



Universiteit  
Leiden  
The Netherlands

## **The Early and Middle Pleistocene archaeological record of Greece : current status and future prospects**

Tourloukis, V.

### **Citation**

Tourloukis, V. (2010, November 17). *The Early and Middle Pleistocene archaeological record of Greece : current status and future prospects*. LUP Dissertations. Retrieved from <https://hdl.handle.net/1887/16150>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/16150>

**Note:** To cite this publication please use the final published version (if applicable).

## Epilogue

The results of this study have specific implications for the reading of the Early-Middle Pleistocene archaeological record of Greece and the prospects for its enrichment. They can also be seen as having wider implications for the methodology and practice of Quaternary Geoarchaeology in highly dynamic landscapes of south/south-eastern Europe –if not in even broader spatial scales.

The re-evaluation of the Greek testimony demonstrated the lack of archaeological assemblages that can be attributed to the Lower Palaeolithic on secure chronostratigraphic grounds. As attested by the palaeoanthropological record the Greek Peninsula was inhabited as early as the Middle Pleistocene, but we cannot assess whether the hominins represented by the fossils of Petralona and Megalopolis were the makers of what is conventionally defined as the material culture of the Lower Palaeolithic, even though such a hypothesis is most likely. Nevertheless, the human remains and artefactual evidence of the Middle Pleistocene together provide strong indications for a hominin presence in Greece during the Lower Palaeolithic period. The record is poor, ill-dated and essentially lacking a solid anchor on contextual (stratigraphic) evidence, but its ever-growing data-set must be considered as a signal that is highly promising for future discoveries.

This fragmented status of the record was interpreted here as the consequence of limited geological opportunities for the preservation and archaeological visibility of human vestiges from the Early and Middle Pleistocene. High relief in a tectonically active setting, combined with the small aerial extent of preserved Early and Middle Pleistocene deposits and the inundation of formerly-emerged landmasses, have altogether resulted in a very small portion of the record surviving up to the present. As pessimistic as this conclusion may appear to be at first sight, it

has two significant implications for future research in the Greek Peninsula, as well as with regard to the role of Greece in the investigation of the earliest occupation of Europe. Firstly, it does not contradict, but instead it even supports the expectations for the prospects of Greece in contributing to this subject: in all probability, the scarcity of Early-Middle Pleistocene archaeological evidence from Greece should be interpreted as the result of the biasing and destructive effects of Quaternary geomorphic processes and *not as a real absence of hominins*. Greece has provided fundamental archaeological and palaeoanthropological contributions with regard to the earliest agriculturalists in the Holocene, the late Neanderthals and the Middle-Upper Palaeolithic transition in the Late Pleistocene (*e.g.* the sites of Lakonis and Kleisoura), and the biological developments of the Middle Pleistocene (*e.g.* the sites of Petralona, Megalopolis and perhaps Apidima as well). It has also yielded a rich record of Neogene terrestrial primates (cercopithecids and hominoids; *e.g.* Koufos 2009), including key representatives of large-bodied hominids/hominines, such as *Ouranopithecus*, which has been interpreted as a direct link between Miocene apes and australopithecines (*e.g.* Koufos and de Bonis 2004); in fact, it was these sort of discoveries in the 1970's, from Greece (*e.g.* *Dryopithecus*) and Hungary, which repositioned Europe as the possible source of later hominines that dispersed into Africa in the late Miocene (Begun 2009). Hence, Greece occupies an important biogeographical position and has contributed significant evidence from the Miocene up to the Holocene, and the only substantial gap in this time-span regards the Early Pleistocene. It is hard to explain this gap in terms of unfavourable geoclimatic, palaeogeographic or ecological conditions; instead, my study indicates that, most likely, geomorphic biases are to be held responsible for it. After all, the fossil assemblages from two of the richest early-middle Pleistocene palaeontological localities of the region,

namely Petralona and Megalopolis, include also hominin remains.

In short, from the perspective of palaeontology, biogeography and palaeoecology there are still valid reasons to expect humans to have inhabited Greece as early as the Early Pleistocene. From a geoarchaeological perspective we have reasons to suggest that, wherever landscape processes allowed for a sufficient degree of preservation and visibility, archaeological and palaeoanthropological material *is indeed being found*. However, a second major result of the geoarchaeological explanation is that we need to significantly improve and revise our theoretical and methodological toolkits if we are to locate this early material *in stratified positions*. As already underlined, future research should focus on discovering stratified remains in order to assess their age and develop regional chronostratigraphic frameworks. To this end, fieldwork methodology needs to be adjusted accordingly: for instance, surveying land-surfaces with the traditional practice of field-walkers aligned every five or ten meters does not serve this priority adequately.

