

‘SO FAR AWAY,  
SO CLOSE’:  
HISTORICAL AND  
THEORETICAL  
PERSPECTIVES ON  
PALAEOLITHIC AND  
MESOLITHIC  
RESEARCH IN GREECE

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“At the end of a century when the concept of geographical remoteness has shrunk so that the idea of ‘getting away from it all’ has little hope of fulfillment, the sense of remoteness in time has become the substitute. Archaeologists have replaced those earlier explorers.”

C. Gamble, *Timewalkers: The Prehistory of Global Colonisation*, 1993, x.

### *1. Introduction*

The Palaeolithic spans the period from the emergence of humanity, some 2.5 million years ago, to the onset of the Holocene, around ten thousand years before the present. Throughout this period and the succeeding Epi-palaeolithic (Mesolithic in Europe), subsistence was based on hunting and gathering, an adaptation that in general marked the development of human culture.<sup>1</sup> Within Greek prehistoric studies the

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<sup>1</sup> The lowest boundary of the Palaeolithic overlaps with the beginning of a new geological period rather than with a sharp adaptive change to the new conditions of the Holocene. This division is associated with the parallel development of prehistory and geology during the early years and with the adoption of a three-part periodisation in the Stone Age.

intensity of research has been inversely proportional to the time depth. Thus the Bronze Age dominates the scene, the Neolithic receives steadily increasing attention, and the Palaeolithic-Mesolithic is a minimal part of the prehistoric agenda. The present paper discusses the history of the development of research into the Palaeolithic-Mesolithic period, highlighting its major theoretical viewpoints and addressing methodological and interpretative issues that are pertinent to the development and expansion of the field. The sketched profile has a distinctly international character, mainly because the study of prehistoric hunter/gatherers has not been a priority within the Greek archaeological community.

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Although evidence for possible Palaeolithic artifacts from Greece was recorded in the last century (Lenormant 1867), and a few surface finds were attributed to the Palaeolithic in two European publications of the 1920s (Breuil 1923; Obermaier 1926), the first systematic expedition was undertaken by Markovits between 1927 and 1931 and was of a partly spelaeological and partly archaeological character (Markovits 1932-33a, b). During this expedition, Markovits excavated the Zaimis cave in Attica and the Ulbrich cave in Argolid. Dated on typological grounds, the former yielded a stratified sequence between the Mesolithic and the Roman period and the latter a sequence between the Upper Palaeolithic and the Neolithic. The lack of any good publication setting forth this information makes the assessment of its importance in the context of Early Prehistoric studies difficult. The excavation of the Seidi rock shelter near Kopais lake in Boeotia by Stampfuss during the German occupation of Greece yielded a lithic industry of Upper Palaeolithic character (Stampfuss 1942), and closed the first period of Palaeolithic studies in Greece.

A more systematic exploration of the early prehistory of Greece commenced almost half a century ago. It intensified during the 1960s, but only in the last fifteen years has there been a marked upsurge, culminating in the landmark conference in Ioannina in 1994. Despite these developments, our knowledge of the Greek Palaeolithic continues to derive from a patchy, albeit significant, set of data accumulated mainly as a result of the activities of foreign archaeological schools and of scholars from various intellectual traditions. With the bright exceptions of D. Theocharis, S. Dakaris and A. Sordinas, studies of the prehistoric hunter/gatherer record have remained outside the main stream of Greek archaeological research. The Greek Palaeolithic can be discussed in terms of two broad theoretical paradigms: culture-history, and environmental functionalism, under the subheading of palaeoeconomy.

## *2. In the shadow of classic and late prehistoric ruins*

The economic and political developments that marked the turbulent 19th century in western Europe created material and historical conditions which allowed three disciplines with close ties to flourish: Palaeolithic archaeology, geology and palaeontology. Focusing on different aspects of the past, all three 'enjoyed great prestige as sciences in the process of creating a new vision of the history of the world' (Trigger 1989: 101). The large-scale public works undertaken in a Europe that was gradually being industrialised supplied

these sciences with their data. The pursuit of an ideology for a mobile middle class that was reserving a dynamic role for itself provided the necessary intellectual milieu.

Palaeolithic archaeology, in particular, offered the possibility of approaching the origins of humanity from a scientific perspective rather than from the mythological and religious standpoints which had hitherto prevailed (Van Riper 1993; Groenen 1994). The Darwinian theory of biological evolution projected onto human society, and ethnographic observations on peoples indigenous to the New World, provided the main elements in the new interpretative framework for the history of humankind. According to this framework, Western civilisation had evolved progressively from lower stages of intellectual development through elementary stages to civilised ones. The forms of lithic implements and of human fossils were expected to become more refined continuously over time. Moreover, Palaeolithic finds were classified in the lower range compared with antiquities from the 'High Civilisations', which were associated with urbanism and writing. L.H. Morgan's (1877) scheme of savagery-barbarism-civilisation<sup>2</sup> exemplifies this approach (Gamble 1986).

The omnipresent technological and economic development was perceived as an inevitable consequence of a socio-economic evolutionary process. Within it national and colonial attitudes took new shapes. It was the achievements of the citizens and not those of the monarchs of the Western world that proved the dynamism of the nation-states and their supremacy over native peoples (Trigger 1984). Means of subsistence were assumed to determine the levels of social and cultural complexity, and hunter/gatherers were deemed to indicate *primitive societies*. The notion of *primitive society* has its origin in 19th-century anthropological and archaeological models, and although within the evolutionist framework it was adopted by a wide theoretical spectrum (e.g. Engels, Freud, Durkheim), it has in general been used to justify imperialist attitudes and practices within the *new world order* (Kuper 1988).

Reaction against the view of the world that Palaeolithic archaeology was offering came from conservative opponents who had no desire to question the truth of the biblical account of the creation of man (Grayson 1983; Trigger 1989). During the 19th century, and until the end of the first half of the 20th century, the scientists' fascination with the question of how humanity emerged was not shared by Greek society, which felt itself to have more pressing concerns. This was for historical reasons rather than theological ones.

Gamble has argued that prehistory, as an intellectual discipline in Europe during the 19th century, was not discovered, but invented to meet the particular requirements of the middle class in its ascendancy (1986: 2). By a parallel but not identical route, it was the classical past which served the quests and aspirations of Greek society (e.g. Lamprou 1912). For Greeks classical antiquities denote the 'glorious past'. This past has played a twofold role. Bound together with religion and language, it gave (and apparently still gives) meaning to the national consciousness; this notion, which had heterogeneous roots, and developed variously within the different social classes, was invaluable to the maintenance of high morale by the Greeks during their various 19th and 20th-century

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<sup>2</sup> This was subsequently adopted by Engels and Marx in their analysis of 'primitive communalism'.

historical adventures (Kotsakis 1991). Simultaneously, claims of continuity with this past functioned as a passport to a place in the increasingly integrated European World. Archaeological research was therefore devoted to the discovery and promotion of a national heritage which would reinforce these claims; the abundance of ancient ruins in the Greek landscape made manifest the links between the present and the past. The view of the ancient world afforded by the ancient written sources was merging with archaeological discoveries. Interest extended only as far back as the Homeric epics and the Creto-Mycenaean wonders. Remains from earlier or later periods were simply ignored, at least until shortly before the first decade of the 20th century, which was marked by the publication of Tsountas' *Prehistoric Acropoleis of Dimini and Sesklo* (1909), and by an increased interest in Byzantine monuments.

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For foreigners too classical ruins in Greece and Italy have had priority, both in the context of pre-20th-century antiquarian interests and in that of 20th-century research projects. It was through these ruins that the well established belief in classical Greece as the cradle of Western civilisation was further explored and documented.

Three traits of the Palaeolithic record have to a great extent been responsible for its relative neglect in Greece in more recent years. Firstly, it deals with the remains of mobile hunter/gatherers whose territories exceeded national boundaries. The individual styles that may be discerned in Palaeolithic artifacts (Sackett 1982) are not sound evidence for linking them to the concept of modern ethnic identity. The notion of cultures has taken various shapes in Palaeolithic archaeology. During the 19th and the early 20th century cultural evolution was viewed as a linear process of increasing intelligence; the post-1920 Childean definition saw it as social traditions, while F. Bordes took an 'ethnic' view of culture (Binford and Sabloff 1982). However, it has not been explicitly linked to national identity, probably because of its remoteness in time.<sup>3</sup> Secondly, not only is the material culture of this period, represented in non-precious materials, considered aesthetically inferior to many of the late prehistoric or historic finds, but rock and mobiliary art have so far been absent from the Greek record. Thirdly, the vast majority of Palaeolithic sites leave no architectonic ruins, and thus lack both actual and symbolic presence. Unless they are caves or rock shelters, it is often difficult to establish their exact coordinates after the destructive passage of excavation. In a country in which archaeology was founded principally as the history of ancient art, and in which it has always constituted an active part of sociopolitical life, it is not surprising that Palaeolithic research has received little attention.

