

# The seascape in Aegean Prehistory

Edited by *Giorgos Vavouranakis*



Monographs of the Danish Institute at Athens  
Volume 14











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*To Matti Egon,*  
*— a distinguished representative of Greek maritime culture*



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# Preface

The idea about this volume came up during a meeting with a friend, who is not an archaeologist, but he has been involved in several archaeological and museum exhibition projects, some of which were about maritime archaeology. He suggested that I prepared a volume on prehistoric maritime activity. I objected that I was not a marine archaeologist and that I only enjoyed the sea as a tourist. When I wrote about the importance of the sea I usually adopted a land-based approach. He then proposed that I prepared a volume which would examine the sea and maritime activity from a land-based perspective.

I began to think about my friend's proposal and several research questions emerged. Was the Aegean Sea simply a means of survival in Prehistory or did it attain further significance? How did prehistoric people experience the sea? Did they even consider such issues? Did they form collective attitudes and views and how were these attitudes formed? Did the sea carry positive or negative connotations? Were there particular maritime activities that were either favoured or avoided at specific time periods? Did the sea separate or bring together lands and people? What was the place of the sea within the area of ideology, political and metaphysical? Does prehistoric art picture the sea and maritime activity and in what way? What was the importance of imports as products of maritime activity in the shaping of human experiences and collective attitudes?

It became evident that the theme of the volume was rather demanding and would be best handled by a group of people. All invited authors responded immediately and enthusiastically. Although I suggested the topics of their chapters, they were allowed enough freedom to formulate their texts in

their own way. A few months after the invitations, the first drafts started coming in my e-mail account and I started the editorial. This proved to be a rather long process with a significant impact upon the theme of the volume. As I engaged with drafts, reviews and comments, my perspective upon the sea transformed. My vocabulary grew more sophisticated and my approach to maritime culture became nuanced, problematized and more sea-focused than before. Nevertheless and despite such a transformation of my disciplinary armour, I maintained an interest in relatively conventional and terrestrially based ways of examining the seascape as part of the wider social landscape. As a result, my own standing point for viewing the sea and for forming a personal seascape, still swings like a pendulum between land and water.

This land-based appreciation of the sea might be bearing the influence of personal experiences. I have spent significant periods of time on large islands, such as Crete and Cyprus, which may easily evoke the illusion of a mainland. I also visit Laurio frequently, a place where the changes of scenery are sharp. On the one hand, there are several hill slopes with pine trees and vines. On the other, the coast, the islands of Makronisos and Kea and the open sea are almost always visible. It is not always easy to be certain whether Laurio is the tip of the mainland and not just a large island. These personal notes only wish to highlight that the Aegean is a closed sea with so many islands and fjord-like gulfs that the land and the sea are constantly interlocked with each other. As a result, the Aegean may be inhabited in several possible ways, depending both on the features of each specific habitat, but also on human choice, which renders the sea a constituent of society and, hence, a topic of interest for any

researcher of the so-called 'human condition.' The present book is offered as a contribution to this kind of research.

Before closing, I wish to thank the following: Tassos Bellas, for prompting me to start this book; Eleni Mantzourani, for her advice, always practical and effective, particularly during the stage of the book proposal and the search for authors; the Danish Institute at Athens for reviewing and accepting the book for publication; especially Erik Hallager for trusting both editor and authors for the final outcome. I also thank him for his copious efforts and meticulous work during all the stages of the book. It has been more than a pleasure working with him. I wish to thank all the authors for doing their best to contribute a series of very interesting chapters and for responding to my editorial requests promptly. Working with each one and all of them has been a great, pleasant experience. I also thank the group of reviewers, who, unfortunately, have to remain anonymous. Their comments improved the quality of this book significantly. The Department of Antiquities in Cyprus, the Institute of Aegean Prehistory, the N.P. Goulandris Foundation Museum of Cycladic Art, the Swedish Institutes at Athens and Rome, Prof. C. Adelman, Dr. C. Broodbank, Dr. S.

Hatzisavvas, Dr. L. Platon and Prof. C. Renfrew kindly allowed the reproduction of illustrations from their publications. Most of the maps are based on Daniel Dalet's maps (Mediterranean: [http://d-maps.com/carte.php?lib=ancient\\_mediterranean\\_sea\\_map&num\\_car=5860&lang=en](http://d-maps.com/carte.php?lib=ancient_mediterranean_sea_map&num_car=5860&lang=en), Aegean: [http://d-maps.com/carte.php?lib=eastern\\_mediterranean\\_sea\\_map&num\\_car=3160&lang=en](http://d-maps.com/carte.php?lib=eastern_mediterranean_sea_map&num_car=3160&lang=en); Greece: [http://d-maps.com/carte.php?lib=greece\\_map&num\\_car=2268&lang=en](http://d-maps.com/carte.php?lib=greece_map&num_car=2268&lang=en), Aegean Sea: [http://d-maps.com/carte.php?lib=aegean\\_sea\\_map&num\\_car=3172&lang=en](http://d-maps.com/carte.php?lib=aegean_sea_map&num_car=3172&lang=en); Cyprus: [http://d-maps.com/carte.php?lib=cyprus\\_map&num\\_car=2150&lang=en](http://d-maps.com/carte.php?lib=cyprus_map&num_car=2150&lang=en)).

Last but not least, I wish to thank all the sponsors of the publication: The Danish Institute at Athens, the Institute of Aegean Prehistory, Mrs Matti Egon, the Ministry of Culture of Cyprus, Konsul Georg Jorck og hustru Emma Jorck's Fond and the Psychia Foundation. My research regarding the overall theme of the book was based upon my post-doctoral work in the University of Athens with a grant by The State Scholarship Foundation (IKY).

February 2011

*Giorgos Vavouranakis*



# Introduction\*

*Giorgos Vavouranakis*

This book is about the relationship between the people and the sea in the prehistoric Aegean. It explores how people understood the sea as an integral part of their way of life and examines the role the sea played in the prehistoric societies of the archipelago. It may at first seem obvious – even self-evident – that there had been a close relationship between people and the sea, since the Aegean Archipelago is the dominant feature of its wider area. It spreads over a total area of about 214,000 sq km. This is a bit less than the overall land area of the Greek state today, which is almost 132,000 sq km.<sup>1</sup> This large area of water includes over 1000 islands, many of which are populated today. The Aegean Sea and its islands epitomise Greece in the minds of many people today.

Nonetheless, we should remember that the land that borders the Aegean features the important mountain range of Pindos, the plains of Thessaly and Macedonia and, next to Greece, Turkey, with the solid landmass of Asia Minor. These places have always accommodated extensive and flourishing communities that were not related to the sea at all. Furthermore, many people on Mt Ida in Crete had never seen the sea in the recent past, despite being on an island, while until recently many Greeks living close to the coast had not known how to swim. A maritime way of life may be an obvious option, but it is neither the only nor an inevitable one in the Aegean. There is always room for choice in the relation between people and the sea and this relation may acquire various forms and different degrees of intimacy.

Such diversity is reflected in the Greek language, which has several words that refer to the sea (e.g. θάλασσα, πόντος, πέλαγος, ωκεανός). Jean-Nicolas Corvisier<sup>2</sup> has distinguished a similar diversity

in his recent examination of the relationship between Greeks and the sea in Antiquity. The sea was a source of food and, consequently, of fishing income. It was also a medium for travel and the establishment of colonies and trade, which were practices that brought people closer together. At the same time, the sea was an alien and dangerous place, with storms causing shipwrecks, pirates looting merchant vessels and coastal settlements and naval battles over disputes of military and political power and domination. Finally, the sea was part of religious and ritual activity, with shrines and temples dedicated to gods and goddesses that protected the sea and the harbours.

More importantly, Corvisier points out that the Greeks did not simply live off maritime activity. They had also developed different attitudes towards the sea. In the same vein, Astrid Lindenlauf<sup>3</sup> has recently pointed out that some ancient authors, like Plato, defined the sea as a medium that united different lands (Pl. *Phd.* 109B). Others, like Herodotus, saw the sea as a place of no return, a dangerous away-place where things and people get lost forever. Corvisier places the starting point for the formation of such collective attitudes in the Dark Ages and the Archaic period. He argues that the Homeric epics and other poems fused the memories of the

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\* I would like to thank Michael Boyd, Keith Branigan and George Manginis for reading this chapter. The text benefited significantly from their observations and corrections. Nevertheless, the responsibility for any shortcomings stays with me.

<sup>1</sup> Wikipedia 2010a; Wikipedia 2010b; Wikipedia 2010c.

<sup>2</sup> Corvisier 2008.

<sup>3</sup> Lindenlauf 2003, 417–9. For a detailed review of different attitudes of the Greeks towards the sea, Lesky 1947.

past with the sea itself. Such memories included the extensive maritime travels that took place in the cosmopolitan atmosphere of the Late Bronze Age and also the violent collapse of this world with the fall of the Mycenaean palatial societies. Such fusion created a world of myths and legends, which was situated in the sea. This world became important when the Phoenicians started travelling to Greece and prompted the Greeks to re-open themselves to the maritime activity.

Corvisier<sup>4</sup> does not see any similar formation of collective attitudes in Prehistory, although his treatment of the period acknowledges the importance of the sea. The latter is a means for subsistence in the Palaeolithic and Mesolithic periods, for travel and exchange in the Early and Middle Bronze Age and for the establishment of the Mycenaean power in the second part of the Late Bronze Age. This argument supposes that the sea simply reflected the main features of social structure in Prehistory and lacked the significance it attained later, in Antiquity, when the richness and diversity of human involvement cast the sea as important in its own respect and, hence, an operational element of ancient Greek society. This book aims to change the above instrumental view of the sea in Aegean Prehistory. It argues that maritime activity before 1200 BC imbued the sea with meaning and established a relationship between people and the sea that was similarly complex, diverse and dynamic to that which Corvisier suggests for Antiquity. As a result, the sea should not be seen as a passive feature of the environment but, rather, an active constituent of the social web in Prehistory.

The rest of this Introduction aims to situate the above aim of the book within the current disciplinary, and wider intellectual framework. It starts with an overview of recent theoretical and methodological trends first in 'landscape archaeology' and then in 'seascape archaeology.' Each overview ends with an outline of relevant developments within Aegean archaeology. The Introduction concludes with a guide to the chapters and to the ways in which each one of them contributes to the major theme of the book.

## Landscape and seascape archaeology

### *Landscape archaeology*

The discipline of archaeology has already developed the necessary concepts, methods and field techniques for the pursuit of the above research agenda, mainly within the field of landscape archaeology. The latter had been until recently divided between two different approaches. The positivist and empiricist approach,<sup>5</sup> which mostly operated within the paradigm of processual archaeology, aimed at reconstructing the features of the natural environment in the past and the ways in which people adapted to their environment. Survey – and particularly off-site survey – was one of the main field practices of this approach since the survey finds show changes in patterns of human habitation of the land. The aid of environmental archaeology has also been a key to this approach.

The second approach followed a post-processual interpretative research trajectory<sup>6</sup> and argued that people do not simply live on the surface of the earth and adapt to the natural environment; rather, people imbue their surroundings with meaning. As a result, the features of the environment become embodiments of the values that herald the composition of any society.<sup>7</sup> This role allows the environment to affect the agency of people. This dynamic view of the relationship between people and their environs has several repercussions on how we understand the landscape.

First, there is no a priori distinction between natural and manmade features, because they all attain a social role. In addition, the meaning of each of the above features depends upon the specific people and their specific actions. Different people or activities may emphasize different aspects of the environment, which is thus perceived hierarchi-

<sup>4</sup> Corvisier 2008, 11–35.

<sup>5</sup> Indicatively see Rossignol & Wandsnider 1992.

<sup>6</sup> E.g. see Edmonds 1999; Ingold 2000; Tilley 1994.

<sup>7</sup> For the importance of collective values in society, see Cohen 1985.



cally, as some features always come to the fore of human perception and others retreat to the background and are perceived in a relatively indistinct manner. Such a process is very much similar to the way in which an artist selects a part of his/her surroundings in order to frame it and paint it on the canvas.

If we use the metaphor of the painting to understand the social role of the landscape, the latter may be seen as a canvas that is continuously re-painted, since different groups of people may adhere to different social values, resulting in different significations of the same features of the environment than before. Past meanings may be erased completely or they may leave a faint trace upon the canvas, which is thus rendered a palimpsest of past habitations and their significations. As such, the landscape is more than a social artefact. It is an active repository of collective memory and value and, consequently, an even more active constituent of society. It becomes a secondary social agent.<sup>8</sup> This means that the landscape is socially active but has a lesser ontological status than the human agents, since it is not independent as they are, but its social role is inextricably linked to their actions and values.<sup>9</sup>

There has been a serious attempt to override the division between processual and post-processual approaches to the issue of the landscape during the last decade. Surface surveys have moved beyond the search for sites presented as “dots on the map.”<sup>10</sup> They have become regional projects, which show an increased sensitivity towards the social determinates of human behaviour and aim at the comprehensive understanding of human activity in the landscape.<sup>11</sup> In addition, processual archaeologists focused on the importance of human cognition in the use of space. For example, E. Zubrow<sup>12</sup> has suggested that the relationship between people and space may be seen operating at two levels: one level comprises the spatial reality, where things actually happen; another level is the cultural representation of this reality, such as the “mental map,” which is culturally situated.

This idea of layers is highly reminiscent of GIS (Geographical Information Systems),<sup>13</sup> which are computer applications that record and process spatial data in layers, while they are also able to tag

non-spatial data in a spatial manner. Archaeological applications of GIS aim at modelling human action in space, e.g. predictive modelling of site distribution or site catchment analysis. Although early GIS projects were rather positivist and empiricist, in that they emphasized quantitative analysis, recent trends bring GIS closer to phenomenological approaches to the landscape.<sup>14</sup> For example, recent visibility and accessibility studies are more sensitive to social aspects of the landscape, such as important monuments, and the results of such studies have affected site catchment analysis. As a result, the technological tool of GIS has facilitated a more holistic approach to the landscape than before.

In addition, the growing engagement of post-processual archaeologists in field projects has allowed a better understanding of the restrictions that field data impose upon interpretation, usually due to the lack of contextual information.<sup>15</sup> Furthermore, the immediate and wide adoption of most new technological tools has facilitated a growing appreciation for quantitative analysis. All the above developments have resulted in a renewed and holistic approach to the landscape,<sup>16</sup> where environmental restrictions and the need of people to adapt and secure their subsistence effectively are taken into account but, at the same time, it is accepted that land use practices are culturally contingent. The landscape, as a whole, on the one hand has to be protected as part of cultural heritage<sup>17</sup> and, on the

<sup>8</sup> For the role of secondary social agents see Gell 1998.

<sup>9</sup> On the issue of ‘relative ontology’ and the discarding of the dualism between animate and inanimate beings see Alberti & Bray 2009.

<sup>10</sup> Bintliff 2000a.

<sup>11</sup> E.g. see Alcock & Cherry 2003.

<sup>12</sup> Zubrow 2005. E. Zubrow is one of the major pioneers of cognitive archaeology (Renfrew & Zubrow 1994).

<sup>13</sup> It is not a coincidence that E. Zubrow has been heavily involved into the development of GIS applications for archaeology (Allen *et al.* 1990). For an overview of the contribution of GIS in archaeology with relevant bibliography, see Lock 2003, 164–82.

<sup>14</sup> Llobera 2005.

<sup>15</sup> Hodder 1996.

<sup>16</sup> For details see chapters in David & Thomas 2008.

<sup>17</sup> Council of Europe 2004; also papers in Doukellis & Mendoni 2004.

other hand, has to be approached as an autonomous object of archaeological study.

### *Landscape archaeology in Greece*<sup>18</sup>

Until the beginning of the 21<sup>st</sup> century, landscape archaeology in Greece had been mainly approached as “long-term history,”<sup>19</sup> namely as intensive survey. Acheson and Davies<sup>20</sup> follow the development of this sub-disciplinary field and trace the first systematic attempts to understand the relationship between people and their environment in the early 1970s and the Minnesota Messenia Expedition.<sup>21</sup> Forty years later, surveys have developed into regional projects, interested in off-site human interaction with the environment, agricultural population dynamics and the role of political institutions and socio-economic structures in settlement patterns and land use strategies. Regional projects have also started to incorporate ethnographic work in their methodologies, including oral history and the traditions of the recent past. There is a tendency, on the one hand, to break away from the notion of the completely neutral scientist, detached from his/her object of study and, on the other hand, to actively engage with the people that inhabit the areas of fieldwork today and have a specific sense of place. There is also a recently growing interest in the role of social memory and the role of monuments as parameters that may affect the mental maps that guide human action in the landscape.<sup>22</sup>

Such an interest has not grown into full-scale research about the social role of the landscape until recently. Interpretative attempts had been restricted to the presence of the natural world in art and specifically iconography, or the so-called “sacred geographies.”<sup>23</sup> The latter has largely revolved around studies such as tomb and hero cult,<sup>24</sup> the topography of sanctuaries<sup>25</sup> with emphasis on naturally demarcated areas of cult, such as the peak sanctuaries of Bronze Age Crete,<sup>26</sup> and the role of funerary monuments, such as the *tholos* tombs of southern Crete, in marking the boundaries of a community.<sup>27</sup>

The last decade has seen the growing influence of the post-processual landscape agenda. Given and Knapp<sup>28</sup> conducted and published the results

of a regional survey project, which explored the dynamic relationship between people and environment and its results, namely the various landscapes (agricultural, mining, ritual, ideational) that stemmed out of the same region in Cyprus, namely the area of Politiko at the Troodos southern foothills. Beyond surveys there have been studies that examine the visibility, architectural monumentality and social significance of burial locales, such as the Middle and Late Bronze Age burial monuments of the Peloponnese<sup>29</sup> and the Late Bronze Age tombs of the Dodecanese.<sup>30</sup>

The influence of such landscape research has been particularly intense in Minoan archaeology. Two years before the new millennium, K. Branigan<sup>31</sup> argued that the Bronze Age *tholoi* were strategically located in relation to their respective settlements. Day and Wilson<sup>32</sup> have attempted to explain the special status of Knossos within Crete and have underlined two parameters. The first parameter is the long period of occupation of the site, spanning back to the Neolithic period. The second parameter is the key role of Knossos in craft production and exchange, which resulted in the acquisition and consumption of high quality pottery in the so-called ‘palace of Minos.’ As a result, Knossos attained a pivotal place within both the economic and ritual landscape. Barrett and Damilati<sup>33</sup> have built upon the work of Day and Wilson and have

<sup>18</sup> For more details on the history of landscape archaeology in Greece, albeit with a special emphasis on Crete, Gkiasta 2008; Vavouranakis in press.

<sup>19</sup> Term introduced by Cherry *et al.* 1991.

<sup>20</sup> Acheson & Davies 2005.

<sup>21</sup> McDonald & Rapp 1972.

<sup>22</sup> Alcock 2005; but see the critique on the value of the sense of place in interpreting survey data by Bintliff 2000b.

<sup>23</sup> Bintliff 2000a.

<sup>24</sup> Antonaccio 1995.

<sup>25</sup> Alcock & Osborn 1994.

<sup>26</sup> E.g. Peatfield 1990.

<sup>27</sup> Bintliff in Blackman & Branigan 1977.

<sup>28</sup> Given & Knapp 2003.

<sup>29</sup> Boyd 2002.

<sup>30</sup> Georgiadis 2003.

<sup>31</sup> Branigan 1998.

<sup>32</sup> Day & Wilson 2002.

<sup>33</sup> Barrett & Damilati 2004, 166–7.



seen a landscape of familiar agricultural activities at Knossos, evoked by the conspicuous consumption of pottery, food and drink in the palace. This has been contrasted to Poros-Katsambas and an exotic landscape, which alluded to the knowledge of foreign lands and technical expertise, accumulated over perilous maritime voyages. This landscape hinged upon the use and deposition of imported Cycladic pottery, metal craft activity and the relatively large scale working of obsidian from Melos at Poros.

J. Driessen<sup>34</sup> has argued that the palaces may have been built in such a way as to organize the perception of their topographical surroundings and provide the people in them with a series of meaningful vistas. My own research<sup>35</sup> has examined changes in topography and architectural monumentality of Bronze Age tombs, east of the Lasithi massif as attempts by the Cretan communities to signify the landscape with commonly accepted values in order to respond to wider socio-historical transformations. L. Hitchcock<sup>36</sup> has examined a variety of evidence and themes of Minoan archaeology, especially related to the palaces (tree and pillar cult, the role of water in ritual activity, lustral basins, the presence of the natural world in the iconography of seals and pottery vessels) and has argued that most of the features of the natural environment in Crete had been imbued with meaning and value that supported the socio-political institution of the palace.

Finally, Soetens<sup>37</sup> has conducted a GIS project, regarding the spatio-temporal structure and arrangement of the Cretan peak sanctuaries, such as their relation to both manmade and natural features of the landscape, as well as the characteristics of the space in between these places of cult. This study examined the topographical and geological characteristics of the areas where peak sanctuaries are situated, the distance of these sanctuaries from settlements, accessibility and visibility from various types of sites (settlements, other sanctuaries, caves), relation to roads and relation to settlement catchment areas based on terrain digital modelling. This study is an example of the new holistic approaches to landscape with the aid of new technology.

## *The archaeology of maritime culture*

The need for an examination of the social significance of the sea had already been acknowledged before any post-processual landscape agenda. In 1978, C. Westerdahl<sup>38</sup> coined the term «mariculture», an English neologism and an attempt to translate the Swedish word *sjöbruk* and the Finnish *merenkäyttö*, which signify human utilization of maritime space by boat (settlement, fishing, hunting, shipping, pilotage, lighthouses, seamark maintenance) in contrast to an agropastoral way of life. According to Westerdahl, mariculture creates a maritime cultural landscape, which in turn may be defined as the mapping and imprinting of the functional aspects of the surroundings in the human mind. The maritime cultural landscape was used by Westerdahl as a heuristic device for the co-examination of material remains both under the water (e.g. shipwrecks) and on land (e.g. harbour installations), including islands, mainland coastal areas and inland water ways. The natural features of both terrestrial and marine environment (e.g. coastline changes and sea currents) should combine with the recording of maritime traditions of the recent past and of place names in order to understand sea routes and seafaring practices. He proposed that such a device would allow a better management of the Nordic archaeological heritage.

Westerdahl's concepts did not escape severe criticism. For example, Hunter<sup>39</sup> argued that they only suited heritage management strategies and were inadequate for the study of the past itself, because they isolated maritime activities from land activities, e.g. trading communities living in harbour towns from the centralized authorities that were situated inland and controlled trade. He further argued that maritime culture should not be regarded as a distinct

<sup>34</sup> Driessen 2004.

<sup>35</sup> Vavouranakis 2007.

<sup>36</sup> Hitchcock 2007.

<sup>37</sup> Soetens 2006.

<sup>38</sup> C. Westerdahl expressed these views in his Ph.D. dissertation. They became widely known later in a paper that summarized his main research results (Westerdahl 1992).

<sup>39</sup> Hunter 1994.

entity. Rather, each culture may have a maritime component. This component may be stronger or weaker, depending upon the degree of dependence of each culture upon the sea and maritime activity. As much as Hunter was right in pointing out the possible connections between a maritime and a terrestrial way of life, it is impossible to disregard the paramount role of the sea for the life of various communities and the influence it exerts upon their habits.<sup>40</sup>

The role of the sea was the aim of two conferences<sup>41</sup> that took place in the 1990s and brought together specialists on all aspects of maritime culture of the Aegean and the eastern Mediterranean. The proceedings included topics such as oceanography, ship building, ship iconography, shipwrecks, harbours, seafaring, the movement of people, ideas and techniques and trade and exchange through sea travels, the recording of maritime affairs in prehistoric scripts, and the social aspects of maritime connections, such as the question of the so-called 'Minoan thalassocracy.' Nevertheless, the need for a research framework that would co-examine all the above aspects of maritime culture remained implicit in both conferences, with the exception of B. Knapp,<sup>42</sup> who drew upon Westerdahl's work and employed the term 'maritime landscapes' to describe places that people dwell for trade, piracy, subsistence or simply travel and also sailing routes, shipwrecks, maritime ports and coastal constructions in general and their toponyms.

The lack of a unifying conceptual and methodological framework is a general feature for seascape archaeology in the Aegean, despite the important progress of its various research components. Thus, the *Tropis* series and the *Enalia* journal publish most new research results on topics related to marine archaeology. The latter may also boast the excavation of several important shipwrecks, such as the ones at Cape Gelidonya,<sup>43</sup> Ulu Burun,<sup>44</sup> Iria<sup>45</sup> and, more recently, Pseira.<sup>46</sup> Shipwrecks in combination with iconography have advanced our understanding of prehistoric ships.<sup>47</sup> Excavations at sites such as Kommos<sup>48</sup> have significantly promoted our knowledge of prehistoric harbours and their installations. Another component of seascape archaeology is the study of trade, which is a vast

topic in itself and is receiving constant research attention,<sup>49</sup> especially since it is a key to understanding prehistoric economies and their role in socio-historical evolution in the Aegean and the eastern Mediterranean.

### *Island archaeology*

A third component is island archaeology, a sub-disciplinary field of its own and perhaps the only one where it is possible to find interpretative attempts similar to the landscape paradigms.<sup>50</sup> This tendency is easily understood if we consider the fact that islands, especially in the Aegean, have been intensively surveyed. The paradigmatic roots of such a research focus lie in the view of 'islands as laboratories.' Islands are bounded in a very clear manner by the sea. As a result, they comprise obvious units of research analysis and especially regional projects, that may elucidate the biogeography of the islands.<sup>51</sup> The insular character of islands was challenged in the 1990s. Although it is impossible to disregard the radical shift in habitat that the sea imposes, it was pointed out that the notion of the 'laboratory' sees people exactly like animals and does not allow space for social choice. Furthermore, it carries with it a colonial baggage of seeing non-Western communities, especially the ones inhabiting the Pacific islands, as culturally stagnant and primitives. Finally and most importantly, island biogeography is land oriented and approaches the sea as a medium that

<sup>40</sup> Westerdahl 1994.

<sup>41</sup> Laffineur & Basch 1991; Swiny *et al.* 1997.

<sup>42</sup> Knapp 1997.

<sup>43</sup> Bass 1967.

<sup>44</sup> Pulak 1998.

<sup>45</sup> Phelps *et al.* 1999.

<sup>46</sup> Evely 2007-8, 96.

<sup>47</sup> Wedde 2000.

<sup>48</sup> Shaw & Shaw 2006.

<sup>49</sup> A full list of publications on trade is beyond the scope of this Introduction. However, indicative key contributions to the topic include Gale 1991, Knapp & Cherry 1994, Laffineur & Greco 2005 and Macdonald *et al.* 2009.

<sup>50</sup> For a recent and short history of island archaeology see Berg 2010.

<sup>51</sup> Evans 1973; Berg 2010, 18 for the influence of such views to island survey projects in Greece.



divided different lands only, and, hence, creates isolated insular communities.

Gosden and Pavlides<sup>52</sup> challenged the above view through their fieldwork and demonstrated that the Arawe islands in the western Pacific had been constantly oriented to areas outside this island group. This world of maritime connections was called 'seascape' in order to underline the fact that "space and society are mutually constitutive"<sup>53</sup> and, also, in order to provide a maritime equivalent of landscape archaeology. It is interesting to note that this paper belongs to a special issue of the *Archaeology in Oceania*, devoted to the discussion of the term "social landscape."<sup>54</sup> This discussion builds upon the same basis of post-processual landscape archaeology, namely the conceptual premise that the landscape is shaped by human action, which is guided by specific social values and collective attitudes. As such it influences human action not only through its environmental constraints, but, more importantly, by offering a sense of place that may structure the future activities of people.

Rainbird<sup>55</sup> joined the voices that criticised the notion of 'islands as laboratories' and asked for an application of the principles of landscape phenomenology into the archaeology of islands. His views prompted a strong response and a call for a more careful assessment of the potential contribution of island biogeography.<sup>56</sup>

An attempt to reply to such a call was published in the year 2000. It was C. Broodbank's book titled 'An island archaeology of the Early Cyclades',<sup>57</sup> which has provided the basis for the further development both of island and of seascape archaeology. Broodbank took issue with post-processualists on insularity as a social construct and acknowledged that the degree of isolation or connectivity of islands is historically contingent. According to Broodbank and in order to understand these connections we should not restrict ourselves either to exclusively terrestrial or maritime only approaches. Island life has many dimensions that crosscut landscapes and seascapes, which thus combine into "islandscapes."<sup>58</sup>

Nevertheless, behind the above phenomenological overtones lay a much more positivist basis. Broodbank acknowledged the importance of the constraints of the Cycladic natural environ-

ment upon seafaring (e.g. the seasonal changes of sea currents or the availability of resources for ship building and maintenance), while his analysis of connectivity between islands and between island and mainland coasts was based upon "Proximate Point Analysis" (henceforth PPA),<sup>59</sup> a mathematical model for predicting patterns of connection in spatial networks that had already been used in Oceania. Such modeling allowed Broodbank to argue that not all major sites occupied a 'central' place in the Early Cycladic network of maritime interaction. This network hinged upon the quest for food resources, raw materials, demographic growth and social reproduction and conferred power and prestige to specific individuals that were involved in maritime travel.

Broodbank falls into the wide category of scholars that attempted to transcend the divide between processual and post-processual paradigms, which, as noted above, has constituted a wider tendency within landscape studies during the last ten years. Despite the criticism that has targeted both the positivist and the interpretative aspects of his book,<sup>60</sup> the latter is valuable for opening discussion about islands not just in the Aegean, but all over the world.<sup>61</sup> From the numerous contributions to

<sup>52</sup> Gosden & Pavlides 1994.

<sup>53</sup> Gosden & Pavlides 1994, 163.

<sup>54</sup> Gosden & Head 1994, 113.

<sup>55</sup> Rainbird 1999a.

<sup>56</sup> Broodbank 1999; Irwin 1999; Keegan 1999; Terrell 1999; van Dommelen 1999; cf. Rainbird's (1999b) response.

<sup>57</sup> Broodbank 2000.

<sup>58</sup> Broodbank 2000, 21-5.

<sup>59</sup> Broodbank 2000, 180-95.

<sup>60</sup> Knappett *et al.* (2008) have argued that Broodbank assumes that the sites in the Cyclades are evenly distributed, while the links between different sites are considered to be equal to each other. As a result, Broodbank's PPA is too simple to be applied to any other context, e.g. the Middle Bronze Age Aegean. Catapoti (this volume) argues that Broodbank's social modelling of the Early Cycladic maritime network is superficial because the 'craftsmen' and 'traders' and 'navigators' that have replaced the traditional notions of 'technology' and 'trade' that had been proposed by Renfrew (1972) are not accompanied by an in-depth analysis of the significance of the human subject and his/her agency.

<sup>61</sup> Berg (2010, 19) provides an account of this influence with relevant references.



this discussion, I would like to single out Knapp's<sup>62</sup> recent book, which draws upon Broodbank's work in order to examine changes in the insularity and connectivity of prehistoric Cyprus. Knapp<sup>63</sup> employs the discussion on the boundedness of islands and hence the formation of landscapes in order to discuss identity and social evolution in prehistoric Cyprus and especially the rise of elites in the Late Bronze Age.

