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From September 25–28 1998, an international conference was held in Athens and Areopolis, Greece, on the Paleoanthropology of the Mani Peninsula. The conference was organized by Dr T. Pitsios of the Anthropological Museum of the University of Athens (hereafter termed AMUA), with the collaboration of the Laboratory of Geology and Paleontology of the University of Athens, the Greek Institute of Geological and Mineral Research, the Collège de France, the Université de Paris I and the National Museum of Natural History, Leiden, and the supporting participation of the town of Areopolis and the Laconian Studies Association. The conference was sponsored by the European Commission. The focal points of this meeting were the human fossils and archaeological remains from the cave site of Apidima. Several publications are available on this site, including the proceedings of a 1989 conference on the Research Programme of the Mani Peninsula, published in 1995 [*Acta Anthropologica* (AMUA, Athens) Vol. 1], but the only publication outside Greece is a short article on forensic implications of damage to one cranium (Coutselinis *et al.*, 1991).

Paleoanthropological research in the Mani peninsula, at the southern tip of the Peloponnese, began in 1978 when a research group under the direction of T. Pitsios started surveying and excavating in the area. The Apidima site, the most important in the

region, was first excavated that same year. It consists of four small caves, designated A to Δ, which were formed by erosion in the mainly Mesozoic limestone country-rock. The caves open on the face of a large sea cliff and are today only accessible by boat (Figure 1). Breccia containing fossil bones and stone tools occurs in all four caves. During the first field season, a fossil hominin cranium (LAO 1/S1, known as Apidima I) was observed *in situ*. A transverse section of the neurocranium was exposed on the surface of a breccia pocket wedged between the cave walls deep in cave A (Pitsios & Liebhaver, 1995). In 1979, while a block of this breccia was being removed, a second, better preserved, hominin cranium (LAO 1/S2 or Apidima II) was found adjacent to the first. Part of the removed block was mechanically prepared in 1985 (at the Laboratories of the National Archaeological Museum) in order to reveal this second cranium. However, the larger part of the block, which still contains the Apidima I cranium, has not yet been cleaned. Upper Paleolithic artefacts and faunal remains have also been recovered from cave Γ, as well as a fairly complete modern human skeleton (LAO 1/S3) believed by Momferatou & Pitsios (1995) to be a female burial. All of these finds are housed at AMUA. Due to the great interest shown by the paleoanthropological community for more information about these finds, especially the Apidima II cranium, this meeting was eagerly awaited.

The first day of the conference was held in Athens, in the Old Parliament Hall (morning session) and in the Old University (afternoon session), two of the most elegant buildings in downtown Athens. During the morning session Pitsios presented the Apidima site and the fossil hominin finds. The morphology of Apidima II was discussed, and it was compared to the Petralona cranium from Northern Greece. Pitsios found the two fossils very similar, with Apidima differing mainly by being more gracile. These differences were thought to be best explained by sexual dimorphism. The pronounced prognathism of Apidima II was also noted and compared to that of some of the Middle Pleistocene finds from Atapuerca. Finally, Neanderthal affinities of the Apidima find were noted and the problem of its phylogenetic position was raised.

Two general papers considered taxonomy and evolution in European human paleontology. The antiquity of the Neanderthal lineage was discussed by Condemi, who concluded that all of the European hominin remains younger than the Mauer specimen can be considered as belonging to this lineage, while the phylogenetic position of Mauer itself is uncertain. The broader problem of species recognition in paleo-anthropology was discussed by Harvati and Delson. They proposed that measures of inter- and intraspecific variation among living primate species should be developed and applied to the human fossil record of the Middle and Late Pleistocene in order to help clarify alpha taxonomy. Two participants addressed the issue of the lithic artefacts from Apidima. Kourtesi-Philippaki presented a preliminary analysis of the lithic assemblages from the site. She found that artefacts from cave B represent the first appearance of an Early Upper Paleolithic industry, while those from cave A document a Middle Paleolithic industry. The association of the Middle Paleolithic assemblages from cave A with the breccia containing the fossil crania, however, is uncertain. Chiotis

