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PHENOMENA OF NUCLEATION: ASSESSING THE TRANSITION FROM THE NEOLITHIC TO THE EARLY BRONZE AGE IN SOUTHERN SALAMIS

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ABSTRACT

The paper draws on long-lasting random survey work by the University of Ioannina in southern Salamis. Its aim is to highlight the trajectory of the valley of Kanakia, in the southwest part of the island, during the transition from the Neolithic to the Early Bronze Age. The material record at hand, originating from surface collections and limited trial trenches from seven sites at the valley of Kanakia, suggests a Late/Final Neolithic dispersed mode of habitation followed by a concentrated one by the Early Helladic II period (mid 3rd millennium B.C.). This attested settlement nucleation by the Early Helladic II period may bespeak for a process of social transformation at the coastal site of the Kanakia acropolis, which emerged as the urban centre of Salamis in the Late Mycenaean period (13th cent. B.C.).

KEYWORDS: Salamis, Kanakia valley, Late/Final Neolithic, Early Bronze Age, settlement pattern

1. INTRODUCTION

Shifts in settlement arrangement over an area is a recurring aspect of Aegean Prehistory and beyond. The successive random survey and excavation work of the University of Ioannina in southern Salamis over the past 25 years has brought to light a dense network of sites of various chronological phases. This paper focuses on the western part of southern Salamis, namely on the wider area of Kanakia, where work has been carried out since 2000, with an emphasis on the seaward acropolis. Southern Salamis is dominated by an extended mountain mass under the ancient name *Akamas*, in which plateaus, ravines and small valleys are formed.

In an effort to understand the diachronic role of the valley of Kanakia in the historical and cultural trajectory of Salamis, annual random survey of the neighbouring area of the acropolis has revealed a number of sites of prehistoric and historic date. The oldest as yet evidence of anthropogenic remains on the island date to the Late Neolithic period, though there are indications of a Mesolithic presence on the basis of preliminary dating of the lithics found by the pioneer speleologist and prehistorian Adalbert Markovits (1897-1941) on top of Pyrgos/Pyrgari (Fourithi) on the north border of the valley of Kanakia (Fig. 3); still the possible Mesolithic stage on Salamis has to be further investigated for its verification (Lolos, Marabea, 2019, 66).

Among the Neolithic sites known up to present on the island (area of 96 km^2), the small valley of Kanakia, an area of ca. 682 ha (or 6.8 km^2), including the bordering heights, presents a favourable area for dense Neolithic occupation. The University of Ioannina survey has so far identified seven locations with a Neolithic presence in the valley of Kanakia (Figs. 1, 3).

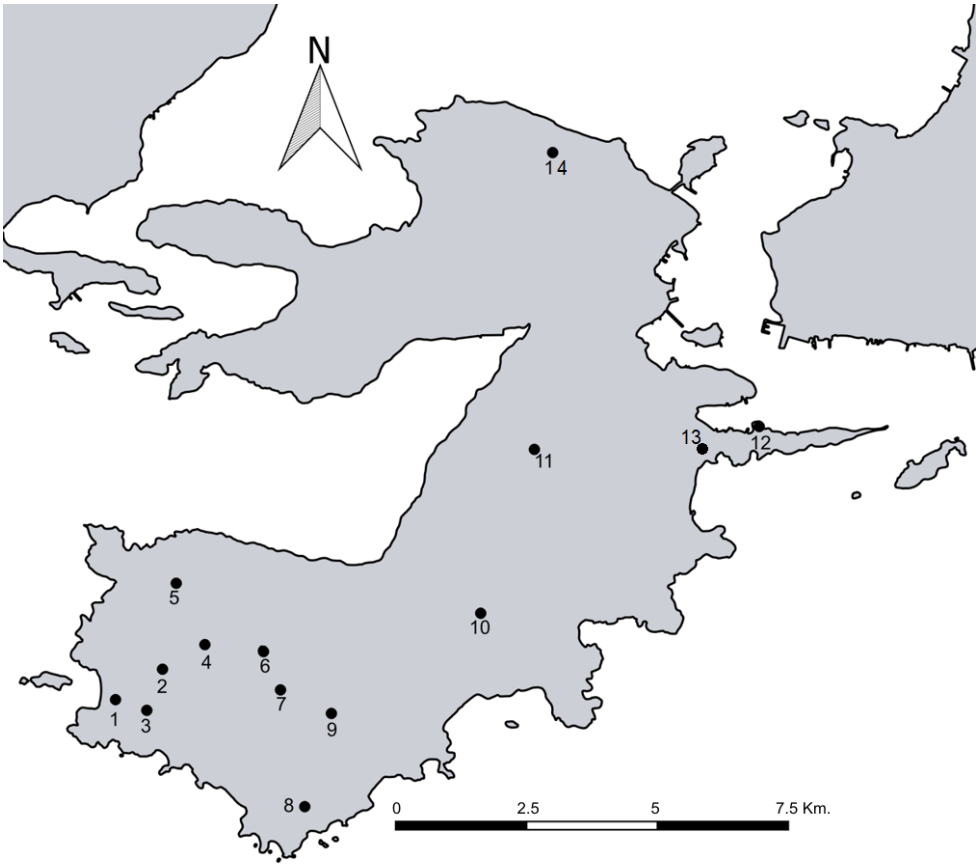


Figure 1. Map of Salamis, with Neolithic sites (as of 2020). 1. Kanakia Acropolis, 2. Stefilouko, 3. Stanes, 4. Kanakia Cave, 5. Karela, 6. Ag. Nikolaos, 7. Ippikos Omilos, 8. Cave of Euripides, 9. Citadel A Ginani, 10. Ag. Marina, 11. Doroto, 12. Magoula Kynosoura, 13. spring on Kynosoura, 14. Batsi.

