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The end of the tells: the Iron Age ‘Neolithic’ in the central and northern Aegean

James Whitley

Introduction

In order to understand the beginning of a phenomenon it is sometimes useful also to consider its end. Tell settlements are indelibly associated with the Neolithic of the Balkans, and (perhaps inevitably) have been seen as ‘ancestral’ (since they do not build up naturally). Tells however were not just used in the Neolithic period in northern and central Greece – tells were in use throughout the Bronze Age and into the Iron Age. Indeed some were not finally abandoned until the second century BC. This paper will look at several tells in northern and central Greece to see if there is any rhyme or reason to their final abandonment – the ‘trinity’ of central Macedonian tells that last into the Iron Age (Assiros, Toumba Thessalonikis and Kastanas) and Lefkandi on the island of Euboea (Fig. 3.1). The paper will try to explore why tells were abandoned, and what this tells us about why they were so important in earlier times.

Every period or area covered by archaeological research has its icon; an image which, in the public mind, sums up the ‘essence’ of that period. For Classical Greece, that icon remains the Parthenon. For the Neolithic it rather depends where you are. For Britain, the Neolithic is usually summoned up with a picture of some megalithic monument – West Kennet long barrow or Avebury for Wessex, the Ring of Brodgar or Maes Howe for Orkney (to name the two regions which, again, are most ‘iconic’). For Anatolia and the Balkans, the icon is somewhat different. It is the tell site – or tell settlement – that best sums up what the Neolithic stands for in this region, whether it is Çatalhöyük on the Konya plain, or Karonovo in central Bulgaria, Vinča in Serbia, Sitagroi in the plain of Drama or Sesklo and Dimini in Thessaly. These are the ‘type sites’ that summon up whole cultures (in the Childean sense), and with which Alasdair has dealt so masterfully in his general survey of Neolithic Europe (Whittle 1996, 37–143).

And tells last, and do so mainly as a result of human agency. Of course, not all human-made mounds are tells: the midden of later Bronze Age Britain (such as the one at Potterne in Wiltshire), which sometimes reached a height (or depth) of 5m, seem to have built up not through occupation but through repeated, seasonal events associated with feasting (on this see Madgwick 2016; Madgwick and Mulville 2015; Waddington 2008). Such middens have gaps in their sequence. Similarly, scholars of the Neolithic Balkans (e.g. Bailey 1999; Chapman 2008) have emphasised that tells were not necessarily occupied continuously and that tells have to be understood in relation to other settlement types. It is not necessarily ‘natural’ to live above the detritus (and sometimes the remains) of previous generations. Tells are artificial constructions, the result of deliberate (if not always conscious) choice on the part of their inhabitants, especially since, in most of the regions of the Neolithic Balkans other forms of settlement existed (Whittle 1996, 37–143). Tells have as much to do with social memory (Chapman 2008) as with settlement, since ‘tells objectified land and time and the relationship between time, space and resources’ (Bailey 1999, 108). Whether Neolithic tells were either ancestral or elitist (or both) is a question I will defer to the end of my paper. Certainly, during their later phases as tells build up, and the space on the top becomes more confined (especially in smaller tells), the issue of who actually can live ‘on top’ must have become a real and pressing.
This may have been a concern that extended beyond the Neolithic. Tell settlements outlast that particular cultural configuration based on polished stone tools, hoe agriculture and limited plant and animal domestication. When the use of metals becomes widespread, tells are not necessarily abandoned. In south-east Bulgaria, the Ovcharitsa tell on the Maritza was occupied down into the Iron Age (Kuncheva-Ruseva 1991). In northern Greece (which is the principal subject of my paper) new tell sites seem to have been established during the Bronze Age and many of these last well into the Iron Age. When in the Iron Age were they abandoned? Here we run into difficulties. One is the problem of relating a chronological scheme in Classical archaeology based largely on stratigraphy and cross dating (for which see Whitley 2001, 60–74) to one in prehistory based on largely radiocarbon. A second is that there are major disagreements about the radiocarbon dates we do have. Whilst the radiocarbon dates from Kastanas were calibrated (Willkomm 1989) and seemed to fit the conventional chronology fairly well, the excavators of Assiros (Newton et al. 2005) have...
suggested that the key date for the Bronze Age/Iron Age transition (marked by the appearance of Protogeometric pottery) should be moved from 1050 to around 1100 BC. However, a re-examination of the radiocarbon dates from the key central Greek sites of Corinth, Lefkandi and Kalapodi, concentrating on short-lived samples from closed contexts and making use of Bayesian statistics (Toffolo et al. 2013), has if anything confirmed the traditional chronology for the Aegean Early Iron Age. For this reason I will be sticking with the established chronology.

