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A 14,000-Year-Old Human Genome is Recently Sequenced

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Archaeologists from China's Yunnan province discovered the remains of at least three individuals in Red Deer Cave in 1989. Using DNA sequences derived from a 14,000-year-old skull, researchers determined that Mengzi Ren - the woman whose bones were analyzed - was closely related to the first Americans. To determine the exact family tree of Mengzi Ren, researchers sequenced extracted DNA and mapped it according to a standard genomic reference model. A closer examination of Megzi Ren's DNA revealed that she had close ties to anatomically modern humans, displacing her heritage from more ancient stock. The fossils were dated to the Late Pleistocene about 14,000 years ago when many parts of the world had been colonized by modern humans. Hominin skull caps with modern and archaic features were found among the fossils. As compared to modern humans, the skull resembled that of Neanderthals, and the brain appeared smaller. which is why the scientists believed that the skull belonged to an unknown archaic human species that lived in a hybrid population of archaic and modern humans. Now after the analysis of the ancient DNA, the team reported that the Red Deer Cave people were modern humans instead of archaic species, such as Neanderthals or Denisovans, despite their unusual morphological features. To come to this conclusion, the team extracted and sequenced that DNA from the Red Deer Cave skull and test it against the DNA of modern man. According to the researchers, the fossil belonged to an individual with a deep connection to East Asian ancestry among Native Americans. "Such data will not only contribute to a better understanding of how our ancestors migrated but also provide insight into how humans have changed their appearance over time through adaptation to local environments, such as changes in skin color in response to changes in sunlight exposure," says Bing Su, a key archaeologist. Mingzi Ren will not be the only one whose genes will be deciphered if all goes according to plan. Many Late Pleistocene sites in Asia, including Red Deer Cave, have more secrets to reveal.

KEYWORDS

Southwest China, Late Pleistocene, hominin cranium, ancient genome, diverse lineage, Maludong, Red Deer Cave, First Americans, Asia, China, DNA, East Asia, Genome, Hominin, Homo sapiens, Human, mtDNA, Native Americans, Pleistocene, Red Deer Cave, Red Deer Cave people, Yunnan