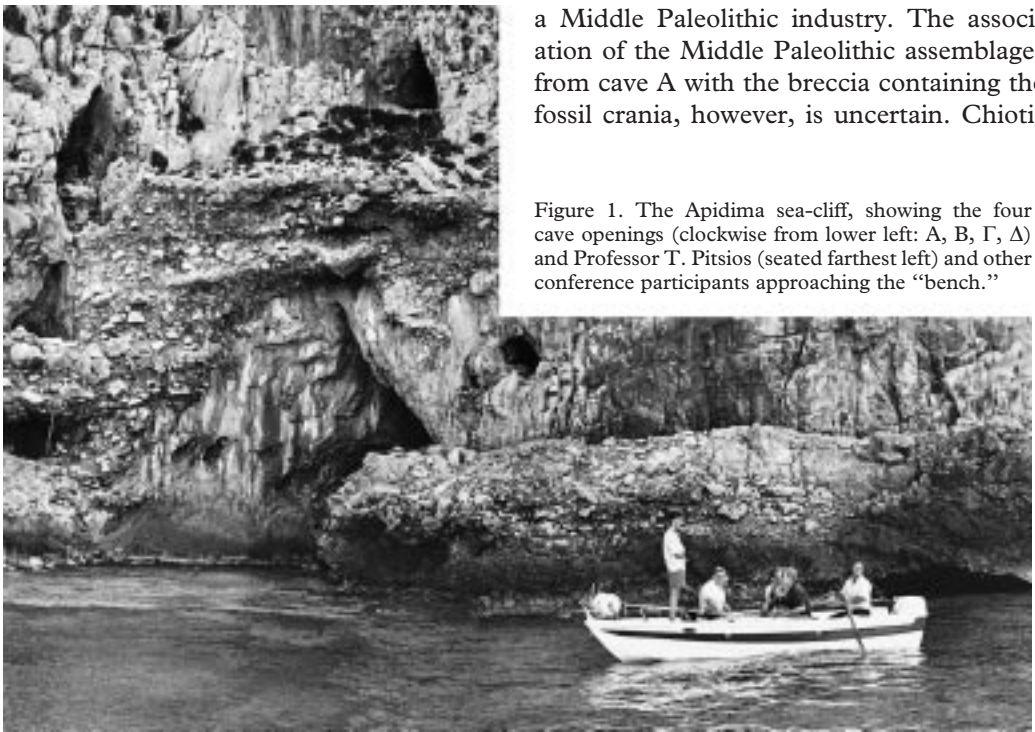


Figure 1. The Apidima sea-cliff, showing the four cave openings (clockwise from lower left: A, B, Γ, Δ) and Professor T. Pitsios (seated farthest left) and other conference participants approaching the "bench."

discussed the provenance of the raw materials utilized to manufacture the artefacts.

A brief re-analysis of the faunal remains from Apidima was presented by Sondaar and de Vos, mainly based on the forthcoming work of Tsoukala (in press). Sondaar and de Vos found that the Apidima faunal assemblage showed affinities with those of Levantine sites such as Ksar' Akil (Lebanon) and might date to ca. 50–40 ka. The breccia yielding crania I and II was suggested to possibly represent a second, Middle Pleistocene assemblage, but there are no definitely associated fossils from that breccia unit to support this view. Moreover, it is unclear whether the hominin-yielding breccia can be correlated to other breccia deposits in the site. A Middle Pleistocene date for the hominin-bearing sediment was also suggested by Mettos, Rondoyanni and Georgiou based on the geomorphology of Mani. The Apidima fauna was discussed again by Tsoukala during the afternoon session. She agreed with Sondaar and de Vos on the possible presence of two faunal assemblages of different ages, with the well-documented younger one representing a variably forested or steppe-like paleo-environment, in part depending on the effects of glaciation. Dermitzakis, Sondaar and Drinia introduced the fauna from Vatera, a new series of Pliocene localities on Lesbos, which includes one of the few appearances of the large terrestrial cercopithecine *Paradolichopithecus*. Leney discussed the relationship between carnivores and hominins in Middle and Late Pleistocene Europe. He found that the presence of anatomically modern humans coincides in time with a shift toward increased crushing ability, and hence increased scavenging, in the dental morphology of hyaenas. Pavlakis considered the possible role of northern Africa as a source for early hominin populations in the latest Miocene and Early Pliocene. Sondaar discussed the presence of *Homo erectus* on the island of Flores,