A further challenge we face is actually dating the abandonment of a tell. As Hänsel (2009) has reminded us, we are rarely able to detect the final phase of occupation of these sites, as they have been subjected to extreme erosion. This problem is particularly acute in the case of the three tells close to Thessaloniki (Assiros, Toumba Thessalonikis and Kastanas) in present-day Greek Macedonia. But I want to begin with a site which is not normally thought of as a tell at all: Lefkandi Xeropolis.

The tell settlement of Lefkandi, Xeropolis

Lefkandi lies near the head of the southern gulf of Euboea, on the island of Euboea facing Boeotia. Its ancient name is not known, though it lies within the Lelantine plain between the cities of Chalkis and Eretria (Sackett et al. 1966, 60–1). Over the past forty years or so Lefkandi has become another ‘iconic’ site; iconic that is not of the Neolithic, but of the Greek Iron Age, and particularly of the (often fraught) relationship between Iron Age Archaeology and Homeric studies (see for example Antonaccio 1995), and of the kinds of social memory that both sites and artefacts embody (see Whitley 2013). The site itself is extensive, comprising several cemetery areas (Skoubris, Palia Perivolia and Toumba). It is the cemetery and large structure at Toumba that has most exercised Iron Age archaeologists such as myself. But Toumba is not the main settlement of Lefkandi: that is Xeropolis.

Lefkandi Xeropolis is a low hill that now sits right over the sea, about 6ha in extent. Excavation began there in the 1960s under the direction of Mervyn Popham and Hugh Sackett (Popham and Sackett 1968). Only a small area of this large settlement site was opened up (in the north-east corner of the settlement; Fig. 3.2) and only the latest Bronze Age (LHIIIC) to Iron Age (Submycenaean, Protogeometric, Sub-Protogeometric and Late Geometric) levels have been completely published (Evely 2006; Popham et al. 1980, 1–25 and plate 4). Some features of the latest Bronze Age are reminiscent of Neolithic tells – notably the practice of intramural burials of both adults and children. These latest levels none the less represent over 500 years of continuous settlement in the same place, with an accumulated depth of over 1m. During the excavations in the 1960s a sounding 8.5m deep was taken in the north-east part of the main trench, and this revealed a series of levels going back to the latest EHIII phase of the early Bronze Age (Popham and Sackett 1968, 6–11). These levels have yet to be published in full (though their results have been widely disseminated in, for example, Renfrew 2011 [1972], 103–5). What this deep sounding revealed is that Lefkandi Xeropolis is in fact a tell – a largely artificial mound where successive generations, in general, lived over the detritus of previous
occupants. In the view of the excavators and most scholars closely involved with its publication the site seems to have been occupied continuously from around 2100 BC through the entirety of the middle and late Bronze Age, down to the time of its final abandonment (Sherratt 2006, 304). Evidence for some periods however is rather scanty. While the early to middle Bronze Age (EHIII through to LH I) sequence is absolutely unbroken, evidence for the earlier part and middle parts of the late Bronze Age (Late Helladic II to LH III B) is patchy at best. There may then have been partial breaks in occupation, which only more extensive investigation will reveal.

