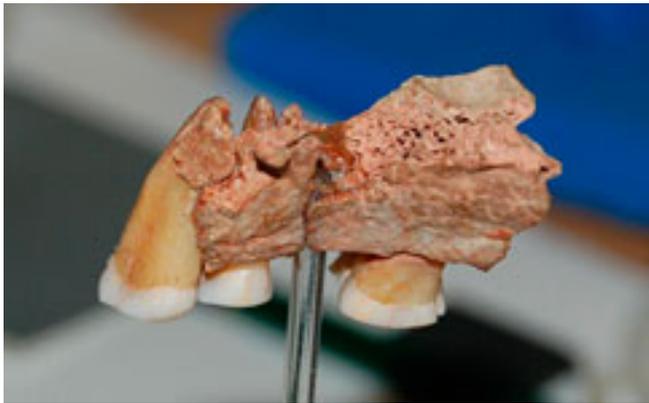


## **Earliest evidence for modern humans in Europe identified**

Natural Environment Research Council

3 November 2011, by Tamera Jones

Scientists have identified a tiny piece of jawbone from a cave in Devon, England as the earliest evidence of modern humans in north-western Europe.



A photograph of the maxilla including three teeth, of the earliest known modern human in Europe, discovered during excavations at Kent's Cavern, Devon, in 1927.

An international team of researchers dated the jawbone to between 41,000 and 44,000 years old, pushing back by several thousand years the time when anatomically modern humans were thought to have first arrived in Europe.

The jawbone was first unearthed in 1927, but its significance wasn't appreciated until now.

'The site in Devon - Kent's Cavern - is at the very outermost limits of the initial dispersal of our species. It confirms the presence of modern humans at the time of the earliest Aurignacian culture,' says Professor Thomas Higham from the University of Oxford, who led the study on the jawbone.

The Aurignacian culture is characterised by worked bone or antler points with grooves cut in the bottom. The sophistication of these artefacts has led many archaeologists to suggest that modern humans must have made them.

## Earliest evidence for modern humans in Europe identified

Published on Chem.Info (<http://www.chem.info>)

---



Mesial view of the specimen Cavallo-B (baby tooth: left upper first molar), the first European anatomically modern human. The white bar in the figure is equivalent to 1 cm.

The findings are published in *Nature*. The new date suggests it's highly likely Neanderthals and our ancient cousins lived in the same region until the Neanderthals' mysterious demise.

'It tells us a great deal about how rapidly our species dispersed across Europe during the last Ice Age. It also means that early humans must have co-existed with Neanderthals in this part of the world, something which a number of researchers have doubted,' adds Higham.

In a similar study, scientists dated two milk teeth unearthed from a cave in Italy in 1964 to between 43,000 and 45,000 years old using marine shell beads found in the same layers as the teeth. The team behind this study also reveal that the teeth are human in origin. Before this latest study, most researchers thought the teeth belonged to Neanderthals.

The baby milk teeth were found in archaeological layers described as 'Uluzzian' in the Grotta del Cavallo in southern Italy. This culture is characterised by personal ornaments, bone tools and colourants typically associated with human behaviour. Until now, most archaeologists accepted that Neanderthals must have created these artefacts.

But these latest findings suggest this might not have been the case.

Whether or not the milk teeth from the Grotta del Cavallo belonged to Neanderthals or modern humans was, until now, the subject of intense debate among archaeologists. Much of the evidence depends on accurate dating.

Dr Stefano Benazzi from the University of Vienna and his colleagues re-analysed the teeth using digital scanning and compared them to a wide range of other humans.

Their results, 'provide crucial evidence that the makers of the Uluzzian technocomplex were therefore not Neanderthal,' write the authors in their report.

## Earliest evidence for modern humans in Europe identified

Published on Chem.Info (<http://www.chem.info>)

---

In 1989, scientists dated the piece of jawbone from Devon to around 34,700 to 36,400 years old. But doubts were raised over this date, because traces of modern glue were found on the surface. This would have made the jawbone seem much younger than it is.

Higham and his colleagues scoured the excavation archives in Torquay Museum to find samples of animal bone found at the same depth as the jawbone. They managed to date bones from wolf, deer, cave bear and woolly rhinoceros to between 26,000 and 50,000 years old. They then used a statistical method to calculate a more accurate age for the jawbone.

[SOURCE](#) [1]

**Source URL (retrieved on 08/30/2014 - 8:55am):**

<http://www.chem.info/news/2011/11/earliest-evidence-modern-humans-europe-identified>

**Links:**

[1] <http://planetearth.nerc.ac.uk/news/story.aspx?id=1087>