Indonesia. Sondaar believed that sea crossings over short distances to visible islands were prompted solely by the search for food; they would have been possible for *H. erectus* via rafts and sweepstakes dispersal, rather than implying boat-building technology and higher cognitive functions.

Following the afternoon sessions, one of the most-awaited moments of the conference came when Pitsios displayed the excavated breccia infilling of cave A. The natural cross-section of the Apidima I cranium, sliced through the vault and perhaps the base near sella, could be seen on the surface of a larger block. Cranium II had been removed from a smaller block (Figure 2). The specimen's surface was cracked and eroded, but it appeared well-preserved and little deformed. Most of the occipital and temporal bones are missing or damaged, as is the palate and teeth, although parts of the palate and temporals may remain in the unprepared portion of the block. The upper vault and face are nearly complete. The nasal aperture is still filled with matrix, so it was not possible to determine if the lateral projections recently seen by Schwartz & Tattersall (1997) on several Neanderthal faces were present. Most observers agreed that the inferior border of the nose, the brows and other aspects of the face appeared clearly Neanderthal-like, though perhaps not showing the fully derived "classic" morphology. At first look, this specimen appears to KH & ED to be either a late "pre-Neanderthal" or an early Neanderthal, stage 2 or 3 in the model developed by Dean *et al.* (1998). No photography was allowed, nor were attending researchers permitted to handle the fossil.

Early on Saturday morning the group traveled by bus to Areopolis, on the Mani peninsula. Here, invited speakers presented surveys of selected topics, mainly in European paleoanthropology. Henke considered the "intractable" question of modern human origins. He concluded that



Figure 2. Cast of the Apidima II cranium (on exhibit in the AMUA). (a) Oblique superior view showing cranium resting on smaller breccia block; (b) Frontal view.

extreme hypotheses were not useful and argued for further communication and synthesis among their proponents, as well as for further integration of zooarchaeology, human paleontology and evolutionary theory. In discussion, Sondaar noted that as in other mammalian groups, human locomotor evolution may be punctuated while crania transform continuously; thus he proposed that *Homo habilis* is more like the australopiths, while *H. ergaster* should be considered the first member of genus *Homo*. De Lumley presented the ongoing work on Arago Cave and discussed the paleodemography of the site, concentrating on the many immature individuals represented in the sample. De Vos discussed the importance of Dubois' carefully documented



collections of Indonesian Plio-Pleistocene fossil mammals in clarifying the biostratigraphy of Southeast Asia. He continued his published arguments with Swisher and colleagues about dates for the Indonesian paleo-anthropological sequence. Van der Made reviewed the geology and faunal content of the Atapuerca sites in the Burgos region of north-central Spain. He proposed that Middle Pleistocene glaciation may not have had a great impact on the fauna (including hominins) of Spain or other parts of southern Europe.

