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Original Paper

The Mesolithic Hunter-Gatherers in the Southeastern Mediterranean and Their Contribution in the Neolithisation of the Aegean

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Abstract

The excavations in the Aegean since the 1990s onwards have revealed a new cultural stage, starting from the beginning of 9th millennium down to the end of 8th. A network of sites extends from the northern to the southern Aegean Sea and from the West to the East, having as reference points the obsidian sources of Melos and Yali, Nissiros. In recent years, we have an increase of Mesolithic sites in the insular Aegean, the mainland Greece as well as in the western Asian coast, Cyprus and Crete. Recent research changes the data and shows that, along with the navigation capability and the specialization in fishing, an early Neolithisation in the Aegean began already in 9th millennium BC. It means that active Mesolithic groups from the early 9th mill. till the end of 8thcould have been able to travel to the East, interact with local populations of the PPNA and PPNB and transfer plants and animals, domesticated or not to the Aegean and the Greek mainland, contributing to the full Neolithisation of the area.

Keywords

Mesolithic, Aegean, seafaring, fishing, sea currents, sea routes, Neolithisation

1. Introduction

They've been twenty five years since the excavation of the Cyclops Cave on Youra Island revealed undisturbed Mesolithic layers, hither to unknown in the Aegean islands (Sampson 1998, 2008, 2011). Then, by revealing a Mesolithic settlement of the beginning of 9th mill BC at Maroulas on Kythnos island and locating several contemporaneous sites (Sampson et al., 2010), the characteristics of this cultural stage were defined, such as the architecture, the burial customs and the stone industry. The excavation of an extensive Mesolithic site on Ikaria Island (Sampson et al., 2012) and the location of

other sites on the same island showed that this cultural stage was expanding to the eastern Aegean. Also, the location of other sites of the same period on the islands of Cyclades, Dodecanese and Crete, showed that in 9th and 8thmillennium B.C., there was a wide network of sites in the following six different territories of the Aegean (Figure 1):

1) Northern Sporades including Youra (Sampson, 1998, 2008, 2011), Alonessos (Panagopoulou et al., 2001) and Skyros (Theocharis, 1959).

2) Cyclades.

3) Western Aegean including the Mesolithic Franchthi (Perlès, 1990), the rockshelter1 at Prosymna (Koumouzelis et al., 1996) and littoral sites in the Argolid (Runnels et al., 2005).

4) Eastern Aegean, including Ikaria and Fourni Island (Sampson, 2014) and the site 35 in Karaburun peninsula on the coast of Asia Minor (Çiligiroğlu, 2016; Çiligiroğlu, et al., 2018).

5) Dodecanese-SW Anatolia, including Yali obsidian source, Areta on Chalki (Sampson et al., 2016) and Kirmeler on the Asian coast (Takaoğlu et al., 2014).

6) Crete including Livari (Carter et al., 2016), Knossos (layer X) and possibly Damnoni and Plakias (Strasser et al., 2015).

1.1 The Mesolithic in Northern Sporades and the Early Domestication in the Aegean

Apart from the excavation at Youra, which constitutes the center of this period in the NW Aegean, few surface finds of the Mesolithic were found on Alonessos (Panagopoulou et al., 2001) and Skyros (Theocharis, 1959).

The research in the Pre-Neolithic Aegean begun from the Cyclops Cave, on the islet Youra, Northern Sporades, and lasted from 1992 to 1995. The C14 dates assigned the material to the Early Holocene, more specifically to the 9th-8th mill. B.C., placing Youra at a contemporary stage similar to that of Franchthi (Early Holocene levels); however, the activities of an Aegean Mesolithic culture were revealed in the whole stratigraphy for the first time (Sampson 1998, 2008, 2011). Layers of three meters thick yielded an enormous number of fish bones, resulting to a food production economy based on fishing. Also in these layers, several dozens of fish hooks were found (Figure 2).

The absence of wild ancestors from the environment of the Aegean and the mainland Greece at the beginning of the early Holocene is a strong argument in Trantalidou's view (2011) that caprins were imported from the East where the first attempts at domestication had already taken place (Masseti, 1998, p. 9). Indeed, the first attempts of domestication in the Zagros area (Helmer, 1994) date back to 8500-8000 B.C. and coincide with those in south Anatolia, Cyprus and Youra island. The earliest domestication of sheep is encountered in Zawi Cemi Shanidar, Karim Shahir, Asiab, Cayonu and Syrian Mureybet of the same period (Uerpmann, 1987).

The decision to transport wild animals to an island (Youra) and keep them there in captivity (Reingruber, 2017; Trantalidou, 2011) may have been followed by the decision to take over the already domesticated variant instead, and keep it near their own living space. Is the person, making this decision, still a hunter or already a herder? Or maybe is a "hunter in transition" (Zvelebil, 1986)? The

same question can be posed in the case of a person using wild forms of barley, oat and lentils in the Mesolithic (Hansen, 1991, pp. 53-54) while subsequently deciding for the domesticated variants; are they considered still gatherers or farmers already?

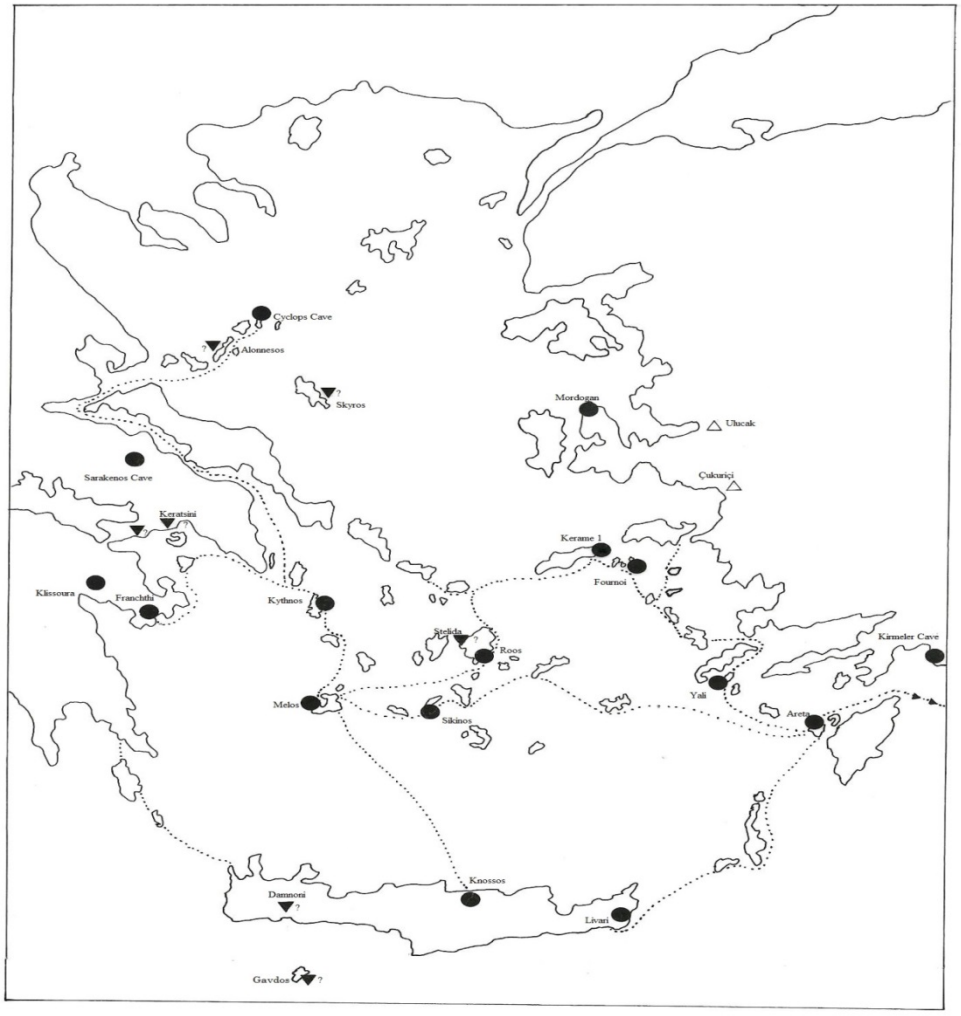

Figure 1. Mesolithic Sites in the Aegean Basin

Figure 2. Bone Fishhooks from the Cyclops Cave at Youra Island

1.2 Cyclades

Maroulas on Kythnos is the only example of a large-open site (Figure 3), a settlement with dozens of structures in round plan and 26 burials, primary and secondary (Fig. 4),under the floors (Sampson et al. 2010). Some similarities can be noted in oval semi-dug structures of the early phase of Lepenski Vir culture (e.g. Vlasac, layer I, house no 2a), which are mainly over-ground constructions with circular base and a rectangular hearth inside (Srejovic, 1969; Radovanovic, 1996).

