



SETTLEMENT PATTERNS IN PREHISTORIC IMATHIA AND PELLA WESTERN MACEDONIA, GREECE

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ABSTRACT

This paper presents the results of field surveys carried out over the past fifteen years in the area that belongs today to the modern prefectures of Pella and Imathia. This is, for the most part, a lowland plain that in the prehistoric period was located between mountain massifs and a closed bay (gulf of Loudias) into which debouched many rivers. During the Neolithic times the number of settlements increased steadily, peaking in the Late Neolithic, while the rate of habitation decreased dramatically in the Bronze Age, a phenomenon that may be associated with environmental and economic causes. The preferred type of site for prehistoric settlements was the tell, but other types (flat sites, caves) are also found. In the Neolithic period most settlements were fairly extensive but relatively low, while by contrast in the Bronze Age the habitational area decreases and the height increases. The reason for this lies in the organisation of the settlement's internal space. In the Neolithic period settlements occupying an extensive area were apparently sparsely populated, while excavations have revealed the presence, in the Late Bronze Age, of terraces delimiting the residential space, while at the same time the height of the tells increased. The presence of terraces in conjunction with an intense storage activity may indicate the presence of an elite that exercised control over and directed the life of the community.

KEYWORDS: prehistoric habitation, field survey, tells, flat sites, Late Bronze Age terraces, small-scale settlement network

INTRODUCTION

The modern prefectures (*nomoi*) of Pella and Imathia (2506 km² and 1701 km², respectively) encompass a well-defined geographical territory bounded to the west by

Mount Vermion (2052 m.), to the south by Mounts Pieria (1149 m.) and to the north by the massifs of Paiko (1650 m.) and Voras (2366 m.). On the east, the river Axios forms the natural border between Western and Cen-

tral Macedonia. Much of this region is covered by a broad lowland plain, one of the largest in Greece; the river Aliakmon that flows through the southern part of the plain provides a natural link to the district of Kozani further west. Known today as the Veroia-Giannitsa plain, this area was until 1937 largely covered by a lake that had formed in Late Antiquity. The sedimentary material carried by these rivers (Aliakmon, Loudias, Gallikos, Axios) gradually built up the coastal area of the Thermaikos Gulf into which they debouched. The massive embankments thus created over centuries prevented the river waters from reaching the sea. The lake and its surrounding marshlands were formed during the course of this lengthy process, sometime in the 5th century BC (Bintliff 1976; Sivignon 1983).

Environmental conditions in the area differed substantially between prehistoric times and today, as long-term changes in the coastline have heavily affected inland as well. The Thermaikos Gulf covered much of the present-day plain: Pella, when it was built, was in a coastal region (Bintliff 1976, 248 ff., Palasis 1972-73), and the neolithic settlement of Nea Nikomedeia was just a few kilometres (ca. 5-6 kms see Bintliff 1976, 247, 260, fig. 10) inland and there may well have been a natural channel connecting it to the sea (Bintliff 1976; Shackleton 1970) (Fig. 1). Prehistoric settlements in general were preferably situated near the coast, next to natural channels leading to the sea, or on islands in rivers or small bays (Kastanas offers an example of the latter: Schulz 1989). In prehistoric times this lowland region was a patchwork of fertile land, barren land and marshland. It was extensively forested (Athanasiadis & Gerasimidis 1986; 1987; Bintliff 1976; Bottema 1974, 142-47; esp. 146-47), with oak, beech, elm and hazelnut predominating on the mountain slopes, evergreens at higher altitudes and aquatic vegetation along the river valleys and in the marshlands around their mouths. Somewhere

between the 3rd and 2nd millennium, according to the palynologic evidences of the drained Lake Giannitsa and Lake Heimaditis, there was a displacement of the forest cover towards the foothills of the mountains, a change that was probably due to human factors (Bottema 1974; 1982; Gerasimidis 2000).