Today information technology has done away with the traditional boundaries imposed by time and space, and the global nature of our environmental and social problems has led to an increasing tendency towards the political and economic integration of the nation-states, and a need to turn global survival strategies into local action. In this context, the study of the Palaeolithic record is justified not only by its intrinsic interest, but also, and more importantly, because it offers windows onto fundamental questions within modern society regarding the deeper history of human development and

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<sup>3</sup> In this respect the Neolithic has been the threshold for more explicit interpretations of 'cultures' according to the nationalist paradigm (Trigger 1984).

of socio-economic survival strategies. Problems concerning the biological evolution of the human genus from the other primates, its subsequent anatomical and intellectual evolution into *Homo sapiens sapiens*, the first colonisation of the earth by modern man, and the adaptations of prehistoric hunter/gatherers to long and short-term climatic and environmental changes, can only be explored using the material record that Palaeolithic archaeology unveils. Moreover, it is in the Palaeolithic that technology, language and symbolic thought have their origins.

### 3.1 *The Greek Palaeolithic: an international undertaking*

After the mid-1950s, Greece became host to the field work of distinguished European archaeologists (V. Milojević, A. Leroi-Gourhan, E. Higgs) attracted by its geographical significance and by the paucity of Palaeolithic sites. Their principal motive was the discovery of Palaeolithic sites, by means of surveys and excavations, and the elucidation of chronological and regional affinities. In the course of interpretation, however, their paths diverged. Some prehistorians did not take the argument much further than the discovery itself. Others approached the new evidence as a challenge to develop interpretative models. As with the later periods, Greece functioned as a laboratory in which new theoretical ideas in archaeology were tested.

Milojević, a central figure in Thessalian prehistory from the University of Heidelberg, conducted a survey in the Penios valley near Larissa which provided the data for the first monograph on the Greek Palaeolithic (Milojević et al. 1965). He discovered a number of sites, which he dated on the basis of geological stratigraphy, the faunal material and the features of the lithics. In the introduction to his book, he stated that his intention was to present a 'protocol' of the discovered data while consciously avoiding any consideration of the questions that might arise from them; he declared bluntly that there was no reason to 'theoreticise' (ibid.: 2-3). In 1956 Schmid undertook a new excavation at Seidi which, in the absence of radiocarbon dating, established an approximate late Upper Palaeolithic date (Schmid 1965). During the 1970s first R. Felsch (1972) and then L. Reisch (1976) excavated the Kefalari cave at Argos, which yielded a stratified sequence of end of Pleistocene-early Holocene date.

The archaeological reports from the German expeditions are in general characterised by rigorous methodology, by a strict palaeontological approach to faunal remains, with an orientation towards climate and chronology, and by a hesitation to proceed to any considerations that would go beyond chronological and regional correlations. This is not surprising, given that this was a period during which the discovery of Palaeolithic sites was in itself a significant contribution to prehistoric research, and during which the limited evidence available permitted few generalisations. The approach, however, manifests a distinctive view of prehistoric archaeology in which collection of empirical data is the beginning and description, classification and dating are the ultimate end. The single exception to this approach was Reisch's attempt to shift the emphasis from a palaeozoological perspective onto cultural aspects of prehistoric life. In his discussion of the bird remains from Kefalari (layer D2), he suggested that the

exploitation of a particular species must have been related to cultural behaviour rather than to economic motives; in other words, that it was killed for its feathers rather than for its meat (Reisch 1976: 262-263).

In 1962 a group of French prehistorians and geologists, under the direction of A. Leroi-Gourhan, surveyed western Elide in the Peloponnese for 'relics of the remote ancestors of the Myceneans' (1963a: 324). The geological attributes of the open-air sites were presented in a series of publications, emphasis being placed upon the association of geological with cultural horizons (Leroi-Gourhan et al. 1963a, 1963b; Leroi-Gourhan 1964). Three layers were argued to encompass lithic assemblages of discrete chronology ranging from the Middle Palaeolithic to the Mesolithic. The finds were placed in a broad regional context on the basis of morpho-technological characteristics, and the importance of the geographic position of Greece between Europe and the Near East was stressed. The 'in situ' character of the finds was emphasised, without much justification, in one publication (1963a), but it was abandoned in the other (1963b). In a more extensive presentation of the additional evidence collected during two subsequent field seasons, Chavaillon et al. (1967, 1969) attempted to accommodate the characteristics of the Greek industries into a new scheme which comprised an extended typological list and technological information on the debitage and cores. On the basis of these characteristics, relative dates for the Middle and Upper Palaeolithic were assigned. The main issue that emerged from the study was the inadequacy of typologies developed for the French Palaeolithic to the task of considering the variability in the Greek assemblages (1967: 156, 195).

British research, under the direction of E. Higgs, was pursued along different theoretical lines. Focusing on Macedonia and Epirus, Higgs established the industrial successions of northwestern Greece with a series of surveys and excavations (Dakaris et al. 1964; Higgs and Vita-Finzi 1966; Higgs et al. 1967). He excavated the red-beds of Kokkinopilos and the Asprochaliko rock shelter, both located in the valley of the Louros river, and the Kastritsa rock shelter, on the shore of the Pamvotis lake near Ioannina. The stratified sequence at Asprochaliko bridges the Middle and the Upper Palaeolithic. The red-beds of Kokkinopilos yielded material of Middle and Upper Palaeolithic date. The cultural deposits at Kastritsa date from the Upper Palaeolithic. Higgs' starting point was compatible with the methodology of the contemporary scholars mentioned above, but upon it he soon built his own palaeogeographical approach (Higgs and Webley 1971). Interested in ideas about land use and settlement systems, he gradually came to view the region within what would later be the palaeoeconomic framework for the study of prehistoric human adaptation (Higgs 1975).

Palaeoeconomy began in British archaeology as a body of theory developed in response to the challenge of unravelling the origins of agriculture. Focusing on the archaeological record of the late Pleistocene and early Holocene, it sought to understand the long-term behaviour of human populations in response to environmental conditions, and in particular to available food resources. Land use, settlement location and social organisation were thought to be determined by these conditions, and technology was believed to further this process (Bailey and Sheridan 1981). Methodologically, palaeoeconomy used study of the on-site economic data and site catchment analysis to identify

the available natural resources in the vicinity of an archaeological site (Vita-Finzi and Higgs 1970). These were expected to have been optimally exploited by prehistoric people.

A student of the founder of ecological and economic archaeology in Britain, G. Clark, Higgs continued and reformed the Cambridge tradition of scientific analysis of biological remains. As one of his own students has observed, in his work on faunal remains the emphasis was shifted from the hitherto 'purely zoological and palaeontological perspective emphasising climate and chronology to an archaeological treatment of bone assemblages as indicators of human behaviour and subsistence economy' (Bailey in press b: 2). In Higgs' view, sites did not just offer cultural successions and thus dates, but were nodes with economic and seasonal significance within a region (Bailey 1992: 2). After considering variables such as altitude, relief, orientation, temperature, and the faunal assemblage compositions, he regarded Asprochaliko and Kastritsa as complementary seasonal camps used in winter and in summer respectively by hunter/gatherers moving in pursuit of the migratory red deer (Higgs 1967). Employing relational analogy, he sought backing for this hypothesis in the migration routes of the Sarakatsani pastoralists of Greece (ibid.). The pattern of mobility of the Sarakatsani and that of the Palaeolithic hunter/gatherers were seen as representing a similar type of response to the unequal distribution of seasonal grazing resources.

Towards the end of the decade American work at the Franchthi cave, in the Argolid, unveiled the first sequence bridging the late Pleistocene and the Holocene (Jacobsen 1968, 1973a, b, 1974, 1976). Coordinated by T. Jacobsen, what started in 1967 as a small excavation in the shadow of the major project at the nearby classical site of Halieis developed into the most important interdisciplinary project in early Greek prehistory. During the first year of excavation the finds from the aceramic levels tentatively suggested a Mesolithic date (Jacobsen 1968), leading Jacobsen, himself trained as a classical archaeologist, to set up an exemplary project in prehistoric archaeology.

The excavations, which took place during eight field seasons, lasted almost until the end of the next decade. They were conducted by an international team using a pioneering field methodology which encompassed detailed stratigraphic recording, water-sieving, constitution of reference collections and palaeoenvironmental studies (Hansen 1978; Payne 1975, 1982; Perlès 1987, 1990; Van Andel et al. 1980). The microtopography of the cave (affected by rockfalls etc.), which largely dictated the layout of the trenches, limited the consideration of intra-site variability to the time dimension. The sequence, spanning from the Upper Palaeolithic to the Neolithic, was not uninterrupted; its most significant component was an almost two-metre-thick Mesolithic deposit. Not only did Franchthi illustrate aspects of Upper Palaeolithic and Mesolithic settlement; it also offered sufficient data to permit the problem of the origins of farming in Greece to be addressed from the perspective of a single site (Jacobsen 1981).

The common denominator of the surveys (i.e. those in Peneios and in western Elide) was in general the constraints imposed by the preservation biases of the surface finds. Despite the tremendous differences between the theoretical orientation of A. Leroi-Gourhan and that of V. Milošević, traceable in the perspectives from which the two presented the new evidence, the major contribution of both to Greek Palaeolithic

research remained at the primary level of discovery. A. Leroi-Gourhan, who introduced a material, semiotic and anthropological critique to French prehistory and approached prehistoric data as a means of pursuing prehistoric ethnology (Cleuziou et al. 1991), was prevented from proceeding from mere discovery to interpretation by the nature of the available evidence. V. Milošević, the representative *par excellence* of strict empiricism, considered palaeoethnological interpretation mere speculation, and therefore dismissed it. The empirical data upon which the first cultural interpretations were built derived from excavations of stratified sequences of caves and rock shelters.

