

ARCHAEOLOGICAL VISIBILITY AND EARLY FARMING HABITATION PATTERNS IN COASTAL THRACE (GREECE) – AN OVERVIEW

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Abstract

This paper discusses the issue of archaeological visibility in coastal Thrace and the ways in which it has affected our knowledge on the archaeology of the region's early prehistory. Landscape changes in the Rhodope plain and coastline dynamics noted from the end of the Pleistocene had an impact on the recording chances of surface archaeological material. These geomorphological studies – described here as *general fields of reference* – could be used in the context of one-period surveys in order to increase the resolution of archaeological materials and face up to the challenges of aphorisms such as 'absence of evidence'. It is also suggested that well-focused field investigations in selective locations, using inexpensive methods such as coring techniques, could also reveal archaeological evidence related to sociocultural preferences. These *specific fields of reference* should be considered as a part of a conclusive survey and an interpretation strategy if landscape dynamics are to be addressed in depth by field archaeologists.

INTRODUCTION

Archaeological visibility has been a key issue of concern for researchers and surveyors alike working in the Mediterranean countryside over approximately the last thirty years. This is a topic with its own history and dynamism and one which has bewildered archaeologists who have found themselves walking through the river plains and the valleys of the Balkans as well as coastal areas, recording ceramic sherds and scatters of lithics dating to different periods or trying to explain their surprising distribution and absence. A rough reappraisal of this picture today ranges from an absolute enthusiasm and the contention that by documenting this kind of evidence one can understand past habitation choices to the acknowledgement of the serious defaults involved in a process at the core of which lies the conviction that what 'is seen on the surface' relates closely with what exists 'underneath'. In other words, what is proposed is a research strategy that ambitiously and more importantly, inexpensively, succeeds in persuasively drawing diachronic and large-scale habitation images and therefore succeeds in commenting on complex social and cultural phenomena of the past. Based on evidence from recent fieldwork conducted in coastal Thrace (Greece), this paper will touch upon some aspects of archaeological visibility – a controversial subject in many respects – and will comment on the defaults of an evidently overhasty reconstruction of early habitation patterns in this part of Greece. It is proposed here that surface archaeological indications – especially when complex landscape dynamics, such as coastal and river systems are involved – should be treated with caution and should be considered to be merely indicative evidence when regional habitation patterns are reconstructed. It is suggested that surface archaeological indications should constitute a very general framework of archaeological reference subject to continuous revision within a process which should remain open to new methods of field investigations.

The idea that what is seen 'on the surface' relates meaningfully to what exists 'underneath' is justifiably considered today as over-simplistic and with a negative impact on the philosophy of surveying and ultimately of archaeological synthesis; it is something which has been described occasionally – perhaps somewhat poetically – as 'the loss of innocence' or a 'farewell to the Garden of Eden'¹. Regardless of the hyperbole of the above statement, the fact of the matter remains that it has been some time since archaeologists expressed serious doubts regarding the long held axiom which holds that surface finds are a fair representation of patterns of past human activities buried underground and a lot more than simple and random scatters of artefacts in the horizon. This stand – in a way a serious revision of the essence of surveying philosophy and effectiveness – has eventually embraced matters of surveying methodology and synthesis of data and leads to different grades of resolution and scales of reconstruction of past ways of life from place to place. These resolutions and reconstructions, which refer both to data collection and interpretation, are the outcome of what may be called *general and specific fields of reference*.

More specifically, the contribution of earth scientists (geologists, geoarchaeologists, geomorphologists) towards the gross planning of a reconnaissance field strategy – and in particular their invaluable research that has enhanced our understanding of basic landscape formation processes and soil identification – is part of the former group of *general references*. However, the fact is that geological observations as a rule end up providing only an auxiliary and often delayed – usually after the surface reconnaissance has been completed and following the collection of most of the data – description of an often complex and constantly changing landscape. This, unfulfilled in most cases, prospect of taking a closer look at the landscape dynamics of an area, continues to be at the core of archaeological

1 Ammerman 2004, 177.

problems today. The focus is on questions such as 'how can this be attained' practically and efficiently in the field and secondly, how possible is that this closer look can change the current view of the archaeological 'big picture' of the early Aegean Thrace².