Our settlement data for the Pella-Imathia region come from non-intensive field surveys carried out over the past fifteen years (Hrysostomou An. 1994, Hrysostomopou Pav. 1990, Hrysostomou Pan. 1996, Kokkinidou 1989, 1990, 1995, Kokkinidou -Trantalidou 1991, Merousis in press, Merousis-Stefani 1994, 1999, in press, Stefani 2000, 2001). Before we proceed to present and discuss these data, we should mention a number of problems relating to material deposition and recovery. First, during these surveys, the area occupied by the prehistoric settlements was calculated on the basis of the dispersal of the archaeological material (mainly pottery and stone tools) at each site. Most of these sites are now intensely cultivated, however, with the result that archaeological material has been scattered over a greater extent than that originally occupied by the settlements. Therefore an on-definable margin of error is very likely in our estimates of prehistoric occupation areas. Second, long-term occupation on most sites (mainly in the Late Neolithic and Early Bronze Age) makes it practically impossible to calculate the extent of settlement in each successive phase of habitation. A third parameter that distorts the data is connected with the great geomorphologic changes that took place in the area in the period after 1930. The draining of the Giannitsa lake, the change in the course of rivers and streams, the redistribution of land to the landless and the introduction of mechanised methods of cultivation have altered the geomorphology of the region, with the result that a number of mounds have been levelled and others have lost much of their initial height (e.g. Angelohori see Stefani 1994, Nea Nikomedeia