### 3.2 *The Greek contribution*

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During the 1950s the development of Greek prehistoric research was linked with the work of D. Theocharis. His pioneering work in Thessalian prehistory and the Greek Neolithic established a frame of reference and has been acknowledged and discussed in detail on several occasions (Kotsakis 1991; Hourmouziadis 1992). His contribution to Palaeolithic research, within the archaeological service, in Thessaly and the northern Sporades has been considerable (Theocharis 1960, 1967, 1968, 1969, 1970).

In his seminal work *The Dawn of Thessalian Prehistory* (1967), Theocharis considered the published evidence for Palaeolithic settlement in Greece and adjacent areas, and presented new evidence from Thessaly. He stressed the importance of environmental conditions, and focused on the chronological and regional correlations of Palaeolithic finds. In the absence of radiometric dating, he employed not only the tool kit of ‘traditional prehistory’, namely geological, stratigraphic and typological information, but also technological comparisons. In his consideration of the Middle Palaeolithic finds, he suggested that the observed ‘lack of typicality’ might be an element of local variability by which a Greek Levallois-Mousterian could be distinguished (*ibid.*: 20). His terminology for the lithic industries was inspired by an exceptional originality. For Theocharis ideology and symbolism were just as important as chronology and technology, although the lack of relevant evidence prevented him from attempting a thorough discussion of these aspects of Palaeolithic cultural behaviour. One of his particular strengths was his ability to link regional data to global issues in prehistoric research such as the emergence of modern humans. He considered the Kokkinopilos finds from the point of view of the expansion of *Homo sapiens sapiens* in Europe, assuming Greece to have been a southeastern bridge in this process (*ibid.*: 14-15). His discussion of the Mousterian finds and the Petralona skull touched upon the Neanderthal puzzle (1969: 139-140).

Cultural development was a main concern in Theocharis’ work. He distanced himself, however, from the application of evolutionary theory in social discourse, and stressed the fact that ‘cultural history is not an extension of natural history’ (1973: 19). In a continuum of cultural development, the Palaeolithic was just as important as the later periods of prehistory. He questioned what the actual difference between earlier and later stages of prehistory might be, and attempted to demonstrate that ‘it is in no way possible to distinguish “High Civilization” as a type separate from that preceding it’; what he saw



was 'simply a difference of degree or scale' (Theocharis 1973: 21). Coming to grips with the Palaeolithic and the Mesolithic was important, in order that the Neolithic revolution might be seen in perspective.

The second main idea which pervades Theocharis' work is the local character of 'Greek' civilisation and the local origin of the Greek Neolithic. He argued for the continuity of the classic *Greek Wonder* all the way from early prehistory through the Creto-Mycenaean world. The study of the Palaeolithic in archaeological research was justified in this context because it would yield evidence of the uninterrupted habitation of Greece from pre-Neolithic times. In a sense Theocharis, without underestimating the importance of the Palaeolithic, utilised it as his basis for arguing for the local development of the Greek Neolithic. Some of his interpretations of the Palaeolithic evidence are marked by his attempts to emphasise the physical and geographical milieu and to prove the existence of a culturally distinct local population in Greece (1967, 1969).

Theocharis' interpretative paradigm for the Palaeolithic was a very personal blend of culture-history and functionalism. It was never explicitly presented as theoretical orientation, but rather existed implicitly in his writings (Hourmouziadis 1992: 31). He utilised the notions of civilisation, culture, place and environment within a flexible framework (*ibid.*). Place and environment were the unifying entities within which the development of Greek civilisation unfolded through time. This point of view was very much in tune with the broader intellectual discussion of the 1930s and 1940s concerning the role of the landscape and that of 'Greekness' in art, architecture and poetry. Theocharis used culture as a heuristic device for grouping sets of data according to typological similarities (Theocharis 1973: 17-21). His was an era in which the main priorities of Greek prehistoric research were the mere identification of Palaeolithic sites and the establishment of a sound methodology; his success in taking archaeology beyond the boundaries of his time is indisputable.

During the 1960s S. Dakaris of the archaeological service, in collaboration with E. Higgs, carried out pioneering investigations of the Palaeolithic in Epirus (Dakaris et al. 1964). In his synthetic accounts of Palaeolithic settlement in south Epirus and Thesprotia archaeological evidence is plotted against palaeoenvironmental data (Dakaris 1971 figs.10-13, 17-18; Dakaris 1972 figs. 6-10, 12-14 ). His interpretative paradigm for the Palaeolithic record, largely relying upon bioclimatic conditions and upon the so-called natural routes that might be followed by human groups during their seasonal migrations, overlaps with the palaeoeconomic one discussed in detail in the previous section.

In the same decade A. Sordinas, in the course of research for his Ph.D. at Harvard University, conducted an extensive survey of the Ionian islands and northwest Akarnania. His objectives were the discovery of prehistoric sites, the establishment of their chronology according to typological criteria, and the exploration of diffusion between Greece and Italy across the Otranto strait (Sordinas 1969, 1970). He identified a number of sites and excavated the rock shelter of Grava and the shell midden of Sidari in Corfu, which yielded a final Upper Palaeolithic and a Mesolithic to Bronze Age succession respectively. He also considered the prehistoric landscape from the point of view of Quaternary sea-level oscillations and geological transformations (Sordinas 1983).

Sordinas attempted to develop an objective methodology for establishing the

prehistoric cultural succession in Corfu. In doing so, he considered tool types and debitage as complementary sources of evidence. Sordinas made several metric observations on the lithics, which he juxtaposed with the 'geological and cultural stratigraphies' and the raw material types (1970: 2-3). He argued that 'the recognition of the technical features does more for the understanding of an assortment of intractable microliths than the finished pieces themselves' (ibid.: 12). The notions of 'conservatism' and the 'atypical character' of the lithic industries were, however, often emphasised in his reasoning. He stated in his research objectives that migration and diffusion would be the factors to which he would refer in explaining major changes. The resemblance of the archaeological evidence from Grava to the Romanellian 'cultures' of Italy was underlined; it was explained in terms of the islands' position as 'a geological and cultural bridge connecting South Balkans and South Italy during the Terminal Palaeolithic' (1983: 342). Similarly, finds from Sidari (Level D) were associated with "mariners" coming from the Adriatic or Italian coasts' (1969: 405).

In his monograph on Stone Age Crete, A. Zois (1973) attempted to gather together evidence, not derived from any original field work of his own, which might shed light on the first human colonisation of the island. Referring to assemblages of Pleistocene mammals, to unpublished observations from Franchet's research and to certain rock engravings in Sfakia (ibid.: 66), he argued that a Mesolithic and probably a Palaeolithic 'culture' had definitely existed. Human presence on the island during the Pleistocene cannot, however, be regarded as proven, since it has not yet been confirmed by sound archaeological evidence.

In 1975 E. Protonotariou-Deilaki opened two trial trenches in the Kokkinovrahos cave in the Argolid. These yielded an assemblage of chipped stone artifacts that was attributed to the Mousterian (Protonotariou-Deilaki 1976). The excavator observed a trend towards microlithism in this assemblage; she interpreted this as either a local phenomenon, or conservatism and persistence of Mousterian characteristics in material of Upper Palaeolithic date (ibid.: 387).

The first Greek pioneers in Palaeolithic research left behind the established attitudes towards early prehistory, and opened up new prospects in Greek archaeology. In a period during which prehistoric archaeology in Greece was seeking a rigorous scientific profile of its own, they were factual in their approach; confronted with difficulties in standardising the methodology of recovery and description, they succeeded in overcoming them.

#### *4. Merging efforts by Greek and foreign scholars: the last fifteen years*

At the end of the 1960s the picture that was emerging of the Greek Palaeolithic was based not only upon archaeological data from open-air and cave/rock-shelter sites, but also upon absolute dates, palaeoenvironmental information and palaeoanthropological finds. Side by side with tentative geological dating, radiometric dating was being used to document deep time in Greek prehistory (Higgs and Vita-Finzi 1966; Higgs et al. 1967; Jacobsen 1969, 1974). The first Quaternary pollen diagrams, from Ioannina and Tenaghi

Philippon, shed light on long-term vegetational history, significantly enhancing palaeoenvironmental reconstructions (Higgs et al. 1967; Wijmstra 1969). The discovery of a hominid skull in the Petralona cave fuelled an international controversy over its dating, and over the dating and character of the associated artifacts and ecofacts, that is still unresolved (Kokkoros and Kanelis 1960; Poulianos 1971; Stringer et al. 1979; Hennig et al. 1981, 1982; Liritzis 1982; Ikeya 1982; Stringer 1983). Greece's geographic significance as a link between Europe and southwest Asia was regarded as an important feature of the picture derived from the Pleistocene record. Nevertheless, with the notable exceptions of the excavations in the Argolid (Franchthi, Kefalari and Kokkinovrahos) and Bottema's seminal work on the late Quaternary vegetation record of northwestern Greece (1974), this picture failed to stimulate any more intensive research in the 1970s. It is only in the last fifteen years that the Greek Palaeolithic has received increasingly marked attention, and that a number of projects focusing on the prehistoric hunter/gatherer record have been undertaken.