The four islands of the Cyclades that have presented Mesolithic occupation along with Kythnos are Naxos, Sikinos and Melos (Figure 5). The site Roos in Naxos (Sampson et al., 2016) is particularly important because, besides presenting all the features of a typical Mesolithic site, it seems to expand to an area of dozens of acres, much greater than those of Maroulas on Kythnos and Kerame 1 on Ikaria. The stone industry includes Melian obsidian and flint from Stelida quarry of Naxos. At Stelida, recent surveys and excavations yielded Palaeolithic and Mesolithic artefacts of undefined date (Carter et al., 2016).

Another site, presenting Mesolithic industry, had been located few years ago by a team of the Aegean University on Sikinos, a small island in the southern Cyclades (Sampson, 2006, pp. 169-171; Sampson et al., in print). At the western edge of the island on the promontory Kara Pountafacing to the south, huge quantities of Melian obsidian cover an area of half an acre. The thousands of tools and fragments of debitage show an Aegean Mesolithic industry mostly based on splintered technique.

Figure 3. The Mesolithic Settlement at Maroulas on Kythnos

Figure 4. A Burial under the Floor of a Circular Structure at Maroulas

In Melos, it is understood that there would have been a Mesolithic presence of habitation, as the groups of hunters from the Cyclades and the other Aegean islands as well as mainland Greece could frequently visit it. A few years ago, Prof. Kozlowski located another site far from the obsidian sources and collected Mesolithic implements.

1.3 The Eastern Peloponnese

Franchthi Cave was till the 90's the only excavated Mesolithic site in the Aegean since the 60's. Mesolithic occupation starts from phase VII (9340±160 and 9060±110BP) and there is a settlement hiatus of 600-650 radiocarbon years between Palaeolithic (phase VI) and Mesolithic (phase VII). Microliths in phase VII are replaced by a great number of retouched flakes and blades (32%), and notched-denticulated tools (32.5%). Obsidian is rather poorly documented, increasing its proportion up

to 2.5–3.5% in the Upper Mesolithic (Perlès, 1990, 2003).

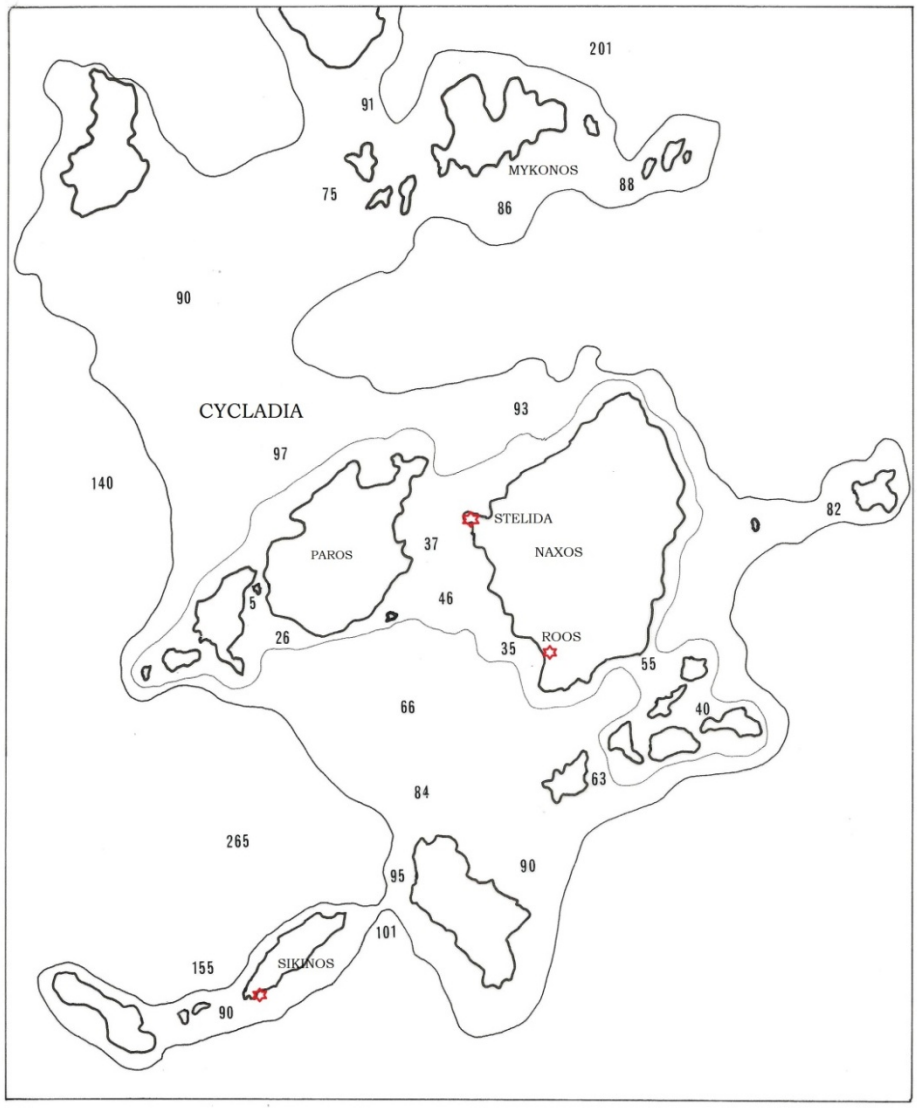

Figure 5. Mesolithic Sites in Cyclades into the Limits of the Old "Cycladia" Island during the Last Glacial Maximum

Phase X at Franchthi, attributed to the Initial Neolithic, has given radiocarbon dates around 7.9-7.8 Kyr BP. The lithic industry continues to be characterized by the traditional technology of Final Mesolithic (phase IX) that is the domination of flakes accompanied by microblades and regular blades. The subsistence economy of the occupants of the cave presents almost the "full package" of the Neolithic economy; domesticated caprins, *Susscrofa, Bos and Cervus*, *Triticumturgidum sp. Dicoccum* and *Hordeumvul sp. distichum* while are absent the *Triticummonoccocum* and *Hordeum vulgare vulgare*, cereals that are represented in Pottery Neolithic of Greece posterior of 7.7-7.6 Kyr BP.

In Cave 1 in the Klissoura Gorge (Koumouzelis et al., 2003), the basic techno-morphological features are derived from the tradition of the local Lower Mesolithic, with an emphasis on flake blank

production, with minor components of a microblade technology, and a production of a small number of microliths from flakes (triangles, trapezes, crescents). In the Upper Mesolithic layer, the number of flakes was greater, while in the lower one the microliths were more.

1.4 Eastern Aegean

A survey conducted on the island of Ikaria revealed, apart from the site of Kerame 1 (Sampson et al., 2012; Sampson, 2014), five more sites bearing the same characteristic Mesolithic stone industry. It is about an indication of a network of sites and not just a casual usage of the area. Kerame1 is put forward as the major site (Figure 6), while the others seem to be of limited extent. Indeed, the settlement spans over an unusually large area, much more extensive than Maroulas (Sampson et al., 2010). The Mesolithic Ikarian model bears similarities to Kythnos' settlement model. It is strikingly odd, that the stone tools found in Kerame 1 (Figure 7) consist of white patinated flint and obsidian from Melos and Yali bearing remarkable similarities to the ones found at the site of Maroulas on Kythnos.At small distance across the Kerame 1 at Fourni island complex, another Mesolithic site with the same lithic industry was identified (Sampson, 2014).

Figure 6. The Site Kerame 1 Site in Ikaria

Another assemblage similar to those of the Aegean Mesolithic tradition comes from a surveyat the Karaburun Peninsula on western Anatolia (Çilingiroğlu et al., 2016, pp. 5-6), accross the eastern Aegean island of Chios (Figure 1). The 116 artefacts of "white patinated flint" from the site 31 (Mordogan) were products of a non-standardized flake-based tradition (only three blades recorded), with a few retouched pieces (approx. 10%) including scrapers and notches (Çilingiroğlu et al., 2016, pp. 3-5). The arte facts' raw material is exactly the same with this of Kerame 1 on Ikaria.

The survey team clearly contrasts this material with a bladelet- and blade assemblage from white-patinatedchert found in site 35 (Çilingiroğlu et al., 2018).