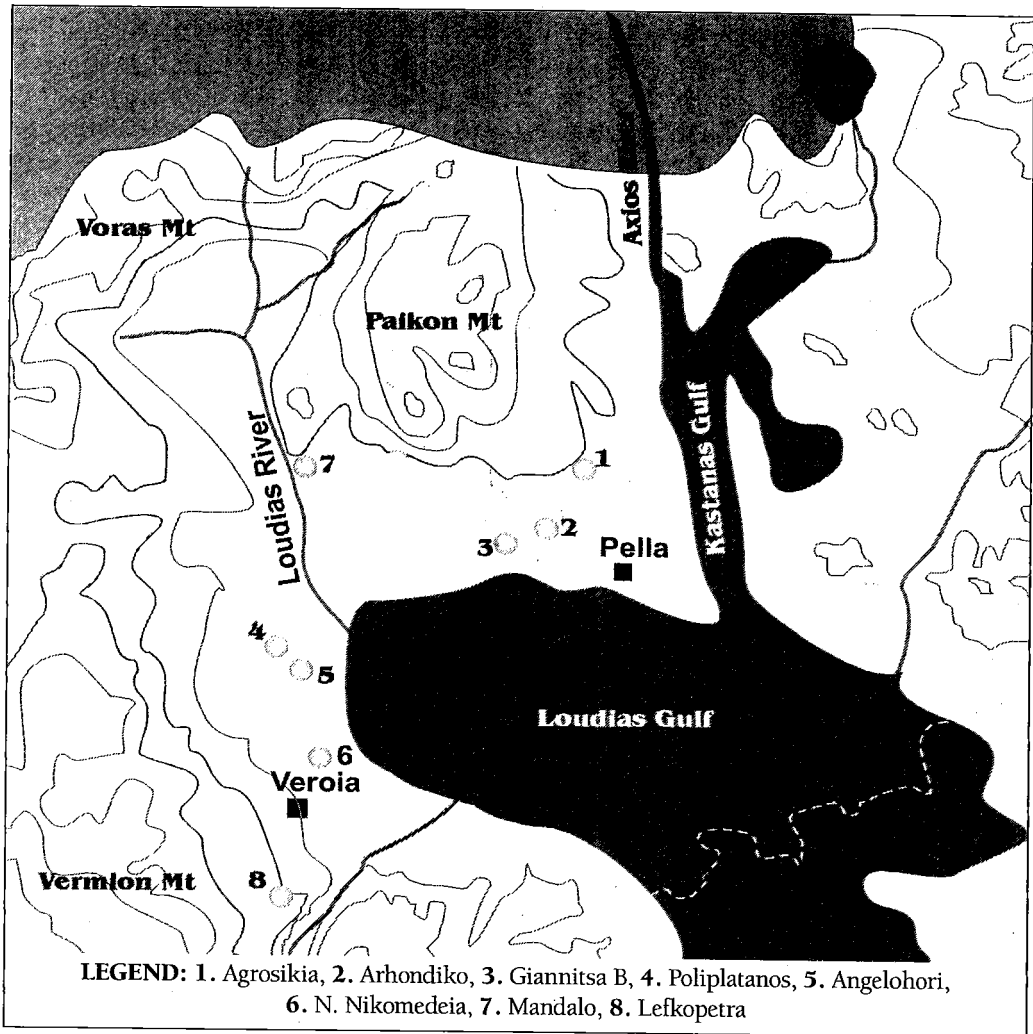


Fig. 1: Excavated sites in Imathia-Pella region

see Rodden 1962, 267-8). Nor is it unreasonable for us to assume that some sites, especially flat sites and those located in close proximity to a river or to the coastline, may have been covered by alluvial deposits, which in many places on the plain appear to be several metres thick (cf. Besios-Krahtopoulou 2001, 385, 392 - EN site in Pieria). For example, on the Late Bronze Age settlement at Angelohori recent excavation work has shown that the solid ground on which the first settlement was built

was approximately 1,5 m. below present ground level. Despite these weaknesses, it is significant that these field surveys revealed not only tells, which are easily identified by their height, but also flat sites, a type of prehistoric settlement that has only come to light in Macedonia in recent years (Andreou-Kotsakis 1994, Kotsakis 1999). A fourth problem concerns the dating of the occupation on the surveyed site. Macedonian prehistoric pottery, our principal dating tool, is still poorly

known, thus making it difficult to develop relative chronologies with any precision, or establish local absolute chronologies. Therefore most settlements can only be attributed to broad periods, for example the Late Neolithic which, we must note, spans about two thousand years (the Final Neolithic included) (on chronology for northern Greece see Andreou-Fotiadis-Kotsakis 1996, 538 table I; on Greek Neolithic chronology see Demoule-Perlès 1993, 366, fig. 2; Gallis 1996, 28-29). Indeed, even the thessalian-based tripartite division into *pre-Dimini*, *Dimini* and *Rachmani* (*post-Dimini/ Chalcolithic*) phases (Grammenos 1991, Aslanis 1992, 1993, in press), which has been advocated for the study of macedonian pottery, is of little use for survey material that includes much coarse and/or undecorated ceramics. This way of subphasing may not be useful for ceramic material outside the Thessalian plain, since it is based mainly on pottery style and not in precise stratigraphic evidence.

Despite these problems, the data that have been gathered to date are sufficient for a tentative outline of the dimensions and pattern of occupation of these settlements. We know that 13 settlements were inhabited in the Early Neolithic (hereafter EN) (6700-5800 BC) (for EN chronology see Perlès 2001, 109-110, table 6. 1, fig. 6. 2); and if our data for the Middle Neolithic (hereafter MN) (5800-5300 BC) is to date very limited (Kokkinidou 1995, 63; Merousis-Stefani 1994; 1999; for two recently excavated MN sites in Pieria Mountains and Almopia see Kottaridou 2000, 531-32 and Hrysostomou *et al.* A. 2001), this is probably the result of the research problems described above. We must of course note the stratigraphic hiatus between the Early and Late Neolithic horizons at Nea Nikomedeia, as well as the lack (as yet) of stratigraphic context for the MN pottery from Giannitsa B (Kokkinidou 1995, 63; Pyke 1996, 48; Rodden 1962, 271, 274). A total of 38 settlements were inhabited during the Late Neolithic

(hereafter LN) which includes the Final Neolithic, 20 in the Early Bronze Age (hereafter EBA) and only 9 in the Late Bronze Age (2nd mill. BC) (hereafter LBA) (Fig. 2). During the Early Iron Age most of the LBA sites were abandoned, and new settlements were founded on the edges of the plain (Hrysostomou 1994; Stefani in press a, b).

