

# Progress in dating modern *Homo sapiens* sites in China

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The origin of modern *Homo sapiens* has been the subject of an intensive debate between exponents of two competing hypotheses: “recent out of Africa” and multiregional origins. It is generally accepted that the hominid fossil and archaeological evidences from Africa, Europe and Mid-East support the former model, whilst those from East Asia are in line with the latter. The accurate dating of relevant finds is fundamental to addressing the above controversies.

The reliability of U-series dates on pure and dense cave calcites has been well demonstrated. Mainly using this dating method, the chronologies of relevant hominid localities in southern China were reexamined in the past more than ten years. They include the sites of Liujiang, Laibin, Bailiandong and Tubo in Guangxi, Zhangkou and Xianren caves in Yunnan and Lianhua cave in Jiangsu. The results show that modern humans were present in China at least ~100 ka ago, much earlier than previously estimated, and that the so-called “temporal gap” of human presence in China between 40 and 100 ka is most probably merely an artifact caused by systematic errors of previous dating methods.

In an attempt to search for earliest representatives of modern hominid and to better understand the model of recent human evolution in China, further chronological studies are currently under way. Southern China provides a promising ground for research works in this direction, as the region hosts numerous Late Pleistocene hominid sites in limestone caves, where cultural or fossiliferous deposits are often intercalated with speleothem formations. With robust temporal constraints, the hominid finds there may contribute significantly to elucidating the much-debated issues concerning the origin, dispersal and evolution of modern *H. sapiens*.

## References:

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