In the rest and bigger part of the island, the Neolithic presence is variously attested at seven more sites (Fig. 1): the Cave of Euripides, excavated by the University of Ioannina (Lolos, 2000; Mari, 2007, 76-78); Citadel A, Ginani, surveyed and briefly excavated by the University of Ioannina (Mari, 2007, 78-79); Ag. Marina at Kaki Vigla (pers. observation and Marabea, 2010, 33); Doroto in central Salamis, identified by the University of Ioannina (Mari, 2007, 81-82); Magoula on the promontory of Kynosoura, identified by Y. Lolos in 1975; most possibly a natural spring with some pottery around it on the same promontory (pers. observation); and Batsi, on the south slopes of the mountain below a cave, in the northern part of the

island (Lolos, Marabea, 2019, 71-73). All of them are ascribed to the Late/Final Neolithic timeframe, on the basis of pottery typology, not on stratigraphic grounds. I wish to note that our long-term experience with the Salaminian field and the pottery fabrics on the island is a valuable advantage in cases of worn surface pottery fragments.

This pattern, i.e. the uneven distribution of Neolithic sites over the island, is probably owed to the intensity of survey work by the University of Ioannina in southern Salamis, compared to other areas of the island, and especially the northern part, which remains mostly unknown. On the other hand, the conditions in the valley, i.e. an area secluded, and thus protected, by strong winds from the north, east and south, and with an opening towards west, arable land, animal husbandry options, water springs, easy access to sea and the routes along the western part of the Saronic Gulf, the northeast Peloponnese and the Megarid, obviously favoured a Neolithic presence there.

This Neolithic picture of the valley of Kanakia contrasts to the one we have for the Early Bronze Age (and even for the Middle Bronze Age). The above mentioned seven Neolithic sites are reduced to one, or perhaps two, in the Early Helladic II (Fig. 24). It is an interesting case, which may represent the manifestation of a long process of social transformation, not necessarily a linear one, which continues after the Early Bronze Age and culminates later, in the Late Mycenaean period, at the acropolis of Kanakia.

Studies in other areas of the Aegean have revealed patterns of both aggregation and dispersal in these transformative phases at the end of the Neolithic and the beginning of the Early Bronze Age, owing to the specific trajectory of each region (e.g. Andreou et al., 1996, 554; Demoule and Perlès, 1993, 389, 399-400; Halstead, 2017; Kotsakis, 2018; Runnels and van Andel, 1987, 311, 325; Tomkins, 2010; Tsirtsoni, 2010; Weiberg and Finné, 2013, 3-5; Weiberg et al., 2019, 746-747, 753, 755). Further, such surveys harmonize with the at-risk cultural heritage prevention and shed light to the human occupation of the island within the wider mainland and Aegean context (Sideris et al., 2017; Liritzis 2010). Still, the overall picture is far from complete and the aim of this paper is to contribute toward a better understanding of the role of Salamis in this era. In all cases the collection of surface finds is always selective. Very often during revisits to the sites no further collection is performed, so that they are not denuded of surface finds. Also, further details for the sites themselves, such as their size, find distributions and fabric descriptions, are beyond the scope of this paper.

2. THE NEOLITHIC CONTEXT

Salamis only became an island in the Early Bronze Age, when the last strip of land connecting Salamis and the Megarid (in the present-day Pharenomeni-Nea Peramos channel on the northwest) subsided. Another strip on the east (present-day Paloukia-Perama channel) was cut off earlier, in the Final Neolithic/beginning of the Early Bronze Age (Mariolakos et al., 2001; Mariolakos and Theocharis, 2002). So, Salamis in pre-Early Bronze Age times should be viewed as part of the Attic peninsula, not an island itself. In 7000 B.P. (during the Late Neolithic), the sea level is estimated to have been – 10 m. (Fig. 2), whereas in 5000-4000 B.P. (Early Bronze Age) it is estimated to have been – 4.5-5 m. in the central Aegean (Poulos et al., 2009, 14) (For the absolute chronology in years B.C. and B.P. see Weiberg et al., 2019, Table 1).

The environment of Salamis in Prehistory including the Neolithic period is indirectly inferred from later historical and other sources owing to lack of pollen and other analyses. The name *Pityoussa* (i.e. full with pine-trees), ascribed to Salamis by the geographer Strabo (*Geographica.* IX.1.9) and valid until today chiefly for the south half of the island, may also stand for the period under discussion here. Concerning the climate, a rather long dry phase has been detected for the Balkan peninsula after ca. 8000 to 3500 B.P., i.e. from the Middle Neolithic to the beginning of the Late Helladic period (Gauthier, 2016; Weiberg et al., 2019, 754).

