

'Inhabitants of Madrid' ate elephants' meat and bone marrow 80,000 years ago

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Researchers have found cut and percussion marks in elephant bones in the site of Preresá. Credit: Joaquín Panera

Humans that populated the banks of the river Manzanares (Madrid, Spain) during the Middle Palaeolithic (between 127,000 and 40,000 years ago) fed themselves on pachyderm meat and bone marrow. This is what a Spanish study shows and has found percussion and cut marks on elephant remains in the site of Preresá (Madrid).

In [prehistoric times](#), hunting animals implied a risk and required a considerable amount of energy. Therefore, when the people of the Middle Palaeolithic (between 127,000 and 40,000 years ago) had an elephant in the larder, they did not leave a scrap.

Humans that populated the Madrid region 84,000 years ago fed themselves on these prosocidians' meat and they consumed their bone marrow, according to this new study. Until now, the scientific community doubted that consuming elephant meat was a common practice in that era due to the lack of direct evidence on the bones. It is still to be determined whether they are from the Mammuthus species of the Palaeoloxodon

subspecies.

The researchers found bones with cut marks, made for consuming the meat, and percussion for obtaining the bone marrow. "There are many sites, but few with fossil remains with marks that demonstrate humans' purpose" Jose Yravedra, researcher at the Complutense University of Madrid (UCM) and lead author of the study published in the [Journal of Archaeological Science](#) points out to SINC.

This is the first time that percussion marks that showed an intentional [bone fracture](#) to get to the edible part inside have been documented. These had always been associated with tool manufacturing but in the remains found, this hypothesis was discarded. The tools found in the same area were made of flint and quartzite.

The team, made up of [archaeologists](#), zooarchaeologists and geologists from UCM, the Institute of [Human Evolution](#) in Africa (IDEA) in Madrid and the Spanish National Research Centre for Human Evolution (CENIEH) in Burgos, collected 82 bones from one elephant, linked to 754 [stone tools](#), in an area of 255 metres squared, in the site of Preresá, on the banks of the river Manzanares.

In the case of the cut marks on the fossil remains, these add to the "oldest evidence of exploiting elephants" in the site of Áridos, close to the river Jarama, according to another study published by Yravedra in the same journal. "There are few records about the exploitation of elephants in Siberia, North America and central Europe", the zooarchaeologist explains.

The risk of hunting an elephant

The internal organs were what the predator ate first, be they human or any kind of carnivore. The prehistoric signs of the banquet help researchers to find out who was the first to sit down at the table, as

the risk of hunting an elephant posed the question as to whether humans hunted it or were scavengers.

"This is the next mystery to be solved" Yravedra replies, who reminds us that there is evidence of hunting in other smaller animals in the same site. However, due to the thickness of fibrous membranes and other elephant meat tissues, humans did not always leave marks on the bones. "And for this reason, sometimes it is difficult to determine if humans used their meat".

The 'Holy Grail' of Palaeolithic diet

Animal fat was highly valued by hunters and gatherers that had a diet rich in meat and low in carbohydrates. When there was little [meat](#), other resources such as [bone marrow](#) became a source of lipids.

According to the study, this practice was not very common due to the difficulty of extracting the marrow from the bones. Furthermore "exploiting the fat is something that has not been reported until now" the researcher says. Other food sources, such as brains, had the same nutritional benefits.

More information: Yravedra, J.; Rubio-Jara, S.; Panera, J.; Uribelarrea, D.; Pérez-González, A. "Elephants and subsistence. Evidence of the human exploitation of extremely large mammal bones from the Middle Palaeolithic site of PRERESA (Madrid, Spain)". *Journal of Archaeological Science* 39 (4): 1063-1071, April 2012. [DOI: 10.1016/j.jas.2011.12.004](https://doi.org/10.1016/j.jas.2011.12.004)

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