

hunter-gatherers did when confronted with boatloads of PPN colonists, if that were indeed the case. Were these new people, artifacts and technologies, animals, and ideas welcomed with open arms? Or was there a great deal of skepticism, humoring, and even downright hostility? What filtering effects did the locals exact on what elements were meaningful to them, and what kinds of syncretism were developed in those areas where assimilation was undertaken?

Fundamentally, we are at a loss in understanding the nature of contact between Cypriot populations and mainland populations simply because they are invisible on the map. We have little idea (if any) of the sea-faring tendencies and skills of the island population (who certainly must have been familiar with the rougher parts of sea activities), and we are completely (?) in the dark concerning the coastal skills of mainland PPN groups, no matter what part of the Mediterranean coast we might mention. Littoral orientations are most likely to be found most intensively along PPN shorelines, but it is not clear where those 10th and 11th millennium cal BP beaches were: PPNC Atlit Yam, south of Haifa, lies 10-12 m below modern sea level (Galili *et al.* 1993), and Pottery Neolithic sites along the beach at nearby Newe Yam are also submerged. It would perhaps be profitable to investigate whether, and to what degrees, coastal subsidence in this tectonically active coastline (from Cilicia to Gaza, and all around the island of Cyprus) may have occurred, and how the relationship of elevation and post-glacial rise in sea level may have played out. Was there, possibly, an extensive littoral PPN and PN adaptation, for

which we have only the Atlit and Newe Yam evidence? The close relationship of shoreline residents and their familiarity with the sea would go a long way to explaining the success of what must have been repeated voyages in both directions, and it raises the question if the direction of Neolithization was necessarily instigated by sailing groups leaving the mainland for the island; could the direction have been reversed, with sailors from Cyprus picking and choosing what they wanted to bring back with them?

If there were marine-oriented groups on both the island and the mainland coasts, the exchange from one to the other may reveal that "cultural filter" in operation should any submerged settlements be discovered from the appropriate time. Such evidence would clarify the immigrationist, indigenist, and integrationist models that Peltenburg has offered, and it would add a new dimension to understanding Neolithization processes all through the Near East. While this might seem speculative, the Atlit Yam evidence argues that more intensive sea floor investigations along both the mainland and the eastern parts of the Cypriot shores might be successful in resolving some of the issues currently facing us in this part of Cyprus' prehistory.

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## Dialogue

# Cyprus, Aegean, and Near East During the PPN

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The latest discoveries in Cyprus over the past several years not only prove that the dates from the island go further back than previously believed, but they also emphasize the importance of the Mediterranean islands in ideological terms to peoples on the mainland. It is now confirmed that a phase contemporaneous to the PPNA took place in Cyprus, even though it seems to be more primitive than the Syro-Palestinian version, and a more recent phase, evident in the sites of Shillourokambos (Guilaine and Briois 2001) and Milouthkia (Peltenburg 2003), corresponds to an early stage of the PPNB.

Furthermore, impressive discoveries about the Early Holocene took place not only in Cyprus, but also in the Aegean during the 1990s, and they have yielded new evidence that superseded long-held views about the total absence of inhabitants on the islands. New information verifies that the Aegean islands were not only inhabited in pre-Neolithic times (Woodman 1990), but they also constituted – even though bare today – complete ecosystems that could provide for adequate nutrition.

More specifically, two research programs that were initiated simultaneously in the early 1990s yielded the



new information on the Aegean area; the first was undertaken at the Cyclops Cave on Youra Island in the North Sporades in the northern Aegean, and the second on the Cycladic island of Kythnos.

In the Cyclops Cave (Sampson 1998; Sampson *et al.* 1998) consecutive undisturbed layers of habitation from the Early Holocene were unearthed, up to approximately 3 m in thickness, under Neolithic deposits. The lithic types comprise flakes, crescents and trapezoidal microliths from flint and obsidian. Of special interest is a collection of bone fish hooks. Finally, the food remnants contain plenty of shells and fish remains, bones of birds and wild animals, as well as suids and caprines with signs of early domestication (Trantalidou 2003).

What is assumed from the overall study is that the cave was used by a small group of active people with advanced knowledge in seafaring. As the marine environment of the islands in the region is in the centre of the Aegean, and this would necessarily mean deep waters, difficult sea routes and rough weather, despite the lower sea level at the time. These people had probably developed an extensive range of contacts in the area, as observed in their familiarity to the networks of obsidian transportation and know-how from Milos Island, and the typological affinities between the Youra microliths and similar tools from caves in southeastern Turkey (Yalcinkaya 1995; Sampson *et al.* 1998). The association of this group of people to the Asia Minor side of the Aegean is of particular importance, due to the observation that the inhabitants of Youra, although partly based on fishing and hunting as a means of obtaining nutrition, were already involved in domesticating pigs and caprines. This practice was most likely carried out either in a pre-colonizing stage or through contacts with inhabitants of the Asia Minor coast while people still lived on Youra.

