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# Neanderthals Built Mysterious Stone Circles

Rings of stalagmites found in a cave in France suggest that our ancient relatives were surprisingly skilled builders.



A worker takes measurements of the stone rings inside Bruniquel Cave.
PHOTOGRAPH BY ETIENNE FABRE, SSAC

By **Nadia Drake**
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Once illuminated by the flickering fires of prehistoric builders, an array of mysterious stone circles hid in darkness for millennia, tucked into the recesses of a cave in France. Now, these ancient structures are again emerging from the shadows.

The strange rings are crafted from stalagmites and are roughly 176,000 years old, scientists report today in *Nature*. And if the rings were built by a bipedal species, as archaeologists suspect, then they could only be the work of Neanderthals, ancient human relatives that are proving to be much more "human" than anticipated.

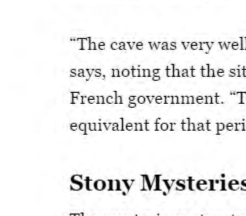
"This discovery provides clear evidence that Neanderthals had fully human capabilities in the planning and the construction of 'stone' structures, and that some of them penetrated deep into caves, where artificial lighting would have been essential," says paleoanthropologist Chris Stringer of the Natural History Museum in London.

However, why Neanderthals ventured deep into the darkness and constructed such elaborate structures is an enigma, at least for now.

## Time Capsule

Sealed since the Pleistocene, Bruniquel Cave is located in southwest France, in a region littered with decorated caves and other Paleolithic sites. In 1990, spelunkers excavated its entrance and squeezed through, finding signs of long-vanished cave bears and other extinct megafauna just inside.

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But the cave's real treasure lay in a damp chamber more than 1,000 feet (330 meters) from the entrance. There, several large, layered ring-like structures protruded from the cave floor, the seemingly unmistakable craftwork of builders with a purpose.

"All visitors have noticed the presence of these structures, from the first speleologists," says Jacques Jaubert of the University of Bordeaux, a coauthor of the study describing the finding.

It would take decades for scientists to begin deciphering the enigmatic circles, an endeavor slowed by restricted access to the cave and the untimely death of the archaeologist who began work on the site in the 1990s.

In 2013, Jaubert and his team were finally able to bring Bruniquel's secrets into the light.

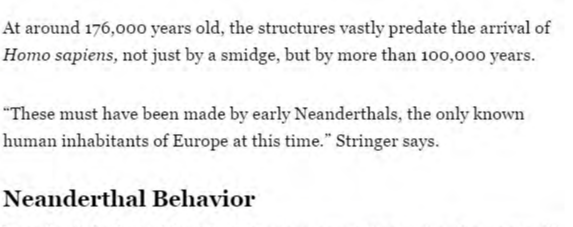
"The cave was very well preserved, with very few visits, almost none," he says, noting that the site is on private property and is regulated by the French government. "The structures are spectacular and have virtually no equivalent for that period, and even for more recent periods."

## Stony Mysteries

The mysterious structures are built from nearly 400 stalagmites—the cone-shaped rock formations that rise from cave floors as dripping, mineral-rich water accumulates over time.

Hewn to roughly the same length, some of the stalagmites were crafted into a large circular structure measuring nearly 22 feet (6.7 meters) across. Others were aligned in a smaller semicircle, and the rest were stacked in heaps.

Cracked areas of red and black discoloration indicate that fires had been lit atop the stalagmites, and charred bits of bone, including the burnt bone of a bear or large herbivore, were found near the smaller circle.



A 3D reconstruction of the structures in Bruniquel Cave.
RENDERING BY XAVIER MUTH/GET IN SITU/ARCHEOTRANSFERT/ARCHÉOVISION SHS-3D; BASE PHOTOGRAPHIQUE PASCAL MORA

Even to a trained eye, the scene looked like it could be the work of early modern humans, who first appeared in Europe about 40,000 years ago. But uranium dating of the stalagmites, as well as dates for a mineral cloak that had grown over them and the bone bits, revealed an age the team didn't expect.

At around 176,000 years old, the structures vastly predate the arrival of *Homo sapiens,* not just by a smidge, but by more than 100,000 years.

"These must have been made by early Neanderthals, the only known human inhabitants of Europe at this time." Stringer says.

## Neanderthal Behavior

Neanderthals thrived for 300,000 years, coexisting with and occasionally breeding with modern humans. Like us, they were big-brained and clever, with a mastery of fire. But scientists argue about how similar the two species really were, and debate whether Neanderthals were capable of symbolic thought and ritual behaviors.

Unlike us, Neanderthals didn't survive, and the reasons why they vanished from the landscape some 30,000 to 40,000 years ago are still a source of contention.

Until now, anthropologists had thought it unlikely that Neanderthals had mastered the art of subterranean living, which is a bit trickier than traipsing around above ground. The Bruniquel cave could prove otherwise.

"The find is solid, and it is an important documentation of the advanced behaviors of the Neanderthals," says paleoanthropologist Erik Trinkaus of Washington University in St. Louis.

To craft those enormous stone rings, Jaubert and his colleagues argue, the cave's occupants needed a reliable source of illumination, some kind of social organization, and the ability to conceive of and construct the patterns, which are made from more than two tons of stalagmites.

