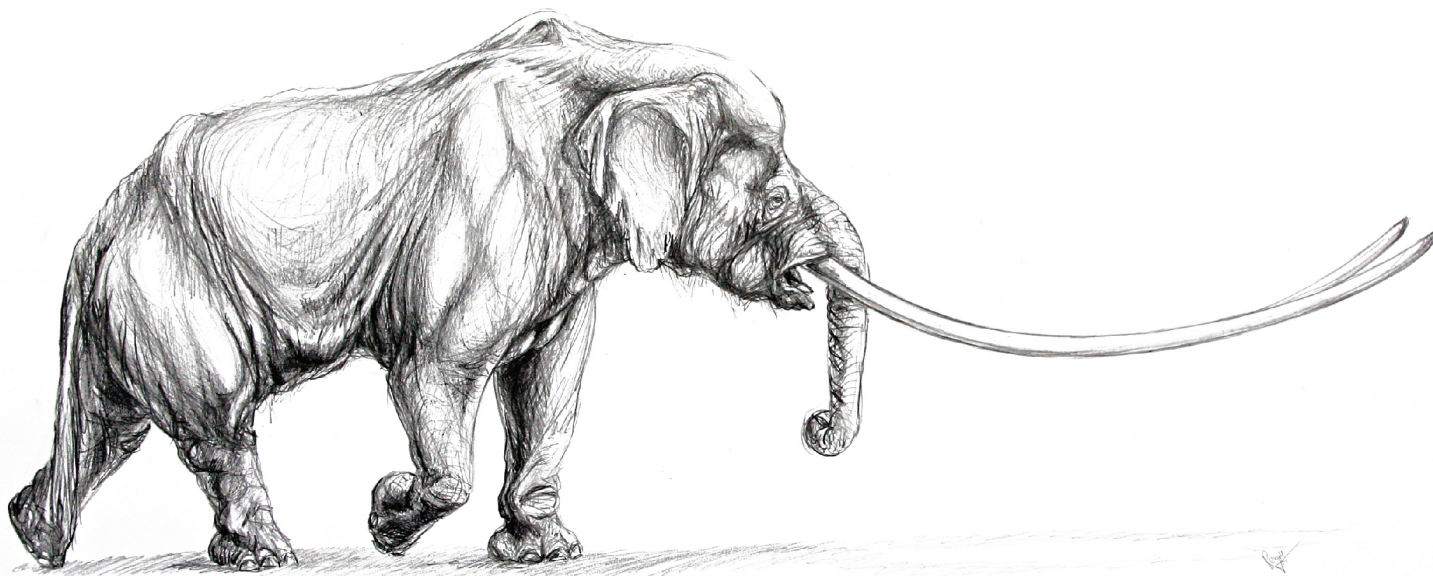




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## **ABSTRACT BOOK**

**Editors:**

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## Megalopolis - 112 years after the first excavation by National and Kapodistrian University of Athens (NKUA) - and the Post Lignite era

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Megalopolis, has been known since antiquity (Pausanias um 160 v. Cr. in Melentis, 1961 p. 171) for its wealth in fossil mammals. Fossil bones found in antiquity have been attributed to mythical giants. In our times Megalopolis lignite Basin is mainly known as a place with strong environmental problems due to the use of lignite, to acquire electric power since the 70s.

At the beginning of the 20th century (summer of 1902) excavations at Isioma Karyon near Megalopolis, carried out by Prof. Th. Skoufos, brought to light numerous significant palaeontological findings, now stored at the Museum of Palaeontology and Geology of NKUA. The rich vertebrate fauna has been attributed to elephants, deer and other mammals. Detailed presentation, and stratigraphical information for the excavations of this period is almost entirely missing. Scarce photos have been published by J. Melentis (1961 TAFEL, XXII) and the same author published during the following years a lot of significant papers regarding the Megalopolis fossil fauna. The existing photos by Th. Skoufos show findings in situ, excavated at Isioma Karyon, at the ravine called now by locals "Grana tou Skoufou" to honor the first excavator.

During World War II University Museum rooms have been used for military purposes by Germans, (Symeonides N., pers. communication), and since that period a lot of material and showcases have been moved to other buildings (personal observations in the old Museum collections and rooms in the period 1970 - 1980). The result was loss of data and minor partial mixing of some collections. The same is true for museum archives that have been disorganized during the First and Second World War and a lot of information, no doubt, has been lost forever. Since the 80s as the University Museum moved to the new University Campus, and a systematic effort started in order to reorganize the old collections with the precious help of pre and post graduate students and some funding from different projects. This effort is still going on due to the fact that numerous collections still need a lot of preparation and cataloging work.