On Sunday morning, two rented boats took most of the participants to the Apidima sea cliff (Figure 1). Only a few colleagues in the smaller craft were able to land on a bench facing the site, but even they could not enter any of the caves. The final four talks were presented that evening. Hublin reviewed the record of human paleontology in later Pleistocene Europe, focusing on the origin of Neanderthals. He reiterated his long-held view, echoed by such other participants as Condemi and de Lumley, that derived Neanderthal features accumulated slowly in successive and geographically dispersed human populations during the Middle Pleistocene; this “accretion hypothesis” is most recently described by Dean *et al.* (1998). Hublin emphasized that only with study of a sample of at least several specimens (as at Atapuerca/Sima) can the true position of a site’s population be located on this accretion trajectory. Bräuer surveyed the contemporaneous record of human evolution in Africa, updating somewhat his “Afro-European *sapiens* hypothesis.” Bräuer argued for the early occurrence of modern morphology in Africa. He discussed his research on the Ileret cranium from east of Lake Turkana, which presents a combination of modern and archaic features. This cranium has been preliminarily dated to 300–200 ka and is thought to represent an early member of the clade ancestral to modern humans. Bräuer also described his

recent analysis of the presence of detailed Neanderthal autapomorphies in early anatomically modern Europeans to test for the morphological continuity predicted by multiregionalists. The population from Mladeč was used as the focal sample, but no significant Neanderthal morphology was located, although several specimens have been claimed to show such features. Bräuer appeared to lessen the importance given to interbreeding between Neanderthals and “invading” early moderns in Europe, one of the features which previously distinguished his hypothesis from those of Stringer or Tattersall. In discussion, Delson suggested applying the accretion concept to the African record; Hublin supported this suggestion, while Bräuer was more hesitant.

Bermudez de Castro reviewed the human paleontology of Atapuerca, concentrating on the material from the TD 6 (“Aurora”) horizon, which he and colleagues recently named *Homo antecessor*. Several specimens, including an adult partial maxilla, were said to support the conclusion that the morphology of this sample foreshadows that of anatomically modern humans. Bermudez de Castro discussed a phylogenetic model in which *Homo ergaster* was ancestral to *H. erectus* and *H. antecessor*, which in turn gave rise on one hand to *H. heidelbergensis* and thence *H. neanderthalensis*, and on the other hand (via unknown intermediates) to *H. sapiens*. In discussion, Hublin suggested that in such a phylogeny, it might be better to include *H. heidelbergensis* within *H. neanderthalensis*, as part of a monospecific accretionary clade, and also to include *H. antecessor* within an early peri-Mediterranean species best termed *H. mauritanicus* (using the name applied to the Tighenif specimens). Delson offered the alternative opinion that there was not much obvious difference between these early populations (probably including the Ceprano cranium and perhaps the recently described Buia specimen from Eritrea and as yet incompletely described material from

the Middle Awash Valley of Ethiopia) and the slightly younger African samples from Saldhana, Bodo, Kabwe and Ndutu. Thus the nomen *rhodesiensis* might be used instead of *mauritanicus*, either at the species level or as a basal subspecies of *Homo sapiens* (which might also include Hublin's broadly defined *H. s. neanderthalensis*, *H. s. sapiens* and perhaps *H. s. helmei* for the 300–130 ka African "transitional" populations). Basiakos reviewed his work on dating some of the cave and open-air deposits in Mani. Dating of beach horizons at different elevations by ESR and geomorphological correlation suggested ages of 40, 80 and 200 ka, with the latter possibly correlated to the reddish breccia of Apidima Cave A.

Early on Monday, Harvati discussed recent research at the Laconis site, where she had worked in 1997 as part of a field team led by Dr E. Panagopoulou. The group then visited Laconis, where they observed one of several caves yielding another richly fossiliferous breccia containing Middle Paleolithic artefacts with a strong Levallois component and associated fauna, but as yet no human remains. After returning to Athens, the conference participants met for the final time in the Ceremonial Hall of the University of Athens. In a moving ceremony, the degree of Doctor honoris causa was conferred upon

Emeritus Professor Hubert Walter of the University of Bremen. Dr Walter presented a short lecture on population genetics and modern human variation, after which Prof M. Dermitzakis formally closed the Conference.

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