The evidence at hand for the Neolithic occupation/activities in the valley of Kanakia derives from survey and surface collections of worn pot fragments and lithics and also from limited trial trenches. Therefore, at the present stage of research the exact character of the sites (i.e. temporary or not) cannot be confidently determined in each case. The Neolithic horizon at the valley of Kanakia may be presently set within the Late/Final Neolithic period. Characteristics that point to this framework include the domination of coarse pottery, plain or with monochrome burnished slips (occasionally heavy ones) and sporadically with plastic decoration, over finer classes. Late and Final Neolithic classes, such as bichrome painted, pattern-burnished and crusted ware, well attested in a ritual environment in the Cave of Euripides (Mari, 2007, 77-78), are still not in evidence. This should be a result of a combination of factors: 1. a bias of the field (caves versus open-air sites; excavation versus survey); 2. the lack of long/hot firing during the manufacturing process resulting in friable vessels, thus rendering them rather "invisible" on the surface; 3. the type of each site; and/or 4. the possibility of employment of distinctive pots only in special occasions (Vitelli, 1999, 64,

100-101; Attema et al., 2020, 8-9). Needless to say, lack of pre-Late Neolithic evidence makes it impossible to set the Later Neolithic period of Salamis against earlier ones and to make inferences about nucleation or dispersal trends (for pottery characteristics of these periods see e.g. Alram-Stern, 2014, 313-315; Mee, 2007, 7-8; Perlés, Vitelli, 1999, 98-99; Phelps, 2004, 67-120).

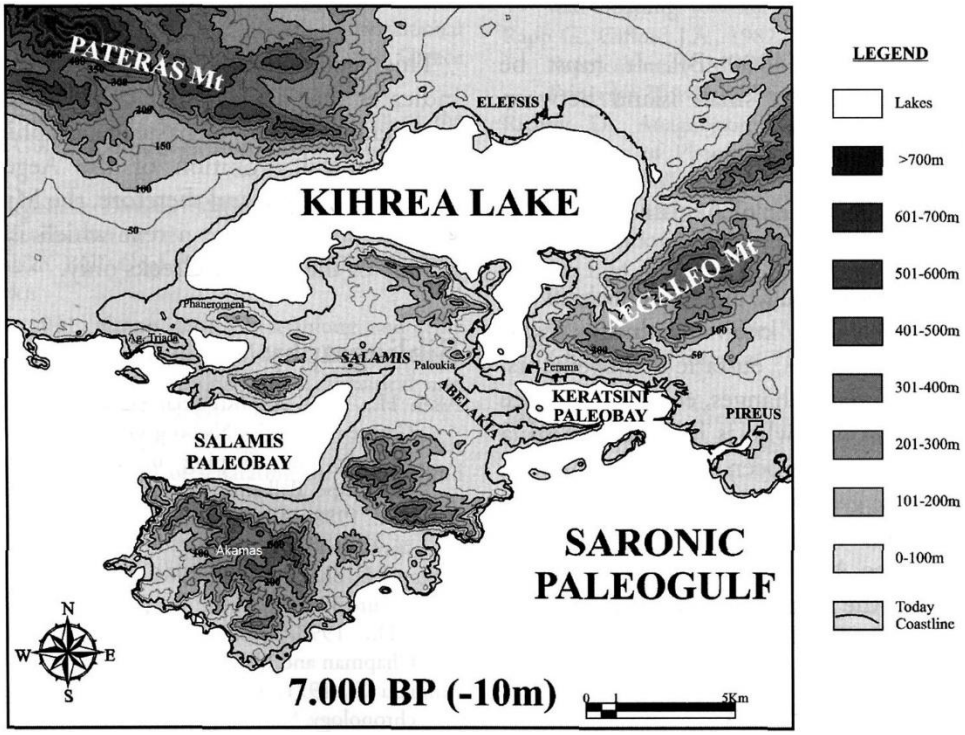
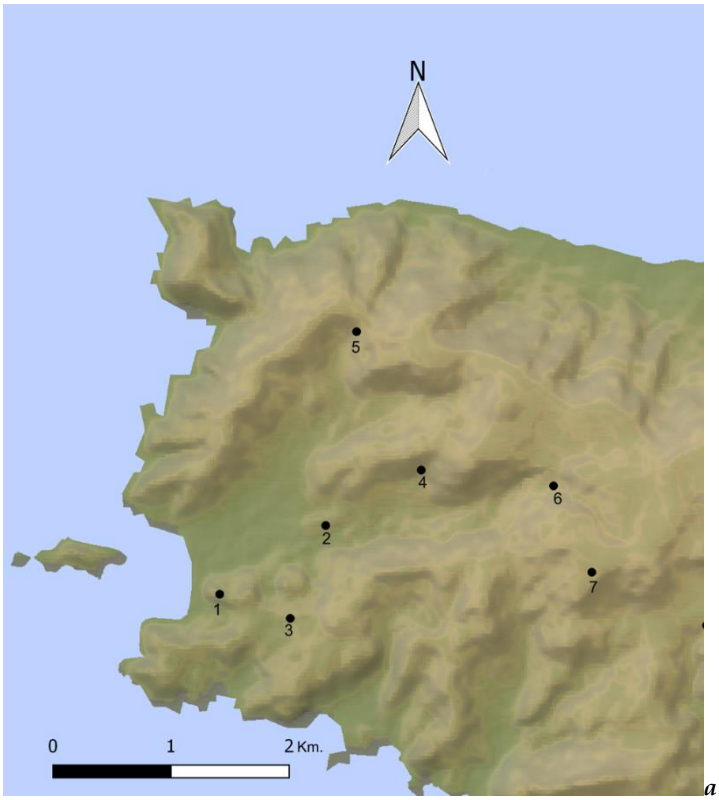


Figure 2. The area of Salamis at 7000 B.P. (after Mariolakos, Theocharis, 2003, Fig. 5).



a

b

Figure 3 (a-b). Salamis. The area of Kanakia, with Neolithic sites (as of 2020). 1. Acropolis, 2. Stefilouko, 3. Stanes, 4. Cave, 5. Karela, 6. Ag. Nikolaos, 7. Ippikos Omilos.