During the 90s we started an ambitious project to create a data base with the chemical fingerprints or each Greek fossiliferous locality of vertebrates and to understand the diagenetic processes at each site. This work demands new excavations at most localities and it will take many more



Fig. 1. Students and late Professors (I. Melentis, N. Symeonidis, K. Anapliotis) of the Department of Natural History and Geography – Current Department of Geology and Geoenvironment of Athens University- at Isioma Karyon, Megalopolis Greece at the ravine known today as Grana tou Skoufou. This historical photograph at Aghios Ioannis, at the exit of the Grana tou Skoufou taken in 1966. (Photo Archive: J. Asimakopoulos).





Fig. 2. Excavating a tusk of *P. antiquus* at Grana tou Skoufou (September 2012). From left to right: V. Mitsopoulou, S. Rousiakis and G. Theodorou. (2012-09-17). The tusk is undercut and slowly supported before transportation with a wooden frame constructed step by step in situ. (Photo by N. Tsoukalas).

years to be finished, due to very low funding or ignorance of the exact excavation sites or due to the lack of GPS technology at earlier periods.

More than half century after the excavations by Th. Skoufos in 1902, Prof. J. Melentis, excavated again at Isioma Karyon (Fig. 1). The new material has been thoroughly studied and has been published. At these publications Melentis has incorporated the collections of Th. Skoufos excavations. During 60s Megalopolis findings were presented to public at the rooms of the old Museum at Central Athens (Akademias and Sina street). Recently some authors questioned if some specimens attributed to Skoufos collection had a different origin. The result of these studies is highly unreliable, since there is no database with the chemical fingertips of all Megalopolis fossiliferous localities. Clearly the reasons for possible minor mixing of collections has been misunderstood and misinterpreted by younger scientists, a fact that makes every relative publication very questionable. It is clear that science has to wait for the new excavations data.

Again, almost half century later than the excavations by J. Melentis, I have been invited by "Syllogos Isiomataion Karyon" to promote the idea of a local Palaeontological Museum and to organize palaeontological excavations

at the area. Municipality of Megalopolis and its Major Panagiotis Mpouras, were already working hard for the Museum idea. It was the council of Megalopolis Municipality that decided to finance the first excavations of the 21st century at Megalopolis Basin, despite the deep economic crisis. It has become clear that citizens of Megalopolis had to think about the Post Lignite Era and the promotion of Cultural Heritage. The first trial excavation by our team was carried out at the KYT (Kentron Yperipsilis Tasis) area (Sept. 2011) and one year later a new excavation followed at "Grana tou Skoufou". The main survey and excavation period was carried out during August and September 2012. At KYT area findings included bones from elephants and deer as well as a lithic, that has been sent to Ministry of Culture according to Greek laws. Due to the heavy machinery that was working at the area, the lithic was found disturbed, significantly higher than the bed where the elephant fossils were lying. Lithic of Megalopolis and human findings in the wider area have been documented by Sickenberg, (1975). It is now impossible to correlate the collected lithic finding with the elephant fossils. The elephant bones are now stored at a building that belongs to "Syllogos Isiomataion Karyon" and has been given to our team as a supporting base for the excavations. During summer of 2013 the building was transformed by NKUA to an "INFORMATION STATION OF NKUA PALEONTOLOGICAL TEAM" (Opening day, July 28, 2013). During 2012 - 2013 it became possible to locate at least 6 more promising excavation sites, including sites in the lignite basin that were sampled (2013, Sept 10) and gave us scarce fossil bird remains. Systematic excavation carried out at "Grana tou Skoufou" during September 2012, though repeatedly disturbed by extremely heavy rains, brought to light a complete tusk and isolated molars of *P. antiquus* and some deer and hippo bone fragments.

At the end of 2014 a new nonprofit organization (ΠΠΠΚ – Παράσσιο Πάρκο Πολιτιστικής Κληρονομιάς – Parassian Park of Cultural Heritage) was founded with the scope to create a geopark to embrace the extremely rich Cultural Heritage of the area and of course the Palaeontological sites. This private organization aims to create the necessary man power to cope with the Post Lignite Era.

Our next significant step, will be the new excavation, again funded by Municipality of Megalopolis (NKUA Research Account 70/3/ 11474) planned for Spring-Summer 2014.

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