Since 2004 there has been further excavation at Lefkandi, Xeropolis conducted by a team led by Irini Lemos of Oxford University (Lemos 2007; 2012). These excavations have been extensive and directed towards understanding the layout of the site in the Iron Age – they have been classic area excavations, which have not attempted to dig very much deeper into the tell itself. Geomorphological work on the peninsula to the north has however revealed that there were two bays, or lagoons, here in the Iron Age and earlier. This may be a factor in why the site came to be occupied in the first place.

When and why was it abandoned? As to the when, the latest Iron Age deposits (deposits with bichrome skyphoi) that have been published from the site seem to date to the final phase of the Euboean Late Geometric (Boardman and Price 1980). These are conventionally dated, on ceramic and other grounds (for discussion see Whitley 2001, 60–74) to just before 700 BC, ‘but possibly later’ (Boardman and Price 1980, 74). Recent excavations (Lemos 2012, 171) confirm that this Late Geometric occupation horizon is associated with a change from oval/apsidal structures to rectilinear ones. Along with these Late Geometric sherds were found some very early alphabetic graffiti (Jeffery 1980), which if anything seems to confirm this date. Even if we allow that some of the ‘Geometric’ (eighth century) pottery may be in fact ‘Sub-Geometric’ (early seventh century BC), and make some allowance for the latest levels having been eroded, we are still forced to conclude that this Late Geometric phase cannot have lasted beyond 650 BC. As to the ‘why’, explanations have largely focused on the formation of the two poleis on either side of Lefkandi that developed and expanded rapidly in the course of the eighth century BC – Chalkis to the north and west (Reber et al. 2004, 647–9 no. 365) and Eretria to the south and east (Reber et al. 2004, 651–5 no. 370). Ancient sources (Hdt. 5.99.1; Thuc 1.15.3) speak of an early war between these two cities, fought over the fertile Lelantine plain (Strabo 10.1.9; 10.1.12) in which the site lies. Other factors may have been the silting of the two bays mentioned above, at a time when maritime trade (and ‘colonisation’) were becoming more important. And the rapid growth of the neighbouring cities of Eretria (Mazarakis-Ainian 1987) and Chalkis must have been drawn from somewhere.

But even if we allow that one or more of these factors might have led to the abandonment of the site they do not seem fully to explain why it was never to be extensively and permanently re-occupied. Or at least, a very small part of it was re-occupied for a very brief period in the sixth century BC (Boardman and Price 1980, 78). Such re-occupation, or re-use, cannot have lasted for more than one generation before the site was finally and definitively abandoned. Being caught in the crossfire between two rivals may occasion flight, but why (when peace returns) not come back to your ancestral home? For some reason tell sites like these (and there are others; see Sackett et al. 1966) were not suited to the changed conditions of a more connected Mediterranean of the late eighth and seventh centuries BC. And Lefkandi seems not only to have been completely abandoned and then only briefly re-occupied; more importantly it was also not remembered. Unlike Amarynthos (Reber et al. 2004, 644), another Bronze Age tell site (Krapf 2011) close to which the sanctuary of Artemis Amarousia was founded we do not know the ancient name of Lefkandi, Xeropolis. Unlike other (non-tell) settlements abandoned in the eighth and seventh centuries BC, its presence was not remembered through a later shrine being erected (as in the case of Emborio on Chios [Boardman 1967], Zagora on Andros [Cambitoglou et al. 1971]). Circa 650 BC, or perhaps (if we allow for the brief re-occupation) 500 BC, seems to mark the final end of the tell as a viable community form in central Greece.

