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Seaward dispersals to the NE Mediterranean islands in the Pleistocene. The lithic evidence in retrospect

Christina Papoulia

Department of History & Archaeology, University of Crete, University Campus Gallos, Rethymnon 74100, Crete, Greece

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ABSTRACT

Paleolithic artifacts collected in the course of archaeological and geological surveys at particular islands of the NE Mediterranean have given birth to arguments for seaward Pleistocene dispersals. The consecutive implications for the seafaring abilities of archaic hominins have inevitably provoked an ongoing debate. The total lack of paleoanthropological evidence and, in most cases, the absence of a secure stratigraphic context leaves us with the only other pertinent tool of analysis, the stone tools. Preliminary reports presenting lithic collections from the islands have been published since at least the middle of the previous century, yet a coherent and critical review of the evidence has hitherto not been attempted.

In the light of new paleogeographic reconstructions of the Aegean region, the already published collections are in this paper reviewed and evaluated in terms of their classifications and proposed cultural and chronological attributions and discussed in relation to the arguments for or against Pleistocene sea-crossings. Despite the scarcity of the evidence and the many problems associated with their documentation, context or interpretations, the lithic collections do provide specific information regarding the earliest sea-crossings in the region. Based on the available evidence, the majority of the artifacts collected from sites on islands that were most likely insular during parts of the Pleistocene have Middle Paleolithic technological and typological affinities, therefore an association with the Neanderthals is implied and the possible marine routes are proposed. Yet further research is needed in order to better appreciate the Greek Lower Paleolithic record, thus reevaluate the arguments for Lower Paleolithic sea-crossings in the Aegean.

1. Introduction

During the Early and Middle Pleistocene vast areas of the Aegean Basin were part of extensive plains that are now deeply submerged (Lykousis, 2009; Tourloukis and Karkanas, 2012; Sakellariou and Galanidou, 2015). In the Late Pleistocene and especially after the Last Glacial Maximum (LGM) several parts of these plains became insular and by the beginning of the Holocene, the majority of the islands began to obtain their present form (Lambeck, 1996; Kapsimalis et al., 2009). The earliest uncontested sea travels in the northeastern (NE) Mediterranean took place in the Aegean Sea, have been dated to the final part of the Late Pleistocene (c. 13 ka BP) and are associated with the procurement of obsidian from the island of Milos (Fig. 1) by members of our own species, *Homo sapiens* (Perlès, 1979; Laskaris et al., 2011). Similar dates are proposed for the arrival to the easternmost big island of the Mediterranean, Cyprus (Simmons, 1999). Yet, arguments of Pleistocene 'seafaring' extending back to about 70–130 ka BP (Strasser et al., 2010, 2011; Runnels et al., 2014a) gave birth to an ongoing debate about the presence or absence of archaic hominins on Crete (e.g. Ammerman, 2013; Leppard, 2014; Broodbank et al., 2014). In view of the above, old lithic collections, which since their publication had received only minor attention, are now incorporated in the body of evidence in support of the seaward dispersals of hominins to the Greek islands (e.g. Runnels, 2014a, 2014b). At the same time, new, ongoing research projects focus on the investigation of the early prehistory of particular islands, both in the Aegean (Efstratiou et al., 2013, 2014; Galanidou et al., 2013a; Carter et al., 2014a) and the Ionian Sea (Galanidou, 2014a, 2015). Such turn of attention to the numerous neglected parts of insular Greece comes in total contrast to the research strategy followed in the past, when the general aim was the excavation of particular caves and rockshelters in the mainland (Galanidou, 2014c). Targeted surveys on islands were in

E-mail address: papoulia.christina@gmail.com.

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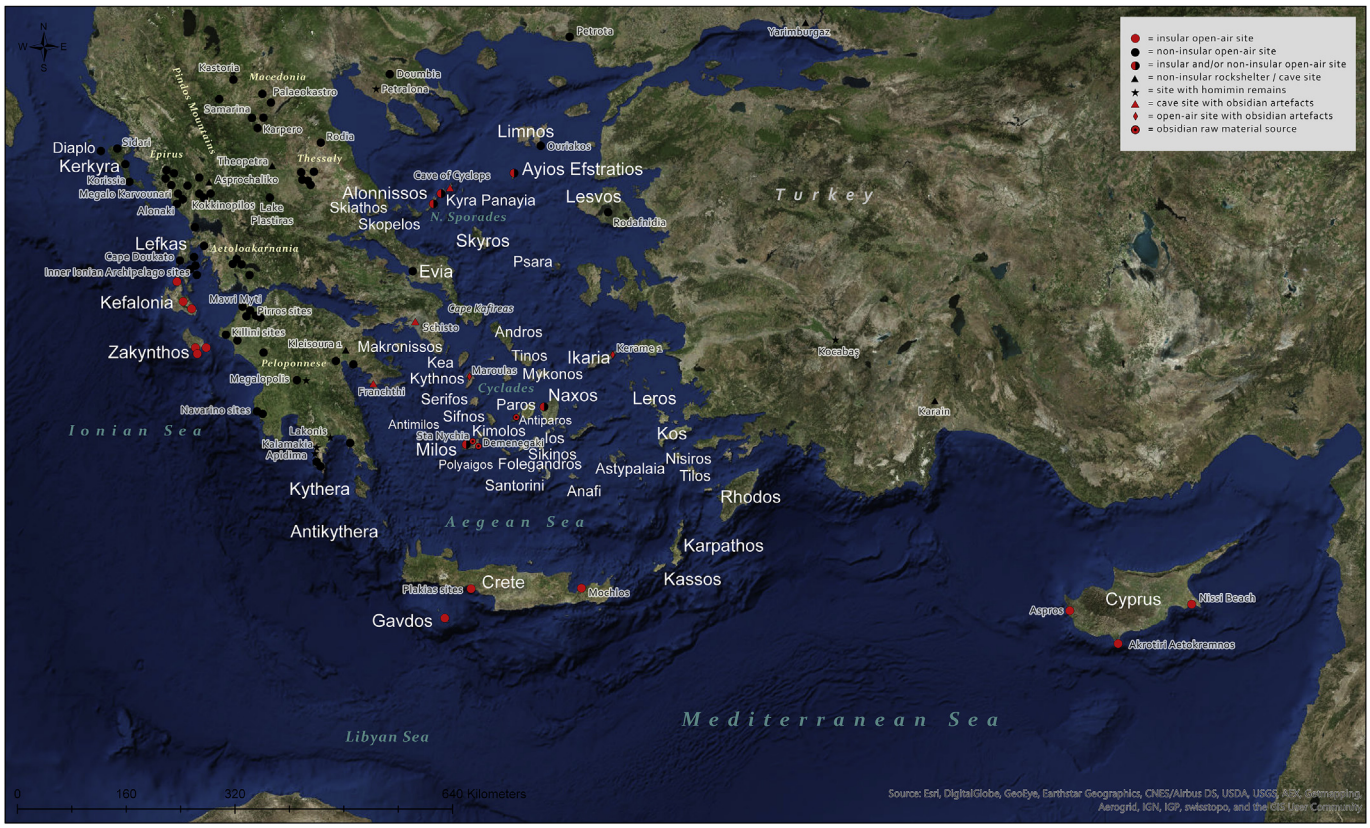