### *Seascape archaeology*

During the last decade, in the years after the publication of Broodbank's book, seascape archaeology has established itself as a distinct field of archaeological research, and this has probably been the fruit of the heated discussions during the 1990's that have been briefly sketched above. Such a development is best exemplified by the publication of a specially dedicated issue of *World Archaeology* in 2003, titled 'Seascapes.' The research agenda of the volume and, by extension, of this field of research was laid out by G. Cooney<sup>64</sup> in the introductory chapter. Cooney expresses views similar to Westerdahl's and argues that an effective study of the lives of people living on islands or coastal areas requires the acceptance of the centrality of the sea both in their lives and, consequently, in the approach that such research adopts.

Such a thesis has important theoretical and methodological ramifications. Thus, functional approaches may not be the best way to understand communities who may not have distinguished between the ritual and the mundane aspects of their way of life. A more holistic approach is required in order to understand the constant dynamic interplay between people and their maritime environs. During this interplay a community learns how to survive and adapt to their specific environment and its restrictions and usually mark its natural features accordingly. This is a process of socialization of the environment, which thus becomes a constituent of society. A meticulous understanding of this process requires a contextual approach and, hence, a co-operation of methods traditionally developed in maritime archaeology, landscape archaeology and environmental – particularly marine – science.

Furthermore, contextual approaches should be accompanied by comparison of different case studies so as to avoid the usual post-processual pitfall of producing a-historical statements about the past.

This agenda was implemented with individual contributions that touched upon a variety of related themes, such as the ritualization of the sea and of various maritime activities as a way to channel and codify the knowledge to survive in specific environments,<sup>65</sup> the diverse ways to perceive the sea<sup>66</sup> and the inhabitation and exploitation of coastal environments as processes of anchoring social memory upon specific places and of creating distinct social identities.<sup>67</sup>

In 2007 P. Rainbird<sup>68</sup> came back to the discussion of island archaeology. A series of ethnographic and archaeological case studies led him to the conclusion that island archaeology has to become a component of an 'archaeology of the sea(s).' He argues that maritime culture exists as a distinct way of life, but it is also a feature of mainland coastal communities that have to be co-examined with islanders because it is the sea as the space in-between coasts that brings the latter together and, hence, matters most. The crux of the distinctiveness of maritime life lies not only in the specific activities, such as fishing, seafaring etc., but in the specific bodily engagement with the sea, which entails "a certain combination of sensory registers ... derived from practical experience in a particular place and time."<sup>69</sup> Such embodied experience leads to the shaping of the maritime cultural persona. As a result the sea shapes the character of the communities that live close to it

<sup>62</sup> Knapp 2008. Before Knapp, Clarke (2002) has also examined the relationship between insularity and connectivity and has argued that the distinct identity of Late Neolithic Cyprus lay upon a socially constructed collective attitude that promoted boundedness in expense of external relations, which would threaten to erode the cultural uniformity of the communities on the island.

<sup>63</sup> Knapp 2008.

<sup>64</sup> Cooney 2003.

<sup>65</sup> Barber 2003; McNiven 2003; Phillips 2003; Van de Noort 2003.

<sup>66</sup> Lindenlauf 2003; Van de Noort 2003.

<sup>67</sup> Breen & Lane 2003; O'Sullivan 2003.

<sup>68</sup> Rainbird 2007.

<sup>69</sup> Rainbird 2007, 58.



and, in return, people get to know the “textures of the sea,”<sup>70</sup> which participate in and affect both the everyday and the exceptional, both the mundane and the ritual aspects of social life. Rainbird applies his views to four case studies, namely Malta, Scandinavia, Polynesia and Britain. This way he conducts a socio-historically situated phenomenological analysis that then allows him to contrast the conclusions from one case study to another.

The recognition of seascape archaeology was consolidated by the inclusion of several relevant chapters in the recent *Handbook of landscape archaeology*.<sup>71</sup> Nevertheless, this development paradoxically creates questions about the distinctiveness of seascape archaeology, since it implies that is still a splinter of land-based research. Inevitably, we are reminded again of Hunter’s<sup>72</sup> views, that maritime culture is only a component of culture as a whole, equally specialized to other components (e.g. agriculture or industrial culture). Although Hunter’s argument was based on a functional basis, it is possible to transfer its logical principles to the phenomenological approaches that dominate seascape studies today. Thus, it is possible to consider whether the experience of maritime life and the perception of the sea entail anything fundamentally different than the perception of the land, or whether they should simply be considered as a special case study of landscape archaeology.

### *Seascape archaeology and Aegean Prehistory*

The Aegean Sea seems to be the perfect place to explore the above questions, because it features frequent shifts in land and water, with its many islands bounded by the mainland coastline of Greece and Asia Minor. It is this relative lack of open stretches of seawater that promoted the “the frogs around the pond” (Pl. *Phd.* 109B) impression of the Aegean, which entails an essentially land-based perception of the sea.

Unfortunately and despite this great potential, Aegean seascape studies have been rather sporadic and not at all systematic. Georgiadis<sup>73</sup> has employed the seascape concept to emphasize the orientation of some Mycenaean tomb dromoi at Rhodes toward the coast. The latter is considered to be a

liminal place between land and sea and, hence, a metaphor for the liminality of the tomb as a place between life and death. Rainbird<sup>74</sup> includes a discussion about the importance of seafaring in the Neolithization of the Aegean, but only to contrast the latter to Malta, his main case study in the Mediterranean. Berg<sup>75</sup> has argued against the usual assumption about the importance of environmental and technological restrictions to seafaring in the Bronze Age Aegean. She has demonstrated that from the Middle Bronze Age onwards, the available ship technology allowed sailing against the wind, while the climate at the time was different, and the sailing season longer, than today. Thus, seafaring was an issue of social choice, notwithstanding the subsistence necessities imposed by the diverse environment of the Aegean littoral.

Watrous<sup>76</sup> has recently argued that prehistoric ports were agents of social change. He employs the dynamic environment of late medieval cities in Europe and their contribution to the coming of the Renaissance as an analogy that may explain the growing importance of the Minoan harbour towns of Gournia and Kommos in the New Palace period. Finally, the aforementioned study by Knapp,<sup>77</sup> regarding the changes in the insularity and connectivity of Cyprus in Prehistory, has to be mentioned again, as it comprises a further and important contextual study of the significance of the sea and maritime activity and their role in the socio-historical evolution of the Cypriot communities.

All the above studies are very important, because they have advanced our understanding of maritime culture in the prehistoric Aegean and the eastern Mediterranean. Nevertheless, they also demonstrate the great scarcity of seascape studies. The present volume aims to remedy this situation and close part of such a research gap.

<sup>70</sup> Rainbird 2007, 47.

<sup>71</sup> David & Thomas 2008.

<sup>72</sup> Hunter 1994.

<sup>73</sup> Georgiadis 2003, 26–33. See also papers in a post-graduate symposium, edited by Georgiadis & Muskett (2002).

<sup>74</sup> Rainbird 2007, 79–84.

<sup>75</sup> Berg 2007.

<sup>76</sup> Watrous 2007.

<sup>77</sup> Knapp 2008.



In order to understand how each chapter contributes to the overall aim of the volume, I would like to briefly re-capitulate the main points made so far. Seascape archaeology has been a specialized field of landscape archaeology. They share the same conceptual principles and have similar – albeit not identical – methodologies, but they differ greatly in their subject matter. Maritime culture has a rather distinct character and, consequently, its material remains demand special attention. Both seascape and landscape archaeologies followed similar developments, both in theory and in practice. From the functionalist approaches and the influence of environmental restrictions to human strategies of survival and subsistence, research has turned its focus upon the dynamic relationship between people and their surroundings, their mutual shaping and the social significance of the human perception of the environment. Perception does not require empathy, but rather a contextual examination of material culture and the ways in which it became part of the bodily engagement of people with their maritime surroundings and created a socio-historically contingent maritime culture.

The concept of the seascape as both the medium and the outcome of human engagement with the sea, is now the dominant heuristic device for studying maritime culture, because it entails the combination of coastal, island and underwater archaeological research. This way, research focus falls upon the sea, which is not just the space in-between different lands, but a textured and knowledgeable place that facilitates a specific way of life. In practice, this emphasis upon the sea should not downplay the importance of related material remains on land, since the great majority of the archaeological record comes from the land rather than from submerged sites or shipwrecks, while the importance of the latter has to be assessed within their wider context, including terrestrial finds.

A seascape archaeology of the prehistoric Aegean should be particularly complemented by land-focused studies because of the frequent shifts of land and water that characterize the Aegean Sea. Such a method has already proven to be both viable and

fruitful. Breen and Lane<sup>78</sup> have avoided a ship-centric view in their examination of the east African coast and have managed to produce a nuanced narrative about the changes in the inhabitation of this coast from the late 4<sup>th</sup> millennium BC until the 16<sup>th</sup> century AD. The present volume follows the same methodological trajectory in order to illuminate the importance of maritime culture and the perception of the sea in the prehistoric Aegean according to the theoretical basis mentioned above.

The various contributions have been arranged in chronological order. Thus, Albert Ammerman begins by examining pre-Neolithic sites in Cyprus. As a result, the examination of Aegean seascapes starts from outside the Aegean proper. Such a start helps us perceive our object of study as a whole. Ammerman's analysis identifies a paradox: the spread of the so-called Neolithic package slowed down significantly in the Aegean, despite the considerable maritime traffic in the area and despite the fact that it had been spreading through sea travel in the eastern Mediterranean, especially from Syria and Turkey to Cyprus. In order to explain this paradox, Ammerman argues for the importance of a specific way of life based on foraging and fishing and presents a reading of the sea as a vast inviting place because it was full of food. Such a perception of the sea did not necessitate the adoption of agriculture which, after all, saw the sea as an uninviting place.

Tatiana Theodoropoulou transfers the focus to the Neolithic and back into the Aegean and specifically its northern part. Her chapter stresses the inevitable restrictions that natural habitats impose upon human agency. She employs zooarchaeological data from various coastal sites from Lemnos to the Thermaic gulf so as to demonstrate that coastal communities had adopted a generalised and diverse strategy of exploiting a wide array of marine resources. Communities living at the border between different natural habitats opted for more cost-effective, albeit complex, subsistence strategies. Finally, the intense interest of inland communities in marine resources may be attributed to the symbolic capital of these resources and, by extension, of mar-

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<sup>78</sup> Breen & Lane 2003.



itime life. As a result, the human response to the natural environment is always channelled through a social and cultural filter.

Despina Catapoti examines one of the best known social phenomena in the Aegean, namely the 'International Spirit,' a network of economic and social exchange based on seafaring that spread in the Cyclades and the southern Aegean at the beginning of the Early Bronze Age. Catapoti follows Rainbird's<sup>79</sup> theoretical call and provides an account that places human embodiment at the centre of archaeological inquiry, which is essential in order to give the appropriate depth to Broodbank's call for a sea-centred understanding of the early Cycladic island communities. Thus, the technology and material implements associated with the 'International Spirit,' such as metal daggers, obsidian blades and marble figurines have to be seen not only as markers of cultural identity or of personal prestige, but implements of a specific way of bodily performance that complemented the experience of seafaring and encapsulated collectively accepted values and codes of behaviour. The expression and presentation of selfhood lay more than anything else at the heart of the phenomenon of the 'International Spirit.'

Giorgos Vavouranakis also focuses on the Early Bronze Age, but moves to Crete and to the place of the sea within 'sacred geography' and specifically within funerary ritual. Within the context of Early Minoan funerary rites, the seascape became a resource for a symbolic exegesis of the rules by which human agency should abide. As such, the seascape was cast as a medium that fuelled social interaction and thus an active constituent of the social web. Through this process, the Cretan communities made sense of the impact of the 'International Spirit' and adopted a sea-centred perception of the world. This perception diminished in importance in the last part of the Early Bronze Age, when emerging land disputes on Crete and the simultaneous transformation of the 'International Spirit' resulted in an alternative landscape perception of the world. This perception set the conceptual basis for the social processes that culminated with the emergence of the first palaces.

The next two chapters, written by Ina Berg and Matthew Haysom examine Crete again, but move

to the Late Bronze Age and, specifically, the New Palace era. Both papers place a lot of emphasis on iconography, which is always a key to understanding the ways in which people perceive the world. Having two chapters with similar topics emphasizes the importance of Crete in the early stages of the Late Bronze Age, a time of great prosperity for the island, which probably became the basis for the later legend of the 'Minoan thalassocracy.'

Ina Berg tackles the Late Minoan Marine Style pottery, namely high-quality vessels, produced, used and consumed in close relation to the Minoan palaces. She analyses the decoration, shapes, and find contexts of these vessels. She links her results to the physical features of marine animals, their habitat requirements and also to the human practices and patterns regarding the exploitation of these animals. Her analysis demonstrates a contrast between the frequent depiction of the marine world on vessels and the relative lack of seafood in the Minoan diet. A further consideration of this contrast within the overall context of Minoan maritime activities suggests another contrast between a familiar seascape of coastal waters and an unknown seascape of open waters.

Matthew Haysom tackles the place of the marine world within elite imagery as a whole (pottery, frescoes, seals, faience and bronze items) and contrasts it to the exploitation of sea resources such as fish, salt and murex shells, with particular emphasis on the settlement of Pseira, a small islet off the north coast of east Crete, in the bay of Mirabello. Haysom concludes that whilst the Minoans may have been involved in maritime activity and some places may have led a maritime way of life, the Neopalatial imagery shows that the palatial elites had adopted a largely a land-centred worldview.

John Younger also focuses on iconography and the question of worldviews in the Late Bronze Age but moves north of Crete, to the well-known settlement of Akrotiri, Thera. He chooses to explore the importance of the visual perception of the world, which has played an important role in the development of landscape archaeology. He thus examines

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<sup>79</sup> Rainbird 2007.



the 'flotilla' fresco from the West House, which is similar to Roman and medieval portolans, carrying naval information about specific places. Furthermore, the inclusion of unconventional elements in the fresco suggests that the artist had adopted the position of a passive observer. This particular point of view allows a glimpse into the ways in which the sea was perceived: On the one hand, it was a bridge that allowed Minoan cultural elements to be introduced into Cycladic art. On the other hand, it was a medium that filtered this introduction and separated the artist from its subject, the viewer from the viewed, and broke the culturally contingent hierarchy of perception of the time.

Vassilis Petrakis transfers the focus of the book to the later part of the Late Bronze Age and to the Mycenaean world. Similarly to Haysom he examines the representations of the sea and of maritime activity in relation to the palatial elites at the time, discussing two quite different types of evidence. On the one hand, there are various artistic representations. On the other hand, there are the Linear B tablets. Finally, Petrakis examines the place of marine imagery in the Post-palatial period and contrasts it to the palatial context. After a deservedly extensive discussion, Petrakis concludes that the Linear B record shows that long-distance overseas travel was not tightly controlled by the palatial elites. This affected the presence of marine imagery and its rare occurrence is thus meaningful. Perhaps the palaces decided to turn to topics more worth-exploiting for the ideological promotion of their authority. Warship imagery saw a revival in the Post-palatial period in pictorial pottery. On the one hand, this change may reflect a need to balance the demise of fresco painting. On the other, it reflects the turbulent times of the period, which opened new opportunities for gathering symbolic capital and prestige through risky – and even heroic – sea voyages.

The next two chapters by Sophia Antoniadou and Natasha Leriou take us again outside the Aegean proper in order to explore how the Aegean was perceived in Cyprus. Both chapters build upon Knapp's<sup>80</sup> work regarding the changes in the connectivity and insularity of Cyprus in Prehistory. Antoniadou focuses on the influence of Aegean

imports on various aspects of Cypriot society during the Late Bronze Age. She conducts a contextual analysis, mainly of pottery but also seals, bronze and ivory objects, and concludes that Aegean imports may have appealed to the Cypriot elites at first, but, as time went by, the people of Cyprus did not consider them exotic at all. This chapter illustrates the results of the cosmopolitan atmosphere of the Late Bronze Age, which was the offspring of intense and elaborate networks of contact and trade in the whole of the Aegean and the eastern Mediterranean and demonstrates the ways in which the sea may connect different lands.

Leriou's chapter places an emphasis on people and the question of ethnic identity, through her examination of the so-called Aegean migration to Cyprus in the 12<sup>th</sup> and 11<sup>th</sup> centuries BC. The high degree of familiarity between the Aegeans and the Cypriots during the 14<sup>th</sup> and 13<sup>th</sup> centuries BC, which preceded the Aegean migration, as outlined by Antoniadou, may be held responsible for the lack of any post-migration antagonism between the two population elements of the island. The sea then continued to operate as a bridge that connected the Aegean world with Cyprus, even during the turbulent times of the end of the Bronze Age and, according to Leriou, it was the need to contrast this harmonious relationship to the Phoenicians, who also started to settle in Cyprus, that led to the later stressing of the Aegean descent of the Cypriots in the Archaic period.

The above chapters do not claim to have exhausted the topic of the seascape in regards to Aegean Prehistory, but they have covered important ground. Geographically they range from the north to the southern Aegean and even to Cyprus, outside the Aegean proper. Chronologically they span from the earliest Prehistory to the very end of the Bronze Age. There is a greater focus on Crete and the Mycenaean world and a lesser focus on the Cyclades and Cyprus, but this was inevitable, as this was an effect of the specific themes of interest covered in this book, which included the questions of seafaring, marine subsistence resources, contact and

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<sup>80</sup> Knapp 2008.

trade. These were examined in relation to a wide array of material evidence and illuminated the importance of social choices and of a maritime way of life in early Prehistory, the notion of identity, the ideology of the elites, and the ritual appropriation of the sea contacts.

The themes of the volume are critically reviewed in the final chapter by Kostas Kotsakis, who reflects upon the concepts of liminality, movement and embodiment. He argues that research should

further explore the ways in which maritime travel entails a specific bodily engagement with the sea, allows people to move beyond cultural boundaries and gives sailors a transcultural identity, as they live between and betwixt borders of terrestrial life. With these concluding thoughts and on behalf of all the authors, I wish to offer this book in the hope that the study of the seascape will become more frequent and systematic in the future.



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# The paradox of early voyaging in the Mediterranean and the slowness of the Neolithic transition between Cyprus and Italy

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## Introduction

The work that is done by the archaeologist and others in the historical sciences commonly proceeds by steps of approximation. If we take the long view, what is known about a question today – for example, the start of the Neolithic period in a given region – is merely a stepping-stone toward what we shall learn about it in the future. Thus, for long stretches at a time, the main task is to acquire new evidence so that the archaeologist can move toward the next level of approximation. And in the effort to accomplish this, there is a tendency to focus ever more closely on the line of inquiry at hand. However, it is useful from time to time to step back and take a wider view of things. And when this is done, we may discover that there is a tension, a lack of congruence, between that which is being investigated on two different fronts. In short, when we look up, we find a paradox standing on our doorstep. What I plan to do in this chapter is to explore a new paradox that has recently come to light in the study of the Neolithic transition in the Mediterranean world. It makes its first appearance in the literature – almost as an afterthought – in the context of work on measuring the rate of spread of early farming in Europe.<sup>1</sup> A passing remark is made near the end of the article about two lines of evidence that are out of step with one another. On one hand, there is now evidence from the island of Cyprus for seafaring in the eastern part of the Mediterranean that goes back to the time before the Neolithic transition; on the other side, there are radiocarbon dates that document the slow pace of the spread of agro-pastoralism between Cyprus and Italy. To put the paradox another way, why did it

take so long for early farming to move from Cyprus to southern Italy in a world where seafaring was already well established?

Attention is also drawn to the paradox in the last paragraph of a recent chapter on the earliest seafaring in the Mediterranean.<sup>2</sup> This is one of the contributions to the conference on the global origins of seafaring held at Cambridge University in September of 2007. The chapter begins with a review of the evidence for the circulation of obsidian between sources on islands such as Melos and Lipari and sites on the Greek and Italian mainland and its implications for seafaring in early Neolithic times. It then turns to some of the results of recent work at the sites of Aspros and Nissi Beach on Cyprus that are throwing new light on early seafaring in the eastern Mediterranean. More will be said about this below.<sup>3</sup> Finally, there is a discussion of the wider implications of the new evidence from Cyprus:<sup>4</sup>

“The paradox emerges if we ask the following question: why in a world where pre-Neolithic seafaring is already established, does agro-pastoralism take so long to get from Cyprus to Crete, next from Crete to the Greek mainland, and then from Greece to southern Italy? In short, why does everything go so slowly in the middle of the Middle Sea, when we know that it happened much faster in the case both of the initial move from the Near East to Cyprus and the subsequent move from Italy to the Iberian Peninsula? There is, of course, no well-developed explanation for this paradox

<sup>1</sup> Pinhasi *et al.* 2005, 5.

<sup>2</sup> Ammerman 2010, 89–90.

<sup>3</sup> Ammerman *et al.* 2006; Ammerman *et al.* 2007.

<sup>4</sup> Ammerman 2010, 90.



at the present time. My purpose here is simply to bring up the question so that we can begin to focus our attention on it. On the basis of the radiocarbon dates that are currently available, the spread of the first farmers from Cyprus to southern Italy took just over 2,000 years,<sup>5</sup> and the distance involved, as the crow flies over the seascape, was around 1,500 km. This means an average rate of 0.75 km per year or movement over a distance of only 19 km per human generation. To my mind, this is way too slow in the context of early boat people who could easily make voyages in the range of 60 to 100 km at a time, as shown by the circulation of obsidian. As we learn more about early seafaring in the eastern Mediterranean over the next ten years, we should be in a better position to address this paradox.”

The chapter ends with this sentence. As the quotation indicates, it is premature to think in terms of coming up with a final answer to the question at this time. We are still at the first level of approximation when it comes to the basic formulation of the problem.

It may be useful at this point to say a few words about how I plan to develop the argument in this chapter. The next section will provide a concise review of what is currently known about early seafaring in the Mediterranean. There is, of course, a considerable literature on the subject,<sup>6</sup> and my aim here is not to attempt a comprehensive survey of what has been written about this topic before. Instead, a few words will be said about the circulation of obsidian in the Neolithic period and then attention will shift to the evidence for pre-Neolithic seafaring at sites such as Aetokremnos, Aspros and Nissi Beach on Cyprus and those of Maroulas and the Cyclops Cave in the Aegean. No attempt will be made here to re-examine the claims in the literature for possible seagoing that may date to much earlier times in the Palaeolithic (that is, cases that may only involve rare events of rafting or the accidental crossing of the sea). Cyprian Broodbank, in his recent review article,<sup>7</sup> has carried out the heroic task of sifting through this literature, and I have nothing to add on the subject at this time. The emphasis here is on early seafaring that was undertaken on a more regular basis and that constituted a way of life.

The next section of the chapter will review the work done over the last thirty-five years on measuring the average rate of spread of early farming in Europe. Special attention will be paid to the situation in the Mediterranean and the early dates that are now available for the start of the Aceramic Neolithic on Cyprus. Then we shall turn to some of the factors that may explain the paradox. Because it has been hard to find the sites of voyaging foragers in coastal areas of the Mediterranean previously, it is entirely possible that we have underestimated this way of life and failed to recognize it as a viable alternative lifestyle to the one based on agro-pastoralism. Thus, instead of forcing such seagoing foragers, when they finally make their appearance in the archaeological record, into playing the role of precursors who are committed to finding their way to agro-pastoralism as soon as possible, it may be more productive to try to see them in their own terms and to give them the opportunity to pursue their own way of life. The basic idea here is that the practice of coastal foraging (as undertaken by those who were ready to go to sea from time to time) and the practice of early agro-pastoralism (as carried out by first farmers living in the interior) are alternative and complementary ways of life. This leads, in turn, to the suggestion that there may have been less in the way of a rush on the part of voyaging foragers to shift from one style of life to the other. The chapter closes with a few comments on what all of this may mean for our thinking about early seascapes, the central theme of this book.

## Early seafaring

It is best to start with the inferences for seafaring that can be made on the basis of the Neolithic circulation of obsidian and then move back in time.<sup>8</sup> There are comparatively few sources of volcanic glass of workable quality in and around the Mediterranean,

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<sup>5</sup> E.g., Guilaine 2003, 107.

<sup>6</sup> See the recent bibliographies in Ammerman 2010; Broodbank 2006; Vigne & Cucchi 2005.

<sup>7</sup> Broodbank 2006.

<sup>8</sup> Ammerman 2010, 83–6.

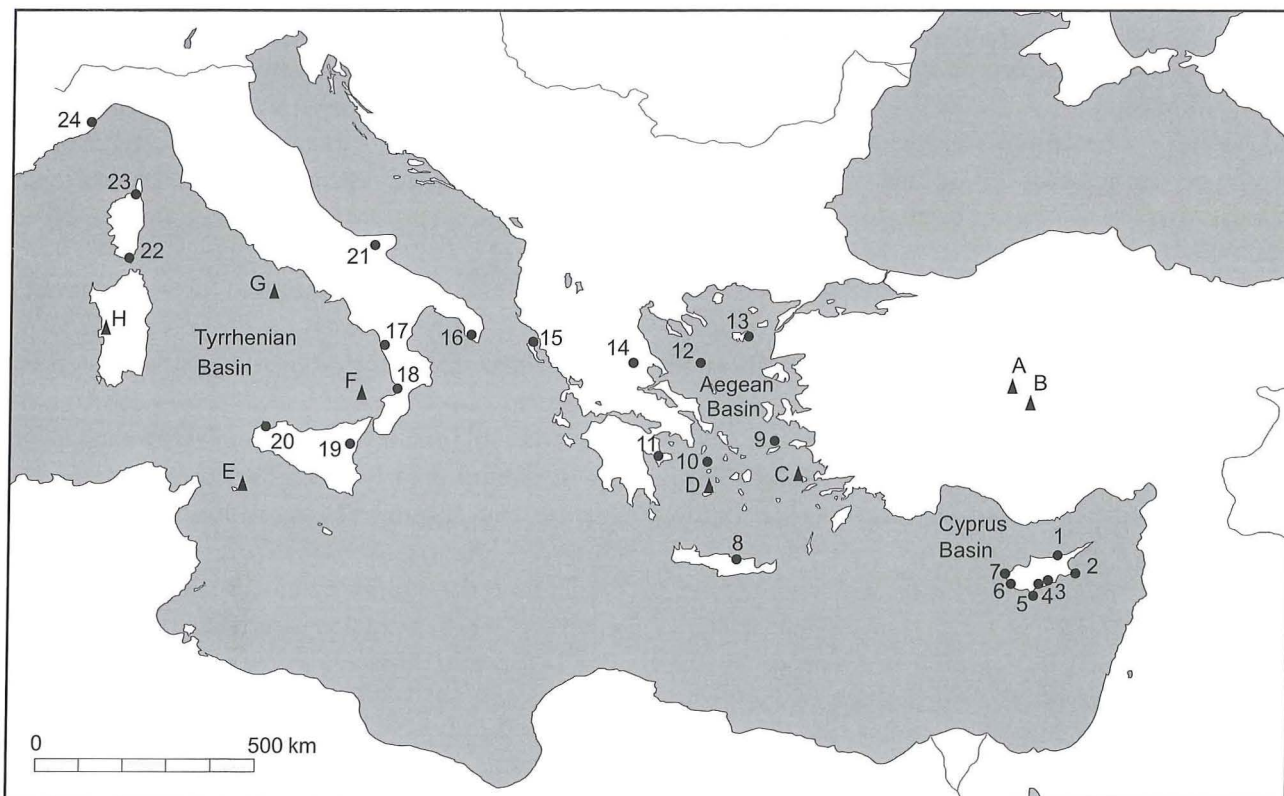


Fig. 1. Map of the central and eastern Mediterranean showing the location of the following sources of workable obsidian: (A) Nenezi Dag, (B) Göllü Dag, (C) Gyali, (D) Melos, (E) Pantellaria, (F) Lipari, (G) Palmarola and (H) Sardinia. The numbers identify the following archaeological sites: (1) Akanthou, (2) Nissi Beach, (3) Tenta, (4) Shillourokambos, (5) Aetokremnos, (6) Mylouthkia, (7) Aspros, (8) Knossos, (9) Ikaria, (10) Maroulas, (11) Franchthi, (12) Cyclops Cave, (13) Lemnos, (14) Sesklo, (15) Sidari, (16) Torre Sabea, (17) Grotta della Madonna, (18) Piana di Curinga, (19) Perriere Sottano, (20) Grotta dell'Uzzo, (21) Masseria Giuffreda, (22) Monte Leone, (23) Strette, (24) Arene Candide (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis based on information by the author).

and most of them occur on islands. It has been possible for some time to distinguish between the different sources of obsidian by means of modern scientific methods. For example, by employing neutron activation analysis, one can discriminate successfully between the two island sources in the Aegean (Melos and Gyali) and the four island sources that belong to Italy (Lipari, Pantelleria, Palmarola and Sardinia). With very few exceptions, all of the obsidian blades and cores found at early Neolithic sites on the Greek mainland and on the Italian Peninsula can be traced back to sources on one of these six islands. In other words, there must have been seafaring, in one form or another, at least since the beginning of the Neolithic in Greece and

Italy. It is perhaps worth adding at this point that there is nothing particularly new about any of this; much of the main work on the subject was done in the 1970s and 1980s.<sup>9</sup>

More recently, studies on Cyprus have shown that obsidian blades from volcanic sources in Anatolia, Göllü Dag and Nenezi Dag (Fig. 1), are found at early Aceramic Neolithic sites on the island.<sup>10</sup> The evidence comes from four sites – Mylouthkia, Shillourokambos, Tenta and Akanthou – with

<sup>9</sup> E.g., Ammerman 1985; Aspinall *et al.* 1972; Hallam *et al.* 1976; Torrence 1986.

<sup>10</sup> Guilaine 2003, 92.



radiocarbon dates that go back to around 8,000 cal BC. All four of them have a material culture with close affinities to the PPNB in the Levant and Anatolia,<sup>11</sup> where obsidian artefacts are also present. It will be recalled that the earliest evidence for the regular use of obsidian at prehistoric sites in the Near East goes back to the tenth millennium cal BC, where it occurs at sites attributed to the PPNA.<sup>12</sup> In the excavations at Akanthou on the north coast of Cyprus, more than 5,000 pieces of obsidian (most of them in the form of blades) have been recovered.<sup>13</sup> In contrast, at Shillourokambos on the south coast, where the excavations are larger in scale and where obsidian comprises a much smaller percentage of the lithic assemblage, the total is just over 400 pieces.<sup>14</sup> Two main inferences about seafaring can be drawn from the Cypriot evidence: (1) already by 8,000 cal BC there was regular seagoing between the south coast of Anatolia and the north coast of the island (a distance of about 60 km at the closest point even when sea level was lower at that time)<sup>15</sup> and (2) this did not regularly involve the circumnavigation of the island (based on the much smaller quantities of obsidian recovered at Shillourokambos, Mylouthkia and Tenta on the south side of the island).