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In Epirus, under the same theoretical umbrella, Higgs' students re-examined the excavated evidence from Asprochaliko and Kastritsa, and concluded that it did not support the seasonal hypothesis (Bailey et al. 1983a, b; Bailey in press b; Green in press). Since then the same group, under the coordination of G. Bailey, has proceeded with field work in the Voidomatis valley in Epirus, excavating the Klithi and Megalakkos rock shelters. It has also made thorough studies of the stratigraphy and intra-site variability at Asprochaliko and Kastritsa, and carried out extensive archaeological surveying and palaeoenvironmental research in Epirus (Bailey et al. 1984, 1986a, 1986a, b; Sturdy and Webley 1988; Bailey and Gamble 1990; Bailey 1992; Bailey et al. 1992; Huxtable et al. 1992).<sup>4</sup>

A Canadian expedition which surveyed mostly caves and rock shelters in the Kopais basin and the river Kephisos discovered limited evidence tentatively attributed to late Upper Palaeolithic-Mesolithic date (Rolland 1980). The Middle Palaeolithic industry and red-bed alluvial deposits from the Argolid were dated, using the uranium-series, to ~50Kyr BP (Pope et al. 1984). An international team explored the Samaria gorge in Crete, but failed to produce evidence for pre-Neolithic occupation (Nixon et al. 1990). With another survey, in the Peneios river system, an American team attempted to resolve problems concerning dating, and the similarities, if any, between the Greek Middle Palaeolithic and assemblages from the Balkans (Runnels 1988; Runnels and van Andel 1993a). In the course of the Greek/American expedition to Nicopolis southern Epirus was explored, with particular emphasis on red beds; a number of early prehistoric sites were discovered, whose relation to Quaternary geological formations has been extensively discussed (Runnels and van Andel 1993b).

This period was marked by extensive geoarchaeological and palynological investigations that led to palaeogeographical and palaeoecological reconstructions. Focusing on the evolution of landscape, vegetation, and climate, these studies have yielded valuable accounts of the off-site record and have been particularly useful in predictive modelling and archaeological interpretation (van Andel and Shackleton 1982;

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<sup>4</sup> The publication of this work is forthcoming, in a monograph (Bailey in press a).

Bailey et al. in press). Coastal sedimentation studies aimed at reconstructing the rise in sea level and the extent of prehistoric shorelines have brought to our attention the submersion of coastal plains where subsistence resources had been available during the Pleistocene, and the marked changes undergone by the landscape during the Pleistocene-Holocene transition (van Andel et al. 1980; van Andel and Shackleton 1982). Studies of alluviation and soil formation have provided us with broad chronological and palaeo-environmental frameworks within which to consider the associated archaeological evidence (Pope and van Andel 1984; Demitrack 1986; Bailey et al. 1990). Investigation of the impact of tectonic activity upon landscape formation has proved to be an important part of the study of past human land-use (King and Bailey 1985; Bailey et al. 1993). Finally, palynological analyses have made clearer Quaternary vegetational and climatic successions, in the long (Tzedakis 1993, 1994) or in the shorter term (Willis 1992), against which human settlement patterns can be discussed.

The nine volumes so far published on the research at the Franchthi cave (in five of which Palaeolithic and Mesolithic evidence is presented and discussed) are the most important and most comprehensive reference works ever produced on the archaeology of the late Pleistocene/early Holocene in southeastern Europe, and are one of the best examples we have of interdisciplinary collaboration (Jacobsen and Farrand 1987; Perlès 1987, 1990; Shackleton 1988; Hansen 1991). Independently of the general lithostratigraphic divisions suggested by the excavation units, each of the specialists' reports offers their phasing of the sediment layers according to changes in the traits of the assemblage under study. Despite the difficulties that are sometimes encountered in the process of correlating the multiple stratigraphies so that an overall diachronic picture may be obtained, the advantages of retaining this sort of independence of the general stratigraphic and chronological framework are obvious. The synthesis of the various reports, by Jacobsen, is yet to be published. Franchthi is unique in Greek prehistory not only for the length of its sequence, but also, and more importantly, because it was excavated well, and because the information obtained from it was published in a way that will make it easier to address new problems in the future.

The increasing interest in the Palaeolithic among Greek archaeologists has been attested to by a number of Ph.D. dissertations recently submitted to European universities by Greek Palaeolithic specialists (Kourtessi-Philippakis 1986; Papaconstantinou 1988; Adam 1989), by continuing study and evaluation of Palaeolithic evidence, whether collected recently or some time ago (Efstratiou 1985; Moundrea-Agrafioti 1991; Galanidou 1993, 1994, in press), and by the undertaking of new projects in the Peloponnese, Thessaly and Epirus, mainly under the auspices of the Palaeoanthropology-Speleology Ephorate (Darlás 1985, 1989, 1994; Kotjabopoulou et al. 1994; Kyparissi-Apostolika 1994).

The relatively recent merging of national and international efforts has clarified the major issues in Palaeolithic research in Greece rather than provided answers. The Palaeolithic map of the 1990s boasts numerous points, but also reveals geographical and chronological gaps. Do these gaps reflect the present state of research, do they relate to archaeological visibility, or lack of preservation due to erosion or submersion by the sea, or do they depict real discontinuities in human occupation? The significance of the

geographic position of Greece, at the crossroads of three continents, to the earliest Palaeolithic settlement in Europe, to the spread of modern humans and to the transition from hunting/gathering to a farming economy is now open to debate. The widely adopted view that the sparsity of Lower and Middle Palaeolithic sites merely reflects the state of research in Greece (Reisch 1982: 230) may not represent the whole truth. The dating of the earliest human presence in Greece is an open issue, as the stratigraphic provenance of various artifacts attributed to the Lower Palaeolithic is ambiguous (Runnels and van Andel 1993a, b; Kourtesi-Philippakis 1994).<sup>5</sup> Similarly, the bulk of the evidence from the Middle Palaeolithic, excepting only that from the Asprochaliko rock shelter and from the Theopetra cave, comes from unstratified surface collections. Of the sites from the Upper Palaeolithic, which has thus far been the best known period, the vast majority date from after the Last Glacial Maximum. Aurignacian material, which is associated with the advent of anatomically modern humans, is claimed to exist in two sites, one in the Peloponnese (Darlas 1989) and one in Epirus (Runnels et al. 1994). Finally, the Mesolithic is represented only by a few coastal sites, and presents a number of research problems (Perlès 1990: 120-126). In the light of the high cultural and environmental variability found, it has been suggested that the predominantly mountainous relief of the Balkan peninsula may have functioned not as a channel, but as a filter which blocked, diverted and modified the movement of people and ideas from the Near East to Europe (Bailey 1995: 22). This, of course, must remain merely a hypothesis until tested by more systematic research.

##### *5. Theoretical paradigms and methodological approaches: towards a critical evaluation*

Even though Palaeolithic research in Greece has developed independently of mainstream Greek archaeology, its impact upon the latter is most clearly seen in the standardisation of archaeological field methodology and in the greater emphasis now placed upon multidisciplinary collaboration. The first period of Palaeolithic exploration, clearly orientated towards cave sites, underlined the potential for Palaeolithic research in Greece. During the second and third periods not only was the presence of Palaeolithic finds in the region established, but 'vertical' and 'horizontal' approaches demonstrated that the geographic area occupied by present-day Greece could make significant contributions to the study of global and local-scale issues in Palaeolithic research. The equal contribution to this advance of both theoretical paradigms should be acknowledged.

Within the culture-historical framework the principal aim has been the definition of archaeological cultures, in terms of *type fossils* or *comprehensive typology*, and the

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<sup>5</sup> Many exaggerated claims have been made in Greece concerning the date of the earliest human occupation. The Lower Palaeolithic should be approached with great caution, since real artifacts may often be confused with 'incertofacts', (implements which seem to have been humanly modified, but whose status can neither be established nor excluded) (Roebroeks and van Kolfschoten 1994: 496).

delineation of their geographic and chronological extent (Sackett 1981). The associated faunal record has been approached as a source of information about the climatic succession (e.g. Milošević et al. 1965). Cultural change has been explained in terms of migration and diffusion (e.g. Sordinas 1970). The well established French chronotypological sequences have generally been the major corpus of evidence used in making comparisons of the lithic data. As a result, a normative approach has been taken to the consideration of variability in the Greek assemblages. Their atypical character, apparently deemed so by comparison with that of the French ones, has often been overemphasised. The concept of *type fossils* (diagnostic artifacts with distinct attributes that characterise a cultural unit) was inspired by the methodology of palaeontology. Following the introduction by F. Bordes (1950, 1953) of assemblage-focused systematics, consisting of formal description and quantification of these attributes, the typological lists were developed. Typology as a formal way of describing the morphological attributes of artifacts is one way of approaching lithic industries. However, a hesitation to develop new methodologies for the study of the Greek material, and a tendency unquestioningly to employ typological schemata developed for other regions (e.g. Adam 1989), have limited the potential of lithic studies. It was not until the publication of Perlès' work on the Franchthi cave lithics (1987) that a new framework for the interpretation of the variability of Upper Palaeolithic lithic industries was proposed. Her methodology is largely independent of previous typologies, emphasises technology, and has been formulated so as to reveal the characteristics of the local industries. The approach of Papakonstantinou and Vassilopoulou to considering the Middle Palaeolithic industries of Epirus (in press) has been equally original.