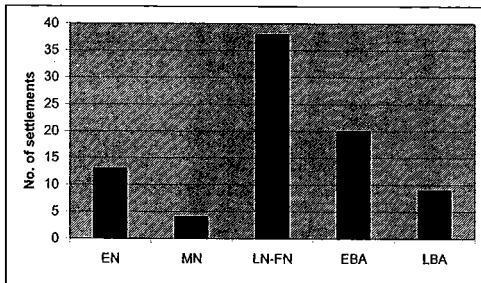


Fig. 2: Frequency of settlements by period

Comparisons between the above data and those from neighbouring areas suggest significant regional differences in population and settlement patterns. No EN settlements have been found in Central Macedonia, where settlement apparently began in the MN period (Andreou-Fotiadis-Kotsakis 1996, 585, Grammenos 1996). One interesting point is that while the region to the west of the Axios (Pella - Imathia) was fairly densely populated during the EN period, the region to the east of the river (Prefecture of Thessaloniki, Central Macedonia) was uninhabited during this period. On the other hand, the dense population of the Imathia-Pella area during the EN (*protoSeslko* phase in thessalian terms-Kokkinidou 1995, 62) is contemporary to the similarly marked human presence further west (Prefectures of Kozani and Grevena) (Fotiadis-Hondroyanni 1993, 19-20; Hondroyanni-Metoki 1999; Wilkie-Savina 1997) and south (Thessalian plain) (Perlès 2001). As far as we have been able to establish thus far, the number of settlements in Imathia and Pella increased steadily throughout the Neolithic pe-

riod, and fell sharply in the Bronze Age. In Central Macedonia, by contrast, the number of settlements seems to have increased steadily from the MN to the LBA, when it peaked with a total of 61 settlements (Grammenos-Kotsos-Besios 1997). The data obtained from intensive field surveys of the plain of Langada in the Prefecture of Thessaloniki, however, give a different picture from the overall image of Central Macedonia, showing that the number of settlements was the same in the Neolithic and the LBA, with a slump in the EBA (Andreou-Kotsakis 1999b, fig. 3. 7). In Thessaly, as in Pella-Imathia region, there is a marked decrease in the number of settlements from the Neolithic to the Bronze Age, but in the LBA the numbers rise again: this small increase is interpreted as a consequence of a more hierarchical organisation on all levels of existence (Halstead 1984, 6. 4. 2, 6. 4. 5-6, fig. 6. 7). It is, I think, clear from the above that each region had its own settlements patterns and particular local histories, due to a variety of different factors.

Turning now to the continuity of settlements in the various periods of prehistory in the present-day prefectures of Imathia and Pella, we find that all the EN settlements were still inhabited in the LN, while of the 38 LN settlements only 13 were still inhabited in the EBA. Of these, 5 were still inhabited in the LBA (2nd millennium BC). It seems, in other words, that several of the sites that had been selected for settlement by Stone Age man were abandoned in the Bronze Age (close to 65.8% in the EBA and 86.9% in the LBA). Ecological developments may not be solely responsible for the gradually increasing abandonment of Neolithic settlements during the Bronze Age and the consequent decrease in population and its probable relocation, in some cases on the edges of the plain (cf. Bottema 1982, 261, 274-78). Changing strategies of exploitation of natural resources must also have come into play (cf. Fotiadis 1986; 91-92, Kokkinidou

1990, 49-50). It may be that, during the 2nd millennium BC, certain changes in the economy were set in motion that resulted in a search for sites better adapted to the new conditions. This certainly appears to have been the case in the Early Iron Age, when settlements were founded in marginally productive zones, where the emphasis must have been on stock-raising and exploitation of the forests (Stefani in press a, b).

With regard to the form of these settlements, we observe that in the EN period settlements are low tells founded on the surrounding plain or on natural elevations (Fig. 3). It is in the LN that we find the widest variety: some settlements were founded on low hills (e.g. Trilofos in Imathia: Merousis-Stefani 1994, Agrosykia in Pella: Aslanis in press) or in caves (e.g. Rodohori: Petsas 1964; Merousis-Stefani 1994), while others are tells or flat sites (Merousis-Stefani 1999, in press). In the EBA tells are the commonest form (Merousis, in press), while in the LBA 8 out of the 9 sites are tells, often very high and with abrupt flanks (Merousis-Stefani 1999, in

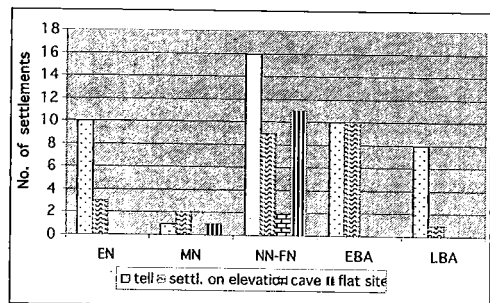


Fig. 3: Types of settlements

press). It is clear that in the Bronze Age the predominant type of settlement is that which develops vertically in the form of a tell.

