



Art History

Origins of Art – Neanderthal Art

Name:

Section:

Score: ____/5

Directions: Read the following article and answer the thought questions at the end.

World's Oldest Cave Art Found—Made by Neanderthals?

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By National Geographic News

Published June 14, 2012

Of the 11 subterranean sites the team studied along northern Spain's Cantabrian Sea coast, the cave called El Castillo had the oldest paintings—the oldest being a simple red disk.

At more than 40,800 years old, "this is currently Europe's oldest dated art by at least 4,000 years," said the study's lead author Alistair Pike, an archaeologist at the University of Bristol in the U.K.

If the new dates are correct, they also could make the El Castillo art the oldest known well-dated cave paintings in the world—a title previously held by France's Chauvet cave paintings, believed to be at least 37,000 years old.

Pike's team teased out the new dates using a method that relies on known rates of decay in uranium—specifically uranium in calcium deposits that had formed over the paint. The mineral-based paint itself couldn't be dated, because it contains neither uranium nor the carbon needed for radiocarbon dating.

In several cases, the Spanish artwork proved older than previously estimated based on indirect methods, such as stylistic comparisons with paintings at better dated sites, according to the study, published today by the journal *Science*.

The Dating Game

The new dates raise the possibility that some of the paintings could have been made by Neanderthals, who are thought to have lived in Europe until about 30,000 or 40,000 years ago. Modern humans are believed to have also been in the area at the time, arriving about 41,500 years ago.

The findings wouldn't be the first potential evidence of Neanderthal cave art.

Earlier this year, archeologists found what they consider to be 42,000-year-old Neanderthal cave paintings in Málaga, Spain. But that evidence is controversial, according to Pike.

"They dated some charcoal from the floor of the cave, and then they extrapolated it" to the paintings, Pike said.

"All that shows is that someone lit a fire in the cave 42,000 years ago, but they've linked it to the paintings. And we think that's absolutely mad."



Cave-art expert Michel Lorblanchet doesn't think Pike's proof is exactly ironclad either. More evidence, he said, would be needed to firmly establish that some of the Spanish cave paintings were products of Neanderthal minds.

"I am one of the people who are waiting for objective evidence of painting made by Neanderthal as well as Homo sapiens," said Lorblanchet, a professor emeritus at the University of Toulouse in France.

"But to date a painting around 40,000 [years ago] does not prove that it was made by Neanderthals."

Study leader Pike, though, pointed out that the new dates are minimum ages only.

"The calcite could have formed many thousands of years after the art was painted," he said. "But I agree we will need to date more paintings to prove conclusively these were done by Neanderthals, and we are currently sampling more of the art to see ... I think in the next few years we'll actually prove this."

The Case for Neanderthal Art

Many scientists had long doubted whether Neanderthals were capable of producing symbolic art.

But that's begun to change in recent years, thanks in part to the discovery of pigments, tiny art objects, and what might be body paint at Neanderthal sites, according to Paul Bahn, a cave art expert and a member of the Archaeological Institute of America.

"There remains a rump of blinkered scholars who still consider Neanderthals to be brutish savages, little better than animals, but fortunately they are a dwindling minority," Bahn, who was not involved in the study, said in an email. "I think almost all objective scholars now fully accept Neanderthal art."

Study co-author João Zilhão goes a step further, suggesting that, if Neanderthals were responsible for some of the Spanish cave art, then perhaps there's no real distinction between them and modern humans.

"It adds to the evidence ... that Neanderthals were a European racial variant of Homo sapiens, not a distinct species," said Zilhão, of the University of Barcelona.

At the very least, study leader Pike said, the new findings help narrow the distance between the cultural evolution of Neanderthals and modern humans.

"If you look at the [modern human] trajectory towards art, we find shell beads, bits of ochre, and ostrich shells carved with geometric designs from about 70,000 to 100,000 years ago" in Africa, he said.

Now, at European sites, "we see that Neanderthals are following the same trajectory. We see shell beads, carved sculptures, and geometric designs on bits of bone. And now we see what might be Neanderthal art."

Giant Leap for Neanderthal Kind?

Though the oldest paintings in the study were stylistically simple disks and hand stencils, the caves also feature figurative art—for example, of horses and bison—that dates to after the fall of the Neanderthals.

"It is possible that dots and other non-figurative motifs were created by Neanderthals and [pictures of] animals by Homo sapiens," said study team member and cave art expert Paul Pettitt of the U.K.'s University of Sheffield.

But "it needn't imply any mental differences between the two. If you draw an animal and I draw several dots, there are no underlying differences in our cognition."

Those supposed differences—and now these paintings—are at the heart of a debate over what it means to be human, or at least Homo sapiens.

"There's a theory that it was an acceleration of cultural innovations that allowed humans to move into a territory that was occupied by Neanderthals," study leader Pike said.

For modern humans, "cave paintings may have been a part of this cultural package, as were musical instruments and sculptures of animals and humans."

Our species, some scientists have argued, experienced a "Great Leap Forward," or "upper Paleolithic revolution," some 35,000 years ago.

According to this idea, something—perhaps a genetic mutation or the development of language—triggered a technological and artistic explosion in *Homo sapiens*.

But, study co-author Zilhão said, the new evidence that Neanderthals could produce art "should lead scholars to abandon Great Leap Forward ideas.

"It suggests that a lengthy period of geometric or abstract art ... in both Africa and Europe, preceded the emergence of figurative representations. If anything, it argues for a middle Paleolithic revolution, not an upper Paleolithic revolution."

Than, Ker. "World's Oldest Cave Art Found-Made by Neanderthals?" *National Geographic*. National Geographic Society, 14 June 2012. Web. 22 Aug. 2014.

Thought Questions:

1. How does this work of art help up change our perceptions of Neanderthals artistic abilities?
2. How are archeologists able to figure out approximately when the paintings were made?
3. What does this discovery add to the discussion of whether Neanderthals were a distinct species or just a different race of *Homo Sapiens* (Humans).