Apart from the issue of *how* to look for early Palaeolithic material, there is also the question of *where* to search for it. The geoarchaeological approach advanced in this study provided directions in answering this latter query, too. The approach was elaborated on the landscape-scale, it assessed preservation potential in conjunction with archaeological visibility and it emphasized topographic configuration and tectonic history as the two main factors that explain the inferior status of the Lower Palaeolithic record of Greece as compared to other Mediterranean records, notably those of the Iberian and Italian Peninsulas. This perspective had primarily an explanatory character, yet it was also used heuristically as a predictive tool: well-preserved and archaeologically visible Lower Palaeolithic sites are likely to occur in basin settings, which retained their role as ‘sediment receivers’ for most of the Early and Middle Pleistocene and were inverted into positive topographic features (‘sediment producers’) during the Late Pleistocene; in this framework, uplift, basin inversion and drainage diversion may or may not be associated with a transition from endorheism to exorheism in the local drainage system. For Greece, the basins of Megalopolis and Mygdonia

were pointed out as examples that most probably meet these criteria and offer themselves as the best candidates for yielding sites with hominin remains in primary contexts. Similar suggestions could be proposed for other Mediterranean regions with tectonically active settings, especially in the eastern Mediterranean. In this vein, the strength of the assessment on the association between archaeological preservation/visibility and the timing of basin inversions lies principally in its potential to be modeled, so as to assist in interpreting or predicting site distributions in the landscape-scale.

The most dramatic expression of the biasing effects of geomorphic processes relates to the periodic submergence of the Aegean: this has considerable implications with regard to how much of the Greek record has vanished and how important evidence the surviving part of it could yield in the future. Up till the present, the picture of a ‘continental Aegean’ was hardly conceivable by the palaeoanthropologists and archaeologists working in the region. The new reconstruction of the Aegean and Ionian palaeogeography (Lykousis 2009) and its archaeological implications discussed in this thesis will undoubtedly stimulate new research projects on the Palaeolithic occupation of the Aegean region. In light of this newly-acquired knowledge, the latter area now carries the potential for yielding evidence of profound significance for the understanding of behavioral developments, environmental tolerances and ecological preferences of early hominins. The recent finds from the islands of Milos and Gavdos (Chelidonio 2001; Kopaka and Matzanas 2009) can be seen as already prefacing such high prospects, while the evidence from Crete and the possibility that it attests to Lower Palaeolithic seafaring (Strasser *et al.* 2010) has already stirred up intriguing discussions. To my eyes, what is most exciting when prospecting the (Lower) Palaeolithic of the Aegean is its potentially central role in large-scale biogeographical patterns for hominins and other large mammals: if the Levant and western Turkey were “core areas [...] where hominin residence was almost always possible” (Dennell 2009, 233), the Aegean was certainly not peripheral. Instead, especially during the times of its full ‘continental emergence’, the Aegean provided direct connections between mainland Greece (and hence also northern Balkans) with Southwest Asia via Asia Minor. Thus, it is now

difficult to assume that the Greek Peninsula might have been a ‘cul de sac’ for faunal exchanges and movements (including hominins); this is in contrast to the Iberian and Italian peninsulas, which were always isolated from their surroundings in the longitudinal axis. It is in this latter axis that the Aegean may prove to be biogeographically important, perhaps as a true ‘melting pot’ for faunal and hominin interactions. Taking into account that the ‘Out of Asia’ palaeoanthropological scenario finds ever-increasing support from various lines of analyses (Dennell *et al.* 2010), the role of the broader Aegean region needs to be reconsidered: it is highly probable that it constituted not only an important refugium and ‘source area’ for (re-)colonizations, but also an integral part of *east-to-west (and vice versa) dispersal routes within West Eurasia*.

Even if not in numbers as great as we would wish for, Lower Palaeolithic sites of immense importance are yet to be discovered in the Greek Peninsula and the wider Aegean region. It is to this direction that the research presented here ultimately aspired to contribute. To this end, the examination had to be unfolded in three sequential steps: the first step was to *identify* the current status of the Lower Palaeolithic archaeological record of Greece; the second was to *explain* this status by use of a geoarchaeological and geomorphological perspective; while the aim of the third and last step was to *put in prospect* the enrichment of that record. It is now up to future research to make the ‘fourth step’ and start recovering Lower Palaeolithic sites, thereby placing Greece in the map of early Pleistocene human geography.