The Iron Age tells of Greek Macedonia

That tells persisted during both the Bronze and Iron Ages in the area of Greek Macedonia was a fact established by W. A. Heurtley in the years after the First World War. Excavations of sites like Vardaroftsa (modern Axiochori; Heurtley and Hutchinson 1926; Cuttle 1927) established that the central tell site (the toumba) was often surrounded by a more extensive, and generally later settlement on a lower elevation (Fig. 3.3). Such trapezes (literally ‘tables’, rather than banks) were also slightly elevated above the ground surface. The relationship between toumba and trapeza is complex, but in general trapezes outlast toumbes. Heurtley also noted that some of these sites last for a very long time. Some he investigated, like Saratsé [modern Perivolaki] (Fig. 3.4), to be seen just to the north of the Egnatia Odos, were established in the Bronze Age and lasted only into the Iron Age, as indicated by the numerous Protogeometric sherds (Heurtley and Ralegh Radford 1930, 141, fig. 28). But ‘not a single Greek sherd’ (Heurtley and Ralegh Radford 1930, 149) was found. Others, such as Vardaroftsa, however seem to have been in use into Hellenistic times (Cuttle 1927, 229–32; Heurtley and Hutchinson 1926, 31).
Figure 3.3. Plan of Vardarofsa (modern Axiochori), showing the relationship between the central tell (toumba) and its surrounding tables (trapezes). After Heurtley and Hutchinson (1926, 7 fig. 6).
3. The end of the tells: the Iron Age ‘Neolithic’ in the central and northern Aegean

Of the three major sites which have been investigated scientifically from the 1970s onwards (Assiros, Toumba Thessalonikis and Kastanas) only Kastanas has been fully published. The excavators (Alix Hochstetter and Bernard Hänsel) found the similarity between this site and perhaps the most famous Toumba of all (Troy) to be irresistible. The site is numbered both in levels (from Schicht 1, the latest, to Schicht 19, the earliest fully excavated level datable to around 1600 BC, the end of the middle Bronze Age) and in successive ‘settlement’ levels, or ‘cities’ like Troy, the latest being Kastanas IX. I will be concerned simply with the later Iron Age levels, Schichten 8–1 (Kastanas VII, VIII and IX).

Kastanas VII (Schichten 8–5) seems to have been a substantial settlement with surprisingly large houses, built of mud-brick on stone foundations. In Schichten 8–6 (Hänsel 1989, 232–90) the rectangular houses had a central courtyard, which superficially resemble those much more famous Classical houses at Olynthos. Space seems to have been assigned for particular purposes, according to the excavators. This period is characterised by a rich material culture of a variety of bone and stone tools (Hochstetter 1987) and hand-made pottery, very much in a Balkan rather than an Aegean tradition (Hochstetter 1984, 242–57). Though rectangular houses persist in Schichten 5 and 4 (Hänsel 1989, 290–315) there is a general diminution in the number of finds as we enter what in the rest of Greece would be called the ‘Archaic’ period (Hochstetter 1984, 261–71; 1989). As the material culture becomes less rich, so the architectural remains become sparser (Hänsel 1989, 304–24). One room structures seem to replace the five-room central courtyard houses of the Iron Age proper in Kastanas VIII.

The exact date of the end of Kastanas VIII (Schicht 2) presents a problem. The site was still clearly inhabited at this time, but the chronology is uncertain. While there are radiocarbon dates for Schichten 8 and 6 (Willkomm 1989, table 3, 403) which date these levels firmly to the early Iron Age there are none for later levels and no imports in the levels of Kastanas VIII (Schichten 4–2) which would provide some kind of cross date. The site seems then to have been abandoned in the years after 600 BC.

But not finally abandoned, for we have Kastanas IX (Schicht 1). Here there are some architectural remains (Hänse 1989, 325–7) and some pottery (Hochstetter 1984, 271–3) – still hand-made. The architectural remains now comprise one very definite roof-tile (in the Aegean, specifically Laconian, tradition) and some small finds: a terracotta (Hochstetter 1987, 92–4 plate 24.4) of clearly Hellenistic type, and two coins (Franke 1987). The coins come from two of the most important cities of Hellenistic Macedon, Thessalonike and Amphipolis, and date to the very last period when Macedon was political entity independent of Rome (187–68 BC), before the forces of the Kingdom of Macedon were decisively defeated at Pydna.