Perhaps even more demanding is the need to draw upon what one may call *specific fields of reference*, which could help to document and understand the multifaceted archaeological events that led up to the arrival of the first farming communities in Thrace, sometime around the mid-seventh millennium calBC³. *Specific fields* are considered here to be a meaningful reference to the 'history' of a particular site in relation to its physical and social environs; for instance, the ways in which habitation practices evolved over a long period, from the time the first group of people decided to settle in a specific location or how settlement size evolved since then; if or how everyday activities (architectural, economic, social) changed in the course of time, etc. The study of this kind of particularised archaeological evidence which give substance to a continuum (i.e. the use of space) enables the researcher to follow 'local stories' of organised habitation in the area, which could ideally contribute towards forming the period's 'bigger picture'. The search for finer resolution that can cover a wide range of direct evidence, such as buried material remains (structures, storage) and economic preferences (subsistence strategies) or indirectly inferred motives of collective community decisions or social intentions – but foremost their heuristic relations – provide in each case the content of these *specific fields of reference* and how they should be searched for and documented.

AEGEAN THRACE DURING THE LATE PLEISTOCENE AND THE EARLY HOLOCENE PERIODS

Exploring, therefore, ways in which geomorphological observations could sharply focus on specific research questions, involving archaeologically well-defined *general fields of reference*, should be the first priority of archaeological research in Aegean Thrace today. One such theme of undiminished search interest is the detection of Early Neolithic habitation evidence in the region of Aegean Thrace (Greece). This strictly confined area – a narrow and low plain extending between the southern slopes of the Rhodope Mountains in the north and the Aegean Sea in the south and bordered by the two particularly active river systems of Nestos and Evros in the west and east respectively – presents a particularly interesting geographical and geomorphological entity. It comprises of a wide range of micro-environments dominated by the presence of the large Vistonis Lake, numerous coastal lagoons and the large delta areas of the two rivers mentioned above. For archaeologists this complex landscape constitutes a

formidable challenge in their efforts to comprehend its dynamics and evolution, and as a result, to effectively search for diachronic habitation patterns in the area.

Although the general course of these events is more or less described as a result of recent archaeological research in the adjacent areas, such as Anatolia to the east and the southern Balkans to the north⁴, Aegean Thrace still tries hard to gain its position in the bigger picture and to acquire its role, distinctive or not, in the expansion process of farming groups 'out of Anatolia' or coming from the south by sea. This picture is expected to be formed as such: firstly, through the recording of surface finds and understanding of landscape dynamics (*general fields of reference*) and secondly, by refining the resolution of some up to now generically described habitation motives in the region through the collection of subsurface evidence, which particularise patches of sociocultural practices and choices (*specific fields of reference*). This should be a rigorous process which will constantly change the scale and depth of archaeological observations, leading often to the revision of long-standing regional cultural reconstructions. This 'blending', however evasive and ambitious it may seem, should be taken into account when sets of intentions in the context of a surface reconnaissance project are laid down.

The presence of hunters – mainly late Neanderthal groups – is firmly established by the stone assemblages collected during the 1990's from the southeastern part of the Rhodope plain⁵; this was confirmed a few years later by field research conducted around the impressive chert quarry of Vrachos in Petrota in the same area⁶. Although dating surface stone material is never an easy task, the Levalloisian character of the tools point to a chronology of 100,000 to 50,000 years ago with the presence of some characteristic tool types of late Middle Palaeolithic age (biface hand axes). What is perhaps more useful in this context, is the 'site location model' used in these surface reconnaissance endeavours, considering the complex geology of the Petrota Graben⁷ and the geomorphological history of the adjacent alluvial Rhodope floodplain, both of which decisively determine the degree of archaeological visibility in the area: most find spots and locations of interest were identified in the ecotone between the edge of the alluvial plain and the colluvial zone of the nearby foothills, where the surfaces of an old lagoon system were exposed and were offered for surface inspection. Typical in this context is Location 9, a rich find spot with more than 91 Middle Palaeolithic artefacts found on the surface of a Pleistocene terrace, close to water sources and not very far from the rich chert quarry of Vrachos. Renewed fieldwork

2 Lespez et al. 2013, 30.

3 Efstathiou 2005, 69.

4 Özdoğan 2011a, 415; 2012, 23.

