

1 – Introduction

1.1 KEY RESEARCH QUESTIONS

The first -and so far the only- conference on the Palaeolithic of Greece was held in 1994 in Ioannina (Epirus, North-West Greece). In the publication of the proceedings (Bailey *et al.* 1999), only two out of thirty-four papers reported on Lower Palaeolithic finds from Greece, and these referred to the sites of Kokkinopilos in Epirus and Rodia in Thessaly (Runnels *et al.* 1999; Runnels and van Andel 1999). Since the first systematic investigations of the Palaeolithic in Greece in the early 1960's and up to around the times of the Ioannina conference, the evidence for a human presence in Greece before the Late Pleistocene was essentially restricted to the hominin crania from the caves of Petralona and Apidima and an undated handaxe that was considered to be of Lower Palaeolithic age by virtue of its Acheulean morphology. In 2009, almost five decades after the discovery of the Petralona fossil, and fifteen years after that conference, the only sites pre-dating the Late Pleistocene in Harvati and colleagues' table with 'Important Palaeolithic Sites in Greece' (2009, 132) are still the same: Petralona, Kokkinopilos and Rodia.

This picture is partly the result of extremely biased research objectives that have been prevailing since the establishment of the Greek state in the early 19th century. In constructing the notion of Greece being the 'cradle of Western civilization' and with the local middle class building its ascendancy and its position in a progressively integrated Western World, nationalist policies have been directing research designs towards the unraveling of the 'glorious past' of the Classical Period and the Bronze Age civilizations of the Aegean (Kotsakis 1991; Galanidou 1996). Nonetheless, the geographic position of Greece forced scholars to acknowledge its potentially crucial role as a gateway to Europe, with regard to three major subjects in prehistory: the origins and spread of agri-

culture in the early Holocene, the peopling of Europe by *Homo sapiens* in the Late Pleistocene, and the earliest dispersals of hominins into and within Eurasia in the Early and Middle Pleistocene (*e.g.* Runnels 1995). It is the latter topic that is of direct interest here, and Greece has been for long expected to contribute valuable evidence for the earliest occupation of Europe, because of three main reasons: (1) it lies within the most probable route facilitating hominin movements between Africa and Eurasia and vice versa (*e.g.* Harvati *et al.* 2009), but also in a longitudinal axis within Eurasia itself (2) due to its Mediterranean climate and highly productive ecozones, it is assumed that it would have served as a refugium area for floral, faunal and hence probably also human populations, during the harsh climatic conditions of glacial spells (*e.g.* Hewitt 2000) (3) on current evidence, the Mediterranean part of Europe appears to have been peopled earlier than the rest of the continent north of the Alps (*e.g.* Roebroeks 2006).

In the circum-Mediterranean region, the rich records of the Iberian and Italian peninsulas, the early sites in North Africa and the Levant, and the growing evidence coming from Turkey and, lately, some of the northern Balkan regions as well, altogether furnish a pattern of early Pleistocene human geography in which Greece stands out as a conspicuous lacuna. Consequently, the question that emerges, and constitutes the key research query in this study, is how are we to explain the absence of Early and paucity of Middle Pleistocene sites in Greece? There are three main parameters to consider in answering this question: (1) research intensity and biases (2) the possibility that we are dealing with a marginal / episodic / intermittent occupation which left poor and/or hardly detectable traces, and (3) the possibility that the geological history and structure of a dynamic landscape has been disfavoring the preservation of archaeological remains. The research-intensity argument is cer-

tainly an issue, but it cannot sufficiently explain the paucity of sites: for example, as it is discussed below (4.5.5), the abundance of Palaeolithic material in areas such as Epirus can no longer be accredited to the lack of fieldwork elsewhere (Runnels and van Andel 2003, 125). The current state of the record testifies only to a general assertion about human *presence* in the Middle Pleistocene; Lower Palaeolithic *occupation* in Greece is yet to be established, and, until then, there is hardly anything to say about the nature of this occupation, let alone to test if an intermittent/episodic character could account for the patchiness of the record. Therefore, to explain this patchiness, it is most meaningful to explore the geological structure of the landscape and the potentially biasing effects of geomorphic processes that have been at work throughout the Quaternary.

It has been assumed that “the Quaternary in Greece has mostly been a time of erosion” (van Andel 1998, 376), and that “there is reason not to expect a very complete record in a country as mountainous as Greece” (Gowlett 1999, 43). Similar assumptions have often appeared in the literature, but only in a somewhat anecdotal form. This study evaluates such statements by using both empirical data from fieldwork observations and more theoretical assertions that can be deduced from relevant geomorphological studies. In this line, there are two additional, interrelated research questions that are examined here:

1. To what degree should we expect Lower Palaeolithic material to be not only preserved, but also archaeologically visible/accessible, according to the directions provided by the study of the geology and geomorphology?
2. Where should we eventually look for Lower Palaeolithic evidence?

Various scholars have pointed out that Greece will, sooner or later, most likely yield early Palaeolithic sites (e.g. Runnels 1995; Dennell and Roebroeks 1996; Gowlett 1999; Roebroeks 2001), whilst some have stressed the ever-growing state of research, suggesting that the Greek record “is already of real importance in assessing the nature of early colonization of Europe” (Gowlett 1999, 54). However, Greece is still lacking the kind of evidence which would be quantitatively and qualitatively comparable to that coming from the rest of the Mediterranean. Explain-

ing this discrepancy will reveal directions towards reversing this picture and putting Greece on the map of early Palaeolithic sites. In short, to assess why the record is so poor; how much of it may have been lost or rendered archaeologically inaccessible due to erosion/deposition; what should we actually expect from Greece to yield; and, last but not least, where should we look for it -all these questions are difficult to test in a spatial scale of more than a hundred thousand square kilometers and a temporal scale of almost two and half millions of years. Geomorphic processes cannot be modeled in such scales. However, attacking those questions can still be meaningful, and it shows how valuable information can be extracted from a record with an extremely fragmented and biased profile.

