

# Chimps used tools as early as the Stone Age: study

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Chimpanzees from West Africa were cracking nuts open using stone tools in prehistoric times, according to a study released Monday that suggests some chimp populations may have been using this kind of tool technology for thousands of years.

Researchers have found evidence that chimpanzees from West Africa were cracking nuts with stone tools before the advent of agriculture, thousands of years ago. The result suggests chimpanzees developed this behaviour on their own, or even that stone tool use was a trait inherited from our common ancestor.

Julio Mercader, Christophe Boesch and colleagues found the stones at

the Noulo site in Cote d'Ivoire, the only known prehistoric chimpanzee settlement. The stones they excavated show the hallmarks of use as tools for smashing nuts when compared to ancient human or modern chimpanzee stone tools.

Also, they found several types of starch grains on the stones; part of the residue derived from cracking local nuts. The tools are 4300 years old, which, in human terms, corresponds to the Later Stone Age.

Before this study, chimpanzees were first observed using stone tools in the 19th century. Now, thanks to this new archaeological find, tool use by chimpanzees has been pushed back thousands of years. The authors suggest this type of tool use could have originated with our common ancestor, instead of arising independently among hominins and chimpanzees or through imitation of humans by chimpanzees.

This study confirmed that chimpanzees and human ancestors share for thousands of years several cultural attributes once thought exclusive of humanity, including transport of raw materials across the landscape; selection and curation of raw materials for a specific type of work and projected usage; habitual reoccupation of sites where garbage and debris accumulate; and the use of locally available resources. Nut cracking behaviour in chimpanzees is transmitted socially, and the new discoveries presented in this study shows that such behaviour has been transmitted over the course of many chimpanzee generations. Chimpanzee prehistory has deep roots!

The study of our living closest relative, the chimpanzee, constantly highlights new aspects of human evolution, and a better protection of this endangered species will guarantee that we can continue uncovering new facets of our past. Relevant finds come from all parts of the African continent, including the rainforest, and not just the classical east African homeland.

Citation: Mercader, Julio, Huw Barton, Jason Gillespie, Jack Harris, Steven Kuhn, Robert Tyler, and Christophe Boesch 4300-year-old chimpanzee sites and the origins of percussive stone technology. *PNAS*, February 2007

Source: Max-Planck-Gesellschaft

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