5 Ammerman et al. 1999, 211; Efstathiou / Ammerman 2004, 183.

6 Efstathiou / Fotiadis o. J.

7 Frass et al. 1990, 50.

over the next years (1998–2010) in the same area and mainly around the Vrachos outcrop, has produced additional surface material of Middle Palaeolithic age (cores, flakes, points and blades) with some diagnostic Levalloisian tool pieces, such as a leaf-point, tentatively dated to roughly between 100,000 and 40,000 years ago⁸.

Once again, visibility issues remained of focal interest during this second reconnaissance field season in the area, pending nevertheless of a more systematic geomorphological study of the nearby river system, which has been affecting depositional processes over the years. However, the preliminary results of a number of cores taken in the adjacent valley floor indicate the role of on-going, complex, climate-induced accumulation episodes – the last one radiocarbon dated to around 1500 CE⁹ – which seem to have significantly affected the visibility of archaeological material in the Rhodope plain. It is apparent therefore, that any general reference to the role of large-scale alluvial accumulation and colluvium episodes in the Rhodope plain should be treated with caution until well-focused case studies are conducted which will eventually detect ‘windows of visibility’ in the area¹⁰. Such ‘medium-to-high’ visibility locations in the Rhodope plain, which could be described as prime areas for Palaeolithic reconnaissance have already been loosely defined, although they have not yet been tested for results. Understanding landscape dynamics and attempting to carry out small-scale palaeoenvironmental reconstructions through dense coring programs (geomorphology, chronology, etc.), are the basic presuppositions for successfully dealing with visibility issues of Palaeolithic habitation in Aegean Thrace.

Evidence for the presence of late hunting and foraging groups (Upper Palaeolithic-Epigravettian-Mesolithic) in Thrace is still absent. Considering the nature of archaeological remains that one has to look for – mainly microlithic assemblages scattered in the open plain – the priority of *general fields of reference* in any reconnaissance action taken, is overarching. Alluvium accumulation processes of different degree and rate – highly visible in many parts of the central plain – come inevitably into focus and are often considered responsible for the missing evidence. However, to concede their role and apparent effect on archaeological visibility is not enough and ought to lead to more rigorous field-work including high quality coring, combined with dating efforts – often supported by evidence from the study of ‘windows of opportunity’ in the landscape, such as modern land-use, constructions, archive information, etc.; these help to identify paleosol layers and paleosurfaces where lithic scatters could be systematically searched for. Other areas of the Rhodope plain could also draw the attention

of systematic reconnaissance efforts. Of special interest is the ecotone zone between the edges of the main plain and the foothills of the Rhodope in the north and the Ismaros Mountains in the south where alluvium and colluvium depositions are cut back allowing for high surface visibility. Indeed, the identification of Middle Palaeolithic artefacts in such locations along the southeastern part of the Rhodope plain has already validated this rough site location model (see above). Nevertheless, more detailed case studies, which could formulate and ultimately investigate *specific fields of reference* in some of these prime areas are still missing; they could include, for instance, the location and systematic study of raw material sources (flint), which were used for the production of lithics in different periods of time. Bold questions like ‘where to look for’ the Mesolithic presence – with an emphasis on geomorphology and therefore, visibility – and ‘why’ it should be present in specific areas and locations (raw material sources, palaeoenvironmental parameters) and not in others, have not been systematically dealt with so far. This directly relates to the manner in which the absence of evidence is appraised by archaeologists who realise that it should not be confused with evidence of absence but in practice however, they regenerate this presupposed link.