The palaeoeconomic approach was based on a series of normative assumptions regarding environmental determinism and optimal exploitation of resources during the process of human adaptation. These assumptions, uniformitarian in nature, failed to take into account intra-population variability and the effects of social and cultural interactions (Foley 1981). Inspired by patterns observed in biology, animal ecology and ethology, Higgs adopted a purely functionalist view of the more complex cultural phenomena. He dismissed artifact variability as unimportant, contenting himself with linking it to the more general explanatory scheme within which man-environment interaction is of prime importance (see also Bailey and Sheridan 1981 for extensive consideration of palaeoeconomy). Ethnographic data were a constant source of inspiration to Higgs. Sometimes they had a constructive effect upon his model building, as in the case of the definition of a site's catchment, but sometimes they were inflexibly imposed upon the archaeological record, as in the case of the Sarakatsani transhumance model. Although Higgs' central interpretations have been rejected, the majority of his methodological outlines have been retained. It was he who expanded the focus of Greek prehistory from the individual sites to regional settlement systems, stressing the importance of studying off-site environmental data. Because of him, Epirus, insofar as its Palaeolithic settlement is concerned, has become Greece's most thoroughly researched region.

Palaeolithic inquiry, whatever its theoretical orientation, has in general concentrated upon long cultural sequences of caves and rock shelters. Palaeolithic research in Epirus, despite its 'by definition' interest in the horizontal approach, has likewise

employed behavioural models which are based on data from the excavated rock shelters. Although surface finds have been intensively collected during the course of several expeditions, their impact upon model formation has been limited. This has been due to the intrinsic limitations of the surface finds and to certain perceptions concerning the open-air/rock shelter dichotomy.

Palaeolithic investigations have always focused on highly visible geological features (either limestone country with caves/rock shelters, red beds, or coastal shell middens).<sup>6</sup> Excavations have mainly taken place in caves and rock shelters that act as sediment traps, so that the preservation of stratified sequences and of organic remains is generally good. It is not by chance that only two open-air sites, namely Kokkinopilos and Sidari, have been excavated in Greece. Admittedly, the discovery of undisturbed open-air sites is difficult, given the active tectonic geology of Greece and the absence from Palaeolithic camps of any constraining structures. However, information from open-air sites, even artifact scatters, can enhance the picture of a region's Palaeolithic settlement significantly. Above all, the Palaeolithic record was left behind by the activities of mobile peoples, and should be considered in a spatial continuum. Stratified sequences from caves represent only a segment of the Palaeolithic settlement in a region. Interpretations of regional settlement that are based exclusively upon this type of site are subject to serious biases. A paucity or lack of organic remains from open-air sites should be no excuse for neglecting the latter's interpretative potential. There are two reasons for this. Firstly, not all hunter/gatherer sites are expected to preserve faunal remains. Sites of specialised character that were not associated with subsistence behaviour, such as flint quarries, can yield information on the character of lithic resource exploitation. Secondly, in cases where no faunal remains were preserved because of chemical processes in the sediments, the enduring lithic finds and new methods of dating non-organic remains can shed light on aspects of chronology and technology.

An example illustrates this point. The discovery of a hearth associated with a few lithic artifacts on the bank of the Voidomatis river in Epirus, and a single radiocarbon date obtained from it (Bailey et al. 1986b), suggest that interpretations of the prehistoric exploitation of the river valley should not be based on evidence from the excavated rock shelters alone, but ought to take into account activities that have taken place in the vicinity of the major archaeological sites. At this point it would be relevant to discuss the definition of a site, but it is not my intention to elaborate upon this issue here. If we want to avoid 'failing to see the wood for the trees', data both from systematic surveys and from new excavations of stratified open-air sites must be taken into account in any consideration of Palaeolithic settlement in Greece.

During the current phase of research a tendency to concentrate on previously explored areas (for example, Epirus, Peneios and Kopais) has been observable. There is nothing wrong with this tendency as long as it coincides with a regional approach to Palaeolithic research rather than with a reluctance to explore new areas outside the boundaries of the Palaeolithic map of Greece. The importance of understanding Palaeolithic settlement in small regional units (e.g. a river valley) should be stressed here.

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<sup>6</sup> The plains of eastern Europe and the Paris Basin in France have been notable exceptions to this pattern.

This understanding might be enhanced by thorough studies of faunal assemblages,<sup>7</sup> seasonality patterns, intra-site spatial organisation and the provenance and circulation of raw materials. In parallel, retaining the regional perspective, it is essential that research be directed to areas of Greece whose Palaeolithic record remains unexplored.

A contrast between the interpretative potentials of the later prehistoric and the Palaeolithic/Mesolithic record is often tacitly assumed. The former, dealing with sedentary societies, built settlements, and signatures of exchange and trade, offers possibilities for interpreting both economic basis and superstructure. The latter is conditioned by mobility, the ubiquitous element of prehistoric hunter/gatherer lifestyles, and provides windows upon human activity during periods ranging in length from a few minutes to thousands of years. The notions of contemporaneity and human settlement therefore have their own idiosyncratic characteristics (Bailey 1983; Bordes et al. 1972). I would argue that this does not mean that questions about Palaeolithic society cannot be part of the research agenda. This is, however, a matter of scale and of synthetic ability. Addressing the problems encountered in attempting to understand prehistoric hunter/gatherer social and cultural behaviour requires that variability should be considered in large sampling units, and that diverse information should be compiled. Within this framework the traditional unit of archaeological observation, the site, retains its importance; building upon this, however, it is the comparative study, at inter-site and at inter-regional level, that can lead to significant generalisations.

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### *6. Anticipating the future*

Until very recently, Greek institutions expressed little desire to invest any time or resources to speak of in the investigation of the Palaeolithic/Mesolithic period. Palaeolithic artifacts, when they have been exhibited in Greek museums at all, have appeared as a brief and rather shabby introduction to the more spectacular finds from later periods. The archaeological service in its legislation and structure regards prehistoric and classical archaeology as a unified discipline. There has therefore been very limited demand, if any, for Palaeolithic specialists, who were until recently considered archaeological eccentrics. Palaeolithic courses are in any case not taught in any systematic fashion in Greek universities.

In spite of institutional apathy, the Palaeolithic fascinates a large number of amateurs, who have been actively involved in the collection and publication of surface finds. Following the same trend, several volumes have been published in Greek on aspects of Palaeolithic archaeology. Notwithstanding two university textbooks (Dakaris 1978; Zois 1980), there have been more publications by amateurs than by archaeologists. I believe this paradox to express the Greek public's considerable interest in the Palaeolithic record.

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<sup>7</sup> We still lack comprehensive published accounts of the faunal assemblages from most Greek Palaeolithic and Mesolithic sites, although that relating to Klithi is on its way (Gamble, in press). A significant part of the collected evidence hence remains unexploited, and our interpretations of settlement patterns are perforce based only upon preliminary reports (for Franchthi see Payne 1982; for Asprochaliko and Kastritsa see Bailey et al. 1983b).



However, attitudes seem to be changing. Alongside the work of foreign schools and of Greek archaeologists, the first conference on the Greek Palaeolithic, in September 1994, indicated an increasing concern with this neglected part of Greek prehistory. This concern needs to be translated into a consistent policy regarding the training of archaeologists at national and international level, and the establishment of principles to govern the recovery and protection of our Palaeolithic heritage.

The Palaeolithic, the earliest and longest component of prehistory, has been the least known of any period in Greece. This may have been no bad thing, if one considers the destruction that may be wrought by excavation, especially that of sites with no architectural remains. As a discipline with a brief history, the archaeology of prehistoric hunter/gatherers in Greece has the additional advantage of not being hampered by long-established and austere theoretical traditions. The enduring record of the most remote of times, Palaeolithic evidence lies scattered over the Greek landscape. 'So far away, so close', it waits to be discovered, studied and published.

