

## **The Early Palaeolithic butchery site of Barogali (Republic of Djibouti)**

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**SUMMARY:** Three seasons of excavations (1985-1987) in the Gobaad region of the Republic of Djibouti led to the discovery of the fossilized skeletal remains of an *Elephas recki* (1,3-1,6 Ma old). Numerous stone artefacts discovered among the bones indicates that the excavation is a butchery site where hominids cut up and perhaps consumed the elephant meat. The discovery of cores and small flakes near the elephant carcass indicates that the hominids knapped choppers and polyhedrons and retouched flakes during the scavenging operation.

In Gobaad, in the west of the Republic of Djibouti, a few kilometres from the Ethiopian border near Lake Abhé, early faunal evidence lies beneath ancient swamp and river sediments.

At a spot known as Barogali the hardened and compacted sediments of a Pleistocene swamp can be seen in section below the layer of diatomite deposited by a Holocene lake. It was in the midst of the former that the skeletal remains of an elephant came to light, in the same context as some stone tools.

The palaeontological classification formulated by Cl. Guérin identified the remains as *Elephas recki ileretensis*, an elephant that disappeared between 1.3 and 1.2 million years ago (Chavaillon *et al.* 1987). The ESR dating of the elephant's lower third molar gave a date of between 1.6 and 1.3 Ma which would confirm its palaeontological grouping, as does the stone tool analysis (Berthelet 1999, 2001). The earlier date of 1.6 million years would provide us with a typical selection of Oldowan stone tools. On the other hand, despite the presence of a somewhat archaic industrial assemblage the later date of 1.3 million years would place the deposit in a Developed Oldowan or in an Early Acheulean context lacking some of the typical artefacts of this techno-complex.

The excavation peeled off the surface stratigraphy, enabling a detailed plan to be drawn of the elephant remains. The animal appeared to have been lying on its left side. Unlike the Haidalo elephant a few kilometres away, the Barogali skeletal remains were not in their anatomical position. Here the bones had been hacked and scattered apart. Various bones of the animal are missing; a fact that leads us to suppose that the river erosion noted in the northern sector had subsequently carried away some parts of the skeleton.

Whether the dead beast had been found as carrion or the animal fallen prey to hunters, the carcass had been stripped and torn to pieces. Some of the bones were still grouped in near-anatomical position, others separated and at times scattered apart. This would have been a hunting spot frequented by carnivorous animals and birds of prey as well as man.

The animal's skull was found shattered and out of its anatomical position in the southwest corner of the site. The cranial roof had been separated from the calvarium, almost certainly to get at the brain. The animal's tusks were still in place and anatomically connected to the upper jaw. However, various rib fragments lay between the two tusks and a vertebra by the point of the right one.



Fig.1 - General plan of the Barogali excavation (drawing by J.L. Boisaubert).

The jaws had apparently been broken apart to extract the tongue.

The lithic assemblage that came to light in the same context as the skeletal remains is important given that in order to strip the carcass it had been necessary to fashion tools from a mediocre volcanic rock which was to be found further to the south. 569 artefacts came to light: the lithic assemblage demonstrates a specialised tool production aimed at specific needs, such as scraping, chopping and shattering the bone. The hunters had carried blocks of lava with them into the swamp. Given that the amount of tool making debris makes up 65% of the whole the blocks must have worked as a kind of portable knapper's workshop set up next to the animal carcass.

There is a high number of percussion tools:

five percussion blocks and over a hundred cobble fragments, more often with signs of multiple fractures.

Choppers make up almost a third of the number of pebble tools. Five different types of chopping-tool have been classified, most are side choppers, and all are bifacial tools.

Polyhedrons, spheroids and bolas, though infrequent, make up 22% of the pebble tools. This is a relatively higher proportion when compared with other non-butchery sites. The rounded shape of the Barogali bola is similar to the one uncovered at Garba IV (M. Piperno, pers. com.), a Developed Oldowan A site in Melka Kunturé, Ethiopia. The heavy scrapers (31%) can be divided into two types, one with a broad edge and low sloping blade, and the other with a thick flat edge.



Fig.2 - Barogali. Detail of some pebbles tools and bolsa around the *Elephas recki* bones.

The “débitage” products come from both retouched pebbles and cores. The latter (14) divide into unipolar, centripetal or polyhedral types.

There is a considerable amount of flake debris, with both entire (185) and broken (217) pieces, but only 36 actual flake tools. These include backed knives, notched and denticulated tools, but for the most part are lightly retouched blades.

The selection of stone tools was intended for precise purposes: stripping the animal, chopping up the meat, and scraping or shattering the bone.

The position of the stone artefacts around the carcass enables us to hypothesise as to the way of life of this hominids.

In East Africa there are a greater number of big mammal butchery sites. They have been identified in Olduvai Bed I and II (Tanzania), in Koobi Fora (Kenya), in both Melka Kunture (Gomboré II) and Hargufia (Ethiopia). The Barogali site is therefore recognised as part of this select group of rare Oldowan, Early and

Middle Acheulean butchery sites.

#### ACKNOWLEDGEMENTS

The Djibouti palaeontological and archaeological mission was supervised by J. Chavaillon, with the collaboration of a group of prehistorians and palaeontologists: A. Berthelet, J.L. Boisubert, M. Faure, C. Guérin, and S.A. Warsama. Y. Coppens took part in the 1985 mission. Work in both the field and laboratory have benefited from the competent support of the Institut Supérieur d'Etudes et de Recherches Scientifiques et Techniques led by M. Anis A. Kamra, as well as of the CNRS, the Ministère de la Coopération and the assistance of the French armed services stationed in Djibouti.

#### REFERENCES

Beden, M. 1980. *Elephas recki* Dietrich, 1915 (Proboscidea, Elephantidea): évolution au cours du Plio-Pleistocène en Afrique orien-

- tale. *Géobios* 13 (6): 891-901.
- Berthelet, A. 1999. Le Paléolithique ancien en République de Djibouti, nouvelles prospections et fouilles (1985-1992), *Mémoire EPHE*, 1-2: 307-150.
- Berthelet, A. 2001. L'outillage lithique du site de dépeçage à *Elephas recki ileretensis* de Barogali (République de Djibouti), *C.R. Acad. Sci. Paris II*, 332: 411-416.
- Chavaillon, J., Berthelet, A., Boisaubert, J.L., Faure, M., Guérin, Cl., Warsama, S.A. 1987. Le site de dépeçage pléistocène à *Elephas recki* de Barogali, République de Djibouti. Nouveaux résultats et datations. *C. R. Acad. Sci. Paris II*, 305: 1259-1266.
- Chavaillon, J., Berthelet, A., Boisaubert, J.L., Faure, M., Guérin, Cl., Warsama, S.A. 1990. Un *Elephas recki* découvert en connexion anatomique dans le site de Haïdalo, près de As Eyla (république de Djibouti), *C.R. Acad. Sci. Paris II*, 310: 441-446.