With regard to the internal organisation of these communities, two of the most interesting parameters are their height and their extent (fig. 4). On average, Neolithic settlements

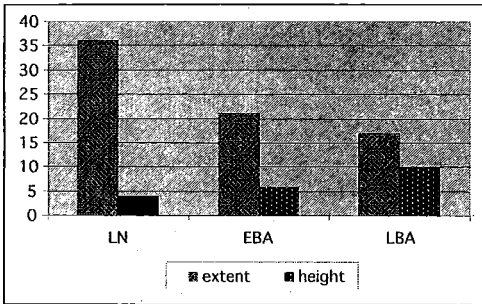


Fig. 4: Extent (in stremmata/ 10 stremmata=1ha.) and height (in metres) of settlements in Neolithic and Bronze Age

covered an area of about 3.6 ha, EBA settlements about 2.1 ha, and LBA just 1.7 ha. What we have here, in other words, is a trend to a gradually decreasing habitational area, which indeed is conversely proportional to the increase in height of these settlements. More specifically, we note that the LN tells were generally no more than 4 metres in height, while in the LBA the height of occupied sites rose (ca. 10m.), in some cases to 20 metres (for a similar phenomenon in Central Macedonia cf. Andreou-Kotsakis 1986). These observed differences in settlement height and extent between the Neolithic and the Bronze Age, suggest changes in modes of spatial demarcation as well as in the inner organisation of sites through time. Recent surveys and excavations in Central Macedonia has shown that during the LN there were open, unbuilt areas within the settlement, which increased their total area (Kostakis 1999; Pappa-Besios 1999). At the same time, the horizontal displacement of the buildings during the several phases of habitation is another factor explaining the considerable habitational area of the Neolithic settlements and the relatively low height of the tells they formed. The reduction in the habitational area of the settlements in the LBA may be related to the shrinking of the open spaces within the settlements themselves.

The most striking feature of the high LBA tells is without question the presence of retaining walls (terraces, “*andira*”). Built of various materials (clay, stone, potsherds and building debris), these terraces must have been intended for defence, but they also played a role in the organisation of the intracommunity space: houses were arranged in “steps”, starting from the top of each terrace and rising to the summit of the mound. In Angelohori the height of the terrace already exceeds 3.5 metres and its breadth 8 metres, while excavation work is continuing. (cf. Stefani 1994; 1997). At the same time, these massive retaining walls running around the periphery of the settlement must also have served as a symbolic demarcation of the space within and without the settlement proper. The construction of such large-scale works as these terraces may be taken as evidence for the presence of a person or persons with the authority to mobilise the requisite resources and labour. In addition to the terraces, the possible existence of a leading group is indicated by the increasing intensification of storage and the growing use of decorated pottery (matt-painted and incised) that has been attested in sites such as Angelohori (Merousis-Stefani 1997; cf. LBA Assiros: Andreou *et al.* 1996, 579-80, fn. 301, 304-305). It seems possible that in LBA Macedonia we are dealing with a small-scale regional settlement network with hierarchical structure in which a central site served as the hub, surrounded by scattered satellite settlements (cf. Andreou *et al.* 1996, 579-80, 585; Andreou-Kotsakis 1987; 1999; Merousis-Stefani in press). Proving this assumption will of course require more data from intensive field surveys and extensive excavation in the area under discussion. It should, however, be noted that, whatever the form of hierarchical organisation that may have existed in LBA Macedonia, it had nothing in common with the urban hierarchies that functioned in the same period in southern Greece (Peloponnese, Crete) or even eastern Thessaly.

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