The Bronze to Iron Age tell of Assiros, Toumba in the Langadas basin (not far from Saratsé [modern Perivolaki]) has since 1975 been investigated by a British team led by Ken Wardle. The mound itself is not large (c. 110 × 70m – about 1ha) but nonetheless represents several centuries (and 14m) of occupation (Wardle 1980, 231–4). A total of nine phases were identified, the earliest (phase 9) dating to the late Bronze Age, the latest (phase 1) to the eighth century BC (Wardle 1980; 1987; 1988; 1989). The Bronze Age phases (9–5) are characterised by dense settlement in the form of rectilinear structures. This pattern continues throughout the Iron Age (phases 4–2, dating from 1050 BC onwards). The major difference appears to be that Iron Age structures are slightly larger, with larger rooms (if not larger domestic units).

As in Kastanas and Lefkandi, the ‘abandonment’ of the site is staggered. There seems to have been a destruction horizon at the end of phase 2, followed by a partial reconstruction (phase 1.5; Wardle 1989, 449–53). The site seems then to have been abandoned for at least a century, during which a pithos burial was placed near the summit. The final, phase 1 occupation horizon differed markedly from the earlier early Iron Age phases. This comprised two large (12 × 6m) apsidal structures (Wardle 1987,
315–8; 1988, 376; 1989, 448–9) which shared a common wall, and appear to have been re-built in part. The change in architecture seems to indicate a change in function, which may (Andreou 2015) have had something to do with feasting – certainly it does not resemble the earlier patterns of domestic occupation. In any case, by 650 BC the tell itself at the very latest (Mazarakis Ainian 1997, 43) was finally abandoned. There is no evidence for later re-use or re-occupation.

The third of our Macedonian Iron Age tell sites, Toumba Thessalonikis, sticks out rather incongruously from one of the suburbs of modern Thessaloniki. The tell itself has been investigated by a team from the university of that city since 1984/1991, initially under the direction of the late professor Houmouziadis but more recently by Stelios Andreou (Andreou and Kotsakis 1994; 1997). Like Vardarofsa, the tell is associated with a surrounding ‘table’ or trapeza (Souveref 2009). Six occupation phases have been identified: phases 6 and 5 date to the earlier part of the late Bronze Age. Phase 4 gives us perhaps the best picture of a late Bronze Age (1300–1200 BC) Macedonian settlement (Andreou and Eukleidou 2011). The arrangements for storage of grain in pithoi (large ceramic storage vessels) are very similar to those from Assiros (Margomenou et al. 2007). Phase 3 (c. 1200–1100 BC) is associated with wheel-made Late Helladic IIIC pottery. Only phases 2 and 1 belong to the Iron Age proper. Phase 2 (divided into 2B and 2A) clearly lasts some time, down into the tenth century BC (Andreou and Kotsakis 1997; Andreou and Eukleidou 2011). Though Iron Age, the overall plan of the settlement and both the size and shape of the houses (largely small, close-packed rooms, mainly rectilinear) does not differ much from traditions of habitation established in the Bronze Age.

The final phase (phase 1) however presents problems. Though pottery of ninth to fourth century date has been found, the principal architectural remains (in trenches 283, 114 and 113) comprise a large (80–90m²) four-roomed rectilinear structure constructed probably around 500 BC (Andreou and Eukleidou 2010, 256; Andreou and Kotsakis 1994, 211; 1997). This seems to have been overlain by a deposit comprising pottery of the ninth to fourth centuries BC, pyramidal loom-weights and animal bones. It is not clear what the function of this building, the only identifiable structure in the latest phase. It may have been a house; it may have been associated with feasting; or it may have had a range of functions (commensal and domestic). This raises the question of where the population of Toumba lived between 900 and 400 BC. The answer may be ‘in the table’, which appears to have occupation levels dating from the ninth to the fourth centuries (Souveref 2009). By the fourth century BC the houses in the ‘table’ closely resembled the kind of Greek-style courtyard houses we find at Olynthos. The structure just below the summit of Toumba however does not resemble any of these houses, nor much of the houses on the Toumba itself which came before it. It is then a rather unusual building, and suggests that the final phase of use of the site did not correspond to the final phase of occupation of the site as a settlement and so as a community.