THE EARLY NEOLITHIC AND THE LOST LANDS OF THRACE

The rather poorly known archaeology of the Early Neolithic in the land of the in size and habitation potentials impressive Rhodope plain has inevitably left many research questions open for speculation¹¹. The general picture of early Neolithic developments in northwest Anatolia, the Bosphorus area and the southern Balkans seems to have often ignored the archaeology of the region west of the river Evros (Aegean Thrace), national archaeologies not being uncountable for¹². This is most unfortunate considering that the systematic excavation of the prehistoric settlement of Makri is missing from the Neolithic map of the region and its evidence bypassed¹³. Having said that, it is true that field research, which could have more systematically and conclusively addressed some of the key issues of the prehistory of Aegean Thrace, has not been as persistent as it should have been over the years. The absence of the Mesolithic and the beginning of farming in the area – to mention two of the most intriguing subjects of the Balkan, Aegean and Anatolian archaeology – has been only indirectly commented upon or mentioned on *passim*¹⁴; in a sense, the archaeology of these periods has not been the focus of specifically designed research strategies (one-period surveys) or the formation of specific ‘site-location

8 Fotiadis, in press.

9 Fotiadis, in press.

10 Efstratiou / Ammerman 2004, 183.

11 Efstratiou 2005, 69.

12 Özdoğan 2011a, 415, fig. 1; Weninger et al. 2014, fig. 3.

13 Efstratiou et al. 1998.

14 Ammerman et al. 2008, 139.



Fig. 1: The deep stratigraphy of Neolithic Makri with some typical finds of its early phase: Makri I (Early-Middle Neolithic / 6200–6100 BC) and Makri II (Middle and Late Neolithic / 5900–5300 BC).

models', but has instead been 'looked for' implicitly among lithic scatters and ceramic surface evidence, which have derived from multi-period surveys or have been found in the basal layers of systematic or rescue excavations (fig. 1). Although this should not be a cause of discontent, it shows nevertheless a persistent lack of the use of *fields of reference*, specific or general. In addition, if one may be willing to accept the lack of Mesolithic evidence – perhaps anticipated judging from the sparse traces of this period throughout Greece – the dearth of Early Neolithic sites in Thrace is more difficult to comprehend; after all, Early Neolithic finds are usually substantial and well documented (sites, stratigraphy, pottery, dates) in Greece and in this part of the Balkans¹⁵. In fact, the only evidence for the presence of Early Neolithic strata in the area comes from the bottom of the settlement of Makri where chronology indicates the activity of an early farming community, the archaeology of which awaits to be discovered¹⁶.

More recently, however, archaeological reconnaissance efforts in the northern Aegean have made an important new advance by turning to the issue of coastline reconstruction and the study of sea-level changes, bathymetric records and tectonic activity¹⁷. Although not yet as sys-

tematic as it should be, recent fieldwork in coastal areas provides glimpses of a far reaching field of inquiry, considering that early Holocene groups in the Aegean area were gradually becoming sea oriented as far as their everyday activities were concerned: coastal habitation practices (sand-dunes sites?), provision and consumption of sea food (fish, shells), exchange of obsidian and other raw materials, sea voyaging. At the same time, dramatic changes in the topography of coastal areas due to sea-level rise covered large areas which could have otherwise been offered for archaeological inspection¹⁸. Whether or not seafaring had already developed into a distinct way of life for the Mesolithic groups of the Aegean (sea-foragers) by the early Holocene as recently suggested¹⁹ or if sea travelling had become by the Early Neolithic (first half of the 7th mill. calBC) an easy way for communities to remain in touch with each other, there is no doubt that any search for their archaeological remains in mainland areas should include the coastal areas as lands of prime importance.

Recent studies of sea-level rise and tectonic activity in the northeastern Aegean have shown the need for small-scale case studies which could test regional curves of sea rise and consider local geomorphological evidence²⁰. Gla-