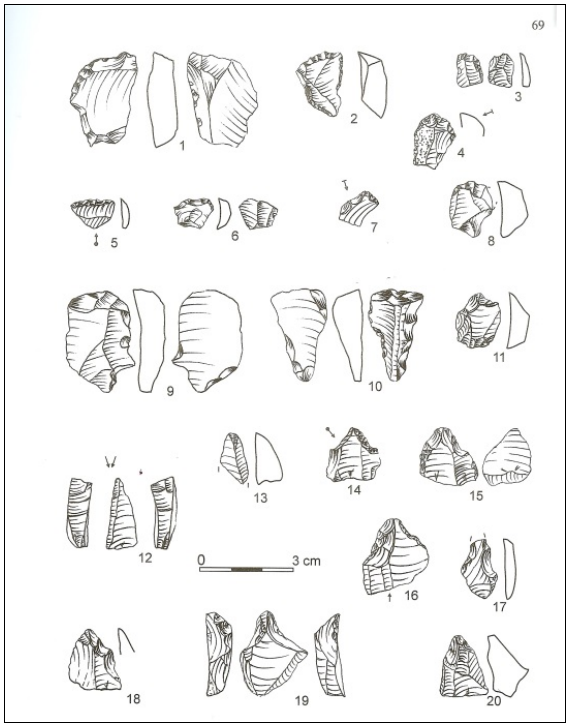

Figure 7. The Mesolithic Industry from Kerame 1, Ikaria (Sampson et al., 2012)

The cores are highly reduced and microlithic while nearly half of all the identified blanks at the site are flakes. The very small size of the cores and the presence of microlithic flakes and bladelets—as well as geometric pieces such as the lunate—show many similarities with those of Ouriakos site on Lemnos (Efstratiou et al., 2014) dated in the Final Pleistocene.

1.5 Dodecanese-SW Anatolia

Recent surveys in the southern Aegean yielded the lithic-rich site Areta on Chalki Island (Sampson et al., 2016) in a rocky environment at the northern part of the island (Figure 1, 8). Thousands of stone implements come from Melos and Yali islet near Nissiros, the second obsidian source in the Aegean. Close to the site, there is a cave which was used for a long time as a pen for animals.

Figure 8. The Mesolithic Site Areta on Chalki (Sampson et al., 2016)

Recent research in SW Turkey revealed a flake-based assemblage in Kirmeler Cave (Takaoğlu et al., 2014, pp. 112-113) coming from deposits of the late 9th and beginning of 8th mil B.C. The excavators note the materials' distinction from the lithic traditions of central Anatolian and Antalya region of this period, while also drawing tentative parallels with Aegean Mesolithic assemblages. The last place in the area of SW Anatolia is indicative of how far the sea networks of the Mesolithic hunter-gatherers of the Aegean Sea reached at the south.

1.6 Crete

The other site at Livari in SE Crete (Carter et al., 2016) fits the Aegean Mesolithic site-location model forwarded by Runnels (2009, pp. 60-62) at the "*intersection of woodland and aquatic habitats*", and is ultimately better viewed as part of the "Early Holocene Aegean Island lithic tradition" (9000-7000 cal B.C.).

The material presents similarities with the lithics of Knossos layer X (c. 7000–6500/6400 cal BC), which are contemporary to those of Phase X at Franchthi Cave (Table 1). The study on the Knossos lithic material by Kaczanowska and Kozłowski (2011) led them to downplay the similarities with Mesolithic Franchthi and instead, locate Knossos within the "Early Holocene Aegean Island lithic tradition". The lithic industry co-occurs with the "Aceramic Neolithic" (or the "Initial Neolithic",8.0 and 7.7 kyr BP) from layer X at Knossos (Evans, 1971; Efstratiou, 2005) and includes the complete "Neolithic package" indicative of links with the eastern part of the Mediterranean Basin. The simultaneous presence of numerous artifacts from Melian obsidian (69.7%) is the evidence of contacts with the Cyclades.

The tool groups from the sites Damnoni and Plakias in the western Crete (Strasser et al., 2010, 2015; Carter et al., 2018) that the authors claim to be diagnostic for the Mesolithic, namely backed pieces, burins and geometrical microliths, predominantly from quartz, are questionable for the moment while they do not answer to the definition of geometrical microliths. According to Kaczanowska and Kozlowski (2015, p. 50) "*the sites from the Plakias region area exhibit some features in common with flake industries made on quartz from the Cyclades (notably from the island of Kythnos), but they have not provided diagnostic forms that would allow to ascribe them to the Mesolithic*".

A scenario could be a social interaction in Knossos or Franchthi between populations that have remained hunter-foragers and populations that have been transformed into farmers. In the middle of the 7th millennium Mesolithic, stone industry disappears and macroblades that originate from the East appear, possibly resulting in some movements from the East to the Aegean or from the Aegean to the East.

Table 1. Comparative Chronology of Aegean and Mainland Sites at the Final Mesolithic and Initial Neolithic

	Franchthi Cave	Knossos	Sarakenos Cave	Thessaly	Macedonia	Asia Minor
Final Mesolithic	Phase X 7.9-7.8kyr BP	Layer X 7965±60 7735±40 BP	7980-7960 BP 7050-6690 cal BC	Cyclops Cave 6801-6633 6644-6514 BC		
Initial Neolithic	6600/6450 BC	6600-/6500 BC	7810±50 BP 6780/6500 cal BC	Sesklo Argissa 6500 calBC Cyclops Cave 6464-6388 6380-6110	Revenia 7505±25 BP 6438/6264 cal BC	Ulucak VI Cukurici 6750/6500 cal BC

2. Navigation in Palaeolithic and Mesolithic

In recent decades, several researchers have dealt with the prehistoric navigation and occupation of the Mediterranean islands and especially of the Aegean, such as Evans (1973, 1977), Cherry (1981, 1982), Cherry and Leppard (2017), Broodbank (2000, 2006), Agouridis (1997), Vigne (1987), Sampson (2006), Maxwell and Sampson (2018) and Simmons (2014).

Cherry's disappointing view (1982, p. 208) that "*it is probably advisable to set aside this evidence until substantiated in detail and for the present at least retain the null hypothesis: that there are no settlements of Mesolithic age in Cyclades*" agrees with Broodbank's also disappointing statement (1980,

p. 220) that "*until the end of Pleistocene Mediterranean people were reluctant sea-goers and the sea itself a largely empty expanse, still a de facto barrier far more than a bridge"*. However, after the recent years' dubious findings of Palaeolithic presence in western Crete (Strasser et al., 2010; Runnels et al., 2015), there are growing views that in the Middle and Lower Palaeolithic people could travel long distances to the open sea like that from Libya to Crete. Based on studies conducted to determine inter-visibility throughout the Mediterranean, neither Gavdos nor Crete (Figure 1) would have been visible from the Northern African coast (McGail, 2009, fig. 4,2).That is where the question arises; with what knowledge, organization and prediction could the people of Lower and Middle Paleolithic travel to the unknown for an uncertain period of time?

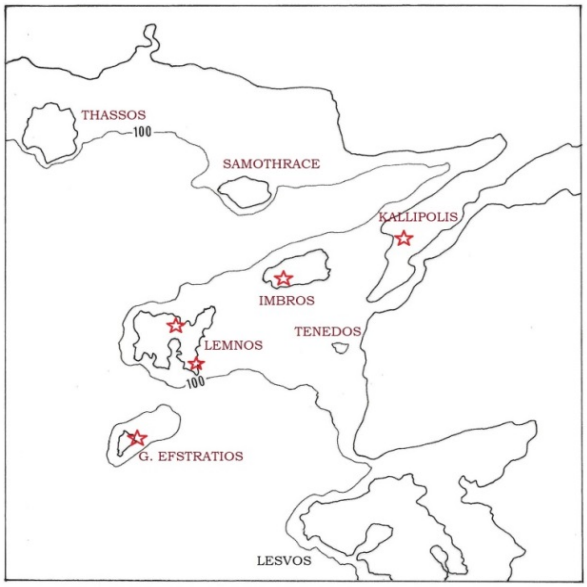

Figure 9. Palaeolithic Sites in Northeastern Aegean (Sampson et al., in print)

However, in the case of the Northern Aegean, the seafaring from Middle Palaeolithic seems more reasonable because there is a visual contact between the islands and the mainland. In the Middle Paleolithic, most islands were not connected to the continent but there was a visual contact between Ag. Efstratios, Lemnos, Imbros, Kallipolis and the Asian continent (Figure 9); MP sites of this period have been located in all these areas (Özbek & Erdoğu, 2016; Sampson et al., in print). We are certainly not talking about the Last Glacial Maximum period when the sea level has descended and the islands of the Northern Aegean were united to the continent. At the same time, sites of the Middle Palaeolithic have been identified at the Northern Sporades in the northwestern Aegean (Sampson, 1996; Panagopoulou et al., 2001). Although the distances between NW and NE of the Aegean Sea are great, there is a visual contact of the deserted islands of Northern Sporades from Lemnos and Agios Efstratios.