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#### REFERENCES

- ADAM, E., *A Technological and Typological Analysis of Upper Palaeolithic Stone Industries of Epirus, Northwestern Greece* (BAR S512, Oxford), 1989.
- BAILEY, G.N., "Concepts of time in Quaternary Prehistory", *Annual Revue of Anthropology* 12 (1983), 165-92.
- BAILEY, G.N., "The Palaeolithic of Klithi in its wider context", *Annual of the British School of Archaeology at Athens* 87 (1992), 1-28.
- BAILEY, G.N., "The Balkans in prehistory: the Palaeolithic archaeology of Greece and adjacent areas", *Antiquity* 69 (1995), 19-24.
- BAILEY, G.N. (ed.), *Klithi: Archaeology of a Late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press a.
- BAILEY, G.N., "The Klithi project: history, aims and overview", in G.N. Bailey (ed.), *Klithi: Archaeology of a Late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press b.
- BAILEY, G.N. and A. SHERIDAN, "Introduction: ecological and social perspectives in economic archaeology", in A. Sheridan and G.N. Bailey (eds.), *Economic Archaeology* (BAR S96, Oxford), 1981, 1-13.
- BAILEY, G.N. and C.S. GAMBLE, "The Balkans at 18000 BP: the view from Epirus", in C.S. Gamble and O. Soffer (eds.), *The World at 18000 BP* (London: Unwin-Hyman), 1990, 148-67.
- BAILEY, G.N., P.L. CARTER, C.S. GAMBLE, and H.P. HIGGS, "Epirus revisited: seasonality and inter-site variation in the Upper Palaeolithic of north-west Greece", in G.N. Bailey (ed.), *Hunter Gatherer Economy in Prehistory* (Cambridge: Cambridge University Press), 1983a, 64-78.
- BAILEY, G.N., P.L. CARTER, C.S. GAMBLE, and H.P. HIGGS, "Asprochaliko and Kastritsa: further investigations of palaeolithic settlement and economy in Epirus (north-west Greece)", *Proceedings of the Prehistoric Society* 49 (1983b), 15-42.
- BAILEY, G.N., P.L. CARTER, C.S. GAMBLE, H.P. HIGGS, and C. ROUBET, "Palaeolithic investigations in Epirus: the results of the first season's excavations at Klithi", *Annual of the British School of Archaeology at Athens* 79 (1984), 7-22.
- BAILEY, G.N., C.S. GAMBLE, H.P. HIGGS, C. ROUBET, D.A. STURDY, and D.P. WEBLEY, "Palaeolithic investigations at Klithi: preliminary results of the 1984-1985 field seasons", *Annual*

- of the British School of Archaeology at Athens 81 (1986a), 7-35.
- BAILEY, G.N., C.S. GAMBLE, H.P. HIGGS, C. ROUBET, D.P. WEBLEY, J.A.J. GOWLETT, D.A. STURDY, and C. TURNER, "Dating results from palaeolithic sites and palaeoenvironments in Epirus (north-west Greece)", in J.A.J. Gowlett and R.E.M. Hedges (eds.), *Archaeological Results from Accelerator Dating* (Oxford: Oxford University Committee for Archaeology), 1986b, 99-107.
- BAILEY, G.N., J. LEWIN, M.G. MACKLIN, and J.C. WOODWARD, "The "older fill" of the Voidomatis valley, north-west Greece and its relationship to the Palaeolithic archaeology and glacial history of the region", *Journal of Archaeological Science* 17 (1990), 145-50.
- BAILEY, G.N., V. PAPAKONSTANTINOY, and D. STURDY, "Asprochaliko and Kokkinopilos: TL dating and reinterpretation of Middle Palaeolithic sites in Epirus, north-west Greece", *Cambridge Archaeological Journal* 2 (1992), 136-44.
- BAILEY, G.N., G.C.P. KING, and D. STURDY, "Active tectonics and land-use strategies: a Palaeolithic example from northwest Greece", *Antiquity* 67 (1993), 292-312.
- BAILEY, G. N., T. CADBURY, N. GALANIDOU, and E. KOTJABOPOULOU, "Open-air sites and rock shelters: survey strategies and regional site distributions", in G.N. Bailey (ed.), *Klithi: Archaeology of a Late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press.
- BINFORD, L.R. and J.A. SABLOFF, "Paradigms, systematics, and archaeology", *Journal of Anthropological Research* 38 (1982), 137-53.
- BORDES, F., "Principles d'une méthode d'étude des techniques de débitage et de la typologie du Paléolithique ancien et moyen", *L'Anthropologie* 54 (1950), 19-34.
- BORDES, F., "Essai de classification des industries 'Moustériennes'", *Bulletin de la Société Préhistorique Française* 50 (1953), 457-66.
- BORDES, F., J. PH. RIGAUD, and D. de SONNEVILLE-BORDES, "Des buts, problèmes et limites de l'archéologie Paléolithique", *Quaternaria* 16 (1972), 15-34.
- BOTTEMA, S., *Late Quaternary Vegetation History of Northwestern Greece* (Rijksuniversiteit te Groningen: Ph.D. Thesis), 1974.
- BREUIL, H., "Notes de voyage paléolithique en Europe centrale", *L'Anthropologie* 33 (1923), 323-46.
- CHAVAILLON, J., N. CHAVAILLON, and F. HOURS, "Industries Paléolithiques de l'Élide I, région d'Amalias", *Bulletin de Correspondance Hellénique* 91 (1967), 151-201.
- CHAVAILLON, J., N. CHAVAILLON, and F. HOURS, "Industries Paléolithiques de l'Élide II, région du Kastron", *Bulletin de Correspondance Hellénique* 93 (1969), 97-151.
- CLEUZIOU, S., A. COUDART, J-P. DEMOULE, and A. SCHNAPP, "The use of theory in French archaeology", in I. Hodder (ed.), *Archaeological Theory in Europe* (London: Routledge), 1991, 91-128.
- DAKARIS, S.I., E.S. HIGGS, and R.W. HEY, "The climate, environment and industries of Stone Age Greece: Part I", *Proceedings of the Prehistoric Society* 30 (1964), 199-244.
- DAKARIS, S., *Cassopaia and the Elean Colonies* (Ancient Greek Cities 4, Athens: Athens Technological Organization - Athens Center of Ekistics), 1971.
- DAKARIS, S., *Thesprotia* (Ancient Greek Cities 15, Athens: Athens Technological Organization - Athens Center of Ekistics), 1972.
- DAKARIS, S., *Προϊστορική Αρχαιολογία Παλαιολιθική Έποχή* (Ιωάννινα), 1978.
- DARLAS, A., "Παλαιολιθικά ευρήματα από το Καλαμάκι Αχαΐας", *Αρχαιολογικό Δελτίο* (Μελέτες) 40A (1985), 194-206.
- DARLAS, A., "Η ώρινιάκια λιθοτεχνία του Έλαιχωριού Αχαΐας", *Αρχαιολογική Έφημερίς* 128 (1989), 137-59.
- DARLAS, A., "Palaeolithic research at Kalamakia, Areopolis, Mani", paper presented at the 1st

- International Conference on the Palaeolithic Archaeology of Greece and Adjacent Areas, Ioannina, 1994.
- DEMITRACK, A., *The Late Quaternary Geologic History of the Larissa Plain (Thessaly, Greece): Tectonic, Climatic, and Human Impact on the Landscape* (University of Stanford: Ph.D. Thesis), 1986.
- EFSTRATIOU, N., *Agios Petros: A Neolithic site in the Northern Sporades* (BAR S241, Oxford), 1985.
- FELSCH, R.C.S., "Die Höhle von Kephalaria eine jungpaläolithische Siedlung in der Argolis", *Ἀρχαιολογικά Ἀνάλεκτα ἔξ Ἀθηνῶν* 6 (1973), 13-27.
- FOLEY, R., "Aspects of variability in palaeoecological studies", in A. Sheridan and G.N. Bailey (eds.), *Economic Archaeology* (BAR S96, Oxford), 1981, 67-75.
- GALANIDOU, N., "Quantitative methods for spatial analysis at rockshelters: the case of Klithi", in J. Andersen, T. Madsen, and I. Scollar (eds.), *Computing the Past: Computer and Quantitative Methods in Archaeology CAA92* (Aarhus: Aarhus University Press), 1993, 357-65.
- GALANIDOU, N., "The organisation of space in Upper Palaeolithic rockshelter occupations: the evidence from Kastritsa and Klithi" paper presented at the 1st International Conference on the Palaeolithic Archaeology of Greece and Adjacent Areas, Ioannina, 1994.
- GALANIDOU, N., "Spatial variation and site structure at Kastritsa", in G.N. Bailey (ed.), *Klithi: Archaeology of a Late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press.
- GAMBLE, C.S., *The Palaeolithic Settlement of Europe* (Cambridge: Cambridge University Press), 1986.
- GAMBLE, C.S., *Timewalkers: The Prehistory of Global Colonisation* (Stroud: Alan Sutton), 1993.
- GAMBLE, C.S., "The animal bones from Klithi", in G.N. Bailey (ed.), *Klithi: Archaeology of a Late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press.
- GRAYSON, D.K., *The Establishment of Human Antiquity* (New York: Academic Press), 1983.
- GREEN, S., "Landscapes, transhumance, hunters, hunted: the relevance of current ethnographic data for Palaeolithic research", in G.N. Bailey (ed.), *Klithi: Archaeology of a Late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press.
- GROENEN, M., *Pour une Histoire de la Préhistoire, Le Paléolithique* (Grenoble: Jerome Millon), 1994.
- HANSEN, J.M., "The earliest seed remains from Greece: Palaeolithic through Neolithic at Franchthi Cave", *Bericht der Deutsches Botanisches Gessellschaft* 91 (1978), 39-46.
- HANSEN, J.M., *The Palaeoethnobotany of Franchthi Cave. Excavations at Franchthi Cave, Greece*, fasc. 7, T.W. Jacobsen, general editor, (Bloomington and Indianapolis: Indiana University Press), 1991.
- HENNIG, G.J., W. HERR, E. WEBER, and N.I. XIROTIRIS, "ESR-dating of the fossil hominid cranium from Petralona Cave, Greece", *Nature* 292 (1981), 533-36.
- HENNIG, G.J., W. HERR, E. WEBER, and N.I. XIROTIRIS, "Petralona Cave dating controversy", *Nature* 299 (1982), 281-82.
- HIGGS, E.S. (ed.), *Palaeoeconomy* (Cambridge: Cambridge University Press), 1975.
- HIGGS, E.S. and C. VITA-FINZI, "The climate, environment and industries of Stone Age Greece: Part II", *Proceedings of the Prehistoric Society* 32 (1966), 1-29.
- HIGGS, E.S., C. VITA-FINZI, D.R. HARRIS, and A.E. FAGG, "The climate, environment and industries of Stone Age Greece: Part III", *Proceedings of the Prehistoric Society* 33 (1967), 1-29.
- HIGGS, E.S. and D. WEBLEY, "Further information concerning the environment of Palaeolithic man in Epirus", *Proceedings of the Prehistoric Society* 37 (1971), 367-80.
- HOURMOUZIADIS, G., "Θεοχάρης ο πρωτοπόρος", in *Διεθνές Συνέδριο για την Αρχαία Θεσσαλία στη Μνήμη του Δ.Ρ. Θεοχάρη* (Αθήνα: ΤΑΠΑ), 1992, 29-37.