Communities of some kind continued to flourish of course after 900 BC. The ‘tables’ (trapezes, elevated settlement platforms) of Nea Anchialos (Tiverios 2009b) and Karabournaki (Tiverios 2009a) and the table around Toumba Thessalonikis itself lasted into the fourth century BC. During the Archaic period these settlements were importing large quantities of painted pottery from all parts of the Aegean. Only the foundation of Thessaloniki itself in early Hellenistic times brought them to an end.

**Discussion and conclusions**

What general inferences can we draw from this? First, there is no clear horizon for the abandonment of tells. To be sure, Lefkandi and Assiros (and probably Saratsé) were abandoned between 750–650 BC – but in the case of Lefkandi this was not the final abandonment. Some of the Macedonian tells (Vardarofsa, Kastanas) lasted down into Hellenistic times – indeed as long as the independent kingdom of Macedon. And none of our tells was simply abandoned. What is striking however about all four of our principal examples (Lefkandi, Assiros, Toumba Thessalonikis and Kastanas) the abandonment of each of our tell settlement was staggered: there is a phase of final occupation of the site as a settlement, followed by a phase of abandonment of at least 100 years, followed by a brief phase of re-use. In all four cases the character of the final use of the site was markedly different from that of the straightforward settlement that had preceded it. All of these sites were abandoned as settlements before they were abandoned as sites and ‘lieux de memoires’.

Once they were finally abandoned these settlements were not remembered. Their final phases of use, with the doubtful exception of Assiros, cannot be interpreted as a phase of ‘elite residence’. And if these tells maintained ‘ancestral associations’ because of their long period of occupation, and because the dead were buried within the accumulated human detritus of the tell itself (as was certainly the case a Lefkandi; Evely 2006; Sherratt 2006) then it is striking with how little regard they were felt by subsequent generations. Even their names appear to have been forgotten.

Why were tells then finally abandoned? A common sense answer might be that, as the tell rose in height, so the space at the top shrunk, such that it could no longer provide a viable platform for human occupation. But this also begs a number of questions. For one thing, this depends on the size of the tell. There was still plenty of space (around 6ha) at the top of Lefkandi Xeropolis at the time of its abandonment in the sixth century BC. For another, a tell which was thought to be ‘too small’ (as Assiros or Kastanas might have been) could be levelled. This is what happened to perhaps the
most important Neolithic tell site in the Aegean – Knossos – at the end of the early Bronze Age. Here the Neolithic to early Bronze age tell was levelled to create a platform for a much larger structure (the so-called palace) around 1900 BC (MacGillivray 1994, 46–8). This levelling of course implies a change of use – from settlement to something either more ritual or more political (or both). As we have seen, the final phases of the occupation of all four of our examples were different in character from what had gone before – they do not appear to have been settlements, as such. In two cases (Assiros and Toumba Thessalonikis) one could argue that the final phases were perhaps involved the ritualised consumption of animals – commensality.

Here come to the nub of the problem. In the southern Aegean, and especially in Attica, ritualised ‘feasting with the gods’ was a feature of Iron Age sites from around 950 BC onwards (Van den Eijnde 2010). Elsewhere in the Aegean houses similar to those that had been found on the summit of Assiros had been used for ‘ritual’ purposes, according to Alexander Mazarakis Ainian (1997). The much shorter-lived non-tell settlements at Emborio on Chios (Boardman 1967) and Zagora on Andros (Cambitoglou et al. 1971) were marked by small sanctuaries (temples) after their abandonment, remaining ‘lieux de mémoire’ in the lives of the communities that had moved elsewhere. The summits of toumbes, one might have thought, would have made ideal places for ‘feasting with the gods’, other kinds of ritual associated with commensality or as some kind of repository for social memory. But they were never used for any of these purposes. And, for the longest-lasting tells (Kastanas and Vardarofsa) the latest uses seem to have been quite mundane.

