eons later—to build the solid structures of evolving life.

Gemlike crystals of hydroxy-apatite, made up of calcium, phosphorus, and hydroxide. This is the most abundant form of apatite in human bones.

Previous page: Close-up of Acasta gneiss, showing the stone’s structure, which includes the mineral apatite.



The ancient minerals are

clues to our beginning;

we carry Earth's history deep within us.