Turning to Greece and Italy, where there is more in the literature on the Neolithic circulation of obsidian, only a few remarks will be made here.<sup>16</sup> In the case of Greece and the islands of the Aegean Sea, the main source of obsidian was the island of Melos.<sup>17</sup> The distance between Melos and the nearest point on the Greek mainland was at most about 100 km in Neolithic times (when the level of the sea was still lower than it is today).<sup>18</sup> One could also travel from Melos to the mainland by taking a northern route that passed within sight of a chain of islands (Seriphos, Kythnos and Kea). In any event, the seagoing involved in the movement of obsidian in this case did not call for being out of sight of land for any length of time. The same holds in the Italian case. The island source located furthest from the mainland is Sardinia (see Fig. 1) but one could use Corsica and the islands of the Archipelago Toscano to reach the peninsula without ever having to venture all that far from land. The voyage from Pantellaria to Sicily is only around 100 km, and the distances between the islands of

Lipari and Palmarola and the nearest points of land are even less. What this means is that in all three cases – Cyprus, the Aegean world and Italy – long voyages out of sight of land were not required. If trips were made at favourable seasons of the year (when the sea is calm), they need not have called for boats of any real size.<sup>19</sup> The spatial pattern of the obsidian from the various sources is consonant with this idea as well. For example, there is no evidence for obsidian from Melos making its way to early Neolithic sites in Italy. And obsidian tools made from the volcanic sources in the Tyrrhenian basin are not found at early Neolithic sites in Greece and the Aegean Islands. The same holds for obsidian from the sources in Cappadocia; once it moved by land to the south coast of Turkey or the west coast of Syria, it then crossed the sea to Cyprus but it did not travel on to Neolithic sites on the Greek mainland. The inference to draw here is that obsidian circulated within its own regional basins in early Neolithic times. In short, obsidian provides no support for the idea that the first farmers made long-distance voyages in the eastern half of the Mediterranean. In the case of the Iberian Peninsula, the situation may be somewhat different, as we shall see below.<sup>20</sup> The suggestion then is that, in the part of the Mediterranean from Cyprus to Italy, those who engaged in seafaring at the time of the Neolithic transition did so on a comparatively short leash by the standards of later times.

What patterns emerge when we look at the Neolithic circulation of obsidian in terms of the temporal dimension? As mentioned before, obsidian is now well attested at Aceramic Neolithic settlements on Cyprus by 8,000 cal BC. Indeed, the

<sup>11</sup> E.g., Peltenburg *et al.* 2001; see also the chapters in Peltenburg & Wasse 2004.

<sup>12</sup> E.g., Bar-Yosef 2001, 143.

<sup>13</sup> Sevketoglu 2002.

<sup>14</sup> Guilaine 2003.

<sup>15</sup> Gomez & Pease 1992.

<sup>16</sup> For a recent overview on the subject, see Ammerman 2010; in terms of methodology, see Tykot & Ammerman 1997.

<sup>17</sup> E.g., Perlès 2001; Torrence 1986.

<sup>18</sup> Broodbank 2000, fig. 27; Lambeck 1996.

<sup>19</sup> E.g., Tzalas 1995.

<sup>20</sup> Zilhão 2003.



first use of obsidian at the site of Shillourokambos may well date even as early as 8,300 cal BC.<sup>21</sup> In the case of Crete, the next large island after Cyprus, there is evidence for obsidian in the lowest Neolithic levels at the site of Knossos, which now have a series of radiocarbon dates going back to the first quarter of the 7<sup>th</sup> millennium cal BC.<sup>22</sup> Thus, there appears to be a time lag on the order of a thousand years or more between these two large islands when it comes to the first use of obsidian in a Neolithic context. As late as 2006, there was still no reliable candidate for a Mesolithic site on the island of Crete. Now this has changed with the Plakias Survey on the south coast of the island but there is no obsidian among the lithic remains recovered at the new sites.<sup>23</sup> A careful review of the radiocarbon dates available for early Neolithic sites in mainland Greece<sup>24</sup> reveals that there are almost no determinations with low error values that go back to the time before the second half of the seventh millennium cal BC. In other words, the oldest reliable radiocarbon determinations for the start of the Neolithic in Thessaly and other regions of mainland Greece go back only to around 6,600 cal BC. Accordingly, the obsidian found at the earliest Neolithic sites on the Greek mainland is more recent than the obsidian recovered from the oldest stratigraphic contexts at Knossos on Crete (with a series of AMS dates run at Oxford going back to the first quarter of the seventh millennium cal BC). And even if one were prepared to accept the low-quality, early C-14 dates from a few mainland sites, which were produced some years ago when dating methods were less well developed, there is still no Neolithic site on Crete or on the Greek mainland with C-14 dates that securely go back to the time before 7,000 cal BC. This indicates a time lag of at least a thousand years with respect to the oldest obsidian found in Neolithic contexts on Cyprus. More will be said about the pre-Neolithic circulation of obsidian in the Aegean basin in the next paragraph. Finally, if we turn to Italy, the oldest radiocarbon dates for the early Neolithic occur at sites in the southern part of the peninsula, and they go back to around 6,000 cal BC.<sup>25</sup> Thus, there is a further time delay as one moves to the west from Greece. And the time difference

between the earliest Neolithic use of obsidian on Cyprus and that in southern Italy amounts to just over two thousand years.

So far the Aegean basin is the only one that provides good evidence for the circulation of obsidian in the time before the Neolithic period. In the case of Cyprus, obsidian is not found at the pre-Neolithic sites of Aspros, Nissi Beach and Aetokremnos.<sup>26</sup> Turning to Italy, there is almost no reliable evidence for the presence of obsidian at any of the Mesolithic sites that have been excavated on the peninsula.<sup>27</sup> Moreover, there is no obsidian (even from the nearby sources on Sardinia) at any of the seven sites of Mesolithic age that have been excavated on the island of Corsica.<sup>28</sup> What this implies is that there seems to have been no real interest in making voyages to offshore islands in the Tyrrhenian basin in the time before the Neolithic period. In this light, the evidence from Greece for the pre-Neolithic use of obsidian stands alone at the present time. It is based on the presence of Melian obsidian at two sites on islands in the Aegean, the Cyclops Cave on Youra and Maroulas on Kythnos, and on its occurrence in pre-Neolithic levels at the Franchthi Cave (Fig. 1). It is perhaps worth commenting here that the Cyclops Cave and Maroulas are not the only pre-Neolithic sites that are currently known on islands in the Aegean. Recently, three new pre-Neolithic sites (with obsidian from Melos and Giali) have come to light on Ikaria, and there is now one (without obsidian) on the east coast of Lemnos as well. Finally, a few words should be said about the situation in the Adriatic basin. At the site of Sidari on Corfu,

<sup>21</sup> Guilaine 2003; Guilaine & Le Brun 2003.

<sup>22</sup> Efstratiou *et al.* 2004.

<sup>23</sup> There is a forthcoming report on the work of the Plakias Survey (Strasser *et al.* 2010). In addition, Kopaka & Matzanas (2009) appear to have found pre-Neolithic material at Gavdos. More needs to be published in both cases before definite conclusions can be drawn.

<sup>24</sup> Perlès 2001.

<sup>25</sup> Guilaine 2003; Skeates 2003.

<sup>26</sup> Ammerman 2010; Ammerman *et al.* 2008.

<sup>27</sup> Leighton 1999, 33; Tykot 1999, 69. For a possible exception on the island of Sicily, see Robb 2007, 192.

<sup>28</sup> Costa 2004.



no obsidian was recovered from layer D, a late Mesolithic shell-midden deposit.<sup>29</sup>

At the Cyclops Cave, which is located in an uninhabited part of the northern Aegean today, there are only 15 pieces of obsidian from the site's pre-Neolithic levels.<sup>30</sup> And most of them come from the uppermost part of the Mesolithic sequence, which has been carbon dated to the eighth millennium cal BC. The site has a massive concentration of fish bones,<sup>31</sup> seashells, land snails and birds, which points to a seasonal occupation by hunter-gatherers who have a coastal orientation. One cannot exclude the possibility that taphonomic processes may have brought down some of the pieces of obsidian from higher levels in the stratigraphic sequence at the Cyclops Cave. The case for pre-Neolithic obsidian is stronger on the island of Kythnos; more than 350 pieces of obsidian have been recovered from the open-air site of Maroulas.<sup>32</sup> In addition, the site has produced a number of burials as well as the remains of several small circular structures. The radiocarbon determinations now available for Maroulas date in the middle of the 9<sup>th</sup> millennium cal BC (the same time that obsidian from Cappadocia makes its first appearance at Shillourokambos on Cyprus). Again, there is good evidence for the exploitation of marine resources at Maroulas. Of course, the oldest evidence for the use of Melian obsidian on the Greek mainland comes from the Franchthi Cave – in levels that date to the end of the Palaeolithic sequence.<sup>33</sup> The obsidian pieces in lithic phase VI, which is carbon dated to the eleventh millennium cal BC, were used some time ago by Catherine Perlès<sup>34</sup> to make a claim for the earliest seafaring in the Mediterranean. However, it is important to remember that the number of obsidian pieces found in association with lithic phase VI is quite small. In all, there are only 12 pieces that are held to occur there *in situ*. And it cannot be entirely ruled out, given that Franchthi was dug during the pioneering years of Palaeolithic archaeology in Greece, that even some of these pieces are not in proper stratigraphic context. On a more positive note, the evidence from lithic phase VII at the Franchthi Cave – with three times as much obsidian, seven C-14 dates that fall in the tenth millennium cal BC and abundant marine molluscan remains<sup>35</sup> –

is more substantial. In summary, the obsidian from lithic phase VII as well as that from Maroulas makes a good case for early seafaring in the Aegean world, which goes back at least two thousand years before the start of the Neolithic in mainland Greece.

Finally, there is now evidence for early sites on Cyprus that go back to the time before the Aceramic Neolithic on the island. With the exception of the site of Aetokremnos on the Akrotiri Peninsula,<sup>36</sup> pre-Neolithic sites have had a long history of being hard to find there. This is not the place to go into a detailed account of how the use of new approach to reconnaissance work on the island led to the discovery of the early sites of Aspros, Nissi Beach and several others on coastal formations of aeolianite.<sup>37</sup> In short, the strategy that I used in the field focused on three things: (1) the visibility of sites on the landscape, (2) the coverage of areas along the coast (those coming over to the island had to step ashore somewhere) and (3) the examination of those places on the landscape (such as the aeolianite) that had received little attention before. 'Aeolianite' is the name for a rock that began its life as a sand dune and was subsequently lithified (cemented and consolidated as rock) over the course of geological time. It can be described in everyday parlance as a fossilized sand dune. At first glance, such places on the landscape appear to be barren and uninviting. However, there are positive sides to this environmental setting for foragers who were moving along the coast by boat and exploiting marine resources. One of them is that the aeolianite offered a good place for making a temporary campsite, since there is little vegetation to clear away. In addition, the land surface of this

<sup>29</sup> Sordinas 2003.

<sup>30</sup> Sampson 1998; Sampson *et al.* 2003; Kaczanowska & Kozłowski 2008.

<sup>31</sup> Mylona 2003.

<sup>32</sup> Sampson *et al.* 2002.

<sup>33</sup> Perlès 1987.

<sup>34</sup> Perlès 1979.

<sup>35</sup> Shackleton 1988.

<sup>36</sup> With its much debated claim for the extinction of the local pygmy hippo, *Phanourios minutus*; Simmons 1999; Swiny 2001; for some of the limitations of the excavator's interpretation of the site, see Ammerman & Noller 2005.

<sup>37</sup> Ammerman *et al.* 2006; Ammerman 2010.





Fig. 2. View of the early site of Aspros located on a formation of aeolianite (a lithified sand dune) on the west coast of Cyprus.

porous rock is invariably a dry one. In the case of Aspros and Nissi Beach, both sites are located on drainages from the interior, and they occur in raised places on the landscape offering a good view up and down the coastline. On the negative side, neither Aspros nor Nissi Beach is really suitable for occupation during the winter months, since both sites are exposed to strong, cold winds at that time of year.

The site of Nissi Beach was found during reconnaissance work in January of 2004, and Aspros (Fig. 2) was identified in December of the same year.<sup>38</sup> Using Quick Bird image maps, surface collections were carried out at the two sites in 2005 and 2006. As part of the work, the position of all of the collection units was recorded by means of differential GPS, and large areas of the surface of

both sites were documented by means of low-level, overhead photography.<sup>39</sup> Surface collection led to the recovery of more than 200 chipped stone tools at each site (with a total of some two thousand lithic pieces in each case). Carole McCartney, a lithic specialist, has studied the flake-based assemblages from Aspros and Nissi Beach.<sup>40</sup> She finds that the assemblages at Aspros and Nissi Beach have similar reduction technologies and tool types, and they are much like the assemblage found in stratum 2 at Aetokremnos, which she has also studied. It will be recalled that stratum 2 at Aetokremnos has

<sup>38</sup> Ammerman *et al.* 2006.

<sup>39</sup> Ammerman *et al.* 2007.

<sup>40</sup> Ammerman *et al.* 2006; Ammerman *et al.* 2008, 15-27.



eight radiocarbon dates on samples of charcoal with calibrated ages that fall in the eleventh millennium BC.<sup>41</sup> This is, by the way, the time of cold snap known as the Younger Dryas (ca. 10,800 to 9,600 cal BC),<sup>42</sup> when there is held to be increased mobility among hunter-gatherers and foragers in the Levant.<sup>43</sup> In February of 2007, the first trial excavations were conducted at Aspros and Nissi Beach; they yielded chipped stone artifacts, hand stones, bird bones and seashells in pockets of an old reddish soil in the aeolianite. In July of 2007, an underwater survey conducted in front of the Aspros site led to the recovery of chipped stone artefacts in a position 10 m below sea level today.<sup>44</sup> Sea level was, of course, much lower at the time the site was occupied,<sup>45</sup> which means that what we observe on land at Aspros today is only the tip of the iceberg.

At this point, it is worth saying a few words about the interpretation of the two new early sites. The working hypothesis is that they are seasonal campsites visited by seagoing foragers from places on the nearby mainland such as the west Syrian coast, where they were already familiar with the aeolianite. To quote from 'The first Argonauts' again:<sup>46</sup>

"In light of the idea of heightened mobility among foragers in the Levant during the Younger Dryas,<sup>47</sup> the age of stratum 2 at Aetokremnos (dating to the Younger Dryas; see Fig. 2), and the similarity of the three lithic assemblages (allowing Aspros and Nissi Beach to be provisionally dated to the Younger Dryas as well), the inference is made that the three sites represent short-term, seasonal visits made to the island by foragers from the mainland."

In the previous literature, little attention was paid to the connection between the Younger Dryas and the onset of seafaring.<sup>48</sup> Indeed, proper attention turned to this relationship only in 2006.<sup>49</sup> Given the acute shortage of pre-Neolithic sites on the off-shore islands of Cyprus and Crete as late as 2003, it is understandable, in retrospect, that the literature on the eastern Mediterranean had little to say about the question of seafaring in the time before the Neolithic. This was a subject that one chose either to avoid or else was quite reticent about. A notable exception here is an article written by Jean-Denis Vigne and Thomas

Cucchi,<sup>50</sup> who explore the question in some depth, albeit with a primary focus on what is known about the Neolithic period. In fairness, they wrote their article just before the new evidence from Aspros and Nissi Beach had come to light on Cyprus. With the discovery of these two early sites – and there are several other early sites on the coasts of Cyprus still not cited by name in the literature (to protect their cultural heritage) – the situation has changed, and the whole story of early seafaring has finally begun to come of age.

## Tracing the spread of agriculture

With the advent of C-14 dating in the years after World War II, it became possible to date Neolithic sites in the Near Europe and Europe with a new level of precision. With the introduction of the accelerator mass spectrometry (AMS) method of radiocarbon dating in the 1980s, there was, of course, further refinement in what could be done. The first attempt to measure the rate of spread of early farming in Europe was made more than thirty years ago.<sup>51</sup> Previously, there had been the display of C-14 dates on the map of Europe<sup>52</sup> but no quantitative analysis of the data as such. Our initial analysis was based on a sample of 53 early Neolithic sites in different parts of Europe, and it showed that there was a good correlation between the distance of a site from a place such as Jericho in the Near East where agro-pastoralism was held to begin and the site's age. The average rate of spread

<sup>41</sup> Simmons 1999, 196–7; see also Ammerman *et al.* 2007, fig. 9.

<sup>42</sup> For the most recent literature on the dating of this climatic event, see Rasmussen *et al.* 2006.

<sup>43</sup> Bar-Yosef 2001, 140.

<sup>44</sup> Ammerman *et al.* 2008, 7–9; Ammerman *et al.* 2011.

<sup>45</sup> See Ammerman *et al.* 2007, fig. 3.

<sup>46</sup> Ammerman 2010, 88.

<sup>47</sup> Bar-Yosef 2001, 140.

<sup>48</sup> Ammerman *et al.* 2007, 18–20; Ammerman 2010, 88.

<sup>49</sup> Ammerman *et al.* 2006; Broodbank 2006.

<sup>50</sup> Vigne & Cucchi 2005.

<sup>51</sup> Ammerman & Cavalli-Sforza 1971.

<sup>52</sup> Clark 1965.



for Europe as a whole was estimated to be about 1 km per year. We also looked into the question of regional rates (to the extent that this was possible at that time) and found that the rate of spread in the western Mediterranean was about twice as fast as the one for Europe as a whole.<sup>53</sup> In our subsequent book on the Neolithic transition in Europe,<sup>54</sup> there was the chance to re-do the analysis with a sample of sites twice as large and a new method based upon the use of isochrones, which yielded much the same picture as the initial analysis. Two decades later, a group of archaeologists in London repeated the study with an even larger number of early Neolithic sites with C-14 dates and once again obtained basically the same result.<sup>55</sup> More recently, there was the opportunity to confirm the results of the previous analyses in yet a further study – now based on a sample of 735 early Neolithic sites in Europe, the Near East and Anatolia – with the average rate of the Neolithic spread over Europe falling between 0.6 to 1.3 km per year at the 95 per cent confidence interval.<sup>56</sup> It was, by the way, in this article that we first began to become aware of the paradox.

It will be recalled that the time delay between the earliest appearance of agro-pastoralism on Cyprus (ca. 8,300 cal BC) and in southern Italy (ca. 6,000 cal BC) is just over two thousand years. And the distance between these two places as the crow flies – over the seascape – is around 1,500 km. This gives an average rate between these two places of about 0.75 km per year, which stands at the low end of the range of values for the average rate of spread over the continent as a whole. In addition, there is evidence for slowness not only in an east to west direction but also from south to north, as shown by the trend for the Adriatic basin.<sup>57</sup> In a world where seafaring was well established, one should expect the rate between Cyprus and Italy to be faster. In short, we come back to the question of why the rate here (with seafaring) was not higher than the average rate for Europe as a whole (basically without seafaring). One of the possible factors contributing to the slowness is the collapse of the Laurentide Ice Sheet and the release of a large volume of water into the world's oceans in the time between c. 6,750 and 6,150 cal BC.<sup>58</sup> However, work on this question has

only just begun in Greece, which means it is still too soon to have a clear idea of how this climatic event may have affected – either positively or else negatively – the rate of spread there. In the case of the western Mediterranean, a faster rate is just what João Zilhão<sup>59</sup> found when he measured the rate of spread between Italy and Portugal. This is, by the way, fully in keeping with models of population dynamics that highlight the role of waterways in facilitating the spread of early farming.<sup>60</sup> J. Zilhão estimates that the average rate between Italy and Portugal was at least 5 km per year, and it could be as high as 10 km per year. Such a faster rate, which we had already begun to detect in our original analysis in 1971, is just what one would expect to find in a world where seafaring was well established. Much the same can be said about the movement of the Aceramic Neolithic from the coasts of the Levant and Anatolia to the island of Cyprus, which appears to have taken place at a fast pace as well judging by the early C-14 dates at Shillourokambos and Mylouthkia. Here it is worth adding that the movement of large animals such as domesticated cattle from the mainland to Cyprus already by the start of the eighth millennium cal BC implies that seagoing boats of some size were in use by that time.<sup>61</sup> Thus, we return to the question of

<sup>53</sup> Ammerman & Cavalli-Sforza 1971, 684.

<sup>54</sup> Ammerman & Cavalli-Sforza 1984.

<sup>55</sup> Gkiasta *et al.* 2003.

<sup>56</sup> Pinhasi *et al.* 2005.

<sup>57</sup> E.g., Skeates 2003; Forenbaier & Miracle 2005, 519–21.

<sup>58</sup> Turney & Brown 2007; Berger & Guilaine 2009. In 2007, the question was taken up by Turney & Brown with regard to the Aegean region but their scholarship is unreliable. They do not cite a major article on the question previously published in the literature on the eastern Mediterranean. Nor do they seem to have a firm grip on the C-14 chronology of Greece when it comes to the start of the Neolithic. They claim, for example, that the Neolithic package had already reached Greece by about 7,200 cal BC. As mentioned before, there is a shortage of reliable C-14 dates in support of such a claim. In the case of the article by Berger & Guilaine, the authors note the limited evidence that is currently available in Greece when it comes to the geomorphology of Neolithic sites that date to the time in question.

<sup>59</sup> Zilhão 2000; 2003.

<sup>60</sup> Davison *et al.* 2005.

<sup>61</sup> Vigne & Cucchi 2005.



why the spread of agro-pastoralism took so long in the middle of the Middle Sea.

## Exploring the paradox

What I would like to do at this point is to offer some thoughts that may cast the question in a new light. It is my hope that others will join in the discussion and put forward their own views. In the long term, by means of an exchange of ideas, it may be possible to come to a better understanding of the different factors that gave rise to the paradox. Here we shall focus on one of them. To begin with, it is worth noting that the first steps toward the domestication of plants in the Near East<sup>62</sup> and the first evidence for seafaring on a regular basis in the Mediterranean both go back to the time of the Younger Dryas. They may be regarded as two quite different forms of adaptation to the most challenging climate event that human beings have had to face over the last 50,000 years.<sup>63</sup> One was based on 'intensification' in the approach taken to a subsistence strategy in a given local area, while the other adaptation took the form of 'extensification' in the sense of a further step beyond the heightened mobility already seen on land at the time. In other words, one involved the pathway leading to agriculture as a way of life and the other one to seafaring as an alternative way of life. In the latter case, not only did some groups of people increase their emphasis on the exploitation of coastal resources on the mainland, they now began to go out to Cyprus seasonally. One of the advantages of a coastal strategy may have been that species with an aquatic or marine orientation (shellfish, fish and seabirds) found it easier to cope with the very dry conditions of the Younger Dryas. Moreover, what the island of Cyprus really had to offer was a long coastline: that is, just the kind of habitat that the 'extensive' form of adaptation called for. To put it another way, perhaps what was called for in order to have a better chance of making it through the vicissitudes of the cold snap of the Younger Dryas was a small boat and the foresight to make the crossing to Cyprus on a seasonal basis. And on the face of things, if one is ready to take a more positive

attitude toward early seafaring as a way of life,<sup>64</sup> the 'extensive' approach may have been the 'smarter' choice at the time.

The suggestion then is that in the eastern Mediterranean there were two alternative ways of life that were being experimented with in the eleventh and tenth millennia cal B.C. And both of them can be regarded as viable ones. However, embedded in the literature of our discipline is the teleological notion that all roads lead not to Rome but to agro-pastoralism. What I would like to argue here is that the voyaging foragers who made temporary campsites at Aetokremnos, Aspros and Nissi Beach should not been regarded as stealthy first farmers. In short, their lifestyle needs to be understood in its own terms. However, it is not easy to move beyond the evolutionary paradigm that has deep roots in Prehistory. Thus, while one can make the case for an 'extensive' form of adaptation, there is a nagging suspicion that somehow it does not really stand up as a viable alternative. Indeed, up until quite recently, such an idea seemed to make little sense because of the shortage of pre-Neolithic sites on the islands of the Mediterranean Sea.<sup>65</sup> Notwithstanding considerable interest in the discovery of early sites on Cyprus, Crete, the Aegean Island, Malta, Sardinia and Mallorca during the 1970s and 1980s, those who went out to find them invariably came back empty-handed. Accordingly, this gave rise to the notion that the late hunter-gatherers who lived in this part of the world were reluctant to go to sea. We are now starting to realize that the situation may be quite different. In retrospect, it turns out that the archaeologist was not looking for the early

<sup>62</sup> As seen, for example, at the site of Abu Hureyra in northern Syria; Moore *et al.* 2000. More recently, Willcox *et al.* 2009 made the case that while there was clearly the need for new forms of adaptation and intensification during the climatic deterioration of the Younger Dryas, the many wide swings in climate between 10,800 and 9,600 cal BC actually worked against the successful domestication of cereals and the take off of agriculture. The full fruits of this demanding time of trial and error were eventually realized when things settled down immediately after the Younger Dryas.

<sup>63</sup> Burroughs 2005; see also Rosen 2007.

<sup>64</sup> E.g., Bailey & Milner 2002/3.

<sup>65</sup> Cherry 1990.



sites in the right places. The problem stems in part from formulating the search for early sites in terms of the colonization of the various islands.<sup>66</sup> In fact, the whole question of the earliest seafaring in the eastern Mediterranean needs to be uncoupled from the notion of colonization, which implies some sort of permanent occupation of an island and not just frequenting it on a seasonal basis.<sup>67</sup> There is no indication so far that the first voyaging foragers who made seasonal trips to Cyprus had any intention of putting down permanent roots on the island. What we have recently learned on Cyprus is that early sites can be found right on the coast, if one takes a new approach in the field.<sup>68</sup> Admittedly, the pre-Neolithic sites are not easy to find. It takes experience to recognize them. And there is, of course, the challenge of the coastal question: that is, the submergence of early sites due to sea-level rise.<sup>69</sup> On the other hand, there is no longer reason for wholesale pessimism when it comes to the visibility and the recovery of pre-Neolithic sites, as shown by the recent work on Cyprus. Moreover, not only can the early coastal sites be found on land, it is even possible to trace them out into currently submerged areas as shown by the recent underwater survey at Aspros.

In terms of geography, one can think of the two lifestyles as being linked with different kinds of places on the landscape. Early agriculture, as we all know, saw its main development in river valleys and the areas surrounding them and on upland plateaux and the hilly flanks of mountain ranges. In contrast, seafaring was anchored on the rocky coasts of the mainland and the Mediterranean islands. Occasionally, there were places on the coast where it was possible to do both. There is no need to think of the two ways of life as mutually exclusive nor that a given group could not shift from one strategy to the other when it was necessary. Human beings in the remote past, as in more recent history, have always been resourceful and malleable in their behavior. At the same time, certain places such as the formations of aeolianite on Cyprus have never been conducive to an agricultural way of life due to their thin soils with low productivity. And those living at well-known Neolithic sites in the interior such as Abu Hureyra, Çayönü and Catalhöyük could

obviously not engage in seafaring. To mention one more difference between the two lifestyles, it is well known that pre-Neolithic sites such as Aetokremnos (stratum 2<sup>70</sup>) and the Franchthi Cave (lithic phases VI and VII<sup>71</sup>) have large numbers of marine molluscan remains (mainly *Patella* and *Monodonta*), whereas the early Aceramic Neolithic settlement of Shillourokambos (located in a good place for agriculture several kilometers from the south coast of Cyprus) has almost no sea shells used for dietary purposes or fish remains.<sup>72</sup> Moving west to Italy, while coastal Mesolithic sites show good evidence for the exploitation of marine resources, there is little or no evidence for the consumption of either fish or shellfish at any of the early Neolithic settlements excavated on the peninsula.<sup>73</sup> In fact, when human skeletal remains have been carbon dated and values of C-13 are available,<sup>74</sup> the signature of those recovered at Mesolithic sites on the coast is in keeping with a marine orientation, while a land-based diet is indicated for those who come from Neolithic settlements.<sup>75</sup> Thus, in the faunal record, there are ways to distinguish between the two styles of life. And on the map of the Mediterranean world, the spatial pattern is, in effect, that of a mosaic with early seafarers locally here and there on the coast and early agro-pastoralists in those places – mostly in the interior – with good arable soils.

<sup>66</sup> Cherry 1990; 2004; Patton 1996.

<sup>67</sup> Ammerman 2010, 89.

<sup>68</sup> This is also one of the messages of the project at Kandia in the Peloponnese, where the use of new survey methods led to the discovery of equally hard-to-find Mesolithic sites on the Greek mainland (Runnels *et al.* 2005).

<sup>69</sup> E.g., Ammerman & Biagi 2003, 339–40.

<sup>70</sup> Reese 2006.

<sup>71</sup> Shackleton 1988.

<sup>72</sup> Serrand *et al.* 2002.

<sup>73</sup> See Robb 2007. One of the exceptions here would be the Grotta dell'Uzzo in Sicily (Mannino *et al.* 2007). For evidence on the disjuncture between the late Mesolithic and the early Neolithic in southern France and northern Italy, see Binder 2000.

<sup>74</sup> Robb 2007.

<sup>75</sup> Recall that in later Neolithic times it is sometimes possible to find a case such as the submerged PPNC site of Atlit-Yam off the Carmel coast of Israel where there is a combination of fishing and farming; e.g., Galili *et al.* 2004.



Returning to the question of the slowness of the spread, one possible line of explanation is that seafaring as a way of life was in reality an attractive and enjoyable one.<sup>76</sup> If this is true, it is not then something that one had to leave behind as soon as possible so that one could get on with the business of becoming an agro-pastoralist. Those first farmers from the interior, who had an interest in moving to a new place with good soils and who came down to the coast for this reason, were perhaps in for a surprise when they reached the coast and encountered people there quite content to carry on with their own alternative lifestyle. In fact, such first farmers on the move were in all likelihood not surprised at all by what they encountered on the coast, since they had already heard about this sort of thing from elder members of their own community. In short, there was not a homogeneous field of play in which everyone shared the same set of values. Instead, there was a sense of 'them' and 'us.' And those who lived on the coast, even if they toyed with food production from time to time, were in no hurry to lay down their paddles and transform themselves into first farmers. The problem here is that our thinking on the matter has long been coloured by indigenism:<sup>77</sup> that is, the tendency to want those living on the coast to play the role of autochthonous first farmers.<sup>78</sup> Since there are almost no Mesolithic sites that are found in interior areas of Greece with good arable soils (such as the Plain of Thessaly) and the same holds for Italy (the Tavoliere Plain) and they are found instead on or near the coast, it is essential from the indigenist point of view that the late foragers living on the coast do the right thing and turn themselves into agro-pastoralists posthaste. Otherwise, the paradigm of indigenism finds itself in trouble.

