Modern humans emerged far earlier than previously thought

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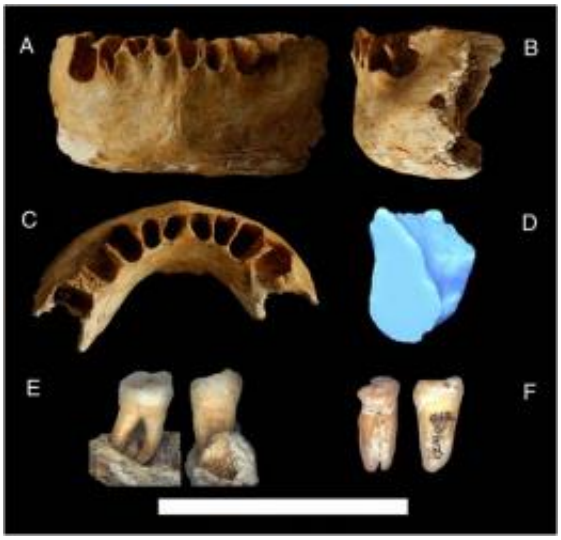

Fig. 1. The human remains from Zhiren Cave. The Zhiren 3 mandible in anterior (A), lateral left (B), and superior (C) views. The midsymphyseal cross-section of the Zhiren 3 mandible (D). The Zhiren 1M3 in buccal and mesial views (E), and the Zhiren 2 M3 in the same views (F). (Scale bar, 5 cm.) (Courtesy of Drs. LIU Wu and JIN Chang-Zhu)

(PhysOrg.com) -- An international team of researchers based at the Institute of Vertebrate Paleontology and Paleoanthropology in Beijing, including a physical anthropology professor at Washington University in St. Louis, has discovered well-dated human fossils in southern China that markedly change anthropologists perceptions of the emergence of modern humans in the eastern Old World.

The research was published Oct. 25 in the online early edition of the Proceedings of the National Academy of Sciences.

The discovery of early modern human fossil remains in the Zhirendong (Zhiren Cave) in south China that are at least 100,000 years old provides the earliest evidence for the emergence of modern humans in eastern Asia, at least 60,000 years older than the previously known modern humans in the region.

"These fossils are helping to redefine our perceptions of modern human emergence in eastern Eurasia, and across the Old World more generally," says Eric Trinkaus, PhD, the Mary Tileston Hemenway Professor in Arts & Sciences and professor of physical anthropology.

The Zhirendong fossils have a mixture of modern and archaic features that contrasts with earlier modern humans in east Africa and southwest Asia, indicating some degree of human population continuity in Asia with the emergence of modern humans.

The Zhirendong humans indicate that the spread of modern human biology long preceded the cultural and technological innovations of the Upper Paleolithic and that early modern humans co-existed for many tens of millennia with late archaic humans further north and west across Eurasia.

Provided by Washington University in St. Louis