"This requires the mobilization of people who choose, who lead, who advise, manufacture—and with continuous light," he says. "All this indicates a structured society."

## Clan or Cave Bears?

That's one interpretation, but some scientists say it's too soon to draw these kinds of conclusions about the site. To begin with, it's not yet clear how widespread such complex behavior may have been among Neanderthals, or if the structures were built by one person or many.

"We don't know how many people were involved, if the structures were done in one event or during several events, by one person or by several," says anthropologist Marie Soressi of Leiden University. "I don't know what to expect, because such a discovery is very unusual."

Other scientists question the presumed human origin for the structures and instead suggest they could be the work of hibernating cave bears.

"Who in their right minds builds structures 300 meters underground inside of a cave? Seeking refuge in a cave is a way of avoiding having to make an artificial structure," says paleoanthropologist John Shea of Stony Brook University. "When bears settle in for the winter hibernation, they push all kinds of litter to the side. This looks like a place where cave bears settled in for a nice nap over and over through time."

But bear dens are generally smaller than the largest ring, Soressi says, and the animals don't stack stalagmites so much as excavate hollows and brush things aside. Plus, Jaubert notes, "bears do not make fire."

## Subterranean Secrets

If the structures are indeed the work of Neanderthals and not cave bears, their purpose is still a mystery. No one knows what the Neanderthals might have been doing in that cave, or how long they used it. Jaubert and his colleagues refuse to speculate about the structures' purpose until further work at the site tells more of the story.

In the meantime, it's hard to resist wondering what our ancient relatives were doing deep inside that cavern, with their fire-lit rings of stone.

"The complex Bruniquel structures are well-dated to within a long cold glacial stage, and at that time the cave might have provided a temporary, more temperate refuge," Stringer says.

"If there is still-buried debris from occupation, it would help us to determine whether this was a functional refuge or shelter, perhaps roofed using wood and skins, or something which had more symbolic or ritual significance."

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"Who in their right minds builds structures 300 meters underground inside of a cave?". Same could be said about Stonehenge, the Megalithic Temples of Malta, the Pyramids; we tend to build difficult projects.
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Neanderthals Built Mysterious Stone Circles where the Neanderthals building refuges or idols to the space people that brought them down or were they in fact the space people that landed him somehow retrogressed. Kn. The strange rings are crafted from stalagmites and are roughly 176,000 years old, scientists report today in Nature. And if the rings were built by a bipedal species, as archaeologists suspect, then they could only be the work of Neanderthals, ancient human relatives that are proving to be much more "human" than anticipated.
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**Marcin Bucharbroski** 4 days ago
Once again shoddy reporting. Neanderthals did not "disappear" they interbred with all non-subSaharans so Europeans and Asians. We have anywhere from 0% - ~4% Neanderthal DNA. Neanderthals had a larger cranial capacity so they might have been even more intelligent than modern day Homo Sapiens
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**damon matteson** 4 days ago
I'm curious as to the arrangement of the stalactites/stalagmite pieces in the rings - are they arranged randomly with just the long axes aligned in the walls of the ring, or is there any preferred direction to the 'points' in the construction of the structure? If there was a preferred direction to the arrangement of the pieces, what might that suggest about the structures function?
Like Reply

**Richard Haywood** 4 days ago
Why do we climb Mt Everest (or any other mountain)? Because it is there. Maybe they just wanted to see what was down there, maybe they thought it lead to another world. Maybe the top dog built a circle and said this is my place do not enter it, build your own but it must be smaller. We may never know but maybe, just maybe, those who built the crop circles might know why the stone circles were made!!!
Like Reply

**Charon Caldwell** 4 days ago
Right. Because we know bears are really good w/ their paws in stacking stones and stalagmites and rubbing sticks together for fires to burn their sacrifices the the feared Bear Gods.
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**John Bascom** 5 days ago
From this scant and contradictory evidence, the hypothesis of Neanderthals building these structures 176,000 years ago is preposterous. It is more of the sentimentality and desire for notoriety that we see from many ambiguous scientific discoveries. At least equally likely are early homo sapiens from Africa that subsequently died out in Europe, animals, or later people who used an old site and old material. Give me a break...
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**Joyce Sapien** 4 days ago
@John Bascom "Into Africa" is more likely, based on wildlife status there. How could San people separate from other people for up to 100,000 years? They found the new land while Eurasians experienced recurrent glacial and wiped each other out, while fighting for the warmer territory when the North became too cold. Some of them apparently stayed in Siberia Arctic hunting Mammoths no later than 45,000 years ago (a butchered Mammoth found there) .
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**Richard Haywood** 4 days ago
@John Bascom the article said "But uranium dating of the stalagmites, as well as dates for a mineral cloak that had grown over them and the bone bits, revealed an age the team didn't expect" Do you really think they were smart enough to cover the rocks with a mineral cloak perhaps scrapped off the floor elsewhere else, knowing it would deceive scientist in uranium dating techniques 175,000 years in the future? Bet they were all cracking up as they sat around gnawing on a bear bone.
Like Reply

**Beth Saida** 5 days ago
Show me "proof" of a neanderthal !!!!!!!!! A 1" piece of bone & an artist "thought/painting doesn't cut the mustard. Caves, great find.
1 Like Reply



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