2.1. *Kanakia acropolis*

The seaward acropolis of Kanakia (site 1 in Figs. 1, 3), consisting of two contiguous heights of 69 and 91 m., has been the focus of systematic excavation since 2000 (Lolos, Marabea, 2017). The acropolis is located at the southwest limit of the valley of Kanakia, to the southeast of the present-day bay of Kanakia. During the Late Neolithic, the bay of Kanakia was narrower and the two islets in front of it were still attached to its northern leg (Fig. 2). Water was available at least from a torrent springing at Ag. Nikolaos (see below) and from a local sea-side spring at the west base of the first rocky height (still active today).

Figure 4. Salamis, Kanakia. The two heights of the acropolis in the foreground, from the north; the sea-side spring in yellow.

Over the past 20 years we have come to understand and fully document that the acropolis, with an inhabited area of 5-6 ha, was occupied in successive phases from the Late Neolithic to the beginning of the early Late Helladic III C period, when it was permanently abandoned (Marabea, 2012). The occupation was dense on the saddle between the two heights, with a length of ca. 180 m.; habitation was also widespread on the south slope and to a lesser extent on the north one.

At Kanakia, it has been recognized that the occupants of each phase cleared away the remnants of the

previous one. This strategy may be resulting from topographical/environmental constraints, e.g. the rather narrow width of the saddle between the two heights of the acropolis (30-40 m. at greatest). Other factors may also be at play, however, such as the execution of extensive architectural planning straight from the beginning and not the application of an additive plan, i.e. the addition of architectural units around a core. The latter option applies at least to the compounds of the Late Mycenaean period on the upper level of the acropolis; all units are part of an initial architectural plan, not later additions to a nucleus.

The occurrence of Neolithic sherds is documented in the fill below the floors of the buildings of the last architectural phase (Late Helladic III B1-III C Early) and also in surface collections at both heights, suggesting an extensive settlement (Marabea, 2012, 161-162). At a rough count, there are 1000+ Neolithic sherds from the excavation trenches. The majority of the sherds are small and worn and come from coarse pots, a portion of which display a heavy burnish. They can be dated on typological grounds to the Final Neolithic period, though there exist sherds, of the black-and grey burnished and painted varieties, of earlier, Late Neolithic, date (e.g. Mari, 2012, 71. For the external surface of fragment 1 in Fig. 5, cf. Kakavogianni et al. 2016, Fig. 8: bowl of Final Neolithic date). Shapes include various types of bowls, and other open, wide-mouthed and closed pots (Figs. 5-6). To this period are also assigned some lithics, including axes (Fig. 7).

Figure 5. Salamis, Kanakia, Acropolis. Late/Final Neolithic sherds. 1. fragment of open pot with red burnished surface and black spot, 2. fragment of coarse bowl, 3. fragment of heavy burnished open pot, 4. fragment of painted grey burnished closed pot, 5. fragment of black burnished closed pot, 6. fragment of heavy burnished open pot, 7. fragment of coarse pot with a horizontal crescent-shaped lug.

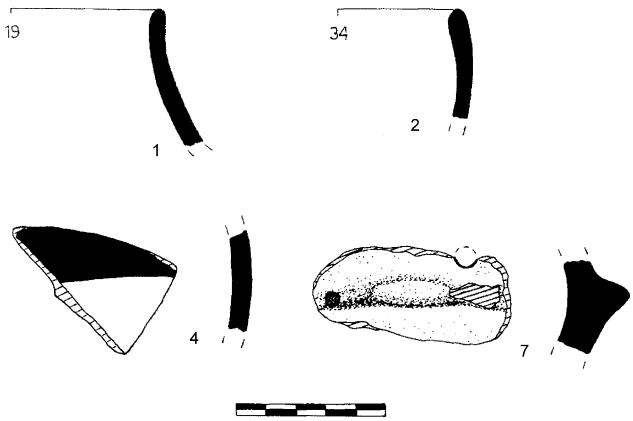


Figure 6. Salamis, Kanakia, Acropolis. Late/Final Neolithic sherds. Drawings (nos. 1-2, 4, 7).

Figure 7. Salamis, Kanakia, acropolis. Examples of Neolithic axes (first row) and hammer (second row).

2.2. *Stefilouko*

Neolithic remains on the rocky oblong height (74 m.) of Stefilouko (site 2 in Figs. 1, 3), on the east side of the valley of Kanakia (and to the southeast of the modern summer resort), were first located and surveyed in 2011-2012. The site lies just above the stream springing at Agios Nikolaos further inland to the east (see below), virtually next to the valley of Kanakia and only a short distance from the sea (Fig. 8). The terraces on the protected south slope of the height (with a length of ca. 100 m. in a straight line) show surface evidence of intensive occupation. Widespread surface finds include potsherds, lithics and sea-shells.

Figure 8. Salamis. Satellite view of the valley of Kanakia, with the site of Stefilouko and the acropolis.