- HUXTABLE, J., J.A.J. GOWLETT, G.N. BAILEY, P.L. CARTER, and V. PAPAKONSTANTINOU, "Thermoluminescence dates and a new analysis of the early Mousterian from Asprochaliko", *Current Anthropology* 33 (1992), 109-14.
- IKEYA, M., "Petalona cave dating controversy", *Nature* 299 (1982), 281.
- JACOBSEN, T.W., "Halicis (Porto-Cheli)", *Αρχαιολογικό Δελτίο (Χρονικά)* 23B (1968), 144-48.
- JACOBSEN, T.W., "Excavations at Porto Cheli and vicinity. Preliminary report II: the Franchthi cave, 1967-1968", *Hesperia* 38 (1969), 343-81.
- JACOBSEN, T.W., "Excavation in the Franchthi cave, 1969-1971, Part I", *Hesperia* 42 (1973a), 45-88.
- JACOBSEN, T.W., "Excavation in the Franchthi cave, 1969-1971, Part II", *Hesperia* 42 (1973b) 253-83.
- JACOBSEN, T.W., "New radiocarbon dates from Franchthi cave", *Journal of Field Archaeology* 1 (1974), 303-04.
- JACOBSEN, T.W., "17000 years of Greek Prehistory", *Scientific American* 234 (1976), 76-87.
- JACOBSEN, T.W., "Franchthi cave and the beginning of settled village life in Greece", *Hesperia* 50 (1981), 303-19.
- JACOBSEN, T.W. and W. FARRAND, *Franchthi Cave and Paralia: Maps, Plans and Sections*. Excavations at Franchthi Cave, Greece, fasc. 1, T.W. Jacobsen, general editor (Bloomington and Indianapolis: Indiana University Press), 1987.
- KING, G.C.P. and G.N. BAILEY, "The palaeoenvironment of some archaeological sites in Greece: the influence of accumulated uplift in a seismically active region", *Proceedings of the Prehistoric Society* 51 (1985), 273-82.
- KOKKOROS, P. and A. KANELIS, "Découverte d'un crâne d'homme paléolithique dans la péninsule Chalcidique", *L'Anthropologie* 64 (1960), 438-46.
- KOTJABOPOULOU, E., E. PANAGOPOULOU, and E. ADAM, "The Boila project: further evidence of human activity in the Voidomatis gorge", paper presented at the 1st International Conference on the Palaeolithic Archaeology of Greece and Adjacent Areas, Ioannina, 1994.
- KOTSAKIS, K., "The powerful past: theoretical trends in Greek archaeology", in I. Hodder (ed.), *Archaeological Theory in Europe* (London: Routledge), 1991, 65-90.
- KOURTESSI-PHILIPPAKIS, G., *Le Paléolithique de la Grèce Continentale* (Paris: Publications de la Sorbonne), 1986.
- KOURTESSI-PHILIPPAKIS, G., "The Ancient and Middle Palaeolithic of Ionian islands, new finds", paper presented at the 1st International Conference on the Palaeolithic Archaeology of Greece and Adjacent Areas, Ioannina, 1994.
- KUPER, A., *The Invention of Primitive Society* (London: Routledge), 1988.
- KYPARISSI-APOSTOLIKA, N., "Palaeolithic deposits at the cave of Theopetra, Thessaly", paper presented in the 1st International Conference on the Palaeolithic Archaeology of Greece and Adjacent Areas, Ioannina, 1994.
- LAMPROU, S.P., "Ἡ σημερινή ἀρχαιολογική κίνησις ἐν ταῖς ἑλληνικαῖς χώραις", *Νέος Ἑλληνομνήμων* 9 (1912), 415-36.
- LENORMANT, F., "L'âge de la pierre en Grèce", *Revue Archéologique* I (1867), 16-19.
- LEROI-GOURHAN, A., N. CHAVAILLON, and J. CHAVAILLON, "Premiers résultats 'une prospection de divers sites préhistoriques en Élide occidentale", *Annales Géologiques Des Pays Helléniques* 14 (1963a), 324-29.
- LEROI-GOURHAN, A., N. CHAVAILLON, and J. CHAVAILLON, "Paléolithique du Peloponnèse", *Bulletin de la Société Préhistorique Française* 60 (1963b), 249-65.
- LEROI-GOURHAN, A., "Découvertes Paléolithiques en Élide", *Bulletin de Correspondence Hellénique* 88 (1964), 1-8.
- LIRITZIS, Y., "Petalona cave dating controversy", *Nature* 299 (1982), 280-81.

- MARKOVITS, A., "Aufgaben und Stand der höhlenkundlichen und urgeschichtlichen Forschung in Griechenland", *Speläologisches Jahrbuch* 13-14 (1932-33a), 94-100.
- MARKOVITS, A., "Die Zaimis-Höhle (Kaki Skala, Megaris)", *Speläologisches Jahrbuch* 13-14 (1932-33b), 136-46.
- MILOJCIC, V., J. BOESSNECK, D. JUNG, and H. SCHNEIDER, *Paläolithikum um Larissa in Thessalien*. (Bonn: Beiträge zur Ur- und Frühgeschichtlichen Archäologie des Mittelmeer-Kulturraumes), 1965.
- MOUNDREA-AGRAFIOTI, A.E., "Άγιος Πέτρος Κυρα-Παναγιάς. Στοιχεία της λιθοτεχνίας του λαξευμένου λίθου", in *Διεθνές Συνέδριο για την Αρχαία Θεσσαλία στη Μνήμη του Δ.Ρ. Θεοχάρη* (Αθήνα: ΤΑΙΙΑ), 1992, 191-201.
- MORGAN, L.H., *Ancient Society* (Cambridge Massachusetts: The Belknap Press of Harvard University Press), 1877.
- NIXON, L., J. MOODY, V. NINIΟΥ-KINDELI, S. PRICE, and O. RACKHAM, "Archaeological survey in Sphakia, Crete", *Echos du Monde Classique/Classical Views* XXXIV 9 (1990), 213-20.
- OBERMAIER, H., "Griechenland", *Realexikon der Vorgeschichte* IV (1926), 529.
- PAPAKONSTANTINOY, E.S., *Micromoustérien: Les Idées et Les Pierres: Le Micromoustérien d'Asprochaliko (Grèce) et le problème des Industries Microlithique du Moustérien* (Université de Paris X: Ph.D. Thesis), 1988.
- PAPAKONSTANTINOY, E.S. and D. VASILOPOYLOU, "The Middle Palaeolithic industries of Epirus", in G.N. Bailey (ed.), *Klithi: Archaeology of a late Glacial Landscape in Epirus, NW Greece* (Cambridge: MacDonald Institute for Archaeological Research), in press.
- PAYNE, S., "Faunal change at Franchthi cave from 20,000 B.C. to 3,000 B.C.", in A.T. Clason (ed.), *Archaeozoological studies* (Amsterdam and Oxford: North-Holland), 1975, 120-31.
- PAYNE, S., "Faunal evidence for environmental/climatic change at Franchthi cave (southern Argolid, Greece) 25,000 BP to 5,000 BP - Preliminary results", in J.L. Bintliff and W. van Zeist (eds.), *Palaeoclimates, Palaeoenvironments and Human Communities in the Eastern Mediterranean Region in Later Prehistory* (BAR S133, Oxford), 1982, 133-36.
- PERLÈS, C., *Les Industries Lithique Taillées de Franchthi (Argolide, Grèce). Tome I. Présentation Générale et Industries Paléolithiques*. Excavations at Franchthi Cave, Greece, fasc. 3, T.W. Jacobsen, general editor (Bloomington and Indianapolis: Indiana University Press), 1987.
- PERLÈS, C., *Les Industries Lithique Taillées de Franchthi (Argolide, Grèce). Tome II. Les Industries du Mésolithique et du Néolithique Initial*. Excavations at Franchthi Cave, Greece, fasc. 5, T.W. Jacobsen, general editor (Bloomington and Indianapolis: Indiana University Press), 1990.
- POPE, K.O. and T.H. van ANDEL, "Late Quaternary alluviation and soil form in the southern Argolid: its history, cause and archaeological implications", *Journal of Archaeological Science* 11 (1984), 281-306.
- POPE, K.O., C.N. RUNNELS, and T.L. KU, "Dating Middle Palaeolithic red beds in southern Greece", *Nature* 312 (1984), 264-66.
- POULIANOS, A.N., "Petralona, a Middle Pleistocene cave in Greece", *Archaeology* 24 (1971), 6-11.
- PROTONOTARIOY-DEILAKI, E., "Εκ τής Προϊστορικής Ναυπλίας", in *Πρακτικά Α' Διεθνούς Συνεδρίου Πελοποννησιακών Σπουδών τ.3* (Αθήνα), 1976, 384-87.
- REISCH, L., "Beobachtungen an Vogelknochen aus dem Spätpleistozän der Höhle von Kephalaria (Argolis Griechenland)", *Archäologisches Korrespondenzblatt* 6 (1976), 261-65.
- REISCH, L., "The transitions from Lower to Middle Palaeolithic in Greece and the southern Balkan", in A. Ronen (ed.), *The Transition from the Lower to Middle Palaeolithic and the Origin of Modern Man* (BAR S151, Oxford) 1982, 223-32.
- ROEBROEKS, W. and T. VAN KOLFSCHOTEN, "The earliest occupation of Europe: a short

