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EXPO: THE OLDEST FLOUR IN THE WORLD, DISCOVERED IN TUSCANY, DATES BACK TO 30,000 YEARS AGO

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It is the world's most ancient flour and it was discovered in Tuscany. This discovery – which has radically changed our understanding of Paleolithic humans and their diet – was

presented in Florence at an event entitled *The Earliest Flour in Tuscany – Origins of a Diet*, aimed at exploring the subject of dietary evolution, set in the framework of Expo 2015.

The story began 30,000 years ago when a group of homo sapiens settled temporarily in the Bilancino area, on the banks of the Sieve River. Thousands of years passed until 1995-1996 when the area was to be flooded so as to create an artificial lake for use as the Bilancino reservoir. A group of archaeologists discovered where a Paleolithic camp had been set up at one time later covered with silt by the Sieve. Some stones were found there that, to the expert eye of the archaeologists, had every appearance of being an old millstone and pestle. A decision was made not to wash them and to analyze them using an electron microscope and carbon 14, the method also used for the coals of the hearth found on site. The analysis revealed traces of starch on the stones, with the carbon-14 dating the discovery to 30,000 years ago - which revolutionized knowledge on human nutrition as previously it had commonly been thought that the nomadic hunter-gatherers of the Upper Paleolithic were basically carnivorous.

The discovery at Bilancino of a millstone and a small mortar or pestle were carbon-dated to approximately 30,000 years ago. Together with the presence of the starch granules, they represent not only the oldest direct evidence of the use of plants for food but also a veritable "recipe" for preparing food of plant origin.

But what were those starch granules? The analysis carried out between 2005 and 2007 by the University of Florence identified the starches of various plants but especially that of *Typha* (reed-mace). Reed-mace is a very common marsh plant whose leaves, until a few years ago, provided the fibers used to weave ropes, mats, baskets and so on. Its rhizomes were used for food in many countries outside Europe. After this discovery, the archaeological team wanted to experiment with preparing food made from reed-mace flour. So they harvested, dried, and grounded the rhizomes. They then prepared reed-mace "biscuits" that were cooked on a hearth modeled on the one discovered in the Bilancino excavations. The result of their labors had a pleasant taste.

Source: Regione Toscana press release