Two trial trenches were opened in 2017 in order to determine the thickness of the fill (0 to 50 cm. without successive layers) and to gain insight of the material culture (Marabea, 2017, 17-20). In the first trench (2 x 1.5 m.), the lower course (of two rows of stones) of a wall was revealed, founded partly on the rock and partly on fill; it was vertically attached to a thicker retaining wall running east-west (Fig. 9). In the second

one (4 x 4 m.), the remains of what appears to have been the natural floor of a hut were uncovered, completely built with perishable materials on L-shaped flattened rock (for similar remains at Kolonna on nearby Aegina, e.g. Walter, 2001, 32-33, Fig. 21-22). While terrace-walls are often identified in surveys, their dating is not always straightforward, owing to their diachronic use. In the present case, however, the data from the small-scale investigation and the negative evidence for post-Neolithic use of the height leave no doubt about their Neolithic date; like fortification walls and wells (Alram-Stern, 2014, 310), they may even be seen as communal works.

Figure 9. Salamis, Stefilouko. Stone foundation of wall.

On the basis of the preliminary study of the finds from the two trenches, the pottery fragments (ca. 1740) come from plain, fine and coarse, pots with rough, smoothed or burnished surfaces. The burnished ones are monochrome, mostly with a red-brown slip, also black, brown-black or grey; few pieces seem to represent examples of the black and grey burnished categories and even fewer are so far (before full conservation of the material) specimens with painted (including matt-painted) decoration (Figs. 10-11). Interestingly, we have not as yet identified any fragments with relief, impressed or incised decoration. Shapes include fruit stands, bowls, amphoras, other medium-sized vessels with mastoid projections, crescent and pierced lugs.

Figure 10. Salamis, Stefilouko. Neolithic sherds. Fragments of red burnished bowls (nos. 1-2); fragments of black burnished open pots (nos. 3-5); fragments of matt-painted and painted open pots (nos. 6-7).

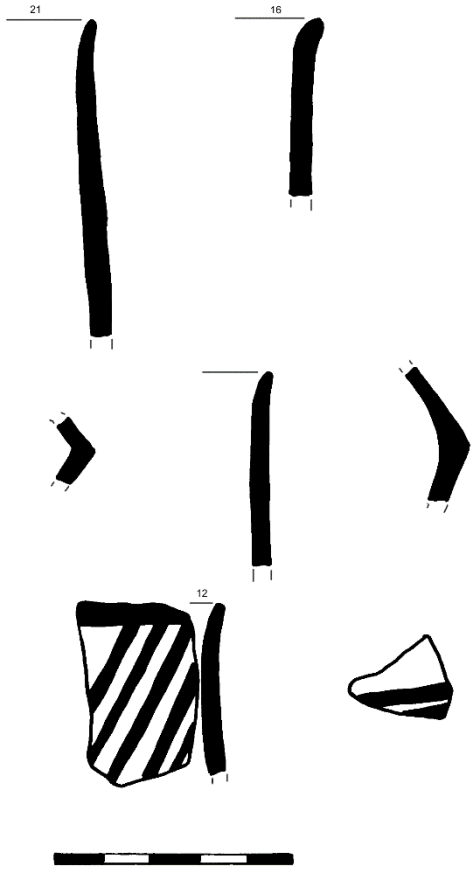


Figure 11. Salamis, Stefilouko. Neolithic sherds. Drawings (nos. 1-7).

Figure 12. Salamis, Stefilouko. From left: upper row: 2 obsidian blades and spondylus gaederopus bowl; lower row: axes.

Other finds include 22 Melian obsidian blades and flakes, 2 chert flakes, 10 stone tools, including fragments of andesite and non-andesite millstones, axes and grinders, a *Spondylus gaederopus* bowl, ca. 100 fragments of animal bones, teeth and fish vertebrae and ca. 680 fragments of shells (including *Spondylus gaederopus*, *Arca noae*, *Murex*, *Patella*, *Monodonta*, *Pinna nobilis*, *Cerithium*, *Gibbula*, *Donacilla*, *Glycymeris*, *Luria lurida*, *Cerastoderma glaucum*, *Helix pomatia*; for the various species see Delamotte, Vardala-Theodorou, 2007) (e.g. Fig. 12).

The occupation on Stefilouko seems to have been dominant in the Late/Final Neolithic period but the seemingly absence of heavy burnished pottery may indicate a terminus for the site-use before the end of the Final Neolithic period. It was certainly an extensive permanent settlement, an acropolis itself, compared only to coastal one mentioned above.

2.3. *Stanes*

On the heights bordering the valley of Kanakia on the south, ca. 700 m. southeast of the acropolis, in the small plateau of Pyrgiakoni, another site has been located, and repeatedly visited (site 3 in Figs. 1, 3 and Fig. 13). It lies on the west slope of a low height protruding from the plateau (at ca. 70 m.). There, the erosion and the opening of a wide fire safety zone have brought to light a part of the stone foundation of an extensive building (Fig. 16). Surface pottery fragments are scattered around and we have selectively collected a few dozens of sherds. They date from the Late/Final Neolithic period, including some with red-reddish burnish; other surface finds comprise of Melian obsidian blades and flakes and andesite millstones (Figs. 14-15) (Melian from visual inspection, see Liritzis et al., 2004).

Figure 13. Salamis, Stanes. View of the fire safety zone, with the Neolithic site in the distance, from the west.

Figure 14. Salamis, surface collections. Kanakia Cave (nos. 1-6); Stanes (nos. 7-11); Karela (nos. 12-17).

