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50,000 years earlier than in Europe, *Homo sapiens* used the pressure retouch technique at Blombos, in the southernmost part of Africa

Vincent Mourre, an Inrap prehistorian, has published, in collaboration with Paola Villa and Christopher S. Henshilwood, a major discovery made at the site of Blombos (South Africa) in the journal *Science*. This article is based on research conducted by Vincent Mourre in the framework of an international research convention between Inrap, the Institute for Human Evolution (University of the Witwatersrand, Johannesburg) and the Blombos Cave Project, composed of a multidisciplinary team of South African, American and French researchers.

Symbolic behaviour at Blombos

The Blombos rock shelter, overlooking the shores of the Indian Ocean in the Cape Province of South Africa, has been excavated since 1991 by Christopher S. Henshilwood. It is most famous for the remarkable discoveries made there that contribute to the debate on the emergence of human symbolic behaviour. Pieces of engraved ochre dated to 75,000 years ago are the earliest known geometric representations, and personal ornaments in the form perforated marine shells are among the oldest in the world.

Technological behaviour at Blombos

In their article, Vincent Mourre, Paola Villa and Christopher S. Henshilwood, present a study of the projectile points found in levels at Blombos dated to 75,000 years ago.

These hunting weapons, made from silcretes (siliceous stone similar to quartzite), are finely shaped bifacial points meant to be hafted. They are characteristic of the Still Bay facies of the Middle Stone Age of southern Africa,

Recent experimental and technological analyses show that these points were realized using the “pressure retouch” technique. Until now, the earliest evidence of this technique was dated to 20,000 years ago in Europe. Artisans of the Solutrean culture used the pressure technique to make “shouldered points” and “laurel leaf points/knives”. In North America, this technique is known from 11,000 years ago. Pressure flaking is a retouching technique used by prehistoric knappers to shape stone tools by exerting pressure with the narrow end of a bone or soft stone tool on the edge of a worked piece.

At Blombos, like elsewhere in the world, it was necessary to modify the stone materials retouched using the pressure technique through a controlled heat treatment in order to improve their flaking qualities.

This work at Blombos now shows that this technique appeared in Africa much earlier than in Europe and confirms the innovative capacities of the populations of this region.

Reference

Mourre, V., Villa, P., Henshilwood C. S., 2010. “Early Use of Pressure Flaking on Lithic Artifacts at Blombos Cave, South Africa”. *Science* 83.

URL**Inrap**

With nearly 2000 collaborators and researchers, Inrap is the largest archaeological research structure in France and one of the most important in Europe. This national public research institution undertakes the majority of archaeological evaluations and excavations in partnership with private and public developers, a total of more than 2000 sites per year in mainland France and its overseas territories. Its missions also include the scientific exploitation of excavation results and the transmission of archaeological knowledge to the general public.

Collaborators

Vincent Mourre is a Palaeolithic specialist for Inrap and a member of the UMR 5608 - TRACES team of the Université Toulouse II.

Paola Villa is a member of the University of Colorado Museum, Boulder, CO, USA, the UMR 5199 – PACEA team of the Université Bordeaux 1, and the University of the Witwatersrand, Johannesburg, South Africa.

Christopher S. Henshilwood is a professor at the University of Bergen, Norway, and the University of the Witwatersrand.

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