In a world of 'them' and 'us' of this kind, there is a good chance that things will unfold more slowly. One can think of a wide range of scenarios of interaction between those living on the coast and the first farmers in the interior: mutualism, the exchange of goods, indifference, distrust, competition, antagonism and the inadvertent transmission of disease. This is not the place to go into a long digression on this subject. There is,

however, one aspect of their interaction that is of special interest, and it concerns who happens to have the seagoing boats. For our present purposes, this may be the heart of the matter. Clearly, those living on the coast and exploiting marine resources did have boats, while those living in the interior did not have them. In order to move around the Mediterranean world in an effective way, one needs to take to the sea but this cannot be done without a boat. In the model of the spread of early farming in Greece proposed by Tjeerd Van Andel and Curtis Runnels,<sup>79</sup> we find a map with arrows showing the first farmers (living mostly in the interior) leapfrogging here and there over the sea. Other scholars would likewise see the first farmers making their way to Greece by means of a sea-based route.<sup>80</sup> But were the first farmers (those land-lovers in the interior without boats) really prepared to go to sea? And were those on the coast who did have the boats and knew how to use them really ready to help out in transporting 'others' to places where they could find new land to farm? Or did the seafarers have mixed views on the matter? In the context of medieval history, it is worth recalling the animated give and take between the Venetians (those with boats) and the French knights (those without them) at the time of the fourth crusade. Of course, nothing as dramatic as the sack of Constantinople is likely to have taken place in Neolithic times. The real point that I would like to make here is that tension often arises when different ways of life come in contact with one another. The relationship between those who engaged in seafaring and the exploitation of coastal resources and those who were first farmers in the interior may not have been the simple and straightforward one that we find in the literature.<sup>81</sup> It is more likely to have been a relationship that was laden with contention at times and that

<sup>76</sup> Ammerman 2010.

<sup>77</sup> Ammerman 2003; Efstratiou 2007.

<sup>78</sup> For a recent example of such forcing, see Seferiades 2007.

<sup>79</sup> Van Andel & Runnels 1995, fig. 11.

<sup>80</sup> Perlès 2005.

<sup>81</sup> E.g., Broodbank 2006; Perlès 2005; Van Andel & Runnels 1995.



called for *negotiation* – to use a popular word in archaeology these days – and this may bring us to a better understanding of the paradox.

Before we turn to the last section of this chapter, it is important to emphasize that what is put forward here is a new idea whose evaluation will require a new cycle of fieldwork. What the archaeologist does in the field now has to catch up with how we think about the paradox. Indeed, fieldwork on the question – both on the co-existence of the two lifestyles and on the forms of the dialogue between them – is just at its beginning. This is illustrated by the case of Cyprus. Prior to 2004, as mentioned before, there was no interest in searching for early sites on the rough and seemingly inhospitable formations of aeolianite on the coast. This was due in part to an unforeseen bias in how multi-period regional surveys are designed. In making plans for a survey of this kind, the archaeologist commonly privileges the coverage of those parts of the landscape with good arable soils. They are the places where one expects to find larger settlements that date to later periods of time. And it is essential to recover such sites if one wishes to trace the long-term trajectory of the settlement system in a given region. Thus, choices with regard to the coverage of the landscape are commonly driven by the research goals of the multi-period regional survey, which means that less promising parts of the landscape (such as the aeolianite) tend to be neglected. But such places, we now know, are just the ones that the archaeologist has to cover in order to learn more that the early coastal way of life. What is called for then is a significant shift in our research priorities. In the Mediterranean world, how many other islands are there with early coastal sites that have yet to be recognized? We simply do not know the answer to this question at the present time. Over the next ten years, there will be the chance to conduct new fieldwork that should put us in a better position to answer the question. Hopefully, this work will provide new evidence on the following two lines of inquiry as well. First, how long does the coastal lifestyle persist in a given region once agro-pastoralism makes its appearance there? Secondly, when human skeletal remains are recovered from a coastal site and the values of the

isotope C-13 become available, to what extent do they show a diet that is based on the exploitation of marine resources? Information of these two kinds holds the key to the further exploration of the reading of the paradox that is offered here.

## Thinking about early seascapes

This chapter is already quite long. Only a few words will be said about early seascapes in this closing section. Traditionally, the field of prehistoric archaeology has had a land-based orientation or posture. Today archaeologists who are interested in the study of seafaring would view such a preoccupation with the land as a biased agenda.<sup>82</sup> Since the time of the Renaissance, the task of the archaeologist has long been to probe the earth and to bring the past back to life.<sup>83</sup> The twentieth century saw the triumph of the *landscape* as one of the common keywords in the archaeological literature. Studies in the Pacific are now giving rise to a sustained impetus for archaeology to move beyond its entrenched attachment to the land.<sup>84</sup> In the Mediterranean world, the main focus, even as late as the end of the last century, was still on the colonization of islands: that is, the acquisition of new land abroad. This book is a harbinger of the sea change that is now in the air. Although it is not easy to enter into the domain of perception when it comes to those who lived in the remote past, it is perhaps fair to say that seascapes were envisioned in two quite different ways at the time of the Neolithic transition. For those who were first farmers, the sea was a hurdle to cross – a space that lacked the customary resource base for subsistence – in order to reach land on the other side. It was an unfamiliar space where one had an enhanced sense of vulnerability. There were major risks involved in going to sea in a small boat. In terms of semiotics, the first farmer would have seen the seascape as a stop sign. Just the opposite would have

<sup>82</sup> E.g., Anderson 2010; Erlandson 2010.

<sup>83</sup> Schnapp 1993.

<sup>84</sup> E.g., Kirch 2000.



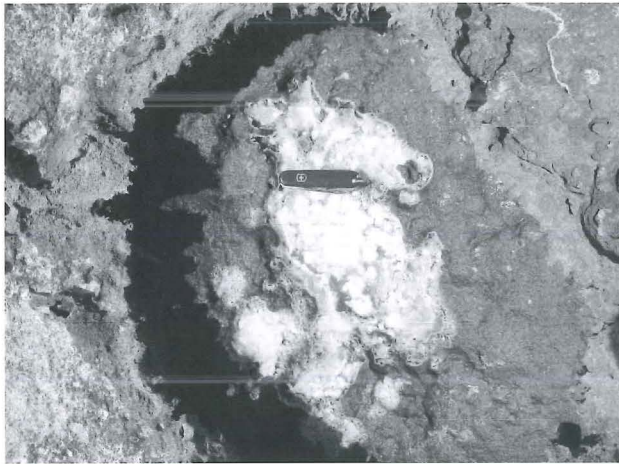


Fig. 3. Sea salt on the coastline at Aspros. The salt forms when spray from the sea collects in shallow depressions in the aeolianite (such as the one seen here) and the water standing there dries out in the sun.

been the case for those who practiced seafaring as a way of life. For them, the sea was the source of their livelihood. The seascape was not a hurdle or an obstacle but a vast entity beyond one's control whose changing moods one had to learn to live with. The seascape was an invitation, a green light, to the good life – food and all the rest. And this would have included memories of one's audacious experiences at sea. And if one did not have personal adventures that were dramatic enough, then one could always fall back on the tales of a fisherman.

Remember, for instance, what happened to the band of heroes known as the Argonauts when the *Argo*, the first long ship of Greek mythology, made its maiden voyage to the island of Lemnos.<sup>85</sup> The women on the island had fallen out of favour with Aphrodite, the goddess of love, and she is said to have made them smell bad for this reason. In response, their husbands lost interest in them and turned to other women. Now the infuriated wives took their revenge by killing their husbands, which meant that they ended up living alone on the island. This then created the opening for the Argonauts to cross the sea, to visit the island and to satisfy the desires of the women so that they could bear children once again. Likewise, in Homer's epic poem, the *Odyssey*, life at sea is laced with adventure and lovemaking. In ethnography, when we read about

the wily seafarers known as the Siassi, who plied the Vitiaz Strait on the north coast of New Guinea in canoes and who often spent days telling tall-tales to their trade friends, there are striking parallels with what we find in the *Odyssey*.<sup>86</sup> In short, the seascape stretching out to the far horizon was not such an empty space after all but a rich tableau, especially for the imagination. In Hesiod's *Works and Days*, which reflects the taciturn worldview of the land-lover, the head of the household, who always seems to have more than enough to do in his fields, sees the vagabond life of his brother, Perses, a seafaring trader, in a negative light. It is tempting to trace this fundamental dichotomy, which is voiced at the beginning of Greek literature, all the way back in the Aegean world to the remote time of the Neolithic transition.

While those who engaged in early seafaring would have spent a certain amount of their time fishing in coastal waters or making voyages every so often to more distant places, most of their time was spent on shore either exploiting resources there or else gazing out to sea: that is, waiting for the right conditions, so they could climb in their boats and push off from the shore. Early seafaring, by its very nature, was a waiting game. Accordingly, there was no shortage of time for the early seafarer to develop a nuanced gaze – one that took in the play of the moon, the seasons and the changing winds on the surface of the water. And in looking out to sea, there was always the sharp contrast between the fluidity of the sea on one side and the fixity of the land on the other. The point of contact between the two, the shoreline, is a liminal entity – a space that is betwixt-and-between in the words of Victor Turner.<sup>87</sup> It is the seam that runs between the seascape and the landscape. And in the specific case of the aeolianite on Cyprus, it is also the place where one could find one of the most precious things in the remote past – high-quality sea salt. In small, irregular depressions – known to the geologist as epi-karst<sup>88</sup> – that occur in a position just back

<sup>85</sup> Apollod. *Bibl.* I.9.17.

<sup>86</sup> Harding 1967, 183.

<sup>87</sup> Turner 1969.

<sup>88</sup> Ammerman *et al.* 2007.



from where the waves break against the rock, there are small patches of white salt crystals (Fig. 3).<sup>89</sup> They form when the spray from the sea collects in these shallow basins and the water standing there dries out in the sun. In short, the restless interplay between the sea and the land keeps producing new salt at what may be viewed as the liminal edge.<sup>90</sup> Thus, the long stretches of aeolianite that are found on the coasts of Cyprus would have had a great attraction for foragers on the mainland who were

ready to travel over the seascape to the island. And the pull of salt and everything else that went with early seafaring as a way of life meant there was less in the way of urgency for such voyaging foragers to find their way to the Neolithic transition.

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<sup>89</sup> Ammerman *et al.* 2008, 28; Ammerman 2010, 88.

<sup>90</sup> Westerdahl 2006; 2010.

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# Fishing (in) Aegean seascapes: early Aegean fishermen and their world\*

Tatiana Theodoropoulou

## Introduction

The exploitation of landscapes by human communities is a complex, multi-scale, issue, since human groups have settled in landscapes of various ecological settings and have developed different relations to these settings. From an environmental point of view, a landscape comprises the physical features of a portion of land, including coastal areas, an ecosystem where a particular niche of living elements, including humans, may develop. For instance, Leroi-Gourhan,<sup>1</sup> in his cultural approach of territories, defines portions of the landscape on which a human group, constituting an economic unit, implements a number of acquisition techniques. Although seascapes are considered as part of the overall landscape, they may also be viewed as distinct, geographical areas with particular characteristics and qualities. Thus, a seascape is composed of a combination of adjacent land, coastline and sea, usually visible to each other,<sup>2</sup> yet not fully accessible to humans. Encompassing the cultural expressions of a seascape, the term may be used holistically to describe the interaction of human communities with the sea, such as the modes of human exploitation of the sea and the importance of the sea in maintaining livelihoods. The choice of different marine and coastal environments, their relationship with human territories, the degree of exploitation, as well as the means used to pursue this exploitation, are some of the aspects of this relation. What remains a common feature is the constant fusion of environmental and anthropogenic components that form seascapes.

This chapter examines the interaction between prehistoric communities and their seascapes in the Aegean area. It is true that within Greek prehistoric archaeology the term 'seascape' has been in-

creasingly important. To date, however, emphasis has been generally restricted to the seascapes of southern Aegean islands in the Bronze Age.<sup>3</sup> For the purposes of this paper an *ad hoc* choice has been made to explore a different chronocultural and environmental context, namely Neolithic sites in the northern Aegean. This specific geographical zone offers a unique panorama of seascapes, featuring a variety of land, coastal and sea environments that may serve as an ecological canvas on which human actions took place. Prehistoric human groups have settled either in proximity or at some distance from northern Aegean seascapes. As it has been pointed out in the Introduction of this volume, "a maritime way of life in the Aegean may be an obvious option, but it is neither the only nor an inevitable one. There is always room for choice as to the relation between people and the sea and this relation may acquire various forms and different degrees of intimacy." In this respect, this zone offers the opportunity to explore different aspects and degrees of interaction between people and sea environments, creating different choices and alternative patterns of behaviour.

The material used to approach the issue is the

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\* I wish to express my thanks to the editor of this volume, Giorgos Vavouranakis, for inviting me to participate in this multi-authored approach of seascapes and for his unfailing assistance throughout the writing of this chapter. My gratitude is also extended to the anonymous reviewer, for his/her valuable suggestions on earlier drafts of this paper. Many thanks also to Dr. Sherry Fox and Yorgos Tzimas who subjected the text to rigorous reading and improved its quality.

<sup>1</sup> Leroi-Gourhan 1997, 1082.

<sup>2</sup> Hill *et al.* 2001.

<sup>3</sup> For an overview and basic references, see *Introduction* in this volume.

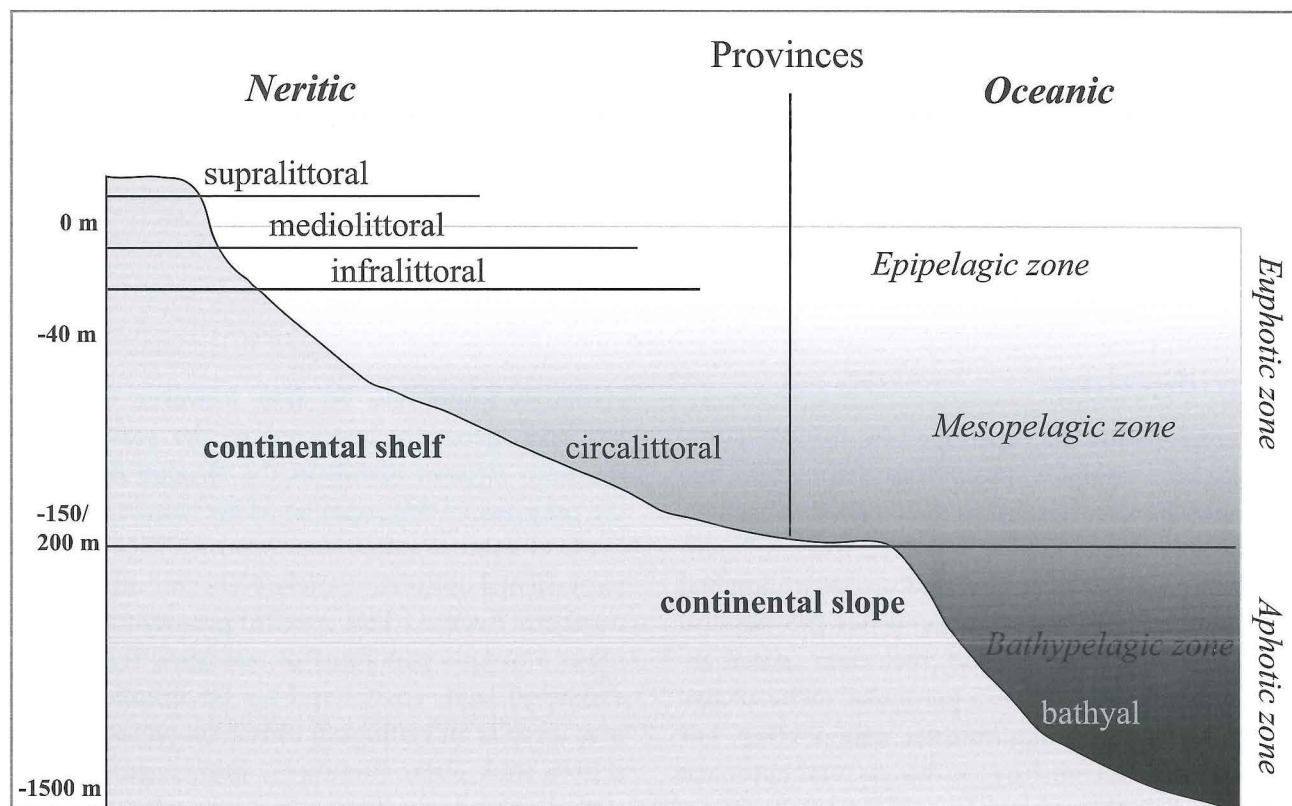


Fig. 1. Marine zonation.

zooarchaeological record from these marine environments, specifically fish and invertebrate archaeological remains that furnish direct evidence for the interaction of these human communities with the sea. However, before attempting any reconstruction of human-environment interaction, it is important to define the physical and cultural boundaries of seascapes, as well as the number of possible variations and divergence patterns related to the interaction between the two components.

## Defining the physical boundaries of seascapes

A seascape may be physically defined both at an environmental and at a biological level. From an environmental point of view, the seascape is a mosaic of sea, coastline and adjacent land. These three components are related to each other by a horizontal and a vertical zonation (Fig. 1). More specifically, the divisions of the marine zone depend

upon the distance from the shore and the depth from the surface of the water. Regardless of regional variations in zonation structure, all seascapes follow a similar biogeographical pattern (exposure to waves, light, temperature, currents, and predation) that hence determines the character of marine life. Plant and animal organisms will be distributed according to their vital needs and their adaptability to these zones.<sup>4</sup>

The first zone to be described lies on the junction between the inland and the coastal zone.<sup>5</sup> With respect to prehistoric communities, the coastal zone can indeed be considered as the key area within the seascape, as its accessibility from the land enabled the first humans to settle and exploit these regions. The coastline has been defined

<sup>4</sup> See Perès & Picard 1964.

<sup>5</sup> However, these limits can vary significantly, depending on cultural, regional or chronological criteria (see Westley & Dix 2006). For a critical overview of the term used in an anthropological context, see Rhoades 1978.



as an ecotone, an interface zone between two major ecosystems, the land and the sea, thus combining characteristics of each one.<sup>6</sup> Yet, this zone is far from being a stable, homogenous structure with a limited set of resources and climatic conditions. It is a complex system of sub-zones, linked to a number of factors influencing its character, such as sea level, climatic, oceanographic and geomorphological conditions. It may consist of various substrates, namely rocky, sandy, muddy, or mixed bottoms. Different organisms are adapted to these various conditions.

The lower coastal zone also defines the boundary *stricto sensu* between the dry land and the water environment, which includes the area from the shallowest waters to the open sea (pelagic zone). This area has acquired a special importance in human history, since access to it and exploitation of its resources has demanded special investment and technological progress, such as navigation and sophisticated fishing methods. In general, the water body is divided according to its depth into a photic zone, penetrated by light and an aphotic zone, the depths of which are not reached by any sunlight. It is also divided according to the distance from the coastline into two zones, the neritic province, stretching from the shore to the continental shelf (0–110 m), and the oceanic province (110 m to the oceanic trench), the off-shore area beyond the edge of the continental shelf with a wide array of under-sea terrain. Each of these environmental conditions remains stable, thus providing a specific habitat for marine organisms, although it is more difficult for marine life to sustain itself in the oceanic type of environment. Of these zones, only the neritic is of interest for prehistoric archaeology in that it has been exploited by human communities with limited technological means.

More precisely, the neritic province is characterized by relatively abundant nutrients and biological activity. It comprises 99% of live marine organisms, partly because of its proximity to land, and partly because neritic waters are penetrated by varying amounts of sunlight, which permit photosynthesis by both planctic and bottom-dwelling organisms. Coarse, land-derived materials generally constitute the bottom sediments, except in

some low-latitude regions that favour production of calcium carbonate sediments by such organisms as algae, bacteria, and corals. This province is also subdivided into zones, characterised by distinct ecological features:

The supralittoral zone is the area above the high tide that is regularly splashed, but not submerged by ocean water. Seawater penetrates these elevated areas only during storms with high tides. Lichens and some types of periwinkles, Neritidae and detritus-feeding Isopoda commonly inhabit the lower supralittoral.

The mediolittoral zone undergoes periods of emergence and submergence due to tidal effects, swell, wave action and other sea movements. The wave action and turbulences shape and reform cliffs, gaps, and caves, offering a variety of habitats in the soft or hard substrate for a wide range of organisms (green algae, sea stars, barnacles, crabs, a limited range of molluscs, such as limpets, topshells and chitons, rarely fish). The upper sub-zone in the Mediterranean coincides with the highest level of submergence by waves, so that the species undergo extended periods of emersion, which may result in desiccation during summer. The lower sub-zone is alternatively submerged and exposed by waves. As a result of this process, species rarely have to endure prolonged emersion.

The infralittoral zone has generally well-oxygenated water, low water pressure, and relatively stable temperature and salinity levels. These, combined with the presence of light and the resulting photosynthetic life, make the infralittoral zone the subregion where the main bulk of sea life is encountered: seagrasses and photophilic algae, marine worms, molluscs, urchins, crabs, and fish.

The circalittoral zone is the lower limit of the continental shelf, where light penetrates with difficulty. Algae, marine worms, sponges, corals, various invertebrates and fish

All the aforementioned divisions show a more or less recurrent pattern throughout the world's seas, yet they exhibit special characteristics influenced by specific regional geomorphological and climat-

<sup>6</sup> Bailey & Parkington 1988. For a more recent, critical assessment of the coastal zone, see Westley & Dix 2006.



ic conditions. Human communities that came in contact with seascapes have interacted in a lesser or greater degree with different portions of these seascapes. Yet, the ecological diversity within these environments, on one hand, and the different cultural responses to the environmental stimuli, on the other, determine the final type of relationship between these two components.

## Aspects of cultural behaviour towards seascapes

Cultural behaviour within natural environments is not easy to decipher in archaeology.<sup>7</sup> Processual approaches have aimed at reconstructing the ways in which people adapted upon a stable environment. Post-processual interpretations, on the other hand, have argued that people developed a dynamic interaction with their environs, a relationship that attributes a social role to natural elements. In an attempt to overcome this paradigmatic opposition, environmental archaeology has sought more holistic approaches to the relation between past people and their environment, which frequently draw upon earlier work by Steward<sup>8</sup> and the introduction of the notion of 'cultural ecology'.

To begin with, a landscape is defined as comprising all the physical features forming an ecosystem in which living elements, including humans, may develop. Yet, human geography may be solely developed in selected portions of the landscape. For example, the character and the position of settlements initially define the immediate boundaries within which a human group will interact with the environment. In this respect, the presence of a human territory in the proximity of a marine environment is a primary condition for its exploitation. Thus, a coastal or island community will probably make use of the neighbouring seascapes available. On the other hand, the presence of a seascape is not in itself what determines its exploitation by human groups. The limiting factor of water creates a restriction, which excludes a human group from parts of the physically defined seascape. Furthermore, the exploitable environments are subjected to regional variations, which determine the degree of

productivity of the sea. Thus, an understanding of choices related to the exploitation of seascapes must be based in part on decoding the topography and hydrography of a given region and, in part, on understanding the human geography.

Parameters other than geographical ones, may define the 'boundaries' of human exploitation. Although the environmental setting may largely define the degree of exploitation of a seascape, ecological factors can determine the choice for certain marine resources, as well as the combination of strategies involved. In this regard, Deith<sup>9</sup> has suggested that molluscs can prove to be quite a profitable resource on the return trip from a hunting/fishing or gathering area, due to the method of collection, which is easier and less time-consuming than fishing. On the other hand, it is also possible that a group may choose a more laborious yet more profitable strategy regarding harvesting of marine organisms.<sup>10</sup> In other instances, it is the effort to transform a given resource into a foodstuff rather than the energy invested to acquire it, which is taken into account. This is the case with shellfish, sometimes difficult to collect, yet offering the advantage of direct consumption.<sup>11</sup>

The described behaviours combine both physical as well as a number of cultural criteria that a priori affect the final choice made by a community. As suggested, the availability and accessibility to aquatic resources does not always work as a prerequisite. Time, effort, distance, technological availability and procurement methods, quality of a resource and potential meat yield are significant factors in assessing prehistoric subsistence strategies.<sup>12</sup> According to Jochim's model,<sup>13</sup> people make

<sup>7</sup> For a literature review see *Introduction* in this volume.

<sup>8</sup> Steward 1955.

<sup>9</sup> Deith 1986.

<sup>10</sup> Yesner 1980.

<sup>11</sup> Anderson 1981.

<sup>12</sup> Colley 1983; Reitz & Wing 1999, 241.

<sup>13</sup> A model described by several authors: Bailey 1975; Jochim 1976, 16–8; Van Reidhead 1980; Deith 1986. Although the current trend in environmental archaeology tends to de-emphasize the importance of the 'optimality models' that flourished in the 1970's (for instance, Albarella 2001), their contribution in understanding prehistoric communities may be of some use.



rational decisions with respect to which landscapes and resources and in what quantities they will exploit, making an effort to reconcile competing objectives but ultimately to ensure regular and sufficient intake of energy and nutrients. Although archaeological studies have over-emphasized the relationship between resources used and the time and energy invested in their supply,<sup>14</sup> ethnographic examples suggest that the distance travelled for the exploitation of a resource can be highly variable across different cultures and time periods and often quite recurrent within a human community.<sup>15</sup> On the other hand, procurement methods, available technologies, resource use schedule, time and ease of access are determined by various aspects of the marine species ecology.<sup>16</sup>

At a more general level, a seascape cannot be seen independently from other physical (landscapes) and social (human settlements) contexts. In this respect, the exploitation of marine environments has to be viewed within the framework of general choices and subsistence strategies adopted by a given community.<sup>17</sup> Christenson introduced another consideration, namely that subsistence needs within a human group are defined by the size of the group: a growing community seeks to exploit a wider spectrum of resources in addition to basic ones.<sup>18</sup> Thus, it is often observed that in periods of increased demand, the strategies adopted will expand to include less profitable resources and possibly environments more difficult to access by human groups.<sup>19</sup> Finally, the exploitation of a specific natural environment may also be dependent on the interaction between different human groups. For example, it is frequently believed that wild resources do not belong to anyone. This principle, summarized in the phrase 'everybody's property is nobody's property,' has been used in economic theory with respect to fisheries<sup>20</sup> and has been adopted by prehistorians on topics related to hunting and fishing.<sup>21</sup> Although a consideration of prehistoric fishing grounds involves the general assumption that seascapes would be open to all communities, the territoriality of fishing and collecting is attested even within unsophisticated communities, as suggested by the ethnographic record.<sup>22</sup>

If all the parameters set out above are of a more or less important nature in shaping behaviours vis-

à-vis the exploitation of available marine resources, ethnographic studies and methodological approaches may demonstrate the importance of other parameters involved: this is what Jochim has called "competing desires beyond that of simple labour minimization."<sup>23</sup> Thus, a number of cultural filters are encountered, such as desirability, taste, variety, prestige, restrictions and taboos.<sup>24</sup> Although it is sometimes difficult to apprehend the relative importance of these factors beyond the obvious purpose of supplying food resources to subsistence communities,<sup>25</sup> one must bear in mind that the quantitative differences do not necessarily reflect the real importance attributed to various species.<sup>26</sup> All the aforementioned examples demonstrate the

<sup>14</sup> In their 'site-catchment' analysis, Higgs & Vita-Finzi (1972) suggest that the ratio of distance/energy loss/return meat yield is more balanced within two walking hours from the harvesting area; see also Wing 2000.

<sup>15</sup> See Waselkov 1987, on the Transkei coast in South Africa, where collectors do not cover distances exceeding an 11 km/trip; also, Meehan 1982, 81.

<sup>16</sup> Botkin 1980: Marine organisms can be defined as 'solitary' (individuals) or 'gregarious' (clustered in groups), coastal or pelagic, according to the way in which they are distributed in the environment. It is observed that these contrasting distributions will require differing procurement times. See also Shackleton 1988, 38.

<sup>17</sup> Keene 1983.

<sup>18</sup> Christenson 1980.

<sup>19</sup> Osborn 1977; Yesner 1988. Indeed, in some communities, the exploitation of marine resources would reach its maximum during difficult times of the year, and collection would be practised without any selection criteria, but rather be based on a more opportunistic approach (Shawcross 1975).

<sup>20</sup> Gordon 1954.

<sup>21</sup> B.D. Smith 1975.

<sup>22</sup> For instance, the coastal front can be divided into fishing grounds allocated to each village, whereas the exploitation of the in-between areas may be prohibited. In some cases, more productive grounds are reserved to certain members of the community, whereas in some cultures the right to fish in a marine environment is not necessarily granted to the nearby villagers (see, V.L. Smith 1975; Yesner 1980 emphasizes the strong territoriality of coastal populations; Maigret 1984; Mass 1986; Moss 1993; Smith 1993). In reality, control of resources may be more significant than the territory itself (V.L. Smith 1975 citing the work of Kroeber & Barrett 1960).

<sup>23</sup> Jochim 1976, 23.

<sup>24</sup> Jochim 1976, 23; Reitz & Wing 1999, 241.

<sup>25</sup> Botkin 1980.

<sup>26</sup> Cherry 1988.



complexity of cultural choices with respect to the exploitation of seascapes and the implementation of subsistence strategies related to them. Out of these parameters, only a few will eventually be identified in an archaeological assemblage.

## Seascapes in Aegean perspective

Taking these considerations to a more refined chrono-cultural level, I wish to attempt a decoding of the zooarchaeological information of fish and shell remains from archaeological contexts in the northern Aegean. In this endeavour, the physical and cultural expressions of this specific seascape will also be taken into consideration.

Animal remains constitute one of the most tangible means of evaluating the interaction of past communities with their seascape. Such an evaluation can be achieved through the study of the associated zooarchaeological record: namely fish and invertebrate remains found in archaeological contexts. These remains offer the advantage of providing direct evidence for the interaction of these human communities with the sea. The accumulation of marine remains in an archaeological site is generally not a result of natural processes (for instance, death accumulations –*thanatocenosis*– or accidental intrusions), as is often the case with terrestrial animals.<sup>27</sup> Although this can be sometimes true for marine animals (bird predators, natural accumulations in shore stratigraphies, etc.), the presence of marine organisms within a human landscape entails, first and foremost, a choice: they have to be transported by humans for food or other purposes, such as the production of tools, musical instruments, jewellery, purpel dye.

This type of finds is frequent in several Aegean prehistoric sites located close to the sea. Among the first signs of a human-sea relationship, a handful of pre-Neolithic and early Neolithic sites in the Sporades, the Cyclades, Crete and the Dodecanese have been interpreted as seasonal fishing camps of hunter-gatherers.<sup>28</sup> According to the proposed hypothesis, small groups of fishermen may have settled in the southern parts of these islands, which are better protected from the strong winds, and may have been able to exploit the immediate seascape.<sup>29</sup>

In subsequent periods –notwithstanding the interaction with the marine element reflected in Aegean art, mainly from Crete and the Cyclades, where marine animal representations appear most frequently– the role of aquatic resources in livelihood strategies is more complex to decipher.<sup>30</sup> It is widely accepted that the Neolithic way of life turned wild resources from a necessity to an option. Zooarchaeological studies from southern Aegean coastal and island sites indicate that prehistoric populations must have exploited their immediate marine environment to supplement their diet, primarily consisting of cereals and domestic animals. Yet, the Aegean corpus has also furnished examples of coastal settlements with no or sparse remains of marine faunas (e.g. Kephala, Emporio, Agios Petros, Phylakopi).<sup>31</sup> What remains a constant feature in all studied variations of southern Aegean models of exploitation, is that they uniformly pertain to coastal communities located in close proximity to seascapes. Moreover, all relevant studies draw the line between terrestrial and marine exploitation grounds. Although the interaction of the maritime environment with coastal sites is not yet fully investigated, it is also equally interesting to explore the possible interaction of more remote communities with the marine zone.