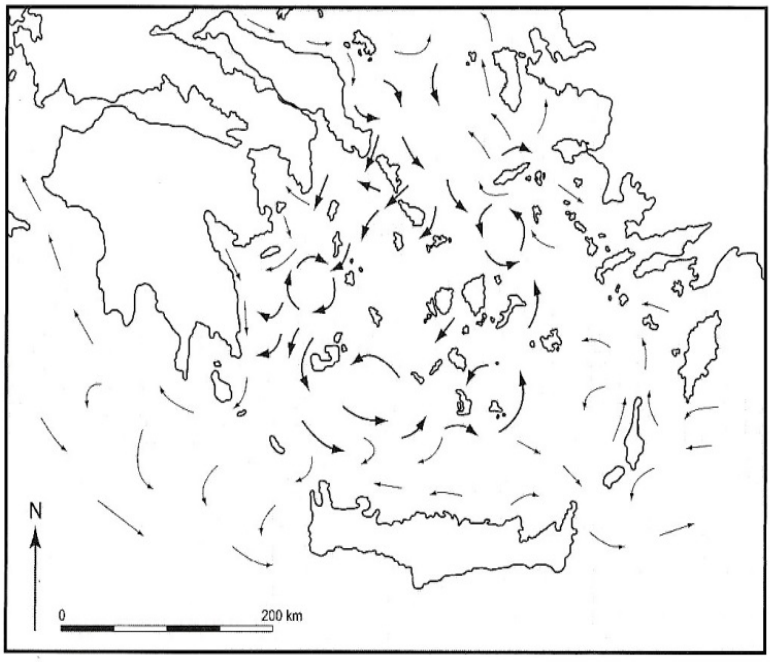

Figure 10. Summercurrents in the Central and Southern Aegean (After Papageorgiou, 2008)

In the central and southern Aegean Basin, hundreds of islands lie at short distances to each other; the area looks like a lake with many islands inside which at different times were joined (Figure 5). However, despite the relative ease of communication between the islands in the Palaeolithic and Mesolithic period, Aegean remains a sea with particular sailing conditions. The short ripple is different from that of the ocean and becomes dangerous during the winter and also during July and August when the strong northern winds prevail; hence the name «ετησίαι» (annual) winds, in the antiquity. Furthermore, the wind power is getting bigger in the narrow channels between the islands.

Also, the sea currents which facilitate the sailing become dangerous in some cases. For the Aegean region, the importance of currents in navigation (Figure 10), especially in prehistoric times, has been studied and emphasized in recent years (Papageorgiou, 2008). There is a complex network of currents that changes during the winter and summer months, but there are also currents throughout the year in the Mediterranean (Simmons, 2014).

During the Upper Palaeolithic, the majority of the Cycladic islands, with the exception of Kythnos, Melos and few others, formed a huge island (*Cycladia*), equal to 2/3 of the extent of Cyprus (Figure 5). This enormous island would have offered rich fauna and flora, enough to support the needs of Palaeolithic hunters and food gatherers.The site of Stelidaon Naxos, being identified by Seferiades (1983) and Sampson (2006), while recently excavated by Carter (Carter et al., 2016), has attributed tools of the Upper and probably the Middle Paleolithic. The tools of the Lower Paleolithic that have been reported are doubtful because they cannot be dated in a stratigraphic way. Another island in Cyclades with Palaeolithic presence is Kythnos, where in Maroulas' Mesolithic settlement some blades of the Upper Palaeolithic were collected (Sampson et al., 2010).

In Mesolithic, a network of sites in Cyclades, Dodecanese and the western Asian coast shows an intense mobility of a dynamic population originating from mainland Greece or the Asian continent, which uses an Epigravettian industry.

2.1 Means of Navigation

If we estimate that in Palaeolithic and Mesolithic, people have not yet polished tools such as axes to cut large trees easily and process the required wood, their potential is greatly reduced and it seems unlikely that they would make wooden boats with many oars and sails such as those shown in incised figures on rock from the Aegean of the early Cycladic period.

Figure 11. The Experimental Trip of "Papyrella" Boat to Melos (after Tzalas, 1995)

There are ethnographic parallels in the Aegean from the 19th century or the beginning of the 20th century by residents of the islands of the Northern Sporades that traveled with small boats without sails crossing open seas such as those between Skopelos-Alonessos and Chalkidiki or Skopelos-Alonessos and Lesvos or Chios in order to work there seasonally or to exchange agricultural products. During the last world war, the lack of agricultural products forced the islanders of the Sporades to cross the open sea by rowing for many days in periods of stillness as there was no possibility of using sails. Similar movements were also taking place from Ikaria to Mykonos or Naxos in order to buy the necessary cereals or exchange products.

In Corfu, there was a tradition in constructing boats with mats so as to cover small distances around the island. The remains of such a boat made in 1965 were found in Palaiokastritsa by Tzalas (1995, p. 442), and constituted the model for building a similar craft called "papyrela". It would be interesting to know how their early builders called these tarry boats in Corfu. The frame was made out of six cypresses that were cut and bent while still green. They were bundled together by rope at their thinnest points and bent in such a way so as to form a raised stern. The length of these boats was approximately 2.5 m. Tzalas, after cooperating with two elderly manufacturers of similar vessels, built within three months a "papyrela" with a length of 5.50 m and a width of 1.50 (Figure 11).

The original crew of the boat did not have experience of rowing and became exhausted after a distance

of about 2 km (Tzalas 1995, p. 447). Ultimately, he looked for "kayak" athletes as volunteers for the crew; the voyage started from Lavrion with direction to Melos via the western Cyclades in early October of 1988. The crew consisted of four paddlers and one steersman. The predominant wind was north-northeastern and the current flowed from the north-eastern direction, which often caused the craft to drift off course. Weather conditions forced the crew to park in Serifos for several days; eventually, the trip to Melos lasted 7 days in total. The conclusion that came out of this experimental journey showed that the crew should have been specially trained to get a very good knowledge of navigation and behavior of the boat and the crew. It was also understood that crossing such distances with this speed of the boat was time consuming, also demanding great physical and mental strength.

3. The Aegean Mesolithic in Cyprus

Reingruber (in press) speaks about theoretical contacts of Aegean hunter- gatherers with inland Anatolia, while she possibly ignores Kaczanowska and Kozlowski's publication about Nissi Beach in Cyprus (2014): "*Theoretically at least some individuals or small groups could have reached inland Anatolia and returned to the Aegean with the knowledge of the Neolithic way of life. Yet, the push factors causing hunter-gatherer-fishers to leave the Aegean must be regarded as either nonexistent or insufficient or, at least at the moment, not conceivable"*.

Nissi Beach in the southeastern part of Cyprus (Figure 12) is an aeolianite rocky site, found and excavated by Ammerman (2008), which yielded an assemblage of lithic artifacts. For several years, the excavator was suggesting that the provenance of the site's industry was the Palaeolithic Anatolia. However, some years later the scene changed as Kozlowski and Kaczanowska were invited to Cyprus in order to study the lithic material. From the beginning, it was evident that this industry had not any similarities with the known industries of Epipalaeolithic or Neolithic periods. The published material (Kaczanowska & Kozlowski, 2014) proved that it resembles the Aegean Mesolithic assemblages! The lithic industries of the "Aegean Mesolithic" from Maroulas (Sampson et al., 2010), Ikaria and other Aegean sites and the flake assemblages from Nissi Beach (Figure 13) show similarities of major retouched tool categories although the frequencies of these categories are different (Table 2).