15 Perlès 2001; Krauß et al. 2014.

16 Ammerman et al. 2008, 139.

17 Pavlopoulos et al. 2013, 80; Evelpidou et al. 2010, 233.

18 Ammerman et al. 2011, 263; Bailey 2013, 99.

19 Ammerman 2010, 81; Broodbank 2006, 199.

20 Sidiropoulou et al. 2014, 49.

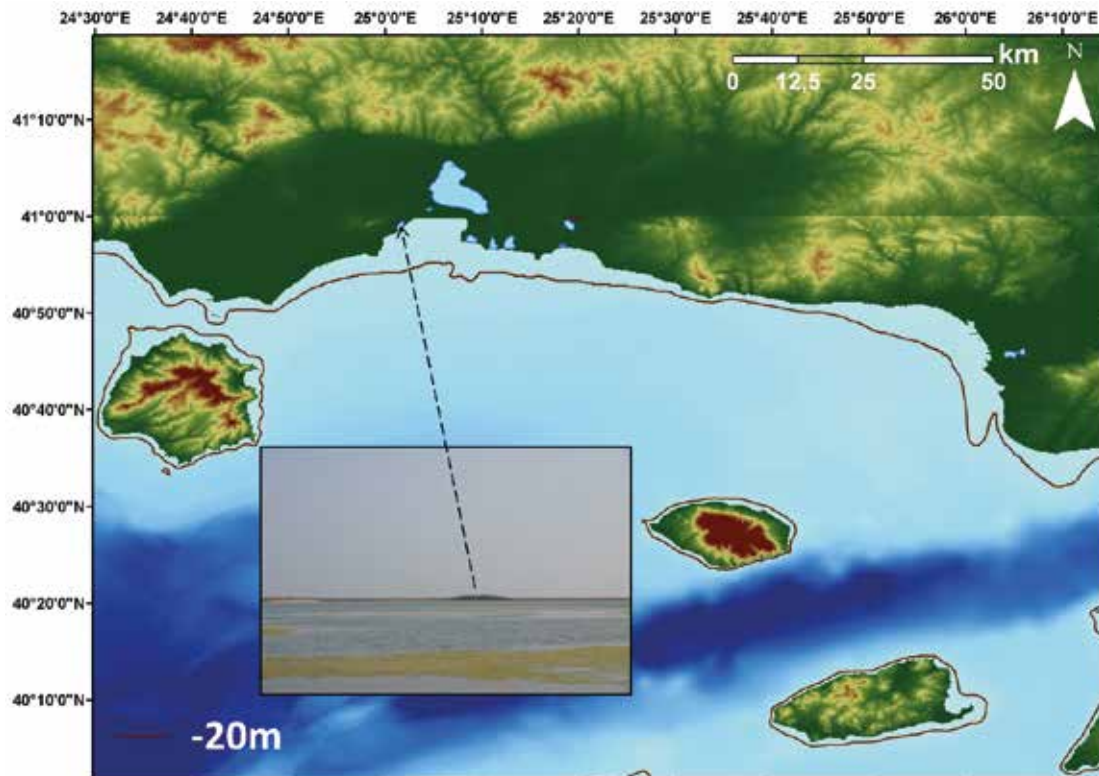


Fig. 2: Reconstruction of the relative sea level at -20 m in Aegean Thrace. The location of the lagoon mound of Lafrouda (5th mill BC) is shown (the bathymetric metadata and Digital Terrain Model data products have been derived from the EMODnet Bathymetry portal. URL: <http://www.emodnet-bathymetry.eu>).