In this respect, a perfect case study area is found in the northern Aegean. This geographical region covers a wide range of settlement types, namely coastal, semi-coastal and inland sites. On the other hand, this area offers a diverse marine environment, encompassing a range of different ecosystems, including sandy and rocky beaches, protected bays, lagoons with muddy substrates, and open sea-shores.<sup>32</sup> Although the Aegean is generally characterised by somewhat lower fish productivity than

<sup>27</sup> Voigt 1978; Nichol & Wild 1984; Heinrich 1994; Morales & Van Neer 1994; Morales & Roselló 1998.

<sup>28</sup> For the Aegean and Cyprus, see Ammerman this volume; Broodbank 2006.

<sup>29</sup> Sampson 1987, 116.

<sup>30</sup> Theodoropoulou in press a.

<sup>31</sup> Karali 1999, 14–6. Nevertheless, this may be a distorted image due to partial sampling and lack of adequate recovery methods, such as water-flotation.

<sup>32</sup> For a more detailed zoogeographical description, see Theodoropoulou 2007, 54–62.



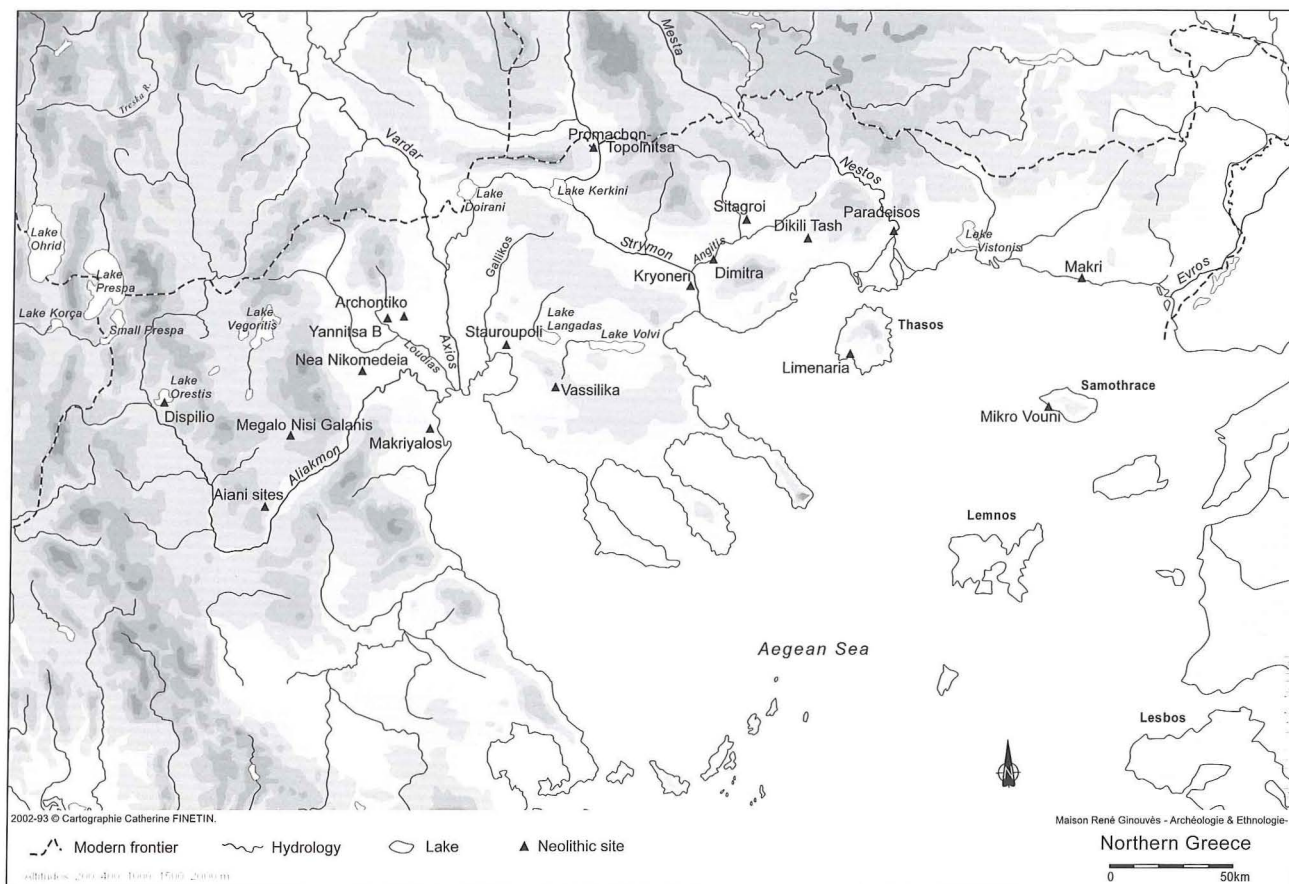


Fig. 2. Map of northern Greece with sites mentioned in the text.

other parts of the Mediterranean, the northern coasts of Greece exhibit specific hydrographical features: primarily the inflow from several large rivers and the Black Sea, which provide enough run-off to increase productivity locally.<sup>33</sup> At the same time, the passage of migratory fish from the Black Sea to the Mediterranean through the northern Aegean creates highly productive seasonal fishing territories.<sup>34</sup>

The zooarchaeological data from selected Neolithic sites in the region will serve as the key to understanding the relationship between these different variables by defining the character of the habitation and the different expressions of the physical seascape. In addition, a range of other types of information will be used in order to shed light on the subsistence strategies related to the seascape in northern Aegean prehistory.<sup>35</sup> The aim is to illustrate the dynamic relationship between people and their waterscapes, and the social significance of

the human perception of these particular environments.

<sup>33</sup> This is a transitional zone between the low-salinity, highly productive waters of the Black Sea and the higher-salinity, limited in nutrients and plankton, waters of the southern Aegean and eastern Mediterranean, characterized by an extended continental shelf and intermediate salinities, thus creating a distinct zoogeographical zone (Papaconstantinou 1992).

<sup>34</sup> Nevertheless, any direct comparisons between the present and the past seascape must be treated with caution in view of the several environmental fluctuations and geological changes dating from the prehistoric to modern times: tectonic activity, sea-level rise and river silting, etc., see Psychoyos 1988.

<sup>35</sup> The following discussion is included in a chapter of the author's unpublished Ph.D. dissertation: see Theodoropoulou 2007, 271–351. Although the results have been largely based on the author's personal zooarchaeological analysis of several prehistoric sites from the northern Aegean, for the purposes of a more general approach to the issue, published data from other sites of the same region have been used. For a detailed list of references to other works, see Theodoropoulou 2007, 205–68.

Table 1. Fish species identified in Neolithic sites of northern Greece.

Environment	Fish family		Settlement		
			coastal	semi-coastal	inland
Marine/brackish	Sparidae	sea breams	+	+	+
	Mugilidae	grey mullets	+	+	+
	Sciaenidae	meagres	+	+	+
	Scombridae	tunas/mackerels	+	+	+
	Serranidae	groupers	+	+	
	Gadidae	whittings	+	+	+
	Clupeidae	shads			+
	Labridae	wrasses	+	+	+
	Anguillidae	eels	+	+	+
	Sharks/rays*	*dogfish, angelsharks	+	+	
Freshwater	Cyprinidae	carps		+	+
	Siluridae	catfish		+	+
	Esocidae	pikes		+	+

\*Squalidae, Squatinidae

Table 2. Invertebrate species identified in Neolithic sites of northern Greece.

Environment	Invertebrate family		Settlement		
			coastal	semi-coastal	inland
Marine/brackish	Cardiidae	cockles	+	+	+
	Patellidae	limpets	+	+	+
	Trochidae	top shells	+	+	+
	Muricidae	purple-dye shells	+	+	+
	Ostreidae	oysters	+	+	+
	Arcidae	noah's arks	+	+	+
	Glycymeridae	dog cockles	+	+	+
	Mytilidae	mussels	+	+	+
	Spondylidae	spiny oysters	+	+	+
	Veneridae	venus/carpet shells	+	+	+
	Solenidae	razor shells	+	+	+
	Cerithiidae	horn shells	+	+	+
	Other families*		+	+	+
Freshwater	Unionidae	freshwater mussels		+	+
	Anodontidae	freshwater mussels		+	+
	Sphaeridae	finger nail clams			+
	Dreissenidae	false mussels			+

\*Mesodesmatidae, Donacidae, Pectinidae, Mactridae, Buccinidae, Cymatiidae, Cassidae, Tonnidae, Columbidae, Conidae, Dentalidae, Cypraeidae, Nassariidae, Turritellidae, Tellinidae, Sepiidae, etc.



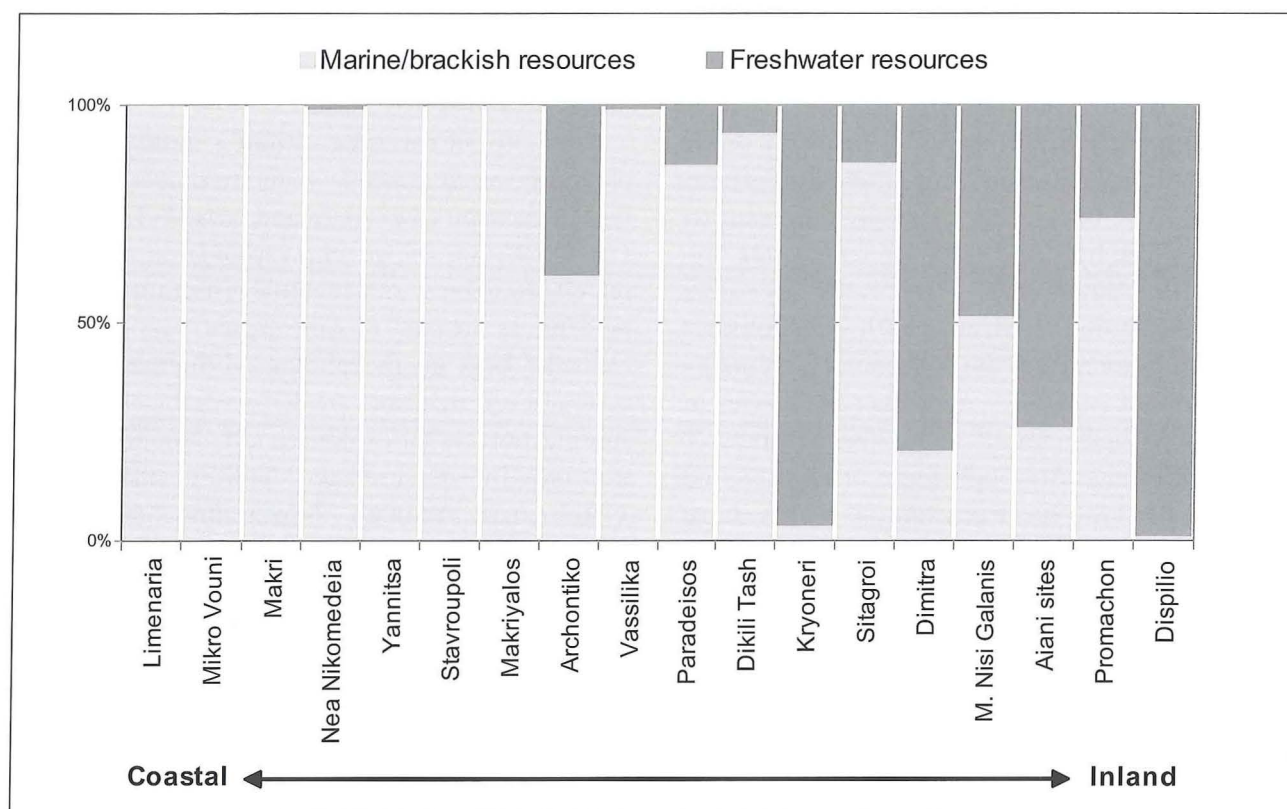


Fig. 3. Ratio of marine/freshwater resources in coastal and inland Neolithic sites of northern Greece.

## The exploitation of seascapes by Aegean Neolithic communities

The northern Aegean register includes a fair number of Neolithic sites (Fig. 2). Among these, some were situated on islands (Limenaria-Thasos, Mikro Vouni-Samothrace), while others were located on the coastal zone on the northern Aegean mainland or within a close distance to the shore (Archontiko, Makri, Makriyalos, Nea Nikomedeia, Stavroupoli, Yannitsa). Nonetheless, the sea is not the only feature of the Greek landscape. The land bordering the northern Aegean has accommodated extensive and flourishing Neolithic communities not physically related to the sea at all (Aliakmon river valley sites, Dimitra, Dikili Tash, Dispilio, Kryoneri, Paradeisos, Promachon). The diverse environment of this region must have facilitated various subsistence patterns. Therefore, it makes for a useful canvas whereupon it is possible to display and contrast patterns of human responses to natural features and thus study the relation of people to the seascape.

The role of the latter in the Neolithic is not fully understood. Generally, the Neolithic way of life had but partially embodied the water element. It is largely accepted that gradual reliance on staple foodstuffs, namely those provided from husbandry and agriculture, turned people to their immediate landscapes, restricting hunting and fishing to a subsidiary role. Although this is partially true for northern Aegean Neolithic communities, the 'sea-register' provided by faunal remains suggests otherwise. This is inevitably so among coastal Neolithic communities, where a significant degree of coastal exploitation has been identified.

The available record from both island and coastal mainland sites suggests recurrent collection of invertebrate resources in coastal beds, which were either adjacent to or within walking distance from the settlement (Tables 1-2, Fig. 3). In most sites, limpets, top shells easily reached on rocky shores as well as cockles hidden in the shallow muddy substrates, were among the preferred shellfish and formed the bulk of the collected molluscs. This is namely the case of the two studied island commu-



nities, namely Limenaria, where limpets account for more than 80% of molluscs imported to the site,<sup>36</sup> and Mikro Vouni (Neolithic layers), where the collection of cockles would occasionally reach 100%.<sup>37</sup> Although the choice of different substrates related to these two species generally conforms to regional availability, a common preference for upper (medio-/infralittoral), more easily accessible levels to the shore is evident in both sites. Another common feature regards the collection of a remarkable variety of molluscs (more than 50 species in every site), usually found in limited numbers (1 to 30 specimens). Although some of them would complete the food spectrum (purple murex, horn shells, oysters, thorny oysters, mussels, venus clams and razor shells), others were probably collected dead on the beach and are represented by single specimens in their respective assemblages. Next to the collection of shellfish, coastal fishing in shallow waters consisted of coastal catches such as various sea breams, grey mullets, sea basses and groupers. Coastal fishing occasionally turned to various rays and sharks, especially at Mikro Vouni and Makri.<sup>38</sup> Although fishing activities usually took place from spring to autumn with isolated catches during wintertime, favourable conditions for seasonal exploitation of migrating schools of pelagic fish (tunas and mackerels), swimming off the coasts of Thasos, completed the late summer-fall fish catches of Limenaria.

Although some common responses to seascapes are observed in other coastal communities from northern Greece, an interesting variation of the 'coastal pattern' is yet to be observed. This involves communities that have settled at the interface of different water environments, namely coastal and freshwater. This is indeed a usual variation of the northern Aegean seascape, where, as described, large rivers create deltaic areas on the coastal zone with distinct ecological and zoogeographical conditions. Such 'hinge' Neolithic communities can namely be found around the Thermaic gulf. If Corvisier's assumption that "a maritime way of life in the Aegean may be an obvious option, but it is neither the only nor an inevitable one"<sup>39</sup> holds true for coastal Neolithic sites, it is even more so for these semi-coastal/

semi-inland communities. In this respect, it becomes all the more interesting to identify any responses towards seascapes.

Most sites of this type exhibit a multi-scale exploitation of all available water resources, ranging from freshwater to brackish and coastal (Tables 1-2, Fig. 3). Within the general exploitation of all water environments, sub-regional variations are also evident, as attested among coastal sites. In most cases the large geomorphological fluctuations that took place at that time created a vast brackish zone most favourable for exploitation by Neolithic communities. In early and later Neolithic villages (Nea Nikomedeia, Yannitsa, Makriyalos, Stavroupoli, Archontiko), the inhabitants turned their efforts to the collection of abundant cockles, as well as to the fishing of sea in brackish waters the good season of the year.<sup>40</sup> Some communities, such as Archontiko, replaced freshwater mussels up to then consumed with these increasing, easy to collect, tasty resources. At the same time, the freshwater element at the junction of several major rivers of central Macedonia drew the attention of these villagers, although part of their activities was oriented to the coast. Fishing of catfish, carps and other cyprinids, and occasional collecting of freshwater mussels in the calm rivers and streams of the region would be convenient all year round compared to embarking on seasonal expeditions to the coastal zone or expanding their activities to deeper, more pelagic waters. Despite any regional variations among different semi-coastal Neolithic communities, it is interesting to note a general interest for the seafront that often counterweights the importance of other prolific water environments. This observation is important in as much as it indicates a higher degree of choice among diverse environments than in the case of coastal communities. Besides, the overall

<sup>36</sup> See Theodoropoulou in press b.

<sup>37</sup> Theodoropoulou 2007, 277-84.

<sup>38</sup> For Makri, see Curci & Tagliacozzo 2003.

<sup>39</sup> Corvisier 2008.

<sup>40</sup> For Nea Nikomedeia, Clench 1962; for Makriyalos, Pappa *et al.* forthcoming; for Yannitsa and the fish remains from Archontiko, Theodoropoulou 2007, 285-93; for shells from Archontiko, R. Veropoulidou (personal communication); for Stavroupoli, Karali 2004.

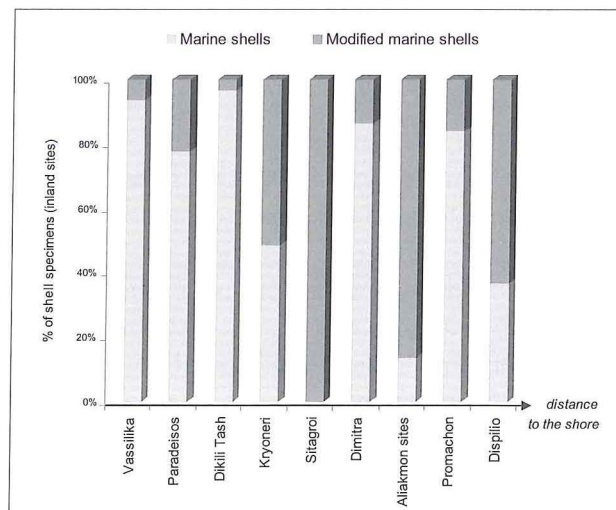
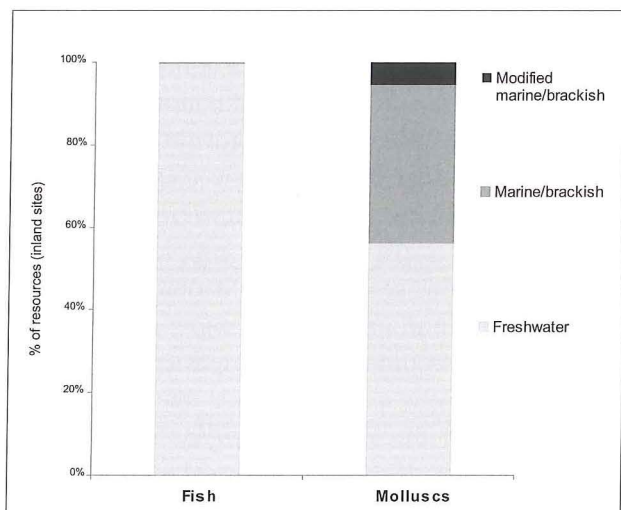


Fig. 4. a. Ratio of marine/freshwater resources in inland Neolithic sites of northern Greece; b. Ratio of marine/modified marine shells in inland Neolithic sites of northern Greece.

response to seascapes resembles the one observed among contemporary coastal/island communities, namely the deliberate exploitation of the most abundant shellfish resource and a more discrete fishing activity.

From the mosaic of cultural responses towards north Aegean seascapes, one might wonder about sites that do not exhibit any land-sea inter-visibility. The archaeological record from inland northern Greece offers a unique opportunity to explore this type of interaction, namely in respect of human communities that were not physically part of a seascape. Although one would expect a low degree of maritime presence, the sea was selectively present in the inland way of life (Tables 1–2, Fig. 3). As a matter of fact, although a fair number of sites from central/eastern Macedonia (Vassilika, Dikili Tash, Paradeisos, Sitagroi) lay close to a rich freshwater environment (rivers, streams and canals), only fishing took place within the limits of the waters close to the sites, as indicated by remains of fish-bones of cyprinids and catfish (Fig. 4a).<sup>41</sup> Little interest was shown for freshwater molluscs. Instead, the inhabitants organised regular expeditions to the coastal zone or down to the Strymon delta that ensured important quantities of various marine molluscs (cockles, oysters, purple murex, razor shells), or obtained them through exchanges with coastal groups. These resources would constitute the bulk

of invertebrates input to some sites, as, for example, at Sitagroi. Of course, this phenomenon does not seem to apply to all inland Neolithic sites. In several contemporary neighbouring communities in eastern Macedonia (Dimitra, Kryoneri),<sup>42</sup> freshwater resources formed the essential aquatic input against a limited collection of marine molluscs (Fig. 3). Nonetheless, the discrete presence of the sea is observed even in sites that were fairly far-away from the sea (Promachon, Dispilio and a number of Neolithic sites in the Aliakmon middle river valley, such as Megalo Nisi Galanis).<sup>43</sup> These communities also maintained some degree of contact with the marine element, attested by the presence of marine shells, many of which were worked down to ornaments or other artefacts.<sup>44</sup> In this case a different behaviour may have come into play. The shells were probably not collected as food and transformed into artefacts at a secondary stage, for the long distance from the shore would make preservation on such a long trip from the coast difficult (Fig. 4a–b).

<sup>41</sup> For Dikili Tash, Karali 1992a; 1992b; 1992c; Theodoropoulou 2007, 293–306; For Paradeisos, Larje 1987; Reese 1987; for Sitagroi, Bökönyi 1986; Shackleton 2003.

<sup>42</sup> For Dimitra, Karali 1997 and Theodoropoulou 2007, 293–306; for Kryoneri, Theodoropoulou 2007, 293–306.

<sup>43</sup> Theodoropoulou 2007, 293–306.

<sup>44</sup> For marine shell ornaments from Dispilio and an overview of similar Neolithic finds, see Ifantidis 2006a and b.



To sum up, within the diversified environmental background used in this section, different human responses have been recorded. Despite the physical restrictions of the environment, which may have allowed or hindered the interaction between various communities and the seascapes of the northern Aegean, the sea element is still more or less present in all case studies. In this respect, it is important to evaluate the cultural components of this interaction for communities living in both maritime and non-maritime environments.

## Toward an understanding of cultural responses to seascapes

The analysis of different types of maritime exploitation has shown the omnipresence of seascapes in Neolithic life beyond environmental boundaries. In general, environmental availability and accessibility can be decisive factors in the choice of specific land and/or sea exploitation strategies. When short distance from the resources is combined with a reasonable time/effort/technological investment set, as is the case in a number of coastal or semi-coastal prehistoric sites from the northern Aegean, this proves to be an ideal setting for seascape exploitation. On the other hand, coastal zones also seem to have been a preferred ground next to the exploitation of other available harvesting/fishing grounds for coastal groups settled at the junction of different environments. In the previous section of this chapter, some interaction between inland communities and the seafront has also been identified. In these cases and in contrast to coastal communities, the choice to invest in such a remote environment is even more pronounced among these sea-deprived communities.

Thus, it becomes clear that although a rather deterministic model of exploitation based on environmentally available resources may seem applicable with respect to prehistoric communities, the human interaction with seascapes goes beyond rigid environmental restrictions. Although the environment may often determine the choices of a given group to exploit a set of resources, more complex cultural processes may be involved in these choices. This is even more so in the context of the neolithic

way of life. In the Aegean prehistoric record, the exploitation of the sea is part of a complex network of social processes, which brought about the sedentary way of life along with the advent of the Neolithic. For the first time there is a clear distinction between the spheres of the domesticated versus the wild, and the staple versus the supplementary resources.<sup>45</sup> In this sense, the sea is neither a subsistence ground nor a provider of staple resources.

Indeed, consumption of sea products might have been the obvious way for coastal Neolithic communities from the northern Aegean lying within the boundaries of more 'traditional' seascapes, but these products did not constitute a need. Although the choice of these coastal groups to include marine resources was driven by availability, recurrent collection of a wild resource among others by an agro-pastoral community primarily suggests a willingness to incorporate this foodstuff in a diet based on staple agricultural and husbandry products. This choice may also be linked to the seasonal needs for fresh foodstuffs, protein input or variety in the diet.<sup>46</sup> These reasons may have also partly contributed to the decision of non-maritime Neolithic groups to exploit less easily accessible marine resources instead of locally available freshwater ones. Despite the higher nutritional value of marine vs. freshwater products,<sup>47</sup> a number of other factors related to consumption may influence the perception of various aquatic foodstuffs, such as ecological habitat, distant origin, taste, or dietary taboos.<sup>48</sup> These latter might be even more pronounced within the Neolithic diet, as the more a foodstuff is detached from its subsistence value, the more it is symbolically loaded.

The sea as a chosen exploitation ground should also be seen as an active constituent of the social web in Prehistory of northern Greece. A social or-

<sup>45</sup> Tringham 1971, Dennell 1978, Trantalidou 1996, Hamilakis 2003, Theodoropoulou & Papathanasiou forthcoming.

<sup>46</sup> Shawcross 1975, Meehan 1977.

<sup>47</sup> Detailed analysis on the nutritional value of marine foodstuffs in Theodoropoulou & Papathanasiou forthcoming.

<sup>48</sup> With respect to the perception of the fish as foodstuff in Classical Antiquity see Theodoropoulou & Papathanasiou forthcoming.



ganization of sea-related activities seems to stand out in all Neolithic groups. For instance, while coastal/island villagers generally displayed a rather open and diversified attitude towards their immediate seascapes, thus harvesting a large set of marine resources from different marine ecosystems,<sup>49</sup> they still focused on the most abundant marine resources available. This pattern reflects both environmental as well as a number of socio-economic parameters. Although the choice to include marine resources was driven by availability, organized exploitation of a wild ground indicates a common decision to include this type of exploitation in the set of subsistence strategies. The even higher degree of selection among various available environments observed in semi-coastal communities possibly introduces another parameter: these groups seemed to be much more preoccupied with minimizing the time dispensed to different exploitation grounds, which required different equipment and possibly more complex scheduling. Although mixed environments are generally considered to be highly productive in terms of species richness and diversity, these Neolithic groups would rather focus on the more prolific resource within the limits of their territory, probably allowing for a more efficient harvest with just one exploitation method at a time.

The frequent or occasional supply in sea products would also be tightly connected to both a climatic and a communal calendar. Although fishing in the Aegean may be undertaken at any moment,<sup>50</sup> it seems that the mild spring and summer weather determined the harvesting/fishing calendar of coastal and semi-coastal Neolithic villages.<sup>51</sup> It might be argued that this would have been an easy task within coastal or semi-coastal villages. Yet, if one takes into account the whole set of neolithic subsistence activities ensuring the livelihood of the community, it has to be assumed that some degree of coordination between land- and sea-related activities would take place despite the vicinity to the shore. Although different tasks might be combined,<sup>52</sup> Neolithic villagers probably based their activities on a general land/sea/freshwater but also domestic/wild resources' calendar. These activities would also be adapted according to specific attri-

butes, such as the ethology<sup>53</sup> of available fish and invertebrates as well as the ecology of fishing grounds in different regions (as in the case of what seems to be an organized seasonal fishing of migratory fish at Limenaria).

The social web that made the exploitation of seascapes feasible would be maintained by people engaged in this type of exploitation. It remains unclear which members or what group of the community would undertake the collection on the shore and fishing from the coast/boats.<sup>54</sup> Exploitation of various marine environments by coastal/island communities or different aquatic environments by semi-coastal communities might reflect a range of acquisition techniques employed by different individuals or groups (e.g. men, women, children). Beyond the obvious question of task specialisation within a Neolithic community, one might wonder about the special attribute a person or a group might have, while developing a specific relation-

<sup>49</sup> Although this approach is based on the ecological tools of species richness and species diversity, it may shed light on archaeological assemblages. Richness refers to the number of taxa that have contributed to a faunal assemblage. Diversity takes into account both the number of taxa present and the relative frequency of each species. A higher diversity value indicates a wider variety of species and/or a more even distribution of relative frequencies. From a seascape point of view, an assemblage with both high richness and high diversity reflects generalised, less focused fishing strategies, taking place in different environments or concerning different organisms. See Kruz-Uribe 1988; Reitz & Wing 1999.

<sup>50</sup> Luchesi 2006, Theodoropoulou in press a.

<sup>51</sup> Most of the fish were caught during the good season. The role of pointed winter catches in some coastal sites may be seen either as a need to supplement or diversify winter diet or as a leisure activity not connected with pressing subsistence needs.

<sup>52</sup> Gathering or fishing was practiced at the same time with herding on the coast (Deith 1988, as well as the example of Methana provided by Forbes 1976).

<sup>53</sup> *Ethology* is the scientific study of animal behaviour, and a sub-topic of zoology.

<sup>54</sup> The ethnographic record offers the whole set of social organisation of sea-related activities (Theodoropoulou 2007, 392–5). Several types of organization exist, ranging from individual fishing to a more collective activity. Collecting and fishing can be practised by a portion of the population, each family separately, adults (male or male and/or female), or women and children.



ship with seascapes. As Rainbird states, “the crux of the distinctiveness of maritime life lies not only in the specific activities, such as fishing, seafaring etc., but in the specific bodily engagement with the sea, which entails ‘a certain combination of sensory registers...’ and leads to the shaping of the maritime cultural persona. The sea shapes the character of the communities that live close to it and, in return, people get to know the ‘textures of the sea.’”<sup>55</sup> In this respect, it would be tempting to suggest that in villages lying close to the shore, every member of the community could build a personal intimacy with the sea, possibly reflected in the fortuitous collection of dead shells on the beach. If these shells were to be seen as the sensory reminders of a personal relationship with the seascape, it would be interesting to decode the meaning of such objects within inland communities.

These latter seem to express a rather pointed interest in seascapes, with selected shell specimens being transported from the shores inland. As opposed to coastal communities that demonstrated an interest for locally found resources, inland Neolithic populations were engaged in a specific interaction with these remote seascapes. For these inland communities, the sea was not part of their subsistence grounds and they did not depend on it. Acquisition of these resources would be achieved either by organising focused harvesting expeditions to the coasts (or in combination with other activities) or by bringing the desired marine products to the settlements via exchange networks, connecting coastal sites with inland villages. No matter whether these raw materials were acquired by inland individuals or through exchanges, their presence should be seen as more than pointed, meaningless events. Paraphrasing Jochim’s statement, it could be argued that the northern Aegean record provides a well-established case of ‘competing desires beyond that of *simple subsistence needs*.’ Beyond distance/effort/time equations, these marine shells seem to be more than souvenirs of the sea, expressions of desirability, taste, variety or prestige. The distance and difficulty to acquire them may have ascribed materials from this remote and seemingly significant seascape environment with a more symbolic character. This special character attributed to

marine raw materials is underlined by the variety of shapes and uses going far beyond everyday needs.

