The Remarkable Journey of a Leopard-Rock Boulder

A lifetime in geology, an October return, and the mystery of synchronicity



The remarkable leopard-rock boulder near Marquette during the October 2026 return visit.

Some geological discoveries are remarkable because of their scientific importance. Others remain with us because of the unlikely circumstances that bring them into our lives. My encounter with an enormous leopard-rock boulder near Marquette, Michigan, belongs especially to the second category.

A rock that followed me home

Most of my geological career was devoted to the ancient rocks of the Bighorn Mountains in Wyoming, the Beartooth Mountains in Montana, and the Lake Superior region. During fieldwork in the West, an unusual rock repeatedly caught my eye: large white plagioclase feldspar crystals set in a dark igneous matrix. Its spotted appearance earned it the informal name leopard rock. These rocks were a fascinating sidelight to my work, not the main focus of my research.

In the Beartooths, strongly deformed light and dark bands suggested that rocks resembling leopard rock might have been folded and stretched into what I called zebra rock. I also began to wonder whether some unusual metaorbiculites could have developed from a related parent rock. Those ideas remain geological interpretations to investigate, rather than settled conclusions.

A boulder with an address

Imagine, then, my astonishment at encountering a magnificent leopard-rock boulder near Marquette, the town of my childhood. Peter S. Kaufman, grandson of Louis G. Kaufman, had arranged for a large boulder buried in glacial deposits to be excavated and placed at the entrance to his home. There it stood, an extraordinary example of a rock I had known from distant western mountains. Peter and I had not known each other, although we had both lived on Ridge Street in Marquette as children. Our friendship began with these visits.

Even our childhood street adds a geological connection. Ridge Street lives up to its name: its ridge is supported by a resistant basaltic dike, about 1.1 billion years old, extending westward from Lighthouse Point through Marquette and beyond. Geology had been beneath our feet long before it brought us together.

I measured one of its largest feldspar crystals at 20.3 centimeters. But the boulder's origin is the greater puzzle. It had been carried by glacial ice, and striations in the Lake Superior region indicate a direction consistent with transport from the Marathon area of Ontario. I suspect a connection to ancient basaltic dikes, possibly the Matachewan swarm, but that precise provenance and the age of this particular boulder have not been established.

The people and the coincidences

Years earlier, while studying an angular unconformity near Marquette, I happened upon another geologist at the same exposure: Craig Bina. We talked about the exceptional geology of the region and went our separate ways. Much later, after placing my wife Carol's ashes on Lighthouse Point, I encountered a group of geologists examining basaltic dikes. Among them was Craig, who remembered our earlier meeting.

My daughter Kirsten helped plan and took part in that first trip to Marquette, which brought me to the boulder. My former student George Bennett and Doug Pearce made possible an unforgettable boat excursion, with Doug providing his boat. The boat trip came first. Later, traveling by automobile, we visited Peter Kaufman's home, where I saw the leopard-rock boulder for the first time.

Only afterward did I learn that Craig had gone to the Marathon area of Ontario on that very same day. I had not told him about the boulder—indeed, I could not have, because I had not yet seen it. That coincidence still delights me.

The psychologist Carl Jung called attention to synchronicity: coincidences that take on personal meaning without a demonstrated causal connection. When I later raised the subject with Craig, I learned he owned a volume of Jung's writings. Another former student, Chuck DeMets, entered the expanding circle of connections. Whether one prefers chance or synchronicity, the sequence is extraordinary.

An October return

In October 2026, I returned to Marquette and visited the boulder again. Scott Volechka gave valued support and encouragement to my investigations and visits; he and his wife Jan shared in the human side of the experience. The return also renewed my appreciation for Peter's hospitality and the remarkable Lake Superior setting.



At Peter Kaufman’s home during the October 2026 visit: John Palmquist (wearing his Tilley hat) with Peter Kaufman.

Two journeys through time

The boulder has made two remarkable journeys. One was geological: an ancient rock formed deep in Earth’s history and later transported by glacial ice to the Marquette country. The other has been human: through fieldwork, students, colleagues, a boat ride, old and new acquaintances, and a return to a stone that has become something like an old friend.

I owe particular thanks to my daughter Kirsten, who helped plan and participated in the first trip; George Bennett and Doug Pearce, whose boat excursion was indispensable to the sequence of events; Peter Kaufman, who made the boulder accessible and welcomed us; Craig Bina, whose independent travels added an unforgettable coincidence; Scott Volechka, for his encouragement and support; and Jim Miller, a former field-course student with whom I shared western leopard-rock localities. Many others, including Chuck DeMets, Jan, and the memory of Carol, are threads in the larger story.

The scientific questions remain open. Where did the boulder crystallize? How old is it? Can geochemistry, mineral studies, and geochronology trace its source more securely? Those belong in the continuing geologist’s version of the story. For this human account, the lasting discovery is something else: geology is never merely about rocks. It is also about the people, places, and improbable meetings that give the rocks their meaning.