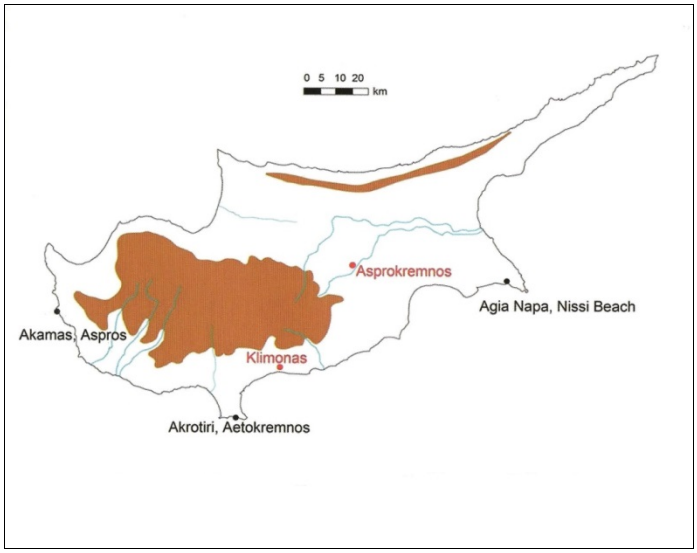

Figure 12. Early Neolithic Sites (8750 BC) and Nissi Beach in Cyprus (after Ammerman, 2014)

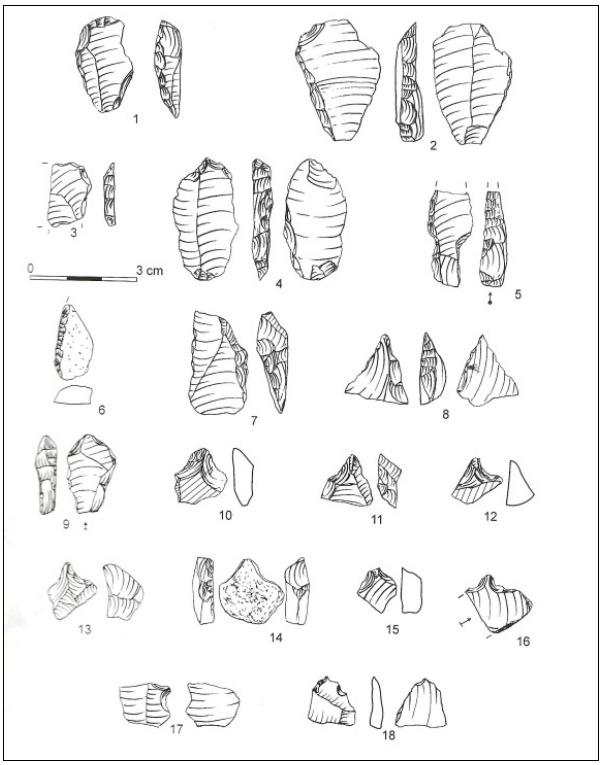

Figure 13. Lithic Implements from Nissi Beach, Cyprus (after Kaczanowska & Kozlowski, 2014)

According to Kaczanowska and Kozlowski's view (2014, 2015), the industry represents the tool-kits of foragers who were occupying the SE part of the island during the PPNA and possibly were contemporaries of the earliest Cypriot farmers: "*the groups of the Aegean Mesolithic must have been able to navigate across considerable distances arriving at the site of Nissi Beach on Cyprus where the pebble-flake industry shows several features common with their origins*"…. and "*the islanders from the*

Aegean Sea managed to combine elements of food producing economy, acquired via contacts with the territories in the eastern part of the Mediterranean Sea, with elements of traditional for aging. On Cyprus the sites with flake industries such as Nissi Beach are the evidence for these contacts"… "Thus as consequence of contacts with the Initial Pre-ceramic Neolithic on Cyprus the economy and architecture of the Aegean Mesolithic changed (e.g., Maroulas on Kythnos) supporting the observation concerning distant seafaring". However, in an earlier paper, Kozlowski and Kaczanowska (2008) emphatically considered the recent discoveries of Mesolithic sites in the Aegean Basin as a confirmation of the eastern immigration of peoples with nautical knowledge and specifically, they linked them with the "exodus" of the population of PPNA from the eastern coast of the Mediterranean to Cyprus!

Table 2. Comparative Chronology of the Mesolithic-Neolithic Aegean and Cyprus

Crete	Peloponnese	Kythnos (Maroulas)	Ikaria (Kerame 1)	Cyprus
Knossos EN I 5400 BC cal	Franchthi Paralia			Pottery Neolithic 6000 BC cal
6700 BC cal Knossos Layer X full Neolithic package with Aegean Mesolithic industry (7965±60, 7735±40 BP)	EN Franchthi, phase X full Neolithic package with Aegean Mesolithic industry (7930±100, 7900±90 BP)	Aegean Lower Mesolithic (9610±30, 9350±30 BP) Sedentism, early domestication of swine? Stone architecture	Aegean Lower Mesolithic >9000 BP Obsidian from Melos and Yali	Cypro PPNB 8500/8000 BC cal Cypro PPNA 8750 BC
Livari, eastern Crete Upper Mesolithic industry Uncertain Mesolithic tools of quarz from western Crete	Upper Mesolithic Phase IX Lower Mesolithic Phases VII-VIII Melian obsidian (9340±160,			Nissi Beach (Aegean Mesolithic industry)

(Damnoni, Plakias)	9060±110 BP)			
?	Epigravettian and western Mediterranean influencies	Continental Epigravettian tradition	Continental Epigravettian tradition	Aetokremnos Final Palaeolithic

EN=Early Neolithic PPNB- PPNA=Pre-pottery Neolithic B-A

In this case, the occupation at the site by the Aegean Mesolithichunters and gatherers should be closer to the sea and it is logical that they would engage in fishing activities alongside hunting or harvesting wild cereals. On the other hand, the restricted ecology of the aeolianite and the site's exposure to strong winds in the winter months would make it a poor place for habitation on a more permanent basis. Probably, those hunter-gatherers should have penetrated to the interior of the island while it is likely that they had created other shelters on the coast of Cyprus. The above researchers believe that other higher-lying sites with similar industry will be found in the western and southern coasts of Cyprus and that sites 2 and 3 in the Akrotiri area (Simmons, 2014) confirm this assumption.

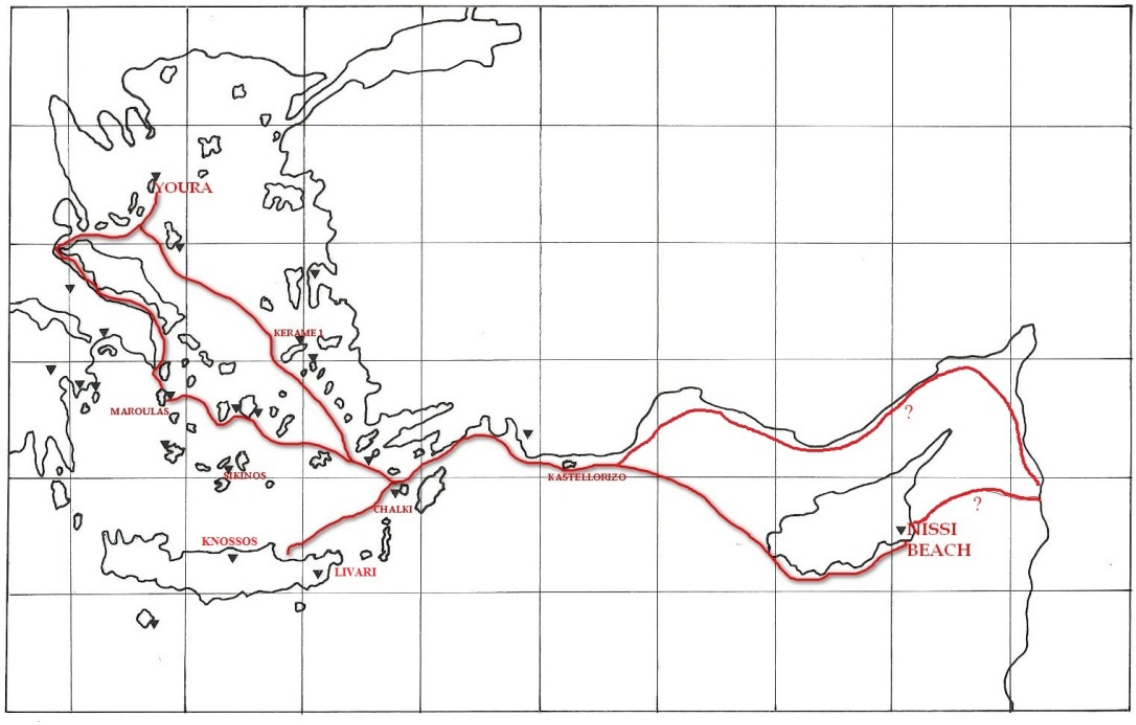

Figure 14. The Hypothetical Route from the Aegean to Cyprus and Near East

However, one would not expect a real migration to have taken place by the fishers-gatherers of the Aegean, because migration according to Albrecht (1972, p. 279) "is an interactive process and can be

the source for fundamental changes in social organization". Individual teams of experienced pioneering sailors could travel eastward looking for contacts with locals as in the case of the Nissi Beach in Cyprus. Interactions between newcomers and autochthonous populations should also be studied and in our case, between the native populations and the migrating hunter-gatherers.

It would not be necessary, the travel from the Aegean to Cyprus to start from the Northern Aegean (Youra), Kythnos or Franchthi; it could start from a southern Mesolithic site such as Chalki, or Kirmeler, a cave site in Adalyaopposite Rhodes. The route to Cyprus would follow the coastline of SW Asia Minor (Antalya) having as background Kastellorizo and other surrounding islets (Figure 14). It should be noted that this small island complex, a short distance from the Antalya peninsula, is the only one on the southern and southwestern coast of Anatolia; it would have probably been a challenge for the early prehistoric groups, since the late Palaeolithic and Mesolithic times, for making trips to the sea and getting the acquisition of experience.