To sum up, everyday needs and desires beyond subsistence may both be part of the human perception of seascapes. Standard zooarchaeological interpretation of marine resource use, based solely on quantitative data, may lead to a rather static view of two contrasting patterns in Aegean Prehistory: namely a more intensive exploitation of seascapes by coastal communities and a highly selective contact with coastal environments by inland populations. Yet, behind these seemingly contrasting views there is a persistent underlying physical and spiritual presence of the sea in the Neolithic world view and a constant choice to embody this specific environment beyond natural boundaries and everyday needs into the social and symbolic sphere of the Neolithic life. In a way, every Neolithic community would actively build a personalised relation to seascapes. Either naturally present or more distant, seascapes would be socialized through various cultural channels (e.g. technology, time-scheduling, division of labour, transport) that would create distinct social identities, both on an intra- and on an inter-communal level. Although the study of faunal marine remains may shed some light to the processes of socialisation of seascapes, exactly how seascapes were culturally defined and perceived is yet to be answered.

## Conclusions

Decoding cultural responses towards seascapes is not an easy task. Every landscape is defined by both its physical and human components. In this paper, an attempt has been made to define Neolithic seascapes through various lines of interaction of human behaviours with the natural element. The means to bring this attempt to fruition was to explore the modes of human seascape exploitation and the importance of the sea to maintaining livelihoods. The constant interaction of Neolithic communities with seascapes has to be viewed in the context of the Neolithic way of life as an active

<sup>55</sup> Rainbird 2007, 47, 58.

choice: social webs were both the driving forces and the outcome of this choice.

At the same time, the degree of influence of the sea was tested on the possible interaction of this physical component with both coastal and distant human communities. What became clear from this approach is that beyond well-defined physical boundaries, the interaction with seascapes is far from being a static one. Although the environment may often determine the decision of a given group to exploit available resources, the importance of seascapes to prehistoric communities seems to apply beyond the need to maintain livelihoods and

sustain subsistence strategies. The sea as an entity seems to overcome its physical boundaries. It thus becomes embodied in the cultural choices of remote human groups. This is only one more strand of evidence in the diversity characterising the socialisation of seascapes within Aegean cultures.

As a whole, seascapes in Aegean Prehistory are more than an economic resource to be foraged efficiently. They should rather be seen as part of the cultural phenomena that have formed the Aegean cultural sphere and built the maritime persona throughout the history of the people living around this sea.



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# Further thoughts on the *International Spirit*: maritime politics and consuming bodies in the early Cyclades\*

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## Introduction

Over the past few decades, there has been a considerable increase in academic interest concerning the relationship between the concept of embodiment and theories of social action. Largely drawing upon the work of major theoreticians,<sup>1</sup> a large number of scholars have sought to give a special prominence to the concept in the broader field of humanities and to identify important lines of development for further research and analysis. In the wake of these debates, the body has also been introduced to the archaeological forum and has already begun to provide a critical site for theorizing society and self within the discipline.<sup>2</sup>

Within the scope of the present paper, the burgeoning field of the body will be assessed with reference to the archaeology of the early Cyclades; in particular, we will examine the potential of incorporating some of the insights this new direction of enquiry can afford to the study of the *International Spirit*, a phenomenon which has long been portrayed as the most salient characteristic of the archaeological material from the Southern Aegean archipelago during the middle stages of the third millennium BC.<sup>3</sup>

The paper will begin by critically assessing dominant perceptions of the *Spirit* as well as the common tendency to link the latter with disembodied forms of categorization and historical understanding. Discussion will proceed by arguing in favour of the "somatization"<sup>4</sup> of the *Spirit*; the proposed analytical framework largely draws upon the work already conducted on how the *Spirit* relates to issues of body representation, but also moves a step further by adding two questions of cardinal importance to the already existing research agenda. These

are: a) Could the *International Spirit* be associated with issues of corporeal *performance* and *experience* and if so, how? b) How does the study of these foregoing issues affect not only already existing socio-political models and historical narratives concerning the *Spirit* but also our broader understanding of the early history of the Southern Aegean region (and the Cyclades in particular)? In order to shed light on these questions, the paper concludes by offering some important insights into how to identify embodied and lived experience through the re-examination of various sets of Early Bronze Age Cycladic material commonly associated with the phenomenon of the *Spirit*.

## What is the *International Spirit*?

Given that past material culture exhibits demonstrable variation across space and time and is also

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<sup>1</sup> Such as Bourdieu 1977; Bourdieu 1984; Butler 1990; Butler 1993; Foucault 1978; Foucault 1987; Foucault 1988; Giddens 1984; Goffman 1959; Hägerstrand 1975; Merleau-Ponty 1962; Turner 1984; Turner 1996 and Wylie 1992.

<sup>2</sup> Cf. Hamilakis 2002; Hamilakis *et al.* 2002; Joyce 2004; Joyce 2005; Kus 1992; Meskell 1996; Meskell 1998; Meskell & Joyce 2003; Monseratt 1996; Tarlow 2000; Yates 1993.

<sup>3</sup> Renfrew 1972.

<sup>4</sup> Meskell 1996.



fragmentary in nature, one of the primary aims of early 20<sup>th</sup> century archaeology had long been thought to be the ordering of its object of study by stipulating redundancies in the form of abstract classificatory schemes.<sup>5</sup> Initially, these classificatory schemes were associated with the concept of 'culture'.<sup>6</sup> The term 'culture' was based upon the notion that groups of people constitute "structured wholes" producing "bounded material assemblages which directly or indirectly reflect their distinctive identity."<sup>7</sup> This basically meant that clusters of similar traits in the archaeological record could be taken to reflect the operation of socially determined and commonly held beliefs;<sup>8</sup> the feeling of a recurrent coherency in (at least some elements of) the record demonstrates that under this framework of analysis, the connection established between the concept of 'culture' and that of 'wholeness' was inextricable. From the early 1960s onwards, however, the epistemological validity of the cultural approach was largely disputed and the notion of material culture as more or less directly relating to the normative behaviour of distinct cultural groups was gradually abandoned. A major development in thinking occurred with 'culture' becoming essentially replaced by the 'system.' The systemic approach rejected the premise that patterns recognizable in the archaeological evidence could only be explained by reference to a single determinate (i.e. socially or culturally determined behaviour);<sup>9</sup> it was asserted instead, that these archaeological patterns resulted from a series of diverse and identifiable processes, which operated in a single 'socio-cultural' system.<sup>10</sup> The ultimate aim of this approach, commonly known as the 'processual' approach, was to establish a contrast between the idea of society operating as a homogeneous totality, held together by shared and socially determined beliefs, and society as a heterogeneous organizational system.<sup>11</sup> In a way, therefore, the proposed new scheme kept the notion of 'wholeness' but sought to offer a new understanding of its anatomy, its structure.

Despite their marked differences, the foregoing forms of understanding share some notable similarities. More to the point, as many recent writings have demonstrated, whether operating within a 'cultural' or 'systemic' framework, these kinds of

archaeological discourse rely heavily on some notion of evolutionary development and are largely modelled on the basis of *biological analogies*.<sup>12</sup> The tendency to think in evolutionary terms has been pervasive in Western thought since, at least, the period of the Enlightenment.<sup>13</sup> The term 'evolution' was initially introduced to the natural sciences in order to designate the Darwinian notion of the origin of biological species by means of development from earlier forms.<sup>14</sup> A similar trend soon followed in the social sciences; in the late 19<sup>th</sup> century, Herbert Spencer<sup>15</sup> was amongst the first to advocate that, ultimately, all aspects of the universe are subject to the laws of 'evolution' and that there are strong parallels in the structure and development of organic and social units.

With respect to the discipline of archaeology, the so-called 'organic analogy' may be seen to operate at various levels of analysis. The first is direct and obvious and involves a theoretical process of reification in which the metaphor of the *organism* (in other words, the *biological body*) is transformed into an understanding of society and the 'social' as a bounded entity (i.e. the *social body*).<sup>16</sup> Equally important is the fact that the organic analogy lends justification to the idea of biological necessity in the historical process; under the influence of the idea of biological 'growth,' 'maturity' and 'decline,' history is perceived as a continuous concretization of particular social forms and also as a predetermined and irreversible developmental trajectory.<sup>17</sup>

<sup>5</sup> Childe 1929, v-vi; Gifford 1960, 341-2; Kreiger 1944, 275.

<sup>6</sup> Childe 1929.

<sup>7</sup> Thomas 1996, 21.

<sup>8</sup> Barrett 1994, 91. E.g. Childe (1942, 26) notes: "The remarkable uniformity of types in a given local and chronological group or 'culture' just discloses the uniformity and rigidity of the traditions actuating their makers."

<sup>9</sup> Binford 1962.

<sup>10</sup> Binford 1962; Clarke 1968.

<sup>11</sup> A system is "an intercommunicating network of attributes or entities forming a complex whole" (Clarke 1968, 42).

<sup>12</sup> Thomas 1996; Trigger 1998.

<sup>13</sup> Thomas 2004; Trigger 1998.

<sup>14</sup> Trigger 1998, 60.

<sup>15</sup> Spencer 1891.

<sup>16</sup> Giddens 1984, 163-5; Turner & Rojek 2001, 27.

<sup>17</sup> Hamilakis 2002, 6.

Table 1. The organic analogy.

Principles of the organic analogy (for both biological & social entities)	The problematique behind Renfrew's International Spirit
<p>Boundedness</p> <p>From "simplicity" to "complexity": A predetermined &amp; irreversible developmental trajectory, leading to increasing differentiation.<sup>1</sup></p> <p>Integration (co-ordination) through centralized (regulatory) control</p>	<ul style="list-style-type: none"> <li>• The Southern Aegean region is portrayed as an ecosystem.</li> <li>• The Cyclades as a sub-unit of the broader system.</li> <li>• The Emergence of Civilization seeks to understand the 'genesis' of a watershed event: the appearance of the Minoan/Mycenaean 'palaces.'</li> <li>• Analysis focuses on the period preceding the 'palatial phenomenon': The Early Bronze Age (third millennium BC) in the southern Aegean region/(eco)system.</li> <li>• Rapid growth of three attributes of the Southern Aegean system: metallurgy, surplus and maritime trade.<sup>2</sup></li> <li>• Increasing differentiation, particularly in the case of the Cyclades, leads to the establishment of centralized control and authority. Centralization is necessary for the regulation and co-ordination of a wide array of interconnected economic activities.</li> </ul>

<sup>1</sup> "The growth which we are here considering consists in the establishment (and survival) of new relationships, new patterns of activity. This often implies the desuetude of many of the old relationships and activities, so that the changes which result are often irreversible. The analogy in the organic world...is here not with the growth of a single member of a species...since this implies no real innovations in patterns and relationships already established, and is largely a question of size, of scale. It lies rather with the evolution of a new species where real innovatory changes, the result in this case of mutation, lead to new adaptations and the irreversible movement away from old ones" (Renfrew 1972, 36).

<sup>2</sup> One of the distinguishing feature of a system is "the extent to which changes within one subsystem of society bear upon other subsystems" (Renfrew 1972, 36).

Another characteristic element of the organic analogy is the concept of 'survival.'<sup>18</sup> As Spencer argued, in order for an organism or a social unit to remain viable, that is, in order to survive in the struggle for existence, a progressive differentiation of its structures, attributes and functions ought to take place. Societies, like biological organisms, thus grow from relatively undifferentiated, 'simple' states, in which the parts resemble one another, into differentiated, 'complex' states in which these parts become dissimilar.<sup>19</sup> Finally, along with the classification of societies by their degree of heterogeneity, another type of classification is proposed which is connected with the issue of power. The increasing mutual

dependence of unlike parts in 'complex' societies and the vulnerability it brings in its wake, necessitate (or result in) the emergence of a regulatory

<sup>18</sup> Abbott-Segraves 1982.

<sup>19</sup> "As [society] grows, its parts become unlike: it exhibits increase of structure. The unlike parts simultaneously assume activities of unlike kinds. These activities are not simply different, but the differences are so related as to make one another possible. The reciprocal aid thus given causes mutual dependence of the parts. And the mutually dependent parts, living by and for another, form an aggregate constituted on the same general principle as is an individual organism" (Spencer 1891, 8).



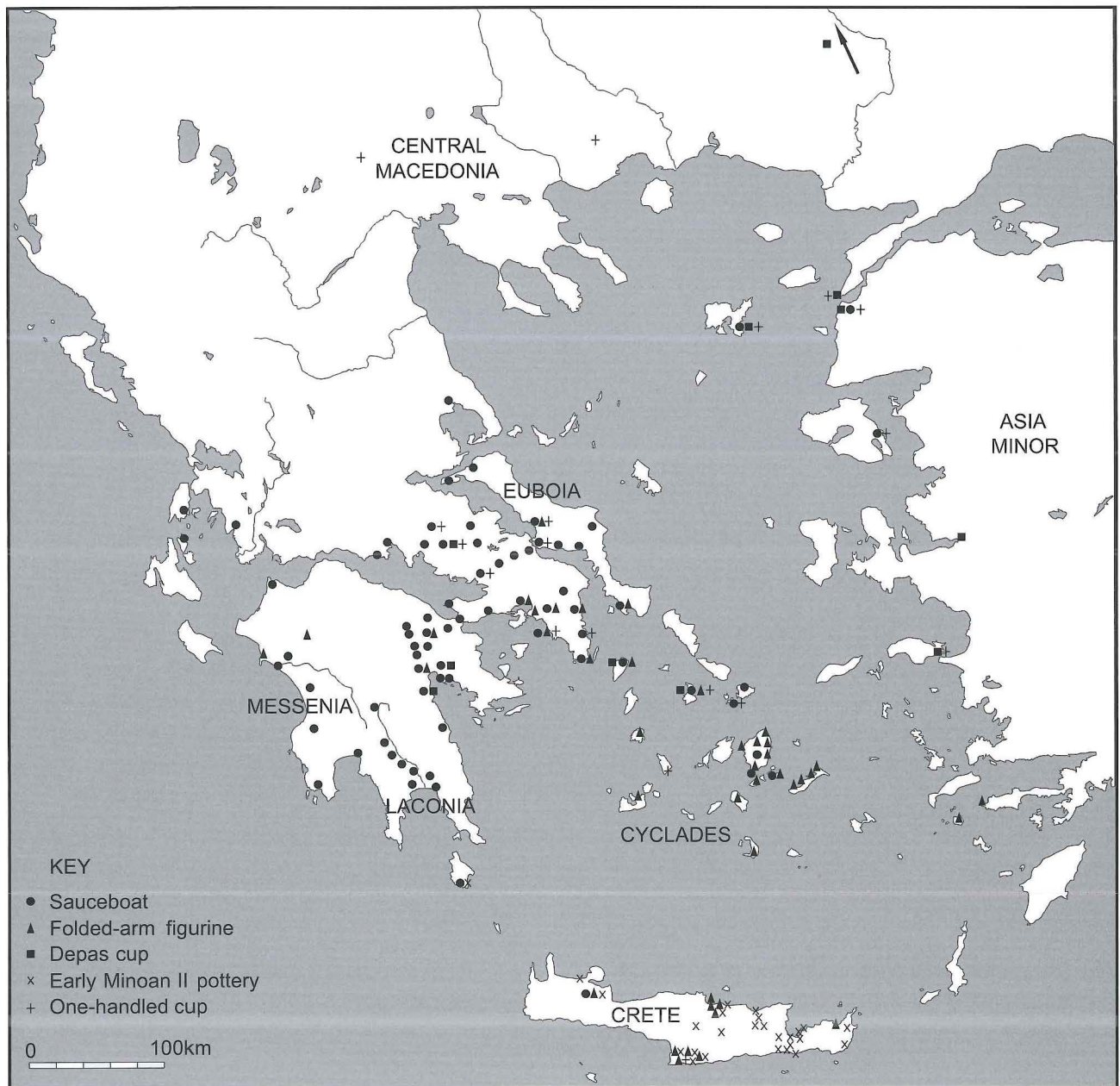


Fig. 1. The Cycladic thalassocracy and the emergence of the International Spirit (basic map after Daniel Dalet/d-maps.com; modified by G. Vavouranakis after Renfrew 1972, 453 fig. 20.5, courtesy of C. Renfrew).

system, a centralized mechanism that controls the actions of the parts (Table 1).<sup>20</sup>

Aegean archaeology has been greatly influenced by all aforementioned theoretical developments. Although echoes of the organic analogy (and evolutionary thinking in general) may be detected in the writings of several archaeologists working in the region, it almost goes without saying that these ideas find their fullest expression for the first time in Colin Renfrew's pioneering book *The*

*emergence of civilization: the Cyclades and the Aegean in the third millennium BC*.<sup>21</sup> In an attempt to explore the origins of the 'Minoan/Mycenaean palaces' and trace an explanation for the emergence

<sup>20</sup> "As compound aggregates are formed...there arise supreme centres and subordinate ones and the supreme centres begin to enlarge and complicate" (Carneiro 1967, 46). See also Abbott-Segraves 1982, 293; Tainter 1988, 34.

<sup>21</sup> Renfrew 1972.

Table 2. The organic analogy in the *Emergence of civilization*.

<p>Biological bodies (Organisms)</p>	<p>Bounded entities</p> <p>Predetermined and irreversible development</p> <p>Survival through differentiation</p> <p>'Simple' and 'complex'</p> <p>Integration through centralized control</p>	<p>Social bodies (Societies)</p>
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of 'social complexity' in the Middle/Late Bronze Age, Renfrew set out to theorize explicitly the workings of southern Aegean societies during the third millennium BC.<sup>22</sup> What can be seen as the analytical point of departure in the *Emergence* is that the southern Aegean region ought to be seen as an 'ecosystem',<sup>23</sup> a heterogeneous terrain, which differs markedly from the large, fertile basins of northern Greece. Within the broader environmental zone of the South, a prominent position is held by *island communities*, such as the Cyclades. In such highly heterogeneous environmental systems, an attribute most likely to take off into sustained growth is *exchange*. Certainly, all islands need to develop exchange relations in order to guarantee survival, in the case of southern Aegean communities, however, the need to exchange seems to have been related to yet another important factor: the rapid development of metallurgy at the onset of the Early Bronze Age. According to Renfrew, the development of this new technology gave a new meaning to the notion of 'goods'<sup>24</sup> and, by extension, to the notion of 'exchange.' The desire for metals would have been conducive to the organization and development of long-distance expeditions,<sup>25</sup> while on the other hand, the production of (some sort of) *surplus* would have been required for these maritime transactions to be sustained and operate successfully. Renfrew proceeds by arguing that in the case of the Cyclades, "a profitable sideline to supplement the cultivation of meagre lands"<sup>26</sup> and thus serve as the surplus necessary for participation in the aforementioned transactions were local raw materials (i.e. obsidian, copper, silver, emery), along with a limited range of locally produced artefacts (i.e. mid-ribbed bronze dag-

gers and tweezers, metal jewellery, pottery drinking and pouring vessels, folded-arm figurines and vessels in marble and other stones). The term *International Spirit* was coined to describe these artefacts, whose widespread distribution throughout the southern Aegean region during the mid-third millennium BC was, in turn, taken to reflect the dominant role held by the Cyclades in the developing long-distance trade networks of the period in question (Fig. 1).<sup>27</sup> With the development of metallurgy, the creation of surplus and the emphasis laid on maritime exchange (all of which are empirically substantiated -one way or another- by the *Spirit* phenomenon), the need for higher-level organization and regulatory control would have been imperative, thus laying the foundations for the emergence of centralized authority in the southern Aegean archipelago from the middle stages of the third millennium BC.<sup>28</sup>

It is obvious from the above that the *Emergence*

<sup>22</sup> Renfrew 1972, 34.

<sup>23</sup> The term 'ecosystem' was originally proposed by the plant ecologist A.G. Tansley to refer to all the plant and animal organisms (including humans) living together in a habitat (Tansley 1935). At the heart of his concept lies the utility of systems as a framework for analysis in which it is possible to combine human and environmental phenomena (Unwin 1992, 128).

<sup>24</sup> "For the first time, there was a commodity 'really worth trading. Obsidian had long been a valued commodity, but hardly an indispensable one. Metal, on the other hand, must very rapidly have been seen as a necessity" (Renfrew 1972, 455).

<sup>25</sup> Renfrew 1972, 455.

<sup>26</sup> Renfrew 1972, 454.

<sup>27</sup> Renfrew 1972, 451-5.

<sup>28</sup> Renfrew 1972, 36.



makes explicit reference to the organic analogy and the latter has been employed by Renfrew as a rich source of metaphors for understanding socio-economic processes in Aegean Prehistory. The close affinities between the organic analogy and Renfrew's work (particularly as regards the *problematique* behind the *Spirit* phenomenon) are summarized in Table 2.

Over the past few years, however, serious concerns have been raised about the aforementioned mode of understanding. It has been asserted in particular, that the term 'organism' in Renfrew's work refers to abstract entities ('cultures,' 'systems' and/or 'types of social organization') as opposed to human beings. As such, Renfrew's use of the organic analogy has been taken to encourage the reification of the 'organism' concept into the notion of a thing-like organization which exists over and above people's actions; under such a scheme, human action and experience in the Early Bronze Age southern Aegean region are inevitably taken over by and incorporated within the 'societal whole.'<sup>29</sup> In the wake of these debates, a major theoretical problem inherited by Renfrew's work was considered to be the establishment of an alternative (and more dynamic) interpretive framework that would allow us to people these abstract entities and processes,<sup>30</sup> what comes as no real surprise with regard to these more recent writings is that they have had to return –once again– to the notion of the *Spirit*.

## New readings of the *Spirit*

In an attempt to lay greater emphasis on the dynamic interplay between societal systems, historical processes and self-formation, several writers have lately focused their attention on the inherent potentialities of the Aegean seascape and their contribution to our understanding of the *International Spirit*. Amongst them, Cyprian Broodbank<sup>31</sup> was the first to question Renfrew's remark that southern Aegean geography is such that, "given adequate shipping," maritime contact and the search for raw materials can "rapidly spread any innovation of form or technique throughout the area."<sup>32</sup> For Broodbank, the impression gained from the region and the extant

corpus of empirical evidence seemed quite different; he suggested in particular, that inter-island traffic would have been controlled only by a very small number of highly specialized island centres, whose power would have been based on their ability to manipulate local trade to their advantage and to monopolize long-range voyages beyond the islands (Fig. 2).<sup>33</sup> Given these circumstances, Broodbank claimed, the origins of centralized authority and control should be viewed as inextricably connected with maritime activity; put simply, by the middle stages of the Early Bronze Age, a major source of power and prestige in the archipelago would have resided "in the practice and proceeds of maritime movement" as well as "in the cultivation of the glory derived from such activities."<sup>34</sup>

Following Broodbank's argument, Georgia Nakou<sup>35</sup> has redefined the role and significance of metals in the Early Bronze Age Aegean, claiming that their characteristics would have been pressed into the service of newly established interests. Nakou stressed that the geographical distribution of insular metal sources would have been modified by social strategies that sought to control crucial communications among the islands; both long-distance voyaging and various kinds of technological know-how (including more than those associated with metals) would have been eventually drawn into a new kind of symbolism, identifying emergent groups of socio-political authority. In a similar vein, the detailed analysis of Early Bronze Age obsidian assemblages by Tristan Carter<sup>36</sup> has demonstrated that blade production was limited to a minority of sites and in fact, to those that seem to have been the largest and of higher social status. The actual restriction of production at these sites implies a certain degree of manipulation of technological knowledge; for Carter, it was precisely the unequal

<sup>29</sup> Shanks & Tilley 1987, 87.

<sup>30</sup> Broodbank 2000, 278–9.

<sup>31</sup> Broodbank 1989.

<sup>32</sup> Renfrew 1972, 48.

<sup>33</sup> Broodbank 1993; Broodbank 2000.

<sup>34</sup> Broodbank 2000, 247, 364.

<sup>35</sup> Nakou 1995.

<sup>36</sup> Carter 1994; Carter 1998.

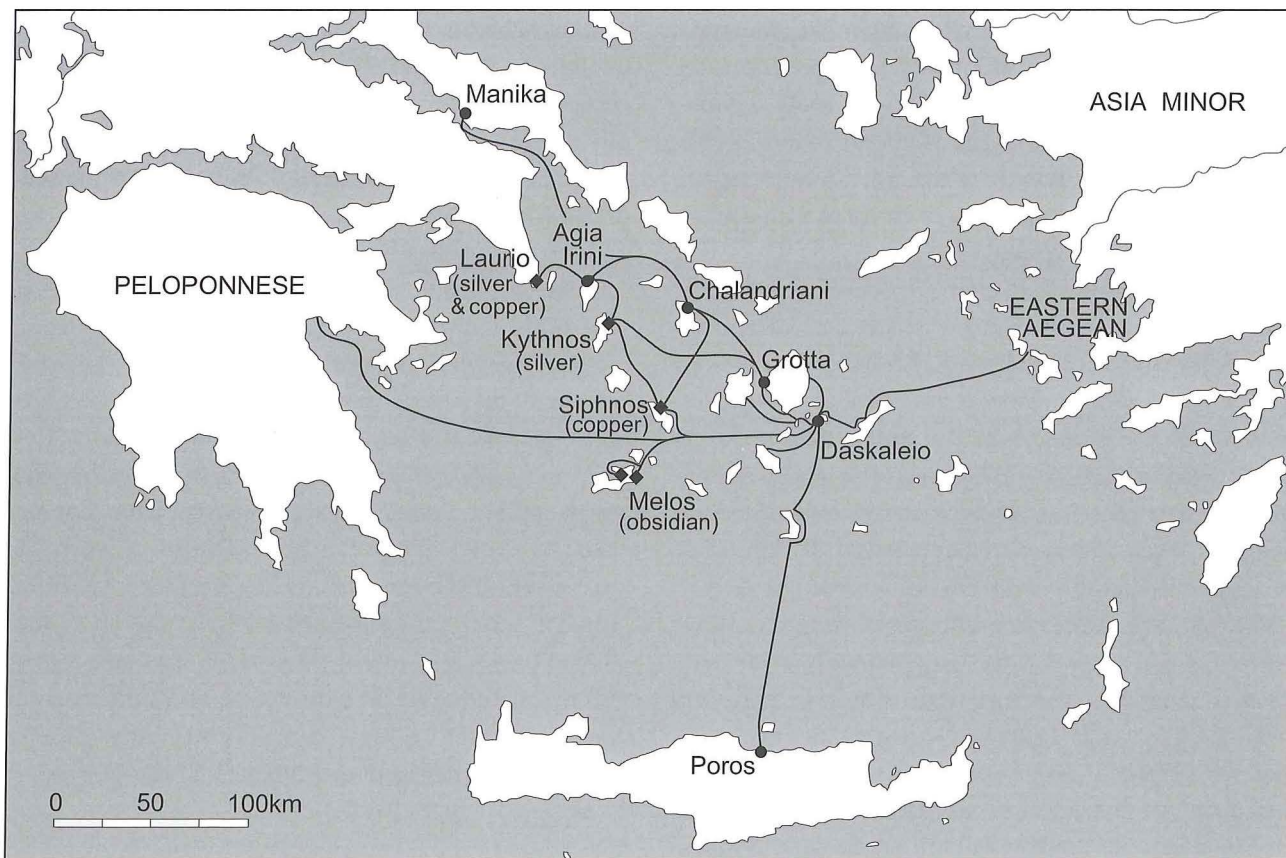


Fig. 2. Breaking down the concepts of thalassocracy and the Spirit: Broodbank's southern Aegean trade centres (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis after Broodbank 2000, 274 fig. 89, courtesy of C. Broodbank).

distribution of technological know-how that created uneven values for different goods and by extension, the conditions for an uneven distribution of power in the Southern Aegean at the time.<sup>37</sup>

Broodbank summarizes all the foregoing points by arguing that power in the Aegean resided not so much in durable organizational structures (as Renfrew had envisaged) but instead “in individuals, such as navigators, traders, community heads and perhaps crafters of fine objects, or combinations of these roles...”.<sup>38</sup> In this volatile context, the *International Spirit* set would have served as a token of prestige, value and authoritative status but above all, as a means for signalling the close relationship established between maritime activity, advantageous places and *prominent people/groups* across the Aegean seascape from the middle stages of the third millennium onwards.<sup>39</sup>

It goes without saying that new readings of the

*Spirit* have shifted analytical attention away from depersonalized interpretations and have enabled more nuanced narratives dealing with the insertion of human agency into previously dominant understandings of the Early Bronze Age period in the southern Aegean. This development has also been instrumental in allowing a more fluid conception of power, eloquently described by Broodbank as “personal and achieved”<sup>40</sup> as opposed to fixed and/

<sup>37</sup> “For someone to draw upon a skilled knapper, or at the very least the products of such a craftsman, would have signified their ability to access or control exotic and esoteric knowledge and resources, i.e. the trappings of status and power in the EBA southern Aegean” (Carter 1998; 72). See also Carter 1994, 138.

<sup>38</sup> Broodbank 2000, 247.

<sup>39</sup> Broodbank 2000, 266.

<sup>40</sup> Broodbank 2000, 247.



or given. Equally important has been the interpretation put forward for the *Spirit* phenomenon, an interpretation that has provided a far more sophisticated understanding of the role past material culture would have played in the production/reproduction of identity and the self in the communities of the Aegean archipelago.

In what follows, however, it will be argued that this new conceptualization of the relation between the *Spirit* and selfhood may indeed have revealed progressive and innovative theoretical territories, but it has also brought to the fore a new series of conceptual issues. At first glance, the position currently adopted seems to be that the self should no longer serve as a microcosmic version of large-scale processes taking place in the context under study.<sup>41</sup> A closer look at the new interpretive agenda, however, reveals that what we are ultimately witnessing is the transformation of certain systemic attributes into smaller-scale 'totalities' (i.e. groups of people); so, for instance, Renfrew's notion of 'trade' gives its place to 'navigators' and 'traders,' 'technology' is replaced by 'craftsmen' and so forth.<sup>42</sup> Moreover, since the foregoing activities have been associated – since the period of the *Emergence* – with the establishment of surplus, centralized authority and control, the only distinction drawn by recent approaches with regard to this association is that, instead of perceiving 'trade' and 'technology' as sources of 'power,' it is the 'navigators,' 'traders' and 'craftsmen' that are now portrayed as 'power-full' groups. Similarly, the *International Spirit* is no longer viewed as a reflection of the maritime dominance of the Cyclades as a whole, but instead as a set of prestige artefacts conspicuously consumed *only* by groups of exclusive membership.