If sanctuaries are associated with feasting, and if many of the activities on the tells from the late Bronze Age through to the Iron Age were too associated with some kind of communal commensality (Andreou 2012; 2015) then why did not these tells become sanctuaries or temples? This was the social and cultural logic that was working itself out in the southern Aegean, and its absence in Greek Macedonia is quite striking. Explaining this absence is as much an historical as an archaeological question, and if we could answer it might go a long way to explaining why it was that Macedon took a radically different path from the southern Aegean during the Archaic and Classical periods. Here the polis did not rise, and one might have thought that this would have provoked some wider, comparative debate. No such debate has arisen: discussion about the emergence of the kingdom of Macedon by ancient historians is still dominated by discussion of the Argead dynasty. In any kind of archaeological history one would have thought then that the abandonment of these tell sites would have provoked some kind of debate. But no: they are not mentioned by Coldstream (2003), since they lack that key feature of emerging Hellenism, Geometric pottery; they receive passing only passing mention the latest archaeological-cum-historical survey of the region (Archibald 2009, 306); and the ‘Companion to Ancient Macedonia’ (Roisman and Worthington 2010) does not mention them at all. Archaeological history still has a long way to go to make its case to ancient historians still in thrall to the master narratives of their written sources.

But what of their significance for scholars of the Neolithic? Recent work (e.g. Tasić et al. 2015) has drawn attention to the sometimes fiery and violent end to human settlement at Neolithic tells such as Vinča-Belo Brdo, where we seem to have two phases of widespread fire destruction within a period of no more than 20 years. But if this Neolithic tell settlement went out with a bang, our Iron Age examples seem to have gone with a whimper. They simply faded away, and gradually and imperceptibly faded out of social memory. We cannot as yet say why these sites were abandoned (instead of being modified, as Knossos was). But it is sobering to think that, once abandoned, they were completely forgotten, and that longevity of occupation is no guide to longevity of social and cultural memory in the minds of the descendants of the children, women and men who had lived in these settlements for generation upon generation, as many as the seasons of the leaves.

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Notes
1 I owe this reference to Kathy Baneva.
2 There have, from time to time, been suggestions that Xeropolis is not the only Iron Age settlement site in the area of Lefkandi, or not the only one associated with the various cemeteries that have been explored. But no-one has yet found this other settlement.
3 Though it is only very recently that the term ‘tell’ has been applied to the site, as in Lemos 2012.
4 The area around the mound (tell) of Paleoklissies at Amarynthos (Sackett et al. 1966, 64–6) has been investigated thoroughly by the Swiss archaeological school in recent years (Ackermann et al. 2013; Ducrey et al. 2007; Knoepfler et al. 2014). While the extent of the Bronze Age occupation has been established, the exact location of the sanctuary
of Artemis has not. It is not clear if the small quantity of Geometric and seventh century finds relate to the final occupation of the mound itself or to the sanctuary nearby.
5 Mervyn Popham (Popham et al. 1980, 423–7) suggested it might be ‘Lelanton’, after the ‘τὸ Δή λαντον καλύμμενον πεδίον’ [the plain called Lelanton] mentioned in Strabo (10.1.9). But this is an inference, and a settlement called Lelanton is not mentioned in any ancient source.
6 For the sequence see Hochstetter 1987, 96–101. The earliest level (Willkomm 1989, 402) seems to be Schicht 24, but apparently Schichten 24–20 (Kastanas I and II) were only investigated through sondages. These levels appear to date to the middle Bronze Age.

References

Andreu, S. 2012. Identities in flux: the shifting attitudes towards habitation, the dead and the body in Macedonia, Greece between the 11th and the 8th centuries BC. Paper delivered at the first Theory in Greek Archaeology Conference, Ann Arbor, Michigan.
3. The end of the tells: the Iron Age ‘Neolithic’ in the central and northern Aegean

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