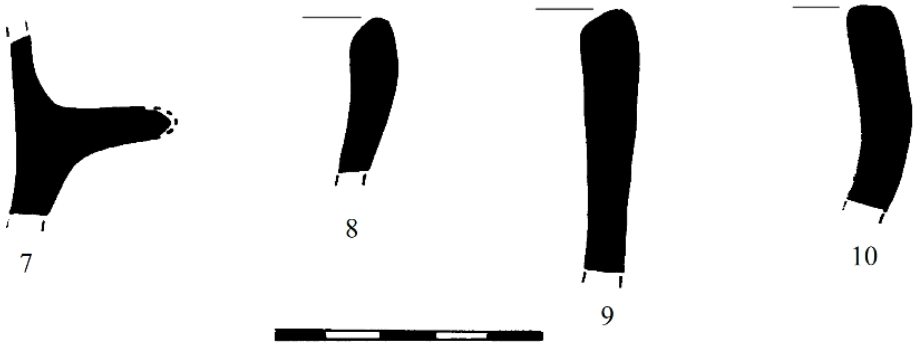


Figure 15. Salamis, Stanes. Drawings (nos. 7-10): 7. fragment of closed pot with crescent lug and 8-10. fragments of bowls.

The nature and extent of the site are currently a matter of speculation; part of it lies below (or has been destroyed by) a modern dirt road within the fire safety zone. The careful construction of the stone foundation with corners at right angles and its large size point towards a longhouse, extending to ca. 20 m. This type of architecture indicates a permanent installation commanding the small plateau (Fig. 14). Speculations on its date suggest the Late rather than the Final Neolithic, given the rarity of Final Neolithic large architecture (Demoule, Perlès, 1993, 399).

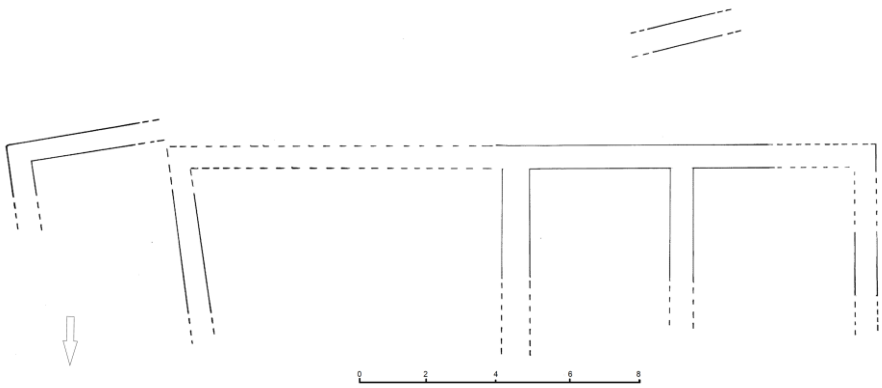


Figure 16. Salamis, Stanes. Plan of wall foundations of Neolithic(?) building.

2.4. *Kanakia Cave*

A one-chamber cave (site 4 in Figs. 1, 3) facing towards the south has been located at a height of ca. 190 m. on the eastern mountainous border of the valley of Kanakia (Fig. 17). It was possibly used in the Late/Final Neolithic (and also in the Mycenaean) period, as evidenced by scanty occurrences of pot fragments on the terraces in front of the cave. Six potsherds are assigned to the Late/Final Neolithic, on the basis of their semi-coarse and coarse fabrics and their similarities to the ones from e.g. the Kanakia acropolis and Stefilouko (Fig. 14). The chamber itself, of rather ellipsoid plan (ca. 3.5-7 m.) and with a broad mouth (4 m. in width), has not been investigated yet and our only surface find has been a fragment of a Medieval pot (Lolos, Marabea, 2019, 62, 75-77).

Figure 17. Salamis. View of the cave, from the east.

The intensification of the use of caves in Late/Final Neolithic period has been variously interpreted, owing to the diverse nature of the evidence and the possibilities offered by them (Demoule, Perlès 1993, 388, 404-405; Tomkins, 2009; Papathanasopoulos, 1996). Assuming a Neolithic (among other periods) use for the cave, we postulate a relation to the local animal husbandry, though its relative proximity to the sea should not be left out of consideration.

2.5. *Ippikos Omilos*

The site (no. 5 in Figs. 1, 3) was identified in 2011 on a gentle slope of a small plateau, at a height of ca. 300 m., on the mountainous southeast border of the valley of Kanakia (Lolos, 2012, 7-8). It commands a broad view towards the southeast, the south and the western part of the Saronic Gulf, from the southernmost part of Attica to the Isthmus of Corinth (Fig. 18). Remains of two enclosing walls, with a width of 0.80-0.90 m., visible for up to 20 m. and ca. 26 m. apart, few pottery fragments, including bowls (45 selected sherds) and lithics (Melian obsidian flake and andesite millstone) point towards a temporary installation or small-scale occupation (Figs. 19-20).

Figure 18. Salamis, Ippikos Omilos. View of the plateau, from the north.

Figure 19. Salamis, Ippikos Omilos. Fragments of bowls.