But is it indeed the case that the above interpretations shift attention from general to more specific forms of historical understanding? Is the mere replacement of *activities* (i.e. 'trade,' 'craft production') by *actors* (i.e. 'traders,' 'craftsmen') an adequate step towards this direction? Or is it rather the case that by following this alternative analytical scheme, we continue to operate within an epistemological framework of (disembodied) generalizations and abstractions? In what follows, the argument will be put forward that, by adopting such a perspec-

tive, the human subject is – once again – *only briefly* sketched out. The concepts used remain rather general; they are all part of a general taxonomy and do not amount to an attempt at a specific socio-historical theorization of the physicality of the self. In fact, one could even go as far as to suggest that recent approaches tend to oscillate between interpretive positions, which relegate the 'peopling' of the Early Bronze Age southern Aegean to a mere annexe of what continues to be seen as the most powerful branch of archaeology: the archaeology of classificatory schemes, the archaeology of processes, the archaeology of prevailing forms of discourse; in short, the archaeology of *representation*. For the reasons stated above, an archaeology of embodiment will doubtless remain a secondary discourse unless a counterpoint perspective is sketched out. This perspective ought to find its epistemological vector at the level of experience and performance and in order to achieve this aim, it is now time to bring the question of *somatization* to the fore.

## Introducing the concept of the body to Early Bronze Age Aegean archaeology

Until quite recently, the question of how the human subject is constructed and perceived had remained a submerged dimension of archaeological theorizing in Early Bronze Age Aegean studies. However, over the past few years, some important transformations in social thought have taken place, gaining some level of acceptance also in the discipline of Aegean archaeology. This new trend advances the premise that the way forward in studies of subject constitution is to convert 'the project of the self' into 'the project of the body.'<sup>43</sup> To further explicate this point, several scholars have stressed

<sup>41</sup> This analytical tendency has been described by Meskell (1996, 7) as "the society in microcosm model."

<sup>42</sup> Berthelot (1989) argues that this tendency totally inverts the Durkheimian perspective which discusses "suicide" rather than the "individual who commits suicide."

<sup>43</sup> Turner 1996, 20. See also Shilling 1993.



that the archaeology of the body understands embodiment not as residual to social organization, but rather *social organization as being about the reproduction of embodiment*.<sup>44</sup> A general theory for the archaeology of embodiment thus starts with “how the body is a problem *for itself*,”<sup>45</sup> which is an action problem rather than a system problem, proceeding from a phenomenological orientation rather than a functional one.<sup>46</sup>

In analytical terms, if the theoretical objective is to move beyond the abstract needs and processes of a ‘society’ then the way ahead is “from body to self to society”<sup>47</sup> rather than *vice versa*. P. Falk<sup>48</sup> has argued that the foregoing perspective establishes a link between body, self and the social ‘whole’ (be that a culture, system and/or form of social organization) by means of a ‘topological’ methodological scheme. First, he argues, human bodily existence needs to be thematized both as the basis of and ‘model’ for the constitution of the subject, or more precisely, ‘the psycho-somatic entity called the self.’ Analysis then ought to proceed into the ‘topology’ of body openings, which allows us to build a bridge from the body to the self and finally contextualize both of these to culturally and historically specific types of social order.

With the constitution of the self being brought to its bodily basis, an alternative perspective is opened up, which aims at overcoming the duality of social structure and human action. By keeping the notion of corporeality within focus, we can begin to view structures as a recourse *for* bodies and as a constraint *on* them;<sup>49</sup> at the same time, we can begin to perceive the ‘social’ as instantiated only in its practical use *by* bodies, *on* bodies.<sup>50</sup> In short, focusing on corporeality is not merely about placing emphasis on the dynamic role of the human body; even more importantly, it is about placing emphasis on its *experiential aspect* and, more specifically, on the fact that the body-society relationship is above all a *sensory and sensual* relationship.<sup>51</sup>

It becomes obvious from the above that by choosing to direct attention to the realm of experience, we construct an analytical method, which reinstates the bodily *materiality* that is often missing from generalizing epistemological treatments and takes us beyond the common tendency to privi-

lege abstract entities or processes at the expense of sensory perception.<sup>52</sup> In fact, what may further concretize this new mode of understanding is the breaking down of boundaries between people and material culture (i.e. of subjects and objects) and the development of a framework that may help us encapsulate the *sensuous* constitution of these various ‘hybrids.’<sup>53</sup> For archaeology, this final point is of cardinal importance for it opens up a series of new questions concerning the interplay between the material world, bodily senses and human (sensuous) practice; under this scheme, we may for example begin to investigate how the senses are embodied within material objects; which senses dominate and what role(s) they play in the consumption/use of different materials; and finally, how senses operate not just in relation to human-made objects but also to the physical world.

Taking all these points into consideration, how may we associate “all this fuss about the body”<sup>54</sup> with the *International Spirit* phenomenon and the wider workings of the southern Aegean region during the third millennium BC? As we have already stressed in earlier sections, the need to adopt this new direction of enquiry stems from the fact that, so far, all proposed interpretations of the *Spirit* and the Early Bronze Age period in the Aegean seascape have focused more on the interplay of material culture with broader socio-historical concerns and less on the relations established between materials, objects, embodied experiences and meanings. In a way, therefore, the decision to examine the *Spirit* as a sensory phenomenon and an inextricable component of experiential practices stems from the need to fill an important gap in existing interpretive traditions. To achieve this, the present

<sup>44</sup> Foucault 1978; Foucault 1987; Foucault 1988.

<sup>45</sup> Frank 1991, 47.

<sup>46</sup> Merleau-Ponty 1962.

<sup>47</sup> Frank 1991, 48.

<sup>48</sup> Falk 1994, 10.

<sup>49</sup> Giddens 1984.

<sup>50</sup> Foucault 1978; Foucault 1987; Foucault 1988; Mauss 1979.

<sup>51</sup> Falk 1994, 2.

<sup>52</sup> Rodaway 1994.

<sup>53</sup> Urry 2000, 79.

<sup>54</sup> Bynum 1995.



study embarks upon the examination of a series of different (and yet overlapping) approaches to the body, focusing mainly on the relations established between bodies and materials/objects commonly associated with the *International Spirit*. A variety of themes will be examined, ranging from issues of bodily display and symbolism (i.e. the body/*Spirit* hybrid as metaphor, medium, artefact, symbol) to issues of embodiment and corporeal experience (i.e. consuming bodies, bodies at work, experience from and of the located material body). Although the development of this critically-aware sensory approach for the *Spirit* and the Aegean Early Bronze Age cannot be seen as a radical and/or revisionist epistemological enterprise, although the intention is not to promote “a particular orthodoxy,”<sup>55</sup> what the present study aim to demonstrate nevertheless is “the broad range of approaches possible”<sup>56</sup> when considering the importance of corporeality to interpretations of the early history of the Cycladic seascape.

## The corpo-reality of the *Spirit*

What we have demonstrated in the previous sections is, first of all, that Renfrew’s account of the *International Spirit* phenomenon and the wider workings of the southern Aegean region during the Early Bronze Age was dominated by depersonalized entities (i.e. cultures, systems, societal types), and by a series of oppositions established between these which allowed mutual evaluation and historical valorization. On the other hand, in recent interpretative attempts where discussion appears to have focused more on the human factor, very little has been said about “the most obvious fact of human existence”, namely that “human beings have, and to some extent are, *bodies*.”<sup>57</sup> Even in these cases, therefore, the central assumption remains that archaeological analysis ought to focus more on the collective reality of the social world and less (if at all) on corpo-reality and the many dimensions of human embodied experience.

One could argue of course that one field of research in which the body has always figured quite prominently does indeed exist and this is the field

of *representation* or, to be more specific, the various forms of past bodily representations including materialized bodily metaphors.<sup>58</sup> Largely drawing upon the representationist paradigm which is closely linked with many dominant western philosophies,<sup>59</sup> several studies<sup>60</sup> of the Aegean Early Bronze Age have portrayed the ‘re-presented body’ as a visual/material testimony of beliefs, practices and activities which would not have survived otherwise. This analytical tendency echoes the theoretical position that body representations are metaphorical versions of societies, with the former essentially acting as “normative representatives of larger social entities fulfilling their negotiated roles circumscribed by powerful social forces.”<sup>61</sup> As a result, the aforementioned set of conceptual principles can be seen as being very much in line with dominant depersonalized narratives concerning the *Spirit* phenomenon and the wider workings of early Southern Aegean societies; despite the effort to provide interesting insights into the notion of the body, these studies do not therefore manage to establish a vocabulary that describes structures and organizations “as our sentient bodies perceive”<sup>62</sup> them. To borrow Shilling’s words,<sup>63</sup> the body remains something of an “absent presence,” in the sense that studies of the Aegean Early Bronze Age rarely focus on the physical body as an area of investigation *in its own right*.

In order to demonstrate how it is possible to declare our interests as lying more within the realm of sensuous experience and performance as opposed to mere representation, discussion will begin by offering an alternative perspective on a set of

<sup>55</sup> Hamilakis *et al.* 2002, 13.

<sup>56</sup> Hamilakis *et al.* 2002, 13.

<sup>57</sup> Turner 1996, 60.

<sup>58</sup> The Cycladic figurines constitute the most thriving field of research on the broader theme of body representation in the archaeology of the Early Bronze Age Aegean (*cf.* Barber 1989; Getz-Preziosi 1985; Getz-Preziosi 1979; Getz-Preziosi 1987; Hendrix 2003; Hoffinan 2002; C. Marangou 1992; Papadatos 2003; Renfrew 1989; Sotirakopoulou 2006). See also Hamilakis 2002, 99.

<sup>59</sup> Hamilakis *et al.* 2002, 4.

<sup>60</sup> See n. 58 above.

<sup>61</sup> Meskell 1996, 6–7.

<sup>62</sup> Meskell 1996, 7.

<sup>63</sup> Shilling 1993, 9.



Fig. 3. The 'hunter-warrior' figurine (courtesy of the N.P. Goulandris Foundation Museum of Cycladic Art).

materials and objects that is taken to constitute a defining element of the Early Bronze Age period in the southern Aegean, but is also an important material component of the *Spirit* phenomenon: *metals*. Although metals dating to the initial stages of the Early Bronze Age are limited in number,<sup>64</sup> during the middle stages of the period in question (which roughly corresponds with the period of the *Spirit*), we begin to see a wealth of copper (and to a lesser extent silver/lead and golden) artefacts, deposited mainly in funerary contexts.<sup>65</sup> These objects have long been acknowledged to possess a fairly consistent socio-political value for southern Aegean com-

munities during the third millennium BC and to reflect marked changes in local and regional networks of rank and obligation as well as in the very media of authority.<sup>66</sup>

A characteristic type of the metal repertoire at an Aegean-wide level during the period in question is the *dagger*. Although there now exists a substantial body of evidence confirming the use of daggers since the Neolithic,<sup>67</sup> once again it is only during the middle stages of the third millennium BC that these artefacts begin to display not only a socio-economic but also a "symbolic dimension".<sup>68</sup> In order to substantiate these points empirically, several studies have emphasized the common appearance of daggers as grave goods, the careful elaboration of their surface so as to produce a shiny, 'silvery' effect and finally, their association with a rare class of figurines known as the 'hunter-warrior type' (Fig. 3).<sup>69</sup> All the above observations on the use of daggers are taken to be indicative of the need to communicate and sustain a variety of ideas concerning the identities of people, with particular emphasis being laid upon adult men and male-associated activities such as seafaring, maritime trade and warfare.<sup>70</sup>

One could therefore argue that, in a way, these interpretive attempts aim at demonstrating how wider socio-economic processes in the southern Aegean seascape during the middle stages of the Early Bronze Age (i.e. increasing maritime activity and trade, the development of a new technology – metallurgy –, the establishment of a new kind of wealth – the *Spirit* –) have "invaded, shaped, classified" and

<sup>64</sup> The absence of metal items from earlier contexts may be illusory (Sherratt 2000, 69). As Nakou (1995) has argued, the earlier and later stages of the Early Bronze Age may be characterised by the operation of two distinct depositional strategies; the main difference between these two strategies is that the latter (i.e. late Early Bronze Age) has resulted in the survival of archaeologically visible traces (due to the materials' final deposition in graves/tombs) whereas the former (i.e. early third millennium BC) did not (due to the continuous circulation of metal items).

<sup>65</sup> Doumas 1977.

<sup>66</sup> Renfrew 1972, 34.

<sup>67</sup> Zachos 1996.

<sup>68</sup> Broodbank 2000, 253.

<sup>69</sup> Broodbank 2000, 253.

<sup>70</sup> Broodbank 2000, 253; Nakou 1995; Sherratt 2000, 69.



made (male) bodies “meaningful.”<sup>71</sup> However, although it is all very well saying that people (and their bodies) are socially constructed, very little is said about the specific character of these bodies, their experiential dimension and historical significance in relation to the emerging social reality.

Essentially the point made here is that the relationship established between male bodies and daggers cannot simply be ‘explained away’ by current representationist scenarios;<sup>72</sup> instead, what needs to be further investigated is how daggers are jointly constituted with and alongside humans (in this case, most possibly men). Put simply, although it is indeed important to stress that daggers have had a close association with male activities, such as warfare and fighting, it is (perhaps even more) illuminating to explore how this association would have become possible in practice, how it would have related to performance and embodied experience. The more systematized exploration of such points could take us beyond representationist arguments, which seek to ‘explain’ daggers as dominant over or subordinate to male activity. By focusing on corporeal performance, what is rendered immediately apparent is that men and weapons ought to be conceived as integral parts of a project that required both elements in order to be feasible and/or effective. As one entered into association with the weapon, both that person and the weapon would have been transformed and this is why we should avoid positing an essence to either of the two. What acted in combat therefore was essentially the hybrid of weapon-person; it was an agency made possible by and through the relationship between the two elements and not something grafted on after the practical fact.

Following this line of argument, it would be analytically beneficial to examine for instance, the observation made by a number of scholars<sup>73</sup> that the increasing importance (practical and symbolic) of daggers could be seen as a reflection of the need to design effective weapons for relatively *close combat warfare*. Sherratt’s suggestions as regards this issue are particularly noteworthy: In an attempt to explore further Broodbank’s<sup>74</sup> claim that there is widespread evidence in the mid-third millennium BC of an interest in weaponry and a generalized image of

‘macho’ male activity and personal display, Sherratt brings those observations down to the level of experience and explains how the use of a *thrusting spear*<sup>75</sup> in formalized warfare could be expected to have developed under those conditions but also, how it would have affected those conditions. Her argument begins with the suggestion that the first spears in the Aegean region developed as spears on thrusting poles; she also makes the observation that the concern to guarantee a firm haft attachment for those items indicates that the latter would have been useful (if not necessary) in marine coastal environments, and more specifically “in circumstances of shallow water ship to ship or ship to shore skirmishing.”<sup>76</sup> By beginning to unfold the corporeal dimensions of combat (whether or not we adhere to Sherratt’s foregoing suggestion), Broodbank’s<sup>77</sup> notion of “achieved status” acquires a new dimension: to explore the relationship between men and weapons requires that we focus upon the ‘choreography’ of combat; of central concern now becomes the issue of how during such ‘choreographies’ (i.e. the intense episodes of armed confrontation) the techniques of war were learnt and developed, but also how they became the product of accustomed hands. If combat is really about bodies in action and interaction, then it is through the examination of these particular conditions of embodied performance that we may begin to grasp how distinctions would have been drawn and re-drawn between the skilled warriors and the novice, between those who could work well with the weapon and those who would have required more time (or even those who would have lost their opportunity) to perfect their skills.

Equally important to mention here is that the final chapter in this inextricable connection between warrior and weapon in the mid-third mil-

<sup>71</sup> Shilling 1993, 10.

<sup>72</sup> Shilling 1993, 11.

<sup>73</sup> Broodbank 2000, 253; Nakou 1995; Sherratt 2000, 70.

<sup>74</sup> Broodbank 1993.

<sup>75</sup> “A spear is essentially a dagger on a stick” (Sherratt 2000, 70).

<sup>76</sup> Sherratt 2000, 70.

<sup>77</sup> Broodbank 2000, 247.

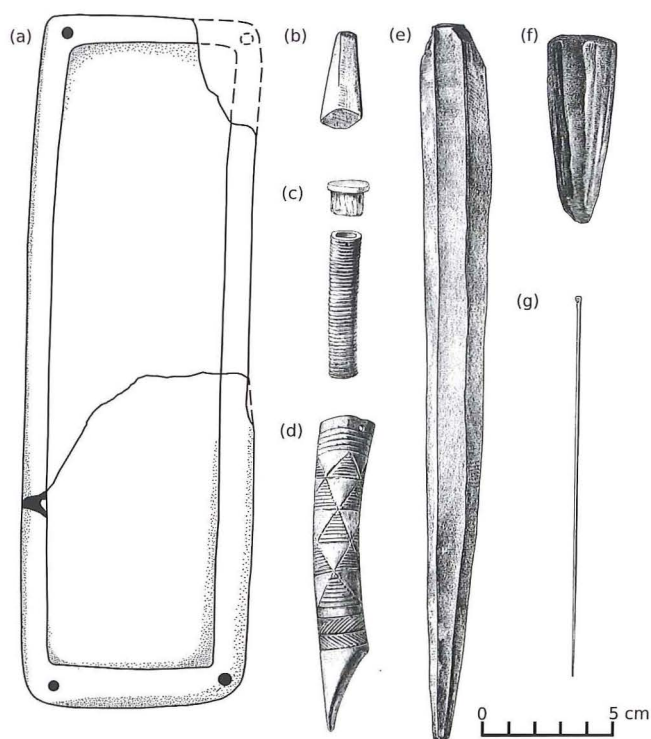


Fig. 4. Technologies of bodily adornment: (a) Marble palette; (b) stone pounder; (c) and (d) bone tubes (upper tube with lid); (e) obsidian blade; (f) obsidian pressure core; (g) copper needle (after Tsountas 1898, pls 8, 10; Tsountas 1899, pl. 10; modified and redrawn by G. Vavouranakis).

lennium southern Aegean appears to have been written in the context of death. Evidence for the *deliberate destruction* of daggers has been reported in Cycladic cemeteries, but also from Cretan funerary contexts. Along with the (relatively earlier) examples from the cemetery of Agia Photia in east Crete,<sup>78</sup> at least one example of a 'killed' dagger has been reported from Ano Kouphonisi,<sup>79</sup> while several similarly 'killed' daggers in the Apeiranthos museum in Naxos "must come from robbed graves in the Erimonisia or southern Naxos."<sup>80</sup> Although the deposition of artefacts with the dead (body) is in itself a form of 'killing' (i.e. of death),<sup>81</sup> the actual destruction of daggers in all these cases adds a far more dramatic element to the ritual signalling the simultaneous termination of life of both the object and its owner.

Another relatively underrated issue concerning the relationship between the human body and the

*Spirit* phenomenon is that the special value accorded to daggers during the period in question stems from a wider social concern to establish and express authority through the display of *portable wealth*. It appears that, so far, most interpretive accounts have sought to demonstrate that the *Spirit* set consisted of items of special (economic?) value; regardless of the validity of this suggestion, however, little attention has been paid to the fact that the term 'portable' implies that these items were carried, worn and ultimately, *in-corporated*.<sup>82</sup> Other items that seem to have further accentuated the need to adorn and frame the human body at the time of death include the jewellery commonly deposited in funerary contexts (i.e. bracelets, pins, necklaces, hair-rings and diadems)<sup>83</sup> and artefacts associated with body decoration and more specifically tattooing, e.g. obsidian blades, cooper needles and vessel and bone tubes holding azurite and cinnabar pigments (Fig. 4).<sup>84</sup>

The fact that body adornment was a necessary stage in the preparation of the deceased before final deposition suggests that (some of) those in charge of the funerary ritual were also actively involved in the *shaping* of the final 'image' of the dead body and by extension, the dead person. Body adornment would have thus played a very active role in the accentuation (or even silencing) of certain aspects (or personal qualities) of the identity of the

<sup>78</sup> Hamilakis 1998, fig. 8.2.

<sup>79</sup> Comment by Zapheiroupolou in Fitton 1984, 35; see also Zapheiroupolou 2008, fig. 19.25.

<sup>80</sup> Broodbank 2000, 268.

<sup>81</sup> Hamilakis 1998.

<sup>82</sup> Broodbank 2000, 248.

<sup>83</sup> Renfrew 1967, 5-6; Renfrew 1984.

<sup>84</sup> Broodbank 2000, 249-50, fig. 79; Carter 1994 for obsidian blades. Furthermore, the silver 'spoon' from Aplomata T.23 on Naxos (L. Marangou 1990, no 171) and the grey schist example from Amorgos, which provides a very plausible stone imitation of the silver version (Sherratt 2000, III. 8.35), are likely to have been used not so much as spoons but as tools for dispensing and applying pigments and/or other valuable substances (Sherratt 2000). Finally, the association of scallop shell dishes with metal objects (needles and tweezers) as well as other equipment (including pigment) at the cemetery of Chalandriani, Syros (Tsountas 1899: 103), may be indicating use in some sort of cosmetic context (Sherratt 2000, 181).



deceased and this process would have been made possible through but also projected upon the deceased's body. Following an argument made by Sarah Tarlow<sup>85</sup> with regard to a more recent historical context, we could argue that in mid-third millennium southern Aegean funerary contexts the individual self appears to have become strongly associated with the unique and bounded body. Put simply, if in previous periods the 'self' resided in but also transcended the body, it appears that, as we move towards the middle stages of the Early Bronze Age, that kind of self was replaced by the identification of person with body; in a way, from that point onwards the body *was* the self and it is likely that the emphasis laid upon the adornment of corpse at the time was a response to this new social reality.

While death marks the end of sensuous experience for the deceased, the exact opposite effect can be witnessed in the realm of the living and, more specifically, those left behind to carry out the funerary ritual. The very participation in this special occasion was inextricably connected with sensory perception: certain aspects of the ritual for example would have necessitated *co-operation* between the senses; in other cases, a *hierarchy* between different senses would have been established; finally, there would be times when a *sequencing* of one sense which had to follow another sense would have taken place.<sup>86</sup> One way or another, examples of each of the aforementioned relationships can be identified in the mid-third millennium southern Aegean record and this is certainly an issue that requires far more detailed consideration, an issue that could provide important insights for future research in the funerary domain.

If we were to argue that the artefacts examined above promoted a sense of *expressive corporeality* (in the sense that they helped the human body define itself as an *out*-look, an object to be moulded and as an instrument used in practical and symbolic 'labour'),<sup>87</sup> then what we are going to examine in what follows produces the exact opposite effect, for it leads to the growing *internalization* of sensory experience. The issue we are going to be dealing with is food and drink and its material paraphernalia, some of which are found in close association with the *International Spirit* set. Domi-

nant ceramic shapes of the period in question are vessels that can be associated with (food and drink) serving and consumption such as jugs, sauceboats, bowls and cups.<sup>88</sup> Moreover, we find examples of a functionally similar repertoire made out of other materials such as silver, marble and even seashell.<sup>89</sup> That these vessels did not constitute containers of offerings but may instead be associated with the introduction of wine drinking to different parts of the southern Aegean has been suggested from the early 1970s,<sup>90</sup> while the socio-political dimensions of this practice have begun to be explored by several scholars in recent years. The study of the association between food and drink consumption and the *Spirit* phenomenon can be seen as a particularly worthwhile analytical pursuit particularly in the context of death. Through the detailed examination of the admittedly rich body of archaeological evidence from cemeteries (in the Cyclades and beyond), we may begin to have an empirical grasp and a more context-specific understanding of Yiannis Hamilakis's<sup>91</sup> suggestion that eating and biological death are closely connected. In particular, what Hamilakis has sought to demonstrate is that in mortuary contexts where eating and drinking take place, we witness the *simultaneous death* of both humans and food/drink. Essentially, during such occasions, humans are consumed by death, they vanish in a similar fashion to food and drink, and it is precisely for this reason that we can envisage eating, drinking and digestion in mortuary rituals as "a metaphor for death."<sup>92</sup> Interesting to examine, on the other hand, would be the relationship that can be established between consumption and the living (bodies). Food and drink at times of death, where the emotions and sensory stimulations generated by consumption itself are combined with the embodied experience of

<sup>85</sup> Tarlow 2000, 25.

<sup>86</sup> Rodaway 1994, 36–7; Urry 2000, 80.

<sup>87</sup> Falk 1994, 3.

<sup>88</sup> Renfrew 1972, fig. 20.4.

<sup>89</sup> Sherratt 2000, 110, 181.

<sup>90</sup> Renfrew 1972.

<sup>91</sup> Hamilakis 1998.

<sup>92</sup> Hamilakis 1998, 115.



death, can serve as a vehicle for producing a very powerful mnemonic device.<sup>93</sup>

All the objects and materials we have examined so far had to do (one way or another) with the issue of use, but before closing this discussion a final comment ought to be made with regard to *production*: more to the point, the question that will concern us here is how the time, place and very performance of production of different material sets associated with the *Spirit* can be related to human embodiment. More often than not, studies of production tend to focus on issues of technology or the question of how (access to and control of) technological know-how may lead to the formation of distinctions and asymmetrical relations. Although these approaches have offered some highly illuminating points, they are still far from providing a more systematized understanding of the relationship(s) that may be potentially established between crafts, human identities and bodies. Issues that require further exploration for instance, when referring to the *Spirit* phenomenon are how routine traditions of procurement and working of different materials (copper, silver/lead, obsidian, clay) would have sustained local and regional concepts of identity; how differences in raw materials and technologies were associated with different body techniques and gestures as well as different ways of orientating the body; finally, it is equally important to explore how episodes of production provided a context in which skills could not only be performed but also observed and experienced through the sounds and smells of craft-working.<sup>94</sup>

In addition to all these points, one aspect of the relationship between production and the human body that needs to be mentioned here concerns the somatic traces of work, such as scars, cuts, burns and other superficial injuries but also the more chronic ailments arising from the prolonged and repeated association with craft activities. For people returning from a trip to a source or a *locus* of production, all such problems may thus have provided quiet confirmation of their attendance and participation in these periodic events.<sup>95</sup> The possibility that a symbolic dimension was also awarded to the wounded body may be inferred from the emphasis laid upon the decoration of many Early Bronze Age

marble figurines with red paint.<sup>96</sup> Could this paint have symbolized the marks and traces of embodied labour and not simply the representation of body scarification and tattooing?

## Conclusions

The purpose of this paper has been to give a general account of the *International Spirit* phenomenon that places human embodiment at the centre of archaeological enquiry. By defending a foundational theory of the human body, an attempt has been made to furnish archaeological discourse with a powerful perspective on how Early Cycladic communities experienced their “Being-in-the-world”.<sup>97</sup> What has been shown in particular is that an interest in embodiment can take us beyond the conventional, depersonalized analytical boundaries of what we generally recognize as the spatio-temporal context of the *Spirit*. Although it has to be admitted that only a few very brief contours of the proposed new framework of analysis have been sketched in this paper, what has hopefully become clear is that there is indeed some profit in exploring these alternative epistemological avenues. Of course, what needs to be remembered here is that, while the body is a very valuable unit of analysis and one which encourages us to detect the people behind the processes, it cannot capture “everything”. What we need to be constantly reminded of is that our focus on the body should not drive us away from the broader social realities that human actions reproduced, and yet we need to guarantee that the experiential dimension is included in our epistemological accounts; we need to focus on the particular (and profoundly somatic) conditions under which those realities were perceived, appreciated and even transformed through time. In the case of the *Spirit* phenomenon, what this implies is

<sup>93</sup> Hamilakis 1998, 117.

<sup>94</sup> Andrews & Doonan 2005; Carter 2007; Day & Doonan 2007; Dobres 2000.

<sup>95</sup> Edmonds 1995; Edmonds 1999.

<sup>96</sup> Getz-Preziosi 1987, fig. 42; See also Hendrix 2003.

<sup>97</sup> Heidegger 1962.



that we need to produce a history for the mid-third millennium Southern Aegean archipelago that will continue to emphasize the socio-political dimensions of insular life and maritime activity, but will also make sure to acknowledge the crucial role that corporeal action and experience would have played in the shaping of this dynamic seascape.

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# Funerary customs and maritime activity in Early Bronze Age Crete<sup>\*</sup>

Giorgos Vavouranakis

*“Le domain des morts, c’est le bord de la mer”*<sup>1</sup>

## Introduction

Crete is a large island with both mountainous areas and lowland plains and valleys. It is also crucially positioned between the Aegean and the rest of the eastern Mediterranean. These qualities make it an obvious nodal point for maritime traffic in the area and allow the development of diverse patterns of life within the same island. This paper concentrates on the material remains of one such pattern of life, namely maritime activity in the Early Bronze Age. This period was marked by the spread of the so-called “International Spirit,”<sup>2</sup> a network of economic and social interaction and exchange in the first half of the Early Bronze Age, *i.e.* during the end of the fourth and the beginning of the third millennium BC. It was centred on the Cycladic islands in the middle of the Aegean, but its effects were also felt on the coast of southern mainland Greece and on Crete. The main manifestations of such an influence on Crete were objects made of Cycladic raw materials, in Cycladic style or with Cycladic technological know-how or both, *e.g.* bronze triangular daggers with a mid-rib, marble figurines, obsidian blades, silver artefacts, and pottery of particular style.

Such artefacts are mostly known from tomb contexts, and they thus contributed to the significance of funerary activity for the societies of Early Bronze Age Crete. Burial places were pre-eminent places at the time, as is suggested by the use of such different tomb types as Cycladic type underground chamber tombs, stone built vaults (*tholoi*) and multi-room rectangular edifices, known as house-tombs. In addition, burials were frequently furnished with a rich variety of deposits, including both objects of

personal adornment (*e.g.* jewellery and weapons) and paraphernalia for the consumption of food and drink (jugs, cups, bowls, etc.). The social importance of funerary activity is further underscored by the existence of gathering places, usually paved open-air areas, just outside several tombs.

This paper focuses on Cycladic imports and funerary ritual, and it develops a twofold argument. First, it is argued that social life in Early Bronze Age Crete was characterised by the importance of the ‘seascape.’ The term ‘seascape’ here is not employed in the common sense of a picture of the sea,<sup>3</sup> but rather as the product of the collective experience, evaluation, and perception of maritime scenery.<sup>4</sup> Such scenery included both natural and manmade features of the environment (*e.g.* seawater, coasts, harbours, boats) as well as the dominant feature of this period, namely the International Spirit, its material manifestations and their economic, social, and cultural connotations. The sea was a place im-

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<sup>\*</sup> This chapter has been largely based upon research conducted in 2004, when I was a post-doctorate scholar of the Greek State Scholarship Foundation, at the University of Athens. Keith Branigan and Tim Campbell-Green offered their advice on the EM I period in the Mesara. The text benefited from comments by Mariliza Giarleli, Erik Hallager, Michael F. Lane, George Manginis, Jerolyn E. Morrison, and the anonymous reviewers. I am grateful to all the above, although I bear sole responsibility for any shortcomings.

<sup>1</sup> Van Effenterre 1980, 229.

<sup>2</sup> Renfrew 1972, 34.

<sup>3</sup> *E.g.* according to the definition of the *Oxford English Dictionary*.