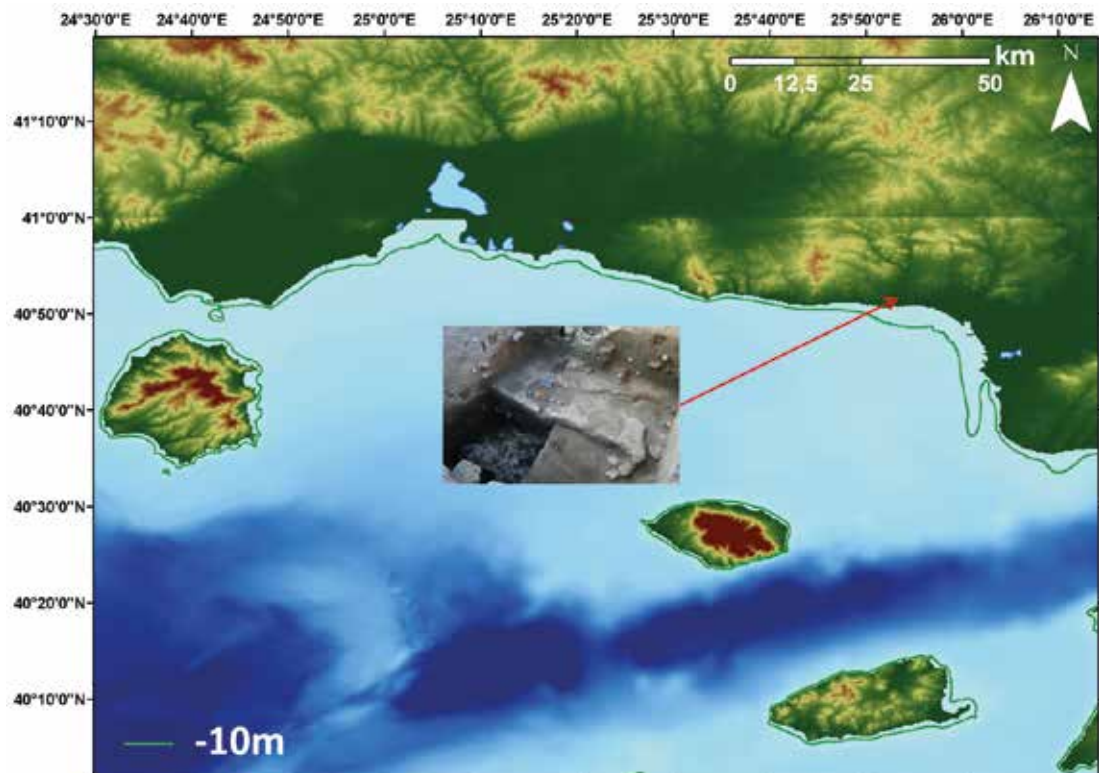


Fig. 3: Reconstruction of the relative sea level at -10 m in Aegean Thrace. The coastal Neolithic site of Makri (6th mill. BC) is shown (the bathymetric metadata and Digital Terrain Model data products have been derived from the EMODnet Bathymetry portal. URL: <http://www.emodnet-bathymetry.eu>).

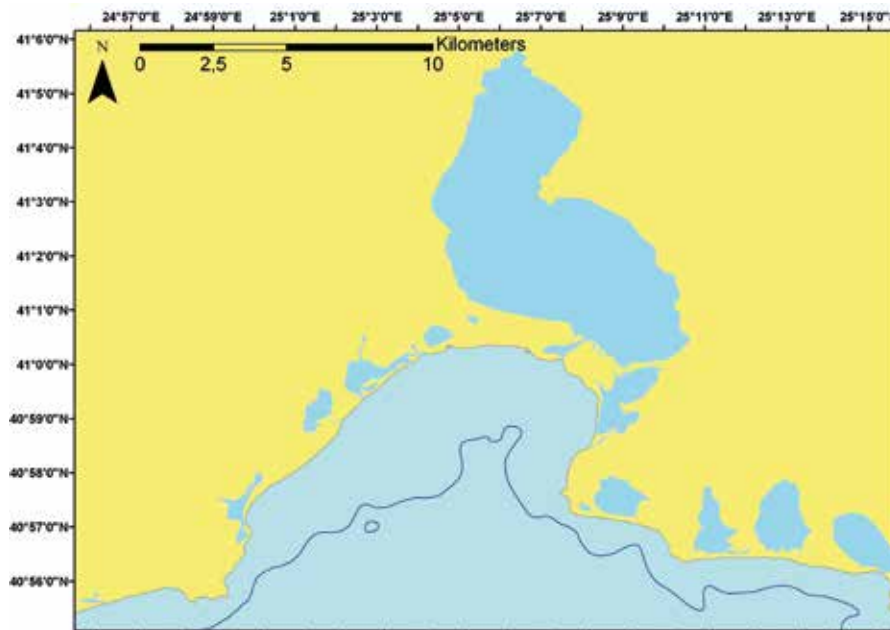


Fig. 4: The area of the Vistonis Lake and the lagoons along the coast when the sea level was at -10 m.