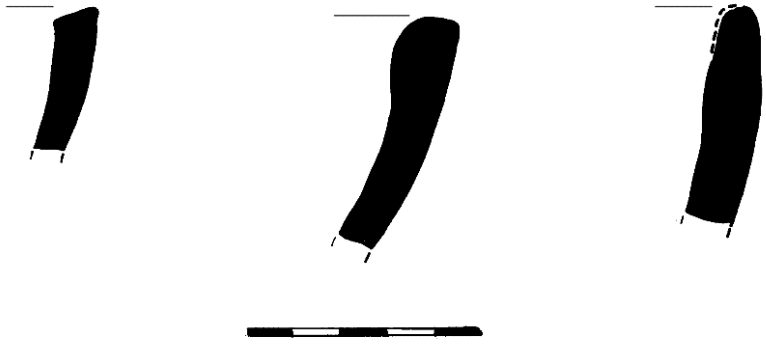


Figure 20. Salamis, Ippikos Omilos. Drawings of bowl-fragments (nos. 1-3).

2.6. *Ag. Nikolaos*

Further inland at the innermost point of the valley of Kanakia, on its east mountainous limit, lies the old monastery of Ag. Nikolaos sta Lemonia (site 6 in Figs. 1, 3). On the southwest slope of a height (with a peak at 244 m.), above the monastery (Fig. 21), surface inspections in 2000 and 2011 have yielded a few dozens of sherds from both open and closed pots of the Final Neolithic period (see Mari, 2007, 81, for the first collection, and Fig. 22). This site is located next to a rich natural spring and on the route to the plain of Aianteion (formerly Moulki) to the northeast. The existence of the spring was probably a decisive factor for a continuous human presence in the Bronze Age (Early and Late), and also in periods of the historic era until recent times.

Figure 21. Salamis, Ag. Nikolaos. View of the slope, from the south.

Figure 22. Salamis, Ag. Nikolaos. Sherds of the Final Neolithic (upper row) and Early Helladic II (lower row) date.

2.7. *Karela*

On the very north limit of the valley of Kanakia (site 7 in Figs. 1, 3), specifically on the south sheltered and terraced slope of a height (of ca. 191 m.), six Neolithic wall fragments from plain coarse pots were collected in 2017 (Lolos, 2017, 14). On the basis of their fabric, they are ascribed to the Late/Final Neolithic

period and should represent an (ephemeral?) occupation on terraces. The site commands an excellent view towards the south and the southwest (Fig. 23) and provides quick access to the valley of Kanakia via an easy descent/ascent, and also to the northeastern one at Aianteion (Fig. 3).

Figure 23. Salamis, Karela. View of the small terraces below the rocky summit, from the east (left) and view towards the valley of Kanakia, from the north/northeast (right).

3. THE EARLY BRONZE AGE CONTEXT

In sharp contrast to the Neolithic period, the valley of Kanakia differs markedly in the Early Bronze Age (Fig. 24). Of the seven Neolithic sites, only one, i.e. the coastal acropolis, is certainly active, a second one, at Agios Nikolaos, is also recorded, on the account of some Early Helladic II sherds (Fig. 22), while at Stanes only one certain Early Helladic II sherd has so far been identified.

The later building activities on the acropolis, as mentioned above, have eliminated pre-Late Helladic III B1 structures, thus rendering reconstruction of the habitation pattern impossible. Early Bronze Age finds consist chiefly of pottery of fine (e.g. "Urfirnis") and coarser classes, found mostly in fills below the floors of the large complexes. To judge from their distribution, it is safe to assume that the Early Helladic occupation covered both heights of the acropolis (Fig. 25).

Despite the uneven state of knowledge for each site and the worn nature of surface pottery, there is a firm realisation: apart from the sea-side acropolis (site 1) and possibly Ag. Nikolaos (site 6), no other site shows signs for an Early Bronze Age occupation in the valley of Kanakia. Even by stretching the Neolithic aftermath to the very beginning of the Early Bronze Age (Early Helladic I), it is beyond doubt that pottery hallmarks of the Early Helladic II period, easily identified in the field even in a worn state, such as the "Urfirnis" categories and shapes like sauce boats, are totally absent from all sites but the two mentioned before.

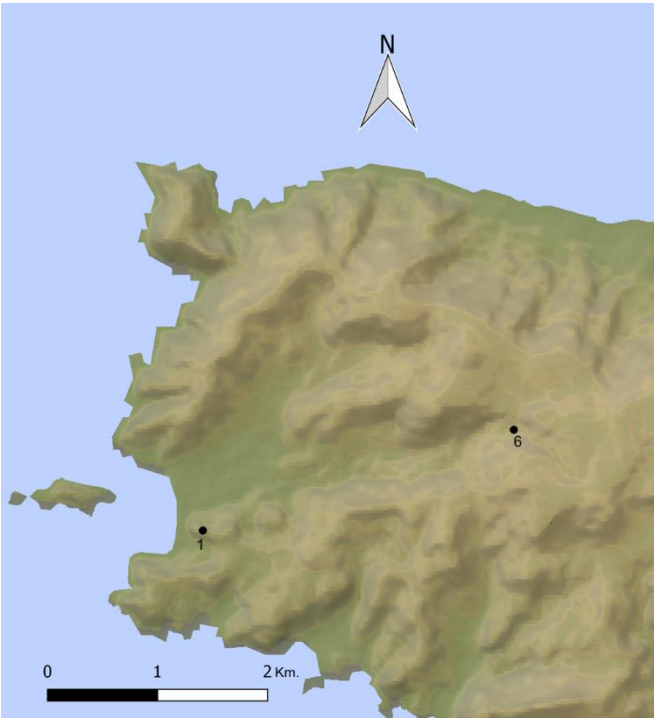


Figure 24. Salamis. The area of Kanakia in the Early Helladic (II) period (as of 2020). 1. Acropolis, 6. Ag. Nikolaos.

