

Neanderthals more advanced than previously thought

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The Reconstruction of the Funeral of Homo neanderthalensis. Captured in the Hannover Zoo. (Via Wikipedia)

For decades scientists believed Neanderthals developed 'modern' tools and ornaments solely through contact with *Homo sapiens*, but new research from the University of Colorado Denver now shows these sturdy ancients could adapt, innovate and evolve technology on their own.

The findings by [anthropologist](#) Julien Riel-Salvatore challenge a half-century of conventional wisdom maintaining that Neanderthals were thick-skulled, primitive 'cavemen' overrun and outcompeted by more advanced [modern humans](#) arriving in Europe from Africa.

"Basically, I am rehabilitating Neanderthals," said Riel-Salvatore,

assistant professor of anthropology at UC Denver. "They were far more resourceful than we have given them credit for."

His research, to be published in December's *Journal of Archaeological Method and Theory*, was based on seven years of studying Neanderthal sites throughout Italy, with special focus on the vanished Uluzzian culture.

About 42,000 years ago, the Aurignacian culture, attributed to modern *Homo sapiens*, appeared in northern Italy while central Italy continued to be occupied by Neanderthals of the Mousterian culture which had been around for at least 100,000 years. At this time a new culture arose in the south, one also thought to be created by Neanderthals. They were the Uluzzian and they were very different.

Riel-Salvatore identified projectile points, ochre, bone tools, ornaments and possible evidence of fishing and small game hunting at Uluzzian archeological sites throughout southern Italy. Such innovations are not traditionally associated with Neanderthals, strongly suggesting that they evolved independently, possibly due to dramatic changes in climate. More importantly, they emerged in an area geographically separated from modern humans.

"My conclusion is that if the Uluzzian is a Neanderthal culture it suggests that contacts with modern humans are not necessary to explain the origin of this new behavior. This stands in contrast to the ideas of the past 50 years that Neanderthals had to be acculturated to humans to come up with this technology," he said. "When we show Neanderthals could innovate on their own it casts them in a new light. It 'humanizes' them if you will."

Thousands of years ago, southern Italy experienced a shift in climate, becoming increasingly open and arid, said Riel-Salvatore. Neanderthals

living there faced a stark choice of adapting or dying out. The evidence suggests they began using darts or arrows to hunt smaller game to supplement the increasingly scarce larger mammals they traditionally hunted.

"The fact that Neanderthals could adapt to new conditions and innovate shows they are culturally similar to us," he said. "Biologically they are also similar. I believe they were a subspecies of human but not a different species."

The powerfully built Neanderthals were first discovered in Germany's Neander Valley in 1856. Exactly who they were, how they lived and why they vanished remains unclear.

Research shows they contributed between 1 and 4 percent of their genetic material to the people of Asia and Europe. Riel-Salvatore rejects the theory that they were exterminated by modern humans. *Homo sapiens* might simply have existed in larger groups and had slightly higher birthrates, he said.

"It is likely that [Neanderthals](#) were absorbed by modern humans," he said. "My research suggests that they were a different kind of human, but humans nonetheless. We are more brothers than distant cousins."

Provided by University of Colorado Denver

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