7th Annual Meeting of the

European Society for the study of Human Evolution

21-23 September 2017
LEIDEN / THE NETHERLANDS

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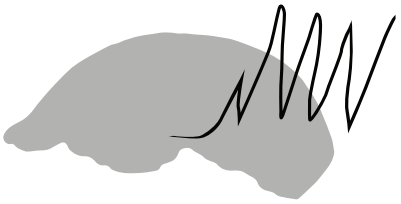

Proceedings of the European Society for the study of Human Evolution Vol. 6

Cover image: *Homo erectus* holotype cranium and shell engraving, Trinil, Indonesia (Dubois Collection, Naturalis, Leiden, The Netherlands)

Proceedings of the European Society for the study of Human Evolution Vol. 6
Citation: PESHE 6, 2017

PESHE 6 compiled and designed by Mikaela Lui
Cover and Logo Design by Joanne Porck

ISSN 2195-0776 (Print)
ISSN 2195-0784 (Online)

Poster Presentation Number 20, Fr (12:15-14:15)

The *Elephas (Palaeoloxodon) antiquus* skeleton and other large mammals from the Lower Palaeolithic locality Marathousa 1 (Megalopolis Basin, Greece): preliminary results

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The Megalopolis Basin (Peloponnesus, Greece) has long been known for its Middle Pleistocene mammal fossils (see [1] and references therein). In 2013 a palaeolithic/palaeoanthropological survey, conducted by a joint team from the Ephorate of Palaeoanthropology Speleology of the Greek Ministry of Culture and the University of Tübingen, led to the discovery of a new open-air locality, Marathousa-1 (MAR-1), when stratified bones and lithic artefacts were identified in a section of the Marathousa Member, Choremi Formation [2]. The preliminary ESR analysis dates the locality at 0.5-0.4 Ma [3]. The large mammal faunal material collected so far (2013-2016) includes the castorid *Castor fiber*, the mustelids *Lutra simplicidens* and *Mustela* sp., the felid *Felis* sp., the canids *Vulpes* sp. and *Canis* sp., the elephantid *Elephas (Palaeoloxodon) antiquus*, the hippopotamid *Hippopotamus antiquus*, the bovid *Bison* sp., and the cervids *Dama* sp. and *Cervus elaphus*. This faunal association is common in the Galerian mammal communities of Europe (ca. 0.9-0.4 Ma). Furthermore, it is consistent with a temperate climate, and is indicative of a landscape with substantial woodland components and more open areas, close to permanent and large freshwater bodies. Of particular interest are an elephant cranium and numerous postcranial elements, which were found in close anatomical association and are attributed to a single individual of the straight-tusked elephant *Elephas (P.) antiquus*. The skeleton belonged to an old male in its sixties, with live skeletal height around 3.7 meters and body mass around 9.0 tones. The good state of preservation of the MAR-1 bones allows the identification of taphonomic modifications. Three-dimensional virtual reconstructions of marks with the use of a confocal microscope enabled the identification of cut marks and their micromorphological characteristics. Cut marks and percussion damage indicate hominin exploitation of the elephant carcass and other mammal bones by means of butchering activities, which is in accordance with the lithic assemblage and its spatial association with the bones. Carnivore gnawing is also evident on some specimens, suggesting a certain degree of carnivore competition with humans for early access to the animal carcasses. Marathousa-1 is among the oldest elephant butchering sites in Europe and the only one known in Southeastern Europe.

This research was supported by the ERC-STG-283503 ("PaGE") and the University of Tübingen. We are grateful to the Ministry of Culture, the Municipality of Megalopolis, the authorities of the Region of Peloponnese and the Public Power Corporation S.A. for their support.

References:[1] Melentis, J.K., 1961. Die Dentition der pleistozänen Proboscidier des Beckens von Megalopolis im Peloponnes (Griechenland). Ann. Geol. Pays Hell. 12, 153-262 [2] Panagopoulou, E., Tourloukis, V., Thompson, N., Athanassiou, A., Tsartsidou, G., Konidaris, G.E., Giusti, D., Karkanas, P., Harvati, K., 2015. Marathousa 1: a new Middle Pleistocene archaeological site from Greece. Antiquity Project Gallery, 343 [3] Blackwell, B.A.B., Singh, I., GopalKrishna, K., Chen, K.K., Sakhrani, N., Tourloukis, V., Karkanas, P., Florentin, J.I.B., Panagopoulou, E., Harvati, K., Skinner, A., 2016. ESR dating the fossil-bearing layers at the Marathousa 1 site, Megalopolis, Greece, Paleoanthropological Society Meeting. PaleoAnthropology, Atlanta, pp. A4-A5.