- chronology”, *Antiquity* 68 (1994), 489-503.
- ROLLAND, N., “Le projet de l’institut Canadien d’archéologie a Athènes sur l’Age de la Pierre en Grèce centrale: Campagne Preliminaire 1980”, *Teiresias* 3 (1980), 1-29.
- RUNNELS, C., “A Prehistoric survey of Thessaly: new light on the Greek Middle Paleolithic”, *Journal of Field Archaeology* 15 (1988), 277-90.
- RUNNELS, C. and T.H. van ANDEL, “The Lower and Middle Palaeolithic of Thessaly, Greece”, *Journal of Field Archaeology* 20 (1993a), 299-317.
- RUNNELS, C. and T.H. van ANDEL, “A handaxe from Kokkinopilos, Epirus, and its implications for the Palaeolithic of Greece”, *Journal of Field Archaeology* 20 (1993b), 191-203.
- RUNNELS, C., T.H. van ANDEL, K. ZACHOS, and P. PASCHOS, “Human settlement and landscape at the Preveza region, Epirus, in the Pleistocene and early Holocene”, paper presented in the 1st International Conference on the Palaeolithic Archaeology of Greece and Adjacent Areas, Ioannina, 1994.
- SACKETT, J.R., “From de Mortillet to Bordes: a century of French Palaeolithic research”, in G. Daniel (ed.), *Towards a History of Achaeology* (London: Thames and Hudson), 1981, 85-99.
- SACKETT, J.R., “Approaches to style in Lithic Archaeology”, *Journal of Anthropological Archaeology* 1 (1982), 59-112.
- SCHMID, E., “Die Seidi-Höhle eine jungpaläolithische Station in Griechenland”, *IV International Colloquium in Speleology*, Athens 1963 (1965, 163-74.)
- SCHNEIDER, H.E., *Zur quartärgeologischen Entwicklungsgeschichte Thessaliens (Griechenland)* (Beiträge zur ur- und frühgeschichtlichen Arcäologie des Mittelmeer-Kulturräume 6, Bonn: Habelt), 1968.
- SCHNEIDER, H.E., “L’ Histoire Géologique du Bassin Néogène et Quaternaire de la Thessalie”, *La Thessalie* (Collection de la Maison de l’Orient Méditerranéen 6, Serie Archéologique 5, Lyon), 1979.
- SHACKLETON, J.C., *Marine Molluscan Remains from Franchthi Cave*. Excavations at Franchthi Cave, Greece, fasc. 4, T.W. Jacobsen, general editor (Bloomington and Indianapolis: Indiana University Press), 1988.
- SORDINAS, A., “Investigations of the prehistory of Corfu during 1964-1966”, *Balkan Studies* 10 (1969), 392-415.
- SORDINAS, A., *Stone Implements from NorthWestern Corfu, Greece*. Memphis State University Anthropological Research Center Occasional Papers 4 (1970).
- SORDINAS, A., “Quaternary shorelines in the region of Corfu and adjacent islets, western Greece”, in P.M. Masters and N.C. Flemming (eds.), *Quaternary Coastlines and Marine Archaeology* (London: Academic Press), 1983, 335-44.
- STAMPFUSS, R., “Die ersten altsteinzeitlichen Höhlenfunde in Griechenland”, *Mannus* 34 (1942), 132-47.
- STRINGER, C.B., “Some further notes on the morphology and dating of the Petralona hominid”, *Journal of Human Evolution* 12 (1983), 731-42.
- STRINGER, C.B., F.C. HOWELL, and J.K. MELENTIS, “The significance of the fossil hominid skull from Petralona, Greece”, *Journal of Archaeological Science* 6 (1979), 235-53.
- STURDY, D.A. and D.O. WEBLEY, “Palaeolithic geography: or where are the deer?”, *World Archaeology* 19, (1988), 262-79.
- THEOCHARIS, D., “Παλαιολιθικά εύρηματα της περιοχής Λαρίσης”, *’Αρχαιολογικό Δελτίο (Χρονικά)* 16 (1960), 182-83.
- THEOCHARIS, D., *’Η Αύγή της Θεσσαλικής Προϊστορίας* (Βόλος: Φιλάρχαος Έταιρεία Βόλου), 1967.

- THEOCHARIS, D., "Αρχαιότητες και μνημεία τῆς Θεσσαλίας", *Ἀρχαιολογικό Δελτίο (Χρονικά)* 23B (1968), 261-2.
- THEOCHARIS, D., "Τά προϊστορικά θεμέλια τοῦ ἑλληνικοῦ πολιτισμοῦ", *Ἀρχαιολογικά Ἀνάλεκτα ἐξ Ἀθηνῶν* 2 (1969), 131-41.
- THEOCHARIS, D., "Αρχαιολογία καί μνημεία Θεσσαλίας", *Ἀρχαιολογικό Δελτίο (Χρονικά)* 25B (1970), 271-79.
- THEOCHARIS, D., *Νεολιθική Ἑλλάδα* (Ἀθήνα: Μορφωτικό Ἰδρυμα Ἐθνικῆς Τραπέζης), 1973.
- TRIGGER, B.G., "Alternative archaeologies: nationalist, colonialist, imperialist", *Man (N.S.)* 19 (1984), 355-70.
- TRIGGER, B.G., *A History of Archaeological Thought* (Cambridge: Cambridge University Press), 1989.
- TSOUNTAS, C., *Αἱ Προϊστορικοί Ἀκροπόλεις Διμηνίου καί Σέσκλου* (Ἀθήνα: Ἀρχαιολογική Ἐταιρεία), 1909.
- TZEDAKIS, P.C., "Long-term tree populations in northwest Greece through multiple Quaternary climatic cycles", *Nature* 364 (1993), 437-40.
- TZEDAKIS, P.C., "Vegetation change through glacial-interglacial cycles: a long pollen sequence perspective", *Philosophical Transactions of the Royal Society London* 345 (1994), 403-32.
- VAN ANDEL, T.H. and J. SHACKLETON, "Late Palaeolithic and Mesolithic coastlines of Greece and the Aegean", *Journal of Field Archaeology* 9 (1982), 445-54.
- VAN ANDEL, T.H., T.W., JACOBSEN, J.B., JOLLY, and N. LIANOS, "Late Quaternary history of the coastal zone near Franchthi cave, Southern Argolid, Greece", *Journal of Field Archaeology* 7 (1980), 389-402.
- VAN RIPER, B.A., *Men among the Mammoths: Victorian Science and the discovery of human Prehistory* (Chicago: University of Chicago Press), 1993.
- VITA-FINZI, C. and E. HIGGS, "Prehistoric economy in the Mount Carmel area of Palestine: site catchment analysis", *Proceedings of the Prehistoric Society* 36 (1970), 1-37.
- WIJMSTRA, T.A., "Palynology of the first 30 Metres of a 120 m Deep Section in Northern Greece", *Acta Botanica Neerlandica* 18 (1969), 511-27.
- WILLIS, K.J., "The Late Quaternary vegetational history of northwest Greece. I. Lake Gramousti", *New Phytologist* 121 (1992), 101-17.
- ZOIS, A., *Crete - Stone Age* (Ancient Greek Cities 18, Athens: Athens Technological Organization - Athens Center of Ekistics), 1973.
- ZOIS, A., *Μαθήματα Ἀρχαιολογίας ἀπό τήν Ἐμφάνιση τοῦ Ἀνθρώπου ὡς τοῦ Ἀστικού Πολιτισμοῦ τῆς Ἀνατολῆς* (Ἀθήνα), 1980.

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