Fig. 5: The lagoon mound of Lafrouda, 800 m from the present day sea coast.

cio-hydro-isostatic models which propose general models of sea-level rise in the Aegean – ten m per millennium between 18th and 10th mill. calBC, slowing down after 10,000 BC and 6000 BC ending up by being four to six m lower than today²¹ – may only be used approximately if tectonic activity is not taken into account. The long coastline of Thrace, which includes a rather complex system of lakes and lagoons and the two deltas areas of the Nestos and

Evros rivers in the west and east respectively, has unfortunately not yet become the focus of any detailed geomorphological research. However, a fair amount of information comes from the general hydro-static model proposed for the northern Aegean and the Dardanelles²² and some local case studies from the nearby islands of Samothrace, Imvros and Lemnos²³, none of which indicate any evidence of significant tectonic activity from around 12,000 calBC onwards.

21 Perissoratis / Consopoliatis 2003, 145; Benjamin et al. 2011.

22 Lambeck et al. 2007, 797; Vacchi et al. 2014, 301.

23 Pavlopoulos et al. 2013, 80.

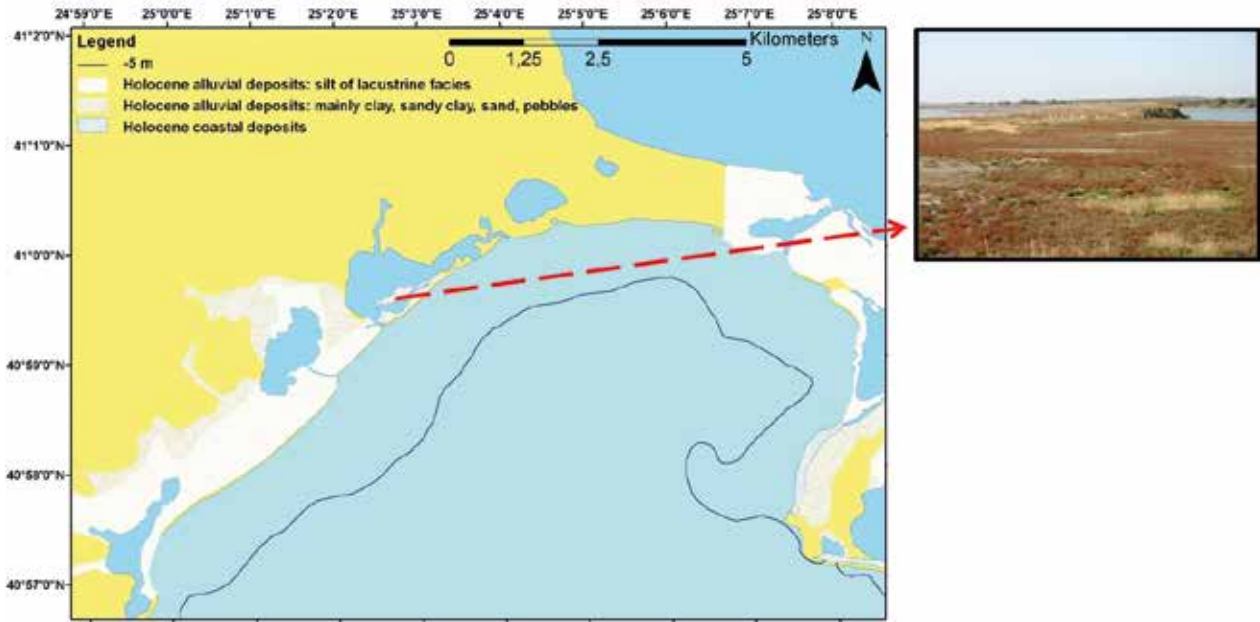


Fig. 6: The reconstruction of the relative sea level history at -5 m within the area of the research in front of the Lafrouda mound 5th mill. calBC (Late Neolithic) (from Vacchi et al. 2014, fig. 4).



Fig. 7: The reconstruction of the relative sea level history at -10 m within the area of the research in front of the Lafrouda mound 5th mill. calBC (Late Neolithic) (from Vacchi et al. 2014, fig. 4).

