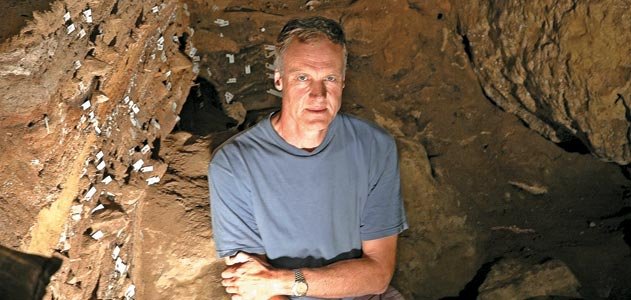
The Great Human Migration

Why humans left their African homeland 80,000 years ago to colonize the world

Christopher Henshilwood (in Blombos Cave) dug at one of the most important early human sites partly out of proximity—it’s on his grandfather’s property. (Centre for Development Studies, University of Bergen, Norway)

By **Guy Gugliotta**

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Seventy-seven thousand years ago, a craftsman sat in a cave in a limestone cliff overlooking the rocky coast of what is now the Indian Ocean. It was a beautiful spot, a workshop with a glorious natural picture window, cooled by a sea breeze in summer, warmed by a small fire in winter. The sandy cliff top above was covered with a white-flowering shrub that one distant day would be known as blombos and give this place the name Blombos Cave.

The man picked up a piece of reddish brown stone about three inches long that he—or she, no one knows—had polished. With a stone point, he etched a geometric design in the flat surface—simple crosshatchings framed by two parallel lines with a third line down the middle.

Today the stone offers no clue to its original purpose. It could have been a religious object, an ornament or just an ancient doodle. But to see it is to immediately recognize it as something only a person could have made. Carving the stone was a very human thing to do.

The scratchings on this piece of red ocher mudstone are the oldest known example of an intricate design made by a human being. The ability to create and communicate using such symbols, says Christopher Henshilwood, leader of the team that discovered the stone, is "an unambiguous marker" of modern humans, one of the characteristics that separate us from any other species, living or extinct.

Henshilwood, an archaeologist at Norway's University of Bergen and the University of the Witwatersrand, in South Africa, found the carving on land owned by his grandfather, near the southern tip of the African continent. Over the years, he had identified and excavated nine sites on the property, none more than 6,500 years old, and was not at first interested in this cliffside cave a few miles from the South African town of Still Bay. What he would find there, however, would change the way scientists think about the evolution of modern humans and the factors that triggered perhaps the most important event in human prehistory, when *Homo sapiens* left their African homeland to colonize the world.

This great migration brought our species to a position of world dominance that it has never relinquished and signaled the extinction of whatever competitors remained—Neanderthals in Europe and Asia, some scattered pockets of *Homo erectus* in the Far East and, if scholars ultimately decide they are in fact a separate species, some diminutive people from the Indonesian island of Flores (see "Were 'Hobbits' Human?"). When the migration was complete, *Homo sapiens* was the last—and only—man standing.

Even today researchers argue about what separates modern humans from other, extinct hominids. Generally speaking, moderns tend to be a slimmer, taller breed: "gracile," in scientific parlance, rather than "robust," like the heavy-boned Neanderthals, their contemporaries for perhaps 15,000 years in ice age Eurasia. The modern and Neanderthal brains were about the same size, but their skulls were shaped differently: the newcomers' skulls were flatter in back than the Neanderthals', and they had prominent jaws and a straight forehead without heavy brow ridges. Lighter bodies may have meant that modern humans needed less food, giving them a competitive advantage during hard times.

The moderns' behaviors were also different. Neanderthals made tools, but they worked with chunky flakes struck from large stones. Modern humans' stone tools and weapons usually featured elongated, standardized, finely crafted blades. Both species hunted and killed the same large mammals, including deer, horses, bison and wild cattle. But moderns' sophisticated weaponry, such as throwing spears with a variety of carefully wrought stone, bone and antler tips, made them more successful. And the tools may have kept them relatively safe; fossil evidence shows Neanderthals suffered grievous injuries, such as gorings and bone breaks, probably from hunting at close quarters with short, stone-tipped pikes and stabbing spears. Both species had rituals—Neanderthals buried their dead—and both made ornaments and jewelry. But the moderns produced their artifacts with a frequency and expertise that Neanderthals never matched. And Neanderthals, as far as we know, had nothing like the etching at Blombos Cave, let alone the bone carvings, ivory flutes and, ultimately, the mesmerizing cave paintings and rock art that modern humans left as snapshots of their world.