4. The Neolithic Package

Even today, this alternative proposal for the launch of Neolithic in Greece continues to be overshadowed by conservative and unrealistic perceptions, rendering this research field a characteristic example of scientific subjectivity, in which different sides adduce the same "evidence" as arguments to support diametrically opposed views. It becomes clear how timely it is today to discuss the theoretical framework for the beginning of the productive economy in Greece. The international bibliography took into little account the formulation of alternative proposals declared for the first time by Theocharis (1967) for over 50 years ago, while expanded and maintained theoretically by Kotsakis (1992, 2000, 2003) and others (Halstead, 1993; Zvelebil, 1986; Sampson, 2005, 2006, 2014a, 2015; Seferiades, 2007; Reingruber, 2018).

This *exoriente* settled Neolithic "package", that renewed its power with the *demic diffusion* theories of Ammerman and Cavalli-Sforza (1984), has for decades degraded the importance of Greek Mesolithic in the context of mainland Greece and the Aegean, emphasizing in the occupation of these regions from Eastern populations (Runnels 1995; van Andel & Runnels, 1988; Broodbank & Strasser, 1991; Perlès, 2001).

As Reingruber (in print) says "*as a concept the term colonization does not explain the complex transformations at the Mesolithic– Neolithic interface in the Aegean, because this model includes only half of the story: that of the newcomers as colonists and it completely ignores the local, Mesolithic population and the role it played*". Relevant is Simmons' statement (1999, p. 26) about the significance of pre-Neolithic groups; "*if the pre-agriculturalists could live in, for example, the deserts of the American west, or Australia, I find it hard to believe that hunters and gatherers, especially ones with a knowledge of sea-faring, could not have eked out some existence on many of the Mediterranean islands".*

Also, the "Neolithic package" seems incomplete because it refers only to the transport of domesticated

species and not to objects of material culture as lithic industries nor to more important things such as burial customs and worship practices, elements that do not appear anywhere in the Greek area. Claiming that farmers have traveled from the East to the West transporting domesticated animals and plants, is very general and vague and, to a great extent, romantic! It is unlikely that so suddenly, people without experience at sea could make such long trips. But why should they try it? The various theories referring to overpopulation, war conflicts and climate changes are hypothetical and are not based on specific facts.

However, the question of why people (presumably) left the Anatolian highland to settle in an unfamiliar sea-oriented coastal landscape of the Mediterranean or Aegean Sea, where navigational skills were required, should be answerable. Even the question about how migrants from inner Anatolia could have crossed the Aegean Sea is not addressed (e.g.while being non-coastal inhabitants, how did they know to construct and use boats?).

For the first time, social mobility (motility) has been included in the theories of Neolithisation processes in the Aegean (Reingruber, in press). Ammerman and Cavalli-Sforza (1973) based their wave of advance-model on the supposition of population pressure. As sociologists argue, overpopulation is not an exclusive cause for migration. In sociology, a reason for social disequilibrium is that of population surplus, since a reduction in overcrowding shows only short-term relief effects (Franz, 1984, p. 63); indeed, in present-day archaeological studies, this constitutes the generally accepted cause. However, as Reingruber says, "*in order to prove that a mass-migration from Anatolia to the Aegean took place, one would have to also analyze the following: -Who was moving (age, sex, social status)? -How were people moving and how far? How big were the groups? -Why were some people moving and others not? Were whole communities moving or only parts of them? -Why were people moving at all? For the time being it is not possible to find conclusive answers to the first three questions because of the extreme paucity of human remains dating from the 8th to the 6th millennium BC in the whole of the circum-Aegean area. These most basic questions regarding the age and sex of specific individuals on the move must remain unanswered at the moment*".

The Mesolithic navigators must have been aware of the transformations happening further east in order to be led to their own decision-making process. The transformations of the mid-seventh millennium BC are probably supported by small mobile groups (individuals together with their families) from both the east (Anatolia) and the west (Aegean), who exchanged knowledge, also intermarried, and over many decades or even centuries, enlarged the basis of their economic, cultural and social lives.

We can assume that a person or persons who have been distinguished in distant journeys would have been the basic characters for creating a myth similar to that of Homeric Odysseus. Perhaps, the myth of this hero was based on an earlier legend that echoed the accomplishments of distinguished person or persons who acted in the Mediterranean. It is very likely that some people have been in the spotlight since the end of Pleistocene or the Holocene either because they discovered the obsidian deposits of Melos or Yali, which was of immense importance for the technology of the time, or because they had

managed to build safer means for long sea trips.

Travels from west to east seem to have always been taking place since Paleolithic and continued in the Bronze Age and later in the dark period. The invasions of the "peoples of the sea" in the Late Bronze Age reflect massive voyages from the Aegean and the western Mediterranean to the Near East and should not only be related to pirate raids on the coasts of Anatolia and Syropalestine but also to the supply of raw materials, exchanges of goods having also social impacts. Thus, archaeological material gives us more evidence of movements from west to east than the opposite. Unfortunately, for the supporters of the "Neolithic package", the movements from the east to the west and the Aegean in particular, are purely theoretical and are not evidenced in the archaeological record.

5. Discussion

The recent discoveries in maritime Aegean, Crete, western Anatolia and Cyprus are quite enough to put on a new basis the debate for this intriguing theme of the pre-Neolithic movements in the Aegean and eastern Mediterranean.

The "Early Holocene Aegean Islands Tradition" (Kozlowski & Kaczanowska, 2009; Sampson et al., 2012; Sampson, 2016) is distinct from both all the contemporary industries from the eastern Mediterranean and the blade-based industries using pressure-flaking of the western and eastern Aegean during the 7th-6th millennia cal BC**.** As such, the Aegean Mesolithic, c. 9000-7000 cal BC, displays anidiosyncratic character, with foragers exploiting marine and terrestrial resources both on the mainland and the islands and occupying seasonal, multi-seasonal or perhaps even year-round sites.

Since the beginning of 9th mill BC, for 2000 years, there has been a constant presence in the Aegean by populations familiar with the sea, navigation and geography, living in some areas in a mixed Mesolithic/Neolithic stage, participating in common networks of exchange of raw material and sharing common technological types during the whole period. The people of the Aegean Basin had in advance the possibilities for long-haul trips having experience at sea due to their temperament and also due to the peculiarity of the area. They could spread much faster by sea new ideas and over time to turn themselves or others into permanently installed farmers. Since the agriculture and animal husbandry were established in Greece, it was a matter of time that they would be spread to the Balkans and then the West. It is no coincidence that the earliest trips took place in the Aegean Sea and the rest of the Mediterranean by Greek seafarers as they reflect Odysseus' travels and later the large colonies originally on the coasts of Asia Minor, Syropalestine and then across the Mediterranean from the 9th century BC. At this point, we must not forget the early voyages of experienced Phoenician sailors who started at a later stage (beginning of the 1st mill BC).

The intense mobility of Aegean populations, since the 9th millennium, shows that these populations were looking for new sources of food that would change or diversify the unpredictable and dangerous way of supplying food from the sea. It is certain that the transport of animals from the East to Northern Aegean (Youra) was not through their contacts with Mesolithic groups of southwestern Anatolia, since

the finds of the caves in Antalya (Öküzini, Belbidi) have not given any evidence of domestication of animals during this period. Instead, it should have been taking place through Cyprus into which, have already been introduced animals such as goats, sheep and cattle, but also through the opposite coast of Anatolia (Uerpman, 1981).

It is very likely that this marine communication and the contacts were not unilateral, but reciprocal and stemmed from both directions, namely from the west to the east and vice versa (Sampson, 2014a, 2015); however, it's estimated that pre-Neolithic populations of Cyprus had not, by that time, acquired expertise in fishing and navigation similar to that of the Aegean and probably were not able to sail for such long distances. Unlike the Aegean, Cyprus and the continental coast of southern Anatolia and Syropalestine are deprived small neighboring islands opposite them, except Kastelorizo, which would have been a trigger for specialization in sailing and exploitation of their food resources.

AnintriguingissueistheinteractionbetweentheAegeanforagersandtheCypriot farmers and herders. The Aegean Mesolithic foragers, as evidenced, have settled on the southeastern coast of Cyprus, but their contact with local agro-pastoralists must be regarded as certain. It cannot be excluded that they were not limited to this point of Cyprus (Nissi Beach) and there are similar sites of the 9th millennium in other parts of the island that have not yet been found.