Human presence on Youra covers a long period of the Holocene, from the beginning of 9th millennium cal BC until the middle of 7th millennium cal. BC and typologically belongs to the Mesolithic. Nevertheless, the characteristic of early domestication on Youra, already present in the lower layers, adds a pre-ceramic character to the site and thus could place it as a marginal point in the spheres of PPNA and PPNB, which chiefly pertain to the areas of Upper Euphrates and Syro-Palestine. Cyprus, thus, enlarges the area geographically, and the Aegean even more, even though the gap created by the absence of analogous sites in western Anatolia has not been bridged so far.

Within this area, Youra offers a number of similarities to the nuclear zone (Upper Euphrates and Syro-Palestine), despite the geographical distance and the differences between them regarding the complexity of symbolism in Asian sites and the periphery (Cyprus). Concerning the nuclear zone, the presence of early domesticated suids at Youra shares common features with the contemporary pig sites in the Upper Euphrates area in the

frontiers between Turkey and Syria, such as Hallan Çemi (Vigne and Buitenhuis 1999), where pigs – and not caprines – are considered to be the first and oldest domesticated animal. On the other hand, the presence of recently domesticated goats in Cyclops Cave during the Lower and Upper Neolithic has equivalents in modern sites in the northern Levant, where goat domestication had just begun.

Additionally, the Cyclops Cave clearly shares common characteristics with the Akrotiri phase of Cyprus, even though the latter is slightly earlier, at the border of the Epipalaeolithic period. The affinities between Cyclops Cave and Aetokremnos (Simmons *et al.* 1999) are evident as far as the type of the location (*i.e.*, cave) and the criteria of their selection in relation to the marine ecosystem (*i.e.*, on steep seashores) are concerned, as well as the contact with the ‘exterior’ aspect of the island (*e.g.*, view, maritime character of the location) and the ‘interior’ (*e.g.*, hunting areas, springs). But what is prominently common between the two sites is the tendency towards the same survival means: namely, the inhabitants of both sites evidently employed efficient food-gathering and hunting techniques (Katsarou 2001). In Youra they specialized in fishing, while in Aetokremnos in the hunting of endemic pigmy mammals. Both groups seem to make use of their sites as a central station that probably belonged to a larger network of locations, used periodically by hunters, who would move and stay more or less permanently in each area according to its peculiarities. The expertise in hunting in both sites is also confirmed by the strong localized idiosyncrasies, the tendency towards microlithic types, and the limited variability in tools that are noted in the areas. Furthermore, hunting is considered to be a widespread common survival method in the wider area of the Epipalaeolithic/Mesolithic and the PPNA. Finally, the domestication of animals, at a very early stage, is present in both sites – pigs are present also in Aetokremnos, but they represent a lower rank source of food.

The site of Maroulas in Kythnos island in the Aegean (Sampson *et al.* 2002) comprises a settlement of round huts and burials that date from the same period as Youra (from 9th to 7th mill. cal BC) and presents early domestication of suids. Franchthi Cave in the eastern part of Greek mainland (Perlès 1987) belongs to the same period, but it does not offer signs of early domestication. The lithic industry of Maroulas provides evidence for the site’s Mesolithic character, already known from the case of Youra. The two sites seem to have more features in common, such as the coastal and dominating location, the marine character, and the hunting/food-gathering economy that is chiefly attracted to sea resources. Maroulas, however, offers substantiation for the early domestication and new typological/cultural information, unparalleled in the Greek region, such as round or ellipsoid stone buildings, with pavements above burials.



The new information from Kythnos gives rise to new cultural interrelations in the Aegean area, as was the case in Cyprus (Shillourokambos, Milouthkia) during the corresponding phase. Of course, one cannot doubt the fact that during this period the settlements on Cyprus showed a clear preference for permanence and domestication of animals and plants with more complex forms of symbolism, and the Cypriot civilization clearly corresponds to the firmly established mainland PPNB. This does not occur in the southern Aegean, where the economy is evidently not entirely Neolithic, but it seems likely that it was influenced by the PPNB, which can be primarily seen in the round forms of architecture as a Syro-Palestinian Epipalaeolithic remnant in Cyprus.

## Conclusion

The new finds in Cyprus justify the island's PPNB character, whereas the new discoveries in the Aegean back up the view that this area must also be included in the PPNA and PPNB areas of influence and categorized under a marginal zone. Cyclops Cave and Kythnos are in absolute accordance with PPNA and PPNB in terms of economy, of which domestication is a major part. The people in the Aegean and the PPNA-PPNB sites in Anatolia and Cyprus continued to employ food-gathering and hunting techniques, and they used domestication as a supplementary economical means. Even though lithic industry in the Aegean is strictly Mesolithic, achievements were attained in other fields, such as the early domestication, the circular buildings and the seafaring.

The bias that these early phases of the Neolithic are not manifested in the Aegean islands has hindered research so far, but since the discovery of similar new sites, finds of special interest are expected in the near future. As a final point, research in the island of Rhodes, where Neolithic finds from 6th mill BC onwards have been unearthed (Sampson 1987), is imperative, as the island most probably constituted a link in the moving of ideas with maritime means.

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