1.2 SCOPE, OBJECTIVES AND STRUCTURE OF THE BOOK

In terms of a temporal range, my study examines the Early and Middle Pleistocene record of Greece. This time-frame is taken here to match what in archaeological terms is traditionally denoted as the Lower Palaeolithic period, an assertion that is justified and discussed in more detail below (section 2.1). ‘Greece’ obviously stands for a political entity and, as such, it is at odds with the fact that, in Palaeolithic studies, areas targeted for investigations are usually delineated with reference to (bio-) geographical and/or geomorphological boundaries. The political territory of Greece was therefore chosen for convenience, e.g. with regard to administrative issues and research permits for doing fieldwork. Moreover, the political boundaries of Greece essentially correspond to the geographical limits of the peninsula that projects southwards from the Balkans, allowing comparisons with the other two Mediterranean peninsulas, *i.e.* the Italian and the Iberian, which have yielded the richest Lower Palaeolithic records.

This research is partly fieldwork- and partly literature-based, and has three main objectives. Firstly, to provide a critical re-appraisal of all sites, findspots and isolated artefacts from Greece that have been attributed to the Lower Palaeolithic period. Similar, but more coarse-grained evaluations have been presented with regard to the entire Palaeolithic and Mesolithic record of Greece as a whole (Runnels 1995), the

Pleistocene palaeoanthropological and archaeological records of Greece (Harvati *et al.* 2009), or the record of the Middle Palaeolithic (Darlás 2007); up to now, the literature lacks a thorough assessment of the Greek ‘Lower Palaeolithic’ evidence in its own right. To this end, the focus is put on the artefactual material, its depositional setting, any associated dating and the argumentation for ascribing it to the Lower Palaeolithic. However, in order to facilitate comparisons with other archaeological records of the Early and Middle Pleistocene, a framework of reference is needed. This is provided in chapter three, where the best-studied Lower Palaeolithic sites of the circum-Mediterranean region are reviewed with a special attention to their geomorphological environments, depositional contexts and dating. Together with chapter two, which outlines the main aspects of the Lower Palaeolithic period and of the hominin dispersals occurring during this time-span, the examination of the circum-Mediterranean records sets the background for juxtapositions with the picture emerging from Greece; moreover, it allows the Greek evidence to be viewed within the perspective of the debate about the earliest peopling of Europe.

Considering that the nature and completeness of the archaeological record is furnished in concert with the nature and completeness of the geological archive, the second part of the thesis explores the geological factors which obscure preservation of material and filter archaeological visibility and accessibility. The investigation starts with chapter five, which contextualizes the results from fieldwork that I have conducted in the frames of two survey projects in Macedonia and Zakynthos. Here, the absence of stratified Lower Palaeolithic material is assessed, thereby bridging the previous evaluation of the Greek evidence-at-hand (where it is shown that stratified material is overall scarce) with the next and final part of this study. Thus, chapter six explores the Quaternary landscape evolution in Greece and aspires to fulfill the other major goal of this research, namely to explain the scantiness of the Greek testimony under a geoarchaeological perspective. Climatic, tectonic, sea-level controls and surface processes are considered in order to comprehend their interactions and their effects upon the integrity of the archaeological record. In construing the results of this exploration, I use a GIS-based slope-map of Greece, which serves

as a visual platform for discussing the major conclusions.

Finally, chapter seven offers a synthesis of the results from all previous chapters. Compared to any general patterns deduced from the circum-Mediterranean evidence, how does the Greek Lower Palaeolithic material fit in the debate about the earliest occupation of Europe? Is there any solid evidence for an Early Pleistocene human presence in the Greek Peninsula? Is it meaningful to make any inferences about the first indications from Greece with regard to lithic techno-complexes (*e.g.* Mode I versus Mode II) and how these should be interpreted when juxtaposed to general trends identified in the rest of the Mediterranean? Which are the dominant geomorphological settings with which the Greek sites are associated, how do we evaluate this association, and, what is more, is it possible to distinguish hominin preferences from preservation biases? Possible answers to those questions are discussed in this final chapter. The emphasis, though, is above all given to the answering of the major research questions as outlined previously: how do we understand the paucity of the record, what should we eventually expect from Greece to yield in the future and where should we concentrate our investigations.

In his 1995 review of Aegean Prehistory, C. Runnels writes (p. 709): “The increased rate of discovery of Lower Palaeolithic sites has been made possible by our growing understanding of Pleistocene deposits and their associated geological features, permitting us to pinpoint the places where archaeological materials of a particular age are likely to be best preserved...” Following this suggestion, my research examines the geological opportunities that have been available throughout the Quaternary, determining the qualitative and quantitative characteristics of the geoarchaeological archive and the degree in which this is preserved and accessible in the present. In turn, this examination serves best a dual objective: to understand and explain the current status of the Greek evidence, also by viewing it in the context of the earliest occupation of Europe; and to put the Lower Palaeolithic of Greece in prospect, by providing first-order directions for future investigations. As a geoarchaeological approach to a biased and much fragmented record, it is argued that the results and

suggestions proposed here can potentially be seen as being of wider significance, going beyond the tem-

poral range of the Lower Palaeolithic and the spatial limits of the Greek peninsula.