Figure 25. Salamis, Kanakia, acropolis. Early Helladic II sherds [from sauce boats (upper row) and bowl (lower row, left) and from a coarse pot with plastic decoration (lower row, right)].

In the rest of the island the Early Helladic presence is similarly sporadic, not always tied to firm chronologies. According to current evidence, Neolithic sites which seem to also cover the initial stage of the Early Bronze Age, on the basis of pottery typologies, include Citadel A in Ginani and Ag. Marina in Kaki Vigla (Fig. 1). Sites which have produced distinctive pottery classes of the Early Helladic II are the Cave of Euripides, Magoula on Kynosoura, modern-day capital (Koulouri), located by the local Ephorate of Antiquities (Kattoula, 2012), the promontories of Mertzani and Lykopoulo on the south coast, documented by the University of Ioannina (Lolos, 2011, 8-9) and the somewhat inland acropolis of Kastelli at Saterli, first recognized by D. I. Pallas (Pallas, 1994, 174-175).

Still, it is unclear whether this general trend, i.e. the scarcity of Early Helladic sites, reflects reality or the lack of surveys in large areas on the island. If the picture we currently have for the valley of Kanakia in the Early Helladic period holds some truth, then it contrasts with the trends in neighbouring areas, like Attica and the Peloponnese, which saw an increase in the number of sites in the Final Neolithic/Early Helladic I (e.g. Parkinson, Ridge, Gyucha, 2018; Wiencke, 1989, 497-498).

4. POINTS OF DISCUSSION

The pattern that emerges for the Late/Final Neolithic in the wider area of Kanakia shows a preference for habitation on slopes of hills/heights, without any clear corelation with intersite distance and intervisibility; this trend may be owed to the rather mountainous terrain of the island, especially its southern part, with rather limited land for cultivation (mostly in small valleys or plateaus). However, cultivation needs should not have been the sole factor for the location of the sites, as in such a case, they would have been expected to be on similar landscape, e.g. on the slopes near arable land and probably at lower elevations. What we really see in the landscape of Kanakia is that Neolithic sites occur in a diversity of settings; in other words, these slopes with Neolithic habitation are not always located in a specific topographical feature (e.g. next to arable land). This is especially the case for the site at Karela, which at first glance may be considered marginal, but was this the case?

Certainly, the absence of extensive plains in southern Salamis may account for an appropriation of novel agricultural strategies, suitable for less fertile and arid areas, such as those suggested for the southern Argolid and in general for the coastal Peloponnese (Demoule, Perlès, 1993, 399-400; Runnels, van Andel, 1987, 327; Weiberg et al., 2019, 753); this would entail an adjustment of cultivation on artificial terraces, irrespective of their elevations. An increased interest in livestock farming would also be possible. All these factors would easily explain the location of the sites (see e.g. Halstead, 2014 for the ability of premechanized Mediterranean farmers and herders to adapt to varied climate and locale). But Neolithic communities in Kanakia may also have been extroverted; apart from being dedicated stock- and crop-farmers, Neolithic Salaminians could also have been

traders or consumers of imports, even raiders of settlements on the Mainland coasts, as it has been suggested for the Mycenaean period on the basis of later accounts in the work of Hesiod (fr. 204. 44-51 M-W, see e.g. Finkelberg, 1988).

In this framework, the "marginal" Karela (no. 7) or the inland site of Ag. Nikolaos (no. 6) are located in areas close to land routes which provide access to the central part of the island, i.e. to the area and plain of Aianteion to the northeast (Fig. 3). Furthermore, the sites on high locations (Karela and Ippikos Omilos-no. 5), with superb views of large parts of the Saronic Gulf, may additionally be regarded as vantage points with opportunities for surveillance. The picture that now emerges for the valley of Kanakia in Late/Final Neolithic indicates local communities, possibly engaging in multiple activities.

By the Early Helladic II period (at the latest), the aggregation of the Neolithic communities at the site of the coastal acropolis, along with the continuation of the habitation at Ag. Nikolaos, is very interesting. Any interpretation for this development is not straightforward, and indeed many factors may have been at play: e.g. a more stable environment provided by the acropolis site, its presumably larger Neolithic settlement, and also social circumstances/competition prompted by aspiring individuals towards a more centralised power (cf. Weiberg et al, 2019, 753-754; Whitelaw, 2000, 151-152; Wiencke, 1989, 499). In this framework, prominent Neolithic sites, such as the acropolis at Stefilouko (no. 2) or Stanes (no. 3) with substantial architectural remains, were "absorbed" by the coastal acropolis.

The trajectory of the valley of Kanakia in the Middle Helladic period is characterised by the existence only of the acropolis-site; the latter becomes, in the later Mycenaean period, the administrative centre of the island; as such, the acropolis at Kanakia may be compared to other examples in the wider area (e.g. Kolonna on Aegina, Acropolis of Athens), which were founded in the Neolithic period, had a long-lasting occupation, dominated in their territory and emerged as major centres in the Mycenaean period, though the exact processes may not have been identical.

Future work, and excavation, will certainly shed more light on issues pertaining to the Neolithic background of the valley of Kanakia, though we should not expect much stratigraphic evidence, given the particular Salaminian landscape.

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