These *general fields of reference* were used here for tentatively reconstructing the Thracian coastline during three different periods when sea level was -20 m and -10 m lower than today (figs. 2–3). Considering therefore the available bathymetric records in the area it becomes evident that the morphology of the Thracian coast has changed considerably over the last 14,000 years with large terrestrial areas lost to the sea; this had particularly dramatic effects in places close to the Vistonis Lake where complex marine transgression processes were in force after the last ice age (fig. 4). Indeed, a trial underwater survey conducted a

few years ago (1997) using a sub-bottom profiling method within the limits of the present day lake – an apparently attractive well-watered and fertile valley 8000 years ago when the sea level was only -5 m lower – has shown the possible presence of prehistoric habitation (anthropogenic deposits) buried under the bottom of the lake²⁴; although this preliminary line of field inquiry was not followed up by more fieldwork, it strongly indicates that sea-level changes in the area from the beginning of the Holocene led to ma-

24 McLennen et al. 1997, 617; Efstratiou / Ammerman 2004, 183.



Fig. 8: The cleaning of a stratigraphic section at Lafrouda, next to the lagoon.

major coastline changes, which have affected archaeological visibility (general fields of reference) as well as habitation choices available to Mesolithic foragers and early Neolithic farmers alike (specific fields of reference).

The case of the 5th millennium calBC settlement of Lafrouda²⁵ – today a lagoon mound – is used here as a typical archaeological example, which reveals the complex story of its inhabitants' relation to the sea and the evolution of the palaeocoast over the last 8000 years (figs. 2; 5). This was clearly manifested in 2004 during fieldwork in the surrounds of the Vistonis Lake when studies on the subject of coastal reconstruction and archaeological visibility were carried out²⁶. The tentative environmental reconstruction of the lagoon area has shown that when the site was first occupied, the sea was at some distance with a large fertile coastal plain around it. This picture, however, changed some 3000 years ago when marine transgression reached the prehistoric mound and began to affect its southern side. This geomorphological process is well illustrated in figures 6 and 7 where the extent of the coastal plain in front of the Lafrouda mound changed in size as the sea level gradually became -5 m and -10 m

lower than today. It is evident that this type of *general fields of reference* should be accounted for as the first step when aspects of surface visibility during a reconnaissance work are addressed; but there is much more to it. The work of A. J. Ammerman and his team at the site, after the analysis of the data from a number of cores which were taken down to the natural bedrock, has convincingly shown, first, that life at the site began at around the middle of the 6th mill calBC (5500–5200 BC), that is much earlier than the ceramic evidence provided by the old excavation trench, which had indicated a relative date in the first half of 5th mill calBC²⁷ (figs. 8–9). Second, that although a continuous exploitation of marine resources by the community is recorded, there is a shift of emphasis from sea shell species in the lower part, to lagoon ones in the upper layers, which may indicate either a different physical environment at the site or changes in dietary preferences, or both²⁸. Lastly, and perhaps more interesting is the dating evidence coming from a core at the base of the mound, which indicates that traces of Neolithic habitation (5000 BC) may have survived below the marine transgression and present sea level²⁹.

25 Rhomiopoulou 1965, 461.

26 Ammerman et al. 2008, 139.

27 Ammerman et al. 2008, fig. 5.

28 Ammerman et al. 2008, 146.

29 Ammerman et al. 2008, 147.



Fig. 9: Some examples of the typical 5th mill. calBC pottery of Lafrouda (monochrome, painted, incised, graphite).

FINAL REMARKS

This unique blending of *general* and *specific fields of reference* when visibility issues are accounted for in coastal landscapes is important considering the devastating effect that sea level rise has in the recovery chances of the surface evidence that archaeologists are searching for³⁰. The potentials of this fluid and literally dynamic coastal-marine process for regional archaeological reconstructions are very impressive indeed and have been recently described in the case the Anatolian coast area³¹. However, what remains to be tested in practice and to be consequently introduced into survey methodology, is how the above fields of reference could be particularised depending on

each region and prehistoric period. The time has come for archaeology to refine its methods concerning coastal, social and cultural reconstructions of the past perhaps with an over-emphasis on what has been described in this paper – admittedly in a rather unpolished fashion – as specific fields of reference. The preliminary work of A. J. Ammerman and his team in coastal Thrace has clearly shown that coring analysis is able to move the discussion beyond geomorphological observations and approach the sphere of human decision making processes and choices, leaving open the possibility that the latter were affected to one degree or another by the prevailing environmental conditions.

30 Bailey 2013, 99.

31 Özdoğan 2011b, 219.

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