Two reasonable questions arise at this point concerning the movements of the Mesolithic populations. Since the Mesolithic occupants of the Aegean had the skills to travel since the 9-8th mill.BC to the Eastern Mediterranean and transfer caprids to the NW Aegean (Cyclops Cave) or some kind of cereals to anywhere else, why could not they spread the domesticated species to different parts of the Greek area like the Aceramic Knossos and Franchthi Cave, the lithic industries of which are of Aegean Mesolithic type and not of Eastern origin (Kaczanowska & Kozlowski, 2006, 2011), as it ought to be if occupants of the above two sites were settlers from the East?

And also why to ascribe the "Neolithic package" to asudden and uncertain "migration" of farmers and herders who came from the East (Broodbank & Strasser, 1991; Efstratiou, 2013; Horejs et al., 2015, Cherry & Leppard, 2017) around 7000 BC, a period during which an active Late Mesolithic population still exists in the Aegean Basin, capable of travelling everywhere and experiment in new patterns of productive economy?

References

Agouridis, C. (1997). Sea routes and navigation in the third millennium Aegean. *OJA*, *16*, 1-24.

Albrecht, G. (1972). *Soziologie der geographischen Mobilität: zugleich ein Beitrag zur Soziologie des sozialen Wandels*. Stuttgart.

Ammerman, A. J., Flourentzos, P., Gabrielli, R., Higham, T., McCartney, C., & Turnbull, T. (2008). Third report on early sites on Cyprus. *Report of the Department of Antiquities, Cyprus*, 1-32.

Ammerman, A. J. (2014). Aspros and Nissi Beach: Tracing the steps in the study of early sites on Cyprus and the origins of seafaring in the Mediterranean World. In *Contributions to the*

Archaeology of Early Cyprus (pp. 7-26). Polish Academy of Arts and Sciences, Krakow.

Broodbank, C. (2000). *An island archaeology of the Early Cyclades*. Cambridge.

Broodbank, C. (2006). The origins and early development of Mediterranean maritime activity. *Journal of Mediterranean Archaeology*, *19*(2), 199-230. https://doi.org/10.1558//jmea.2006.v19i2.199

Broodbank, C., & Strasser, T. (1991). Migrant farmers and the Neolithic colonization of Crete. *Antiquity*, *65,* 233-245. https://doi.org/10.1017/S0003598X00079680

Carter, T., Danica, D., Mihailovic, D., Papadatos, Y., & Sofianou, C. (2016). The Cretan Mesolithic in context, new data from LivariSkiadi (SE Crete). *DocumentaPraehistorica*, *XLIII*, 87-101.

Carter, T., Contreras, D., Doyle, S., Mihailovic, D., & Skarpelis, N. (2016). Early Holocene interaction in the Aegean islands: Mesolithic chert exploitation at Stelida (Naxos, Greece) in context. In M. Ghilardi (Ed.), *Geoarchaeology of the Mediterranean Islands* (pp. 275-286). CNRS éditions, Paris.

Carter, T., Strasser, T. F., Panagopoulou, E., Campeau, K., & Mihailović, D. (2018). Obsidian circulation in the early Holocene Aegean: A case study from Mesolithic Damnoni (SW Crete). *Journal of Archaeological Science*, *17*, 173-183. https://doi.org/10.1016/j.jasrep.2017.11.012

Cherry, J. F. (1981). Pattern and process in the earliest colonization of the Mediterranean islands. *Proceedings of the Prehistoric Society*, *47*, 41-68. https://doi.org/10.1017/S0079497X00008859

Cherry, J. F. (1982). Four problems in Cycladic prehistory. In J. Davis, & J. Cherry (Eds.), *Papers in Cycladic Prehistory* (pp. 22-31). Monograph XIV, Institute of Archaeology, UCLA.

Cherry, J., & Leppard, T. P. (2017). Patterning and its Causation in the Pre-Neolithic colonization of the Mediterranean Islands (Late Pleistocene to Early Holocene). *The Journal of Island and Coastal Archaeology*, 1-15.

Çilingiroğlu, Ç., Dinçer, B., Uhri, A., Gürbıyık, C., Baykara, I., & Çakırlar, C. (2016). New Paleolithic and Mesolithic Sites in the Eastern Aegean: Karaburun Archaeological Survey Project. *Antiquity Project Gallery*, 1-6.

Çilingiroglu, Ç., Dinçer, B., Baykara, I., Uhri, A., & Çakırlar, C. (2018). A possible Late Pleistocene forager site from the Karaburun Peninsula, western Turkey. *Antiquity*, *92362*, 1-5. https://doi.org/10.15184/aqy.2018.51

Efstratiou, N., Karetsou, A., & Banou, E. (2013). The Excavation. In N. Efstratiou, A. Karetsou, & M. Dinou (Eds.), *The Neolithic Settlement of Knossos in Crete. New Evidence for the Early Occupation of Crete and the Aegean Islands* (pp. 1-25). Philadelphia: INSTAP Academic Press, Philadelphia.

Efstratiou, N., Biagi, P., & Starnini, E. (2014). The Epipalaeolithic site of Ouriakos on the island of Lemnos and its place in the Late Pleistocene peopling of the East Mediterranean region. *Adalya*, *17*, 1-24.

Evans, J. (1971). Neolithic Knossos: The growth of a settlement. *Proceedings of the Prehistoric Society 37*, 95-117. https://doi.org/10.1017/S0079497X00012573

Franz, P. (1984). *Soziologie der räumlichen Mobilität. Eine Einführung*. Frankfurt/New York.

Hansen, J. M. (1991). *The Palaeoethnobotany of Franchthi Cave, Excavations at Franchthi Cave, Greece* (Vol. 12). Indiana University Press.

Horejs, B., Milić, B., Ostmann, F., Thanheiser, U., Weninger, B., & Galik, A. (2015). The Aegean in the Early 7th Millennium BC: Maritime networks and colonization. *Journal of World Prehistory*, *28*, 289-330. https://doi.org/10.1007/s10963-015-9090-8

Kaczanowska, M., Kozłowski, J. K., & Sampson, A. (2008). Le Mésolithique du bassinégéen. *Études Balkaniques*, *15*, 85-99.

Kaczanowska, M., & Kozłowski, J. K. (2011). Lithic industry from the aceramic levels at Knossos (Crete, Greece): An alternative approach. *Eurasian Prehistory*, *8*(1-2), 67-87.

Kaczanowska, M., & Kozłowski, J. K. (2014). Reconstruction of lithic assemblages from Nissi Beach (Cyprus). In *Contribution to the archaeology of Early Cyprus* (pp. 67-106). Polish Academy of Arts and Sciences, Krakow.

Kaczanowska, M., & Kozłowski, J. K. (2015). The Aegean Mesolithic: Material culture, chronology, networks of contacts. *Eurasian Prehistory*, *11*(1-2), 31-62.

Kotsakis, K. (1992). The Neolithic way of production: Indigenous or settler? In *Proceedings of International conference in memory of D. Theocharis* (pp. 120-135). TAP, Athens.

Kotsakis, K. (2000). The beginning of the Neolithic in Greece. In N. Kyparissi-Apostolika (Ed.), *Theopetra Cave. Twelve years of excavations (1987-1998)* (pp. 173-177). Ministry of Culture.

Kotsakis, K. (2003). From the Neolithic side: Neolithic interface. In N. Galanidou, & C. Rerlès (Eds.), *The Greek Mesolithic*. *Problems and perspectives* (pp. 217-221). Annual of the British School at Athens, Studies 10.

Koumouzelis, M., Kozlowski, J. K., & Ginter, B. (2003). Mesolithic finds from Cave 1 in the Klissoura Gorge, Argolid. In N. Galanidou, & C. Perlès (Eds.), *The Greek Mesolithic. Problems and perspectives* (pp. 113-122). British School at Athens, Studies 10.

Masseti, M. (1998). Holocene endemic and anthropochorous wild mammals of the Mediterranean islands. *Anthropozoologica*, *28*, 3-20.

Maxwell, V., & Sampson, A. (2018). Maritime contacts in central Aegean during Late Neolithic I (5300-4800 BC). In A. Sampson, & T. Tsourouni (Eds.), *Ftelia on Mykonos, Greece. Neolithic networks in the southern Aegean Basin* (Vol. II, pp. 251-258). Univ. of the Aegean, Monograph Series 7, Athens.

McGrail, S. (2009). *Boats of the World: From the stone ages to the Medieval times*, Oxford Univ. Press.

Özbek, O., & Erdoğu, B. (2017). Initial occupation of the Gelibolu Peninsulaand the Gökçeada (Imbros) Island in thepre-Neolithic and Early Neolithic. *Eurasian Prehistory*, *11*(1-2), 97-128.

Panagopoulou, E., Kotzambopoulou, E., & Karkanas, P. (2001). Geoarchaeological research in Alonessos, New evidence for the Palaeolithic and Mesolithic in the Aegean area. In A. Sampson (Ed.), *Archaeology in the Northern Sporades, Greece* (pp. 121-152).