Fig. 1. Map of the NE Mediterranean islands. All sites annotated have a Pleistocene component apart from the site of Sidari (Kerkyra) in the Ionian Sea, the sites of Kerame 1 (Ikaria), Maroulas (Kythnos) and Cave of Cyclops (Youra) in the Aegean Sea and the sites of Aspros and Nissi Beach on Cyprus, which are of an early Holocene age.

general out of the Paleolithic agenda. For decades the significance of investigating even the non-insular open-air sites was underestimated (for a discussion and change of approach see Papagianni, 2000). Although the evidence for late Upper Paleolithic (UP) and Mesolithic seaward dispersals do not provoke disparagement any longer, the premise that Pleistocene hominins other than *Homo sapiens* were incapable of inhabiting island environments has undoubtedly been one of the causes for the very limited investigation into the NE Mediterranean islands' early prehistory (Papoulia, 2012, 2013). To this end, and in accordance with the significant work already conducted in other parts of Eurasia (Bailey and Flemming, 2008; Benjamin et al., 2011; Bailey and Sakellariou, 2012; Flemming et al., 2014), the submerged landscapes of the Aegean region hold strong potential for the investigation of the insular and coastal Pleistocene record (Papoulia, 2013; Sakellariou and Galanidou, 2015; Sakellariou et al., 2016); yet until the results of such initiatives become available, we are obliged to rely on the archaeological evidence recovered on land.

Clearly, the interest in the initial 'seafaring' activities in the Mediterranean has lately become a progressive trend among a number of archaeologists, most of which have a long history of research in the area, and is no longer restricted to the ones with a Paleolithic background (Fig. 2, Appendix A). Arguments in support of the view for the presence of archaic hominins on Crete (Runnels, 2014a) as well as arguments against it (Galanidou, 2014b, 2014c) have focused on the morphological attributes and cultural affinities of lithic assemblages collected mainly from the surface and occasionally also associated with stratified contexts. Substantial arguments against an insular Lower Palaeolithic were formed on the basis of biogeographic implications (Leppard, 2014) and on the loose association of the finds and the geological layers (Ammerman, 2013; Phoca-Cosmetatou and Rabett, 2014; Galanidou, 2014b, 2014c). Furthermore, material collected in the past from the islands of Gavdos (Kopaka and Matzanas, 2009, 2011), Milos (Chelidonio, 2001), Kefalonia (Cubuk, 1976a, 1976b; Kavvadias, 1984; Foss, 2002a, 2002b) and Zakynthos (Sordinas, 1970a; Kourtessi-Philipakis and Sorel, 1996; Kourtessi-Philippakis, 1999; van Wijngaarden et al., 2013) have cultivated arguments for Pleistocene sea-crossings by Lower Palaeolithic (LP) and/or Middle Paleolithic (MP) individuals based almost exclusively on surface collections of lithic artifacts. Paleogeographic reconstructions have also been discussed with regard to the lithic evidence attributed to the Pleistocene (Ferentinos et al., 2012, 2014).

In the ever-increasing literature dealing with the issue of Pleistocene seaward dispersals, regardless of the frequency of references to the already published collections, a detailed reevaluation of the lithic evidence has hitherto not been attempted. Since paleoanthropological material are almost absent from the particular islands (see 4.2), and chronostratigraphic data are only rarely provided (Cubuk, 1976a; Strasser et al., 2011; Runnels et al., 2014b) and can often be of debatable nature (for Plakias, Crete see Galanidou, 2014b, 2014c; Phoca-Cosmetatou and Rabbet, 2014; for Kefalonia see Darlas, 2007; Tourloukis, 2010), the lithic collections are the main datasets available to us. Given the scarcity of evidence, it is the aim of this paper to provide a review of the lithic material from the islands that retained an insular character throughout the Pleistocene, or during parts of it, in order to evaluate the arguments for each one of these islands and allow more compound assessments to be extrapolated in the near future.

Crete together with Gavdos, like Cyprus, are usually referred to as 'oceanic-like' or 'true' islands, meaning that they were most probably insular throughout the Pleistocene. Such islands are ideal

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