New evidence for the earliest modern humans in Europe

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This is 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. Credit: Chris Collins (NHM) and Torquay Museum

The timing, process and archeology of the peopling of Europe by early modern humans have been actively debated for more than a century. Reassessment of the anatomy and dating of a fragmentary upper jaw with three teeth from Kent's Cavern in southern England has shed new light on these issues.

Originally found in 1927, Kent's Cavern and its human fossil have been reassessed by an international team, including Erik Trinkaus, PhD, professor of anthropology in Arts & Sciences at Washington University in St. Louis, and the results published in Nature.

The Kent's Cavern human joins the human skull and lower jaw from the Pe?tera cu Oase, Romania, in establishing the presence of modern humans at both ends of Europe (northwest and southeast) by at least 40,000 years ago.

"Modern humans were previously known to be this old in southeastern Europe, but they had not been documented as early in western Europe until the reassessment of the Kent's Cavern fossil," Trinkaus says. "The new date for the Kent's Cavern upper jaw suggests a rapid spread of modern humans once they had crossed into Europe."

All three of these fossils, although anatomically "modern," possess archaic features, indicating some degree of intermixture with the European Neandertals as modern human spread across Europe.

None of these fossils is associated with diagnostic archeological remains, but they date close to the appearance of the Aurignacian industry, Trinkaus says. This supports the long-held view that the Early Upper Paleolithic Aurignacian represents early modern humans in the region.

Provided by Washington University in St. Louis