Papageorgiou, D. (2008). Sea routes in the Prehistoric Cyclades. In N. Brodie, J. Doole, G. Gavalas, & C. Renfrew (Eds.), *Horizon. A colloquium on the Prehistory of the Cyclades* (pp. 9-11). Gambridge.

Perlès, C. (1990). *Les Industries lithiquestaillés de Franchthi (Argolide, Greece). Tome II: Les industries du Mésolithiqueet du Néolithique Initial*. Franchthi 5. Bloomington and Indianapolis: Indiana University Press.

Perlès, C. (2001). *The Early Neolithic in Greece*. Cambridge University Press.

Perlès, C. (2003). The Mesolithic at Franchthi: The overview of the data and problems. In N. Galanidou, & C. Perlès (Eds.), *The Greek Mesolithic:problems and perspectives* (pp. 79-88). British School Studies 10, Athens.

Radovanovic, I. (1996). *The Iron Gates Mesolithic*. Ann Arbor. International Monographs in Prehistory.

Reingruber, A. (2017). Foragers, Fishers and Farmers in the Aegean (12,000-6000 cal BC). In M. Mărgărit, & A. Boroneanț (Eds.), *From hunter-gatherers to farmers. Human adaptations at the end of the Pleistocene and the first part of the Holocene* (pp. 204-215). Papers in Honour of Clive Bonsall.

Reingruber, A. (in print). *Geographical mobility and social motility in the Aegean around the mid-seventh millennium BC*. Praehistorische Zeitung.

Runnels, C. N., Panagopoulou, E., Murray, P., Tsartsidou, G., Mullen, K., & Tourloukis, E. (2005). A Mesolithic landscape in Greece: Testing a site-location model in the Argolid at Kandia. *Journal of Mediterranean Archaeology*, *18*(2), 259-285. https://doi.org/10.1558/jmea.2005.18.2.259

Runnels, C., DiGregorio, C., Wegmann, K. W., Gallen, S. F., Strasser, T. F., & Panagopoulou, E. (2015). Lower Palaeolithic artifacts from Plakias, Crete: Implications for hominin dispersals. *Eurasian Prehistory*, *11*(1-2), 129-152.

Sampson, A. (1996). The Palaeolithic period in Euboea and the Northern Sporades. *Archaeologia*, *60*, 51-57.

Sampson, A. (1998). The Neolithic and Mesolithic occupation of the cave of Cyclope, Youra, Alonessos Greece. *Annual of the British School at Athens*, *93*, 1-22.

Sampson, A. (2005). New evidence from the early productive stages in the Aegean Basin from 9th to 7th mill BC. In C. Lichter (Ed.), *How did farming reach Europe* (pp. 131-141). Deutschen Archäologischen Instituts Istanbul.

Sampson, A. (2006). *Prehistory of the Aegean Basin*. Iolkos Publishers, Athens.

Sampson, A. (2008). *The Cyclops Cave on the island of Youra, Greece. Mesolithic and Neolithic networks in the Northern Aegean Basin* (Vol. 1). INSTAP Academic Press, Philadelphia.

Sampson, A. (2011). *The Cyclops Cave on the island of Youra, Greece. Mesolithic and Neolithic networks in the Northern Aegean Basin* (Vol 2). INSTAP Academic Press, Philadelphia.

Sampson, A. (2014). *Ikaria.* Prehistory and Ethnoarchaeology, monograph in Society of Ikarian Studies, Athens.

Sampson, A. (2014a). The Mesolithic of the Aegean Basin. In C. Manen, T. Perrin, & J. Guillaine (Eds.), *The Neolithic transition in the Mediterranean* (pp. 193-212). Errance.

Sampson, A. (2015). The Aegean Mesolithic. Environment, economy and seafaring. *Eurasian Prehistory*, *11*(1-2), 63-74.

Sampson, A., & Kozlowski, J. K. (1998). Entre l'Anatolie et les Balkans: une sequence mésolithique-néolithique de l'ile de Youra (Sporades du Nord). In M. Otte (Ed.), *Préhistoire de l' Anatolie, Genése de deux mondes* (pp. 125-141). ERAUL.

Sampson, A., Kaczanowska, M., & Kozłowski, J. K. (2010). *The prehistory of the island of Kythnos and the Mesolithic settlement at Maroulas*. Polish Academy of Sciences and Arts and University of the Aegean (monograph 4).

Sampson, A., Kaczanowska, M., & Kozłowski, J. K. (2012). Mesolithic occupations and environments on the island of Ikaria, Aegean, Greece, monograph. In *Folia Quaternaria*. Krakow.

Sampson, A., Kozlowski, J. K., & Kaczanowska, M. (2016). Lithic industries of the Aegean Upper Mesolithic. *Mediterranean Archaeology and Archaeometry*, *16*(3), 229-243.

Sampson, A., Kabouroglou, E., Kaczanowskaand, M., Kozlowski, J. K. (in print). *Presence of Neandertals on the island Agios Efstratios and probable networks of contacts in the northeastern Aegean during the Middle Palaeolithic*.

Sampson, A., Kaczanowska, M., & Kozlowski, J. K. (in print). *Kara Pounta on Sikinos: A settlement of the Mesolithic in the Southern Cyclades*. Proceedings of the 3th Cycladic Inter. Conference.

Seferiades, M. (1983). Uncentreindustrielpréhistoriquedans les Cyclades: Les atelier de debitage du silex de Stelida (Naxos). In *Les Cyclades, Materiaux pour uneétude de geographiehistorique*. Univ. de Dijon.

Simmons, A. (1999). *Faunal extinction in an island society: Pygmy hippopotamus hunters of Cyprus*. Kluver Academic/Plenum Publishers, New York.

Simmons, A. (2014). *Stone Age sailors. Palaeolithic seafaring in the Mediterranean*. Walnut Creek, California.

Srejovic, D. (1969). *Lepenski V. Nova praistorijskakultura u Podunavlju*. Beograd.

Strasser, T., Panagopoulou, E., Runnels, C., Murray, P., Thompson, N., Karkanas, P., McCoy, F., & Wegmann, K. (2010). Stone Age seafaring in the Mediterranean: Evidence from the Plakias region for Lower Palaeolithic and Mesolithic habitation of Crete. *Hesperia*, *79*, 145-190. https://doi.org/10.2972/hesp.79.2.145

Strasser, T., Panagopoulou, E., Karkanas, P., Di Gregorio, C., Clinton, M., Thompson, N., Kapranos, E., & Murray, S. (2015). The excavation at Mesolithic Damnoni in the Agios Vassilios region: A new chronological/cultural period on Crete. In P. Karanastasi, A. Tzigounaki, & C. Tsigonaki (Eds.), *Archaeological work in Crete 3* (pp. 271-280). University of Crete and the Arch. Ephorate of Rethymnon.

Takaoğlu, T., Korkut, T., Erdoğu, B., & Isın, G. (2014). Archaeological evidence for 9th and 8th

millennia BC at Girmeler Cave near Tlos in SW Turkey. *Documenta Praehistorica*, *41*, 111-118. https://doi.org/10.4312/dp.41.6

Theocharis, D. (1959). From the prehistoric Euboea. *Archive of Euboean Studies*, *6*, 279-328.

Theocharis, D. (1967). *The dawn of Thessalian Prehistory*. Volos.

Trantalidou, K. (2011). From Mesolithic fishermen and bird hunters to Neolithic goat herders. The transformation of an island economy in the Aegean. In A. Sampson (Ed.), *The Cyclops Cave on the island of Youra, Greece. Mesolithic and Neolithic networks in the Northern Aegean Basin* (Vol 2, pp. 53-150). INSTAP Monograph Series.

Tzalas, H. (1995). On the obsidian trail: With a papyrus craft in the Cyclades. In H. Tzalas (Ed.), *Tropis III: 3rd International Symposium on Ship Construction in Antiquity* (pp. 441-469). Athens.

Uerpman, H. P. (1981). The major faunal areas of the Middle East during the Late Pleistocene and Early Holocene. In J. Cauvin, & P. Sanlavile (Eds), *Préhistoire du Levant* (pp. 99-106). Paris,

Vigne J. D. (1987). L' extinction Holocene du fonds de peuplementmammalienindigène des iles de Méditerranée Occidentale. *Mémoires de la Société Géologique de France N. S.*, *150*, 167-177.

Zvelebil, M. (1986). Mesolithic prelude and Neolithic Revolution. In M. Svelebil (Ed.), *Hunters in transition: Mesolithic societies of Temperate Eurasia and their transition to farming* (pp. 5-16). Cambridge University Press.