<sup>4</sup> The *Oxford English Dictionary* uses the word *scenery* in order to define the meaning of the word *landscape*. The same word may be used by analogy for its derivative that is the *seascape*.



bued with meaning stemming from the engagement of people with maritime activity. As such the sea embodied the cultural evaluation schemata that informed social action on Crete.

In addition, it is argued that the Early Minoan seascape was re-appropriated in the social arena of funerary activity. This activity was able to prompt collective reflections on life and one's place in the world, and to encourage the renegotiation of already established worldviews and values that sustained society.<sup>5</sup> In the context of Early Minoan funerary rites, the seascape became a resource for a symbolic exegesis of the rules by which human agency should abide. As such, the seascape was a medium that fuelled social interaction, and it assumed its place in the social web as an active node affecting beliefs, practices, and actions.

Such a twofold research necessitates precise theoretical definitions of the terms 'seascape' and 'landscape' that – as already noted – transcend their everyday use.<sup>6</sup> The word 'landscape' usually signifies an area on the surface of the earth, with both its natural and manmade features, e.g. mountains, trees, cultivated fields, houses and/or even whole towns and cities. The seascape would by analogy include the coast, the sea, a harbour with its boats etc. The landscape also signifies a picture of such scenery and, as already mentioned, the word 'seascape' is commonly employed to signify the picture rather than scenery itself.

A considerable amount of theoretical research in geography and other disciplines<sup>7</sup> has been devoted to close the distance between the twin definition of landscape as object (scenery) and as representation (picture). A common premise is that human agency does not simply aim at adapting to the natural environment to survive. Rather, people imbue their surroundings with meaning and value. As a result, some places become more important than others. This hierarchy of places frames the human perception of the environment, exactly as the painter decides which places to include within the frame of a painting and in which order.

The landscape, then, may be defined as both a medium and an outcome of social agency. On the one hand, the landscape is a product of human experience. This experience places both natural and

manmade features of the environment on the mental map of people and renders them embodiments of social evaluation schemes. On the other hand, meaningful places become active constituents of the social web, since the hierarchy of values they represent makes them guiding media for people's actions. In addition, the same features of the environment may be imbued with diverse meanings, since different human tasks lead to different frames of perception, as the hierarchy of values changes with each task. Social life may then be regarded as lived through a series of tasks and, consequently, through a series of frames of perception, such as landscapes, seascapes, townscape, etc. The inhabitation of each new such scenery involves a re-viewing of previous frames of perception that has been generated by other activities in the same physical environment in the past. Material culture has a key role in this dialectic relation between human agency and landscape, since it may highlight specific aspects of the natural environment and thus orient human perception of this environment.

Research on prehistoric Crete (Fig. 1) has already attempted to tackle the social significance of the landscape.<sup>8</sup> For example, the importance of the 'Palace of Minos' at Knossos has been seen as stemming from a combination of landscape connotations.<sup>9</sup> On the one hand, Knossos was perceived as the centre of an economic landscape of agricultural activity and pottery consumption.<sup>10</sup> On the other hand, it was the focus of a ritual landscape of ancestry, deriving from the past habitations of the Kairatos valley. By contrast,<sup>11</sup> the neighbouring harbour site of Poros-Katsambas may have evoked a sense of

<sup>5</sup> Review of the topic and its research ramifications with both ethnographic and archaeological examples in Parker-Pearson 1999, 142–70.

<sup>6</sup> For more details on this topic see the *Introduction* of this volume.

<sup>7</sup> For a literature review in geography, social anthropology and archaeology, see Vavouranakis 2007, 59–63.

<sup>8</sup> For a complete account on past landscape research on Crete and the Aegean see the *Introduction* of this volume.

<sup>9</sup> Day & Wilson 2002.

<sup>10</sup> Mainly Kamares ware, the *par excellence* high-quality pottery type of the Middle Minoan or Old Palace period (ca. 2000–1700 BC).

<sup>11</sup> Barrett & Damilati 2004, 166–7.

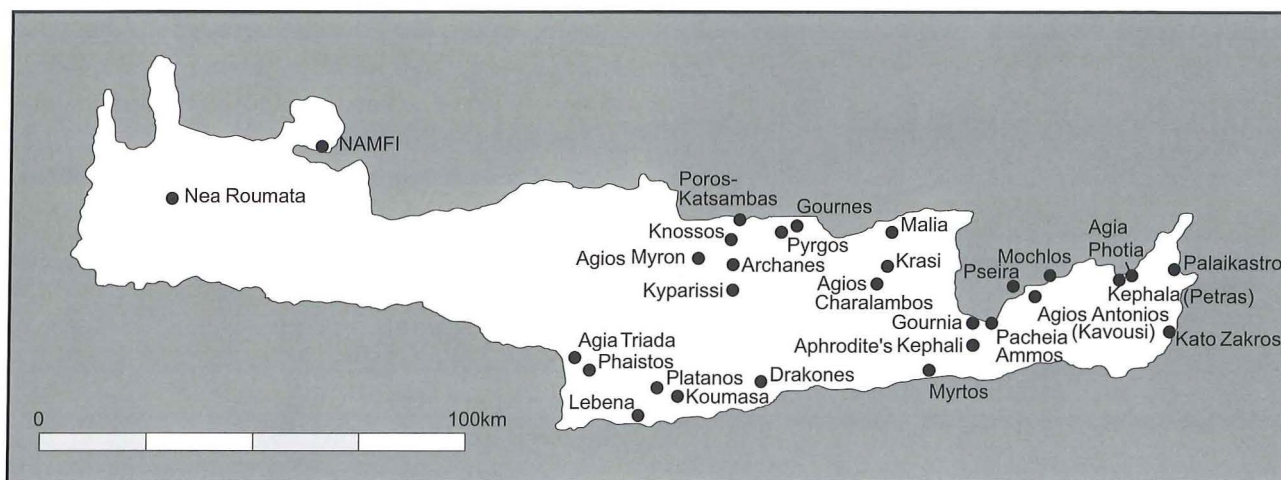


Fig. 1. Map of Crete with sites mentioned in the text.

an exotic seascape instead of the familiar landscape of Knossos. The seascape was the offspring of perilous maritime voyages to foreign lands. These voyages resulted in the import of raw materials to Poros, such as copper and Melian obsidian, as well as the accumulation of technological knowledge that allowed the on-site production of Cycladic-style pottery, metal tools, and prismatic stone blades.

The example of Knossos was chosen because it brings us back to the theme of the possibilities Crete offers for diverse ways of life, with alternative and even competing socio-economic formations and different perceptions of the world. The binary opposition between an exotic seascape and a familiar landscape provides an invaluable heuristic device for the examination that follows of the relationship between Early Minoan maritime and funerary activity. This examination includes the ways in which material culture was used in order to construct the sense of a seascape and a landscape; the specific features of the seascape and the landscape during and after the International Spirit; the relation between these different perceptions of the environment; their appropriation within Early Minoan funerary rituals with special emphasis on Cycladic tomb forms, artefacts and practices; the contribution of the contrast between seascape and landscape toward broader socio-cultural issues, such as the identity of the Cretan communities during the time of the International Spirit and the role of this contrast after the International Spirit had passed, when Crete turned towards

a different socio-economic trajectory that culminated with the establishment of the first palaces.

## Seascape vs. landscape at the beginning of the Early Bronze Age

The examination of the discourse between landscape and seascape has to start with the EM I (ca. 3600–3200 BC). This is a distinct period of Bronze Age Crete,<sup>12</sup> characterized by technological changes that affected agricultural and maritime activity. Advancements in pottery technology resulted in new types of vessels, mainly pithoi for storage, and spouted jugs for the tight control of serving liquids.<sup>13</sup> These advancements suggest new strategies for the management of agricultural produce. Metallurgy<sup>14</sup> allowed the manufacture of new tools and

<sup>12</sup> Recent review of the EM I period in Betancourt 2008a. It should be noted that the EM I is a poorly defined period, due to its rather fragmentary settlement record and despite recent excavations at several habitation areas, such as Kephala Petras and Poros-Katsambas. As a result, funerary data are even more crucial than usual in understanding EM I society.

<sup>13</sup> Betancourt 2008a.

<sup>14</sup> Chrysokamino (Betancourt 2007) and Kephala Petras (Papadatos 2007b), might now push the very beginnings of metallurgy to the Late and Final Neolithic, although the Neolithic sherds at both sites were found mixed with later pottery.





Fig. 2. Pseira, Tomb 3 (Betancourt & Davaras 2003, pl. 10; Reproduced by permission of INSTAP Academic Press, Philadelphia, PA).

weapons and necessitated the import of copper ore. Imports accentuated the contact between Crete and the Cyclades. Thus, Crete entered the web of the International Spirit at the end of the EM I period.<sup>15</sup> These changes in both land and maritime activities set the stage for examining perceptions of the maritime environment in EM I. I argue that it was the funerary activity that filtered the ways in which people understood the aforementioned technological and economic transformations. Furthermore, it affected the response of EM communities to these transformations. More specifically, I argue that funerary ritual established a contrast between seascape and landscape and this contrast dominated the EM I worldview.

The funerary construction of a seascape was more prominent along the north coast of Crete, where several cemeteries were placed either close to or by the sea. Such cemeteries are – from west to east – the NMFI beach at Chania,<sup>16</sup> Pyrgos,<sup>17</sup> Gournes,<sup>18</sup> Agia Photia,<sup>19</sup> Pseira,<sup>20</sup> and, possibly, a rock shelter at Sphoungaras.<sup>21</sup> Krasi, a burial site close to Malia,<sup>22</sup> is not far from the coast either. It could be argued that there were practical reasons behind the emplacement of burials in the above named sites, namely that the respective communities lived close to the sea anyway. However, the decision to use the rock shelter of Agios Antonios<sup>23</sup> for burials at Kavousi, which is a site with inland orientation in an area close to the sea, contrasts with the rest of north

Cretan cemeteries. This contrast suggests that conscious and, perhaps, strategic decisions contributed to the choice of coastal burial locales. Furthermore, Agios Antonios indicates the existence of a landscape attitude towards the world. Such attitude was probably the legacy of the Neolithic tradition of inland burial locales which continued in the Early Bronze Age, *e.g.* at Kyparissi,<sup>24</sup> the ossuary cave at Agios Charalambos,<sup>25</sup> and the caves in the Gorge of the Dead at Kato Zakros.<sup>26</sup> Such tradition was also followed in southern Crete, with the building of the *tholos* tombs in the Mesara.<sup>27</sup>

The contrast between a Neolithic landscape and a new, EM I seascape perception of the world may be further explored through a look at funerary architecture. Many Cretan communities maintained the Neolithic tradition of burial caves and rock shelters. A tomb type new to this period may have alluded to the same tradition. This is the *tholos*, mainly found in southern Crete. As Keith Branigan has suggested,<sup>28</sup> the idea of a stone vault might have been an attempt to simulate the experience of the interior of a cave. Such an attempt would connect the *tholoi* to the Cretan tradition of cave burials. By contrast, several north Cretan sites exhibit Cycladicising practices. Thus the rock cut chambers of

<sup>15</sup> Evidence for such a late introduction into the world of southern Aegean interaction has been found at the EM IB levels at Kephala Petras, the EM I/IIA levels at Poros-Katsambas, the EM I and EM IIA cemeteries of Agia Photia and Gournes and the EM I/IIA burial cave of Pyrgos and its contemporary *tholos* at Krasi. For a review of the evidence see Papadatos 2007a.

<sup>16</sup> Moody in Legarra Herrero 2009, 37.

<sup>17</sup> Xanthoudides 1918.

<sup>18</sup> Galanaki 2006.

<sup>19</sup> Davaras & Betancourt 2004.

<sup>20</sup> Betancourt & Davaras 2003.

<sup>21</sup> The rock shelter at Sphoungaras is reported to have yielded EM I material, but its funerary character is not certain (Hall 1912).

<sup>22</sup> Marinatos 1929.

<sup>23</sup> Haggis 1993.

<sup>24</sup> Alexiou 1951.

<sup>25</sup> Betancourt *et al.* 2008.

<sup>26</sup> For the most recent published review, see Platon 1999, 672 n. 4 with further references.

<sup>27</sup> Branigan 1984.

<sup>28</sup> Branigan 1993, 52-3.



Agia Photia and Gournes are almost identical to Early Cycladic tombs at Ano Kouphonisi,<sup>29</sup> while Cycladic influences are found in other EM I tomb types. For example, the *tholos* tombs at Krasi and at Nea Roumata are different from the Mesara vaults, because they have been built with irregular boulders,<sup>30</sup> similar to Early Cycladic II tombs found at Syros. Finally, the cists at Pseira (Fig. 2) resemble Cycladic tombs too, but they are larger, shallower, and they use available bedrock ledges extensively.<sup>31</sup> In a sense, they may also be the result of attempts to imitate natural rock shelters and crevices, similarly to *tholoi*, although the materialisation of the same concept was rather different.

Body-handling practices exhibit a similar contrast between Cretan and Cycladic habits. Thus, the Cycladicising sites of Agia Photia, Gournes, and Nea Roumata feature the Cycladic habit of single inhumations.<sup>32</sup> Caves and *tholoi*, on the other hand, received multiple burials, according to the Cretan tradition.<sup>33</sup> The difference between single and multiple inhumations has one more aspect. Single inhumation usually places emphasis on the deceased and on mortuary rather than veneration rites.<sup>34</sup> The former rites take care of the metaphysical passage of the dead person from the domain of life to the sphere of the dead. This passage could be easily paralleled to maritime travel to unknown places.<sup>35</sup> Furthermore, the stories of perilous sea journeys often place emphasis on the adventures of the individual, such as Odysseus or Sinbad. The Early Cycladic material record demonstrates a similar stress on the individual, through the habit of accompanying single burials with daggers or anthropomorphic figurines with individual features.<sup>36</sup> In contrast, multiple burials focus upon collective identities, usually tackled by veneration rites that target wider social issues. Such issues may have included the possible territorial claims of the EM I communities upon the land after the troubled transition from the Neolithic to the Early Bronze Age.<sup>37</sup> Thus single and multiple inhumations composed more than a mode of dealing with the dead body; they also shaped the perception of the world with respective emphasis upon seascape and landscape.

However, this contrast becomes less clear-cut,

when we turn to funerary implements, such as pottery (Fig. 3),<sup>38</sup> metal objects<sup>39</sup> and obsidian.<sup>40</sup> The existence of a funerary seascape is attested by the Cycladic pots that dominate the tombs of Agia Photia, as well as the north Cretan assemblages in general. Although it is not always possible to ascertain whether they are actual imports or Cretan imitations, they are distinguished by a series of Cycladic traits, such as the calcite-tempered fabric, the red or dark exterior, the frequent use of incised decoration, and their shapes, which include the bottle, the cylindrical pyxis, the frying pan, the jar with triangular cut-outs, and the chalice.

By contrast, Agios Onouphrios and Lebena pottery styles represent a different potting tradition, with marly clays fired in high temperatures and linear painted decoration. Agios Onouphrios decoration is dark-on-light and Lebena is the opposite. Agios Onouphrios shapes include the novel gourd juglet and the tankard. The Lebena repertoire includes only a few tankards and mainly speciality vessels. Agios Onouphrios pots are usually found in southern Crete, although they appear in north Cretan assemblages too. Lebena pots are an exclusive feature of the Mesara. Both styles are an EM

<sup>29</sup> Zapheirou 1983.

<sup>30</sup> Tzedakis 1984.

<sup>31</sup> Betancourt & Davaras 2003, 129.

<sup>32</sup> Single inhumation is not the only method used in the Cyclades, but it is rather common (Doumas 1977, 55–7).

<sup>33</sup> Branigan 1970a. As regards caves, the case of Agios Charalambos is particularly interesting, since it had been used exclusively as an ossuary and not as a primary burial locale (Betancourt *et al.* 2008).

<sup>34</sup> On the archaeological implications of the distinction between mortuary and veneration rites see Barrett 1988; for anthropological discussion and ethnographic examples see Metcalf & Huntington 1991.

<sup>35</sup> In the ancient Greek and Egyptian traditions the passage to the Underworld involves crossing the water by boat.

<sup>36</sup> Broodbank 2000, 170–4.

<sup>37</sup> Social unrest is hypothesised mainly on the basis of the sudden habitation of upland and inaccessible sites on Crete. Review of evidence in Nowicki 2008.

<sup>38</sup> Recently reviewed by Betancourt (2008a); Cf. Doonan & Day 2007, 6–9.

<sup>39</sup> Recently reviewed by Muhly 2006; see also Doonan & Day 2007.

<sup>40</sup> Reviewed by Carter 1998.



Agios Onouphrios

Lebena

Monochrome



Fine Dark Faced Burnished (Pyrgos)



Cycladic



Fig. 3. Indicative EM I pottery (not to scale; reproduced by permission of INSTAP Academic Press, Philadelphia, PA). Upper row from left to right: jug from Agia Photia (Betancourt 2008a, 48, fig. 5.4); pyxis from Agios Onouphrios (Betancourt 2008a, 54, fig. 5.10); cooking pot from Agia Photia (Betancourt 2008a, 71, fig. 5.32). Middle row from left to right: chalice from Agia Photia (Betancourt 2008a, 57, fig. 5.13); bottle and pyxis from Agia Photia (Betancourt 2008a, 63, figs 5.21-2); Lower row from left to right: chalice, Pelos bottle and frying pan from Agia Photia (Betancourt 2008a, 75-7, figs 5.39-40, 5.45).

I novelty. This feature has raised the question of a Syro-Palestinian or Anatolian origin, but if there was any influence it was fully and creatively co-opted by the Cretan potters. Their Cretan character would make these vessels appropriate for evoking a sense of a landscape.

The Fine Grey Burnished pottery class seems to stand between the Cycladic and painted pottery styles. On the one hand, it is the offspring of the Neolithic tradition of pottery making. On the other hand, burnishing does not add to the functionality of the vessel but has a purely decorative purpose. In addition, Fine Grey vessels look similar to many dark Cycladic pots and may be considered as the Cretan contribution to a cultural 'koine' within the world of the International Spirit.<sup>41</sup> Thus, Fine Grey vessels seem to have been able to contribute toward both a seascape and a landscape appropriation of the world.

The contribution of pottery to the seascape/landscape contrast may be further demonstrated by looking at the function of vessels. It has been argued that Fine Grey chalices and Agios Onouphrios jugs were used for communal food and drink consumption.<sup>42</sup> Such activity would impose a landscape frame of perception for several reasons. First, food and drink are agricultural products, and they may symbolically connote earth fertility. In addition, food sharing had been an established Cretan custom since the Neolithic period.<sup>43</sup> Finally, these activities would be part of veneration rites and, similar to multiple inhumation practices, they would revolve around issues of communal identity and land claims. On the other hand, Cycladic frying pans and small containers, such as pyxides and bottles, would be more appropriate for personal offerings to the dead themselves, thus stressing his/her identity and achievements, including seafaring activities.

Let us now turn to metal artefacts, specifically daggers, which were apparently important EM I funerary features, as testified to by their frequent deposition in tombs. There are two main shapes, namely the local Cretan, flat and triangular, type and the Cycladic dagger with mid-rib,<sup>44</sup> although the casting stone moulds of Poros-Katsambas testify that many 'Cycladic' daggers were produced local-

ly.<sup>45</sup> The necessary copper ore probably came from the Cyclades, while the tin in the alloy may have come from Anatolia.<sup>46</sup> The importance of the daggers is manifold. First of all, they stress the personal identity of the deceased, and this funerary feature, as argued above, is also a distinctive characteristic of Early Cycladic burials. Additionally, daggers and other metal depositions may have mattered not only as finished objects, but also as products of a specific technology. The crucibles deposited in several tombs at Agia Photia corroborate this suggestion.<sup>47</sup> In this respect, raw materials and novel technologies that were imported to Crete from places out in the sea would convey relevant exotic connotations.

Nevertheless, there may have been cases in which metal daggers carried more familiar and less exotic undertones. Thus the custom of carrying or being buried with a weapon may have been the result of the turbulent transition from the Neolithic to the Early Bronze Age in Crete<sup>48</sup> rather than an issue of emulating Cycladic fashion. The foreign technology of metalworking was domesticated at places like Chrysokamino and Poros-Katsambas, while the imitation of mid-rib daggers at the latter site made the distinction between Cycladic and local artefacts less clear. Metals may be melted down and reused, and thus the exotic origins of the ore may have become less apparent. As a result, the daggers deposited in tombs may have furnished both a seascape and a landscape perception of the world and they certainly did not evoke a contrast between these two modes of perception.

Obsidian is a case similar to metals. On the one

<sup>41</sup> Particularly the chalice, the most important Fine Grey shape, may have been a source of inspiration for the Cycladic potters (Warren 1984).

<sup>42</sup> For the function and significance of the chalice see Haggis 1997. Chalices were frequently deposited in the dromoi of the chambers of Agia Photia (Day *et al.* 1998) and Gournes (Galanaki 2006), perhaps after a last toasting or drinking ritual ceremony before the final sealing of the chamber.

<sup>43</sup> For such events at Final Neolithic and EM I Phaistos, see Todaro & di Tonto 2008.

<sup>44</sup> For daggers and their provenance see Branigan 1974.

<sup>45</sup> Doonan *et al.* 2007.

<sup>46</sup> Muhly 2006.

<sup>47</sup> Betancourt & Muhly 2007.

<sup>48</sup> Nowicki 2008.



hand, the raw material came from the Cycladic island of Melos. The long prismatic blades found in the tombs of Agia Photia<sup>49</sup> follow the Cycladic custom. On the other hand, the lithics assemblage of Agios Charalambos includes products of local techniques despite the presence of some long prismatic blades.<sup>50</sup> The exotic raw material was worked with local knapping techniques in the Mesara too, resulting in rather short and thin blades.<sup>51</sup> Obsidian blades at both Agia Photia and Agios Charalambos were meant to stress the importance of the deceased individual. At Agia Photia, the blades were carefully placed in the chamber. In the ossuary of Agios Charalambos, they accompanied the old burials, since they were found mixed with the human bones. Obsidian seems to have been inextricably connected with the bodies of the dead. Such a link finds parallels in Cycladic burial customs. Nonetheless, the low number of obsidian blades found in the *tholos* of Agia Kyriaki<sup>52</sup> in the Mesara suggests that not all burials were accompanied by obsidian. Whatever the reasons for this difference (*e.g.* social status or gender), this is a feature that contrasts with the regular deposition of blades in the Cycladic tombs.<sup>53</sup> As a whole, EM I obsidian finds suggest that north Cretan communities, generally following Cycladic funerary trends, employed Cycladic knapping techniques. Other communities, *e.g.* in central or southern Crete, preferred to domesticate the exotic raw material by knapping it and even using it in the local style. Although obsidian may have strengthened the seascape appropriation of the world at Agia Photia, it seems that it had been put to the service of local frames of perception in other cases and that these frames did not include a seascape/landscape duality.

### *The EM I perception of seascape and landscape in its wider socio-historical context*

It has been demonstrated above that the EM I funerary ritual entailed an appropriation of the world, which, despite exceptions, largely focused either on the seascape or the landscape. The seascape hinged upon Cycladic traits, which were mainly popular along the north coast of Crete and demonstrate a specific orientation towards the Cyclades and the

International Spirit. Such a perceptual frame hinged upon coastal burial locations, Cycladic tomb forms, modes of interment, and artefacts either imported from the Cyclades or fashioned in the Cycladic style. Emphasis upon mortuary rites and the individual identity of the deceased may have facilitated storytelling of adventures by brave individuals who sailed the Aegean archipelago and brought back the knowledge of other places and people, as well as exotic trinkets and valuable raw materials.

The landscape frame maintained, strengthened, and elaborated upon Neolithic cultural traditions through continuity in cave use and the possible imitation of the cave in the form of *tholos* tombs, which are mainly a feature of southern Crete. The serving of food and drink with locally made pots, may have involved earth fertility connotations. This emphasis on fertility was combined with the notion of corporate group identity through the habit of multiple interments. This combination may have served claims of agricultural communities upon the land.

By evoking the notion of a seascape or a landscape, funerary performances publicly realised the values of social life and mapped out the trajectories that social agency should follow. Such guidance was quite clear, *e.g.* at Agia Photia and Gournes, where the seascape was explicitly promoted, or at Agios Antonios, Kavousi, and at the *tholoi* in the Mesara, where perception was oriented towards the landscape. However, other sites do not demonstrate the contrast between seascape and landscape with the same degree of clarity. For example, the selection of a cave as a burial locale at Pyrgos was combined with the deposition of Cycladic style pottery. Cretan pottery has been found in almost all Cycladic type tombs. The Pseira cists are a combination of a Cycladic cist with a Cretan rock shelter. Finally, imported raw materials were domesticated through Cretan craft practice in the Mesara.

<sup>49</sup> According to the information cited in the first volume of the final publication (Davaras & Betancourt 2004), which concerns the tomb groups only and not the proper study and final publication of the lithics finds.

<sup>50</sup> Betancourt *et al.* 2008, 563–5.

<sup>51</sup> Carter 1998, 69.

<sup>52</sup> Blackman & Branigan 1982.

<sup>53</sup> Carter 1998, 65.



This mixing of traits not only seems to contradict the otherwise clear binary seascape/landscape opposition, but it has also been one of the major concerns of previous research. For example, Yianis Papadatos<sup>54</sup> has employed this observation as an argument against the traditional view<sup>55</sup> of a Cycladic colonisation of north Crete. Instead, he has proposed that Minoan Crete actively participated in the International Spirit, as a powerful border area. The ability of certain social groups to be involved in this network of exchange was manipulated within funerary ritual, so as to stress their special place within their community. However, this argument does not account for the rather homogeneous picture of Agia Photia and Gournes and actually fits the EM IIA period<sup>56</sup> better than the EM I. For this reason, it is discussed in more detail below.

Borja Legarra Herrero has argued alternatively<sup>57</sup> that the heart of the interpretative problems of the Cycladic traits on Crete lies in presupposing a Minoan cultural entity on the island. Instead, according to Legarra Herrero, it should be acknowledged that Crete was a socially and culturally diverse place. Hence, Cretan funerary habits should be interpreted as indications of social heterogeneity and homogeneity in the north and in the south part of the island respectively. This view rightly covers the homogeneous picture of individual cemetery sites, *e.g.* Agia Photia or most of the *tholoi*. Nonetheless, it does not address the mixing of Cycladic and Cretan traits, and it does not examine the relation between north and south Crete<sup>58</sup> in depth. This approach restricts itself in a descriptive mapping of the spatial distribution of material and cultural traits.

The present seascape/landscape approach to EM I mortuary remains reinstates the pan-Cretan perspective and, at the same time, sidesteps the pitfalls of ethnicity or of any 'Minoan' presupposition. Nevertheless, it does not neglect the issue of identity altogether, because it places emphasis on the values that frame social life and consequently dictate the ways in which identity is defined and negotiated. Furthermore, the present approach may resolve the seeming contrast between a clear seascape/landscape discourse and the mixing of Cretan and Cycladic traits. This is possible by ac-

knowledging the active role of the landscape within socio-historical evolution. In specific, a quick look at the Final Neolithic<sup>59</sup> landscape of Crete may illuminate its contribution to the filtering of the EM I developments and may thus explain phenomena of Creto-Cycladic cultural amalgamation.

Let us take a step back from EM I then. FN Crete was characterised by a series of small farming communities, although some places, such as Knossos and Phaistos, may have been larger and more prominent than others. Sophisticated pottery production and the beginnings of metallurgy<sup>60</sup> demonstrate significant craft activity too. In addition, there is evidence to suggest that Crete attained a fair degree of maritime contact with the Aegean. For example, the ceramic assemblage of Nerokourou finds parallels at Attica, Euboea, and the Cyclades.<sup>61</sup> Cheese-pot sherds from Kephala Petras show contact with the Dodecanese too.<sup>62</sup> Finally, a settlement movement to upland locations both in Crete and the Dodecanese has been attributed to population pressure from Anatolia.<sup>63</sup> However, the assumed new settlers did not leave a clear mark on the archaeological record. There is only indirect evidence of a later EM I, date, such as tin in the alloy of metal artefacts<sup>64</sup> and the technological novelties of the Agios Onouphrios ware.<sup>65</sup>

As a result, the FN worldview accommodated both an agricultural way of life and a maritime in-

<sup>54</sup> Papadatos 2007a, 438-9.

<sup>55</sup> Indicatively see Doumas 1976; Hood 1990; Sakellarakis 1977.

<sup>56</sup> Papadatos (2007a) adopts a broad chronological resolution and examines the EM I and EM IIA periods together, because he aims to assess the significance of the International Spirit as a whole. Nevertheless, the present paper chooses to distinguish between the two periods.

<sup>57</sup> Legarra Herrero 2009, 34-9.

<sup>58</sup> On aspect of this relation is the role of the north coast in the channeling of the obsidian and metals to the south (see Carter 1998).

<sup>59</sup> Henceforth FN.

<sup>60</sup> As attested at Kephala Petras (Papadatos 2007b).

<sup>61</sup> Vagnetti 1996.

<sup>62</sup> Papadatos 2008.

<sup>63</sup> Nowicki 2008.

<sup>64</sup> Review of early metallurgy on Crete by Muhly (2006).

<sup>65</sup> Betancourt 2008a, 94-5.



flux of people, objects, and ideas. The upland settlements suggest turmoil and a consequent increase of communal self-awareness but no seascape/landscape contrast, since the Cretan frame of perception was inclusive enough to absorb foreign elements. Maritime activity does not seem to have conveyed any extraordinary symbolic connotations. In contrast, the landscape was a dominant feature of the FN perception of the world, as indicated by the conspicuous consumption of food and drink attested at Phaistos<sup>66</sup> and the preference for caves and rock shelters as burial locations throughout Crete.

The passage from the FN to EM I entailed the accentuation of several features of social life on Crete. For example, metal tools provided an opportunity for intensified farming. The discovery of pithoi at the site of Aphrodite's Kephali,<sup>67</sup> an EM I habitation and storage installation, suggests that this opportunity was not missed and that Crete saw the growth of an agricultural economy, which for the first time involved the accumulation of significant surplus. This new type of economy placed emphasis on the management of this surplus too. Aphrodite's Kephali is a fortified and strategically located hilltop site. Hence, it controls all regional north-south routes in the Isthmus of Ierapetra, a feature that indicates the increased care for the safe circulation of both people and products. Finally, the EM I economy featured complex strategies for consuming agricultural produce, attested by the growing popularity of serving and drinking vessels, such as the aforementioned Agios Onouphrios jugs and Fine Grey chalices.

The above developments were linked to an increase in craft and exchange activity too, both linked to the International Spirit. This suggestion is supported by the founding of the smelting site of Chrysokamino and by the establishment of a craft centre at Poros-Katsambas. The mid-rib dagger casting moulds and the abundant quantities of obsidian found at this site,<sup>68</sup> are in sharp contrast with the similar but modest activities attested at the slightly earlier Kephala Petras.<sup>69</sup> These quantities suggest frequent episodes of arrival of raw material at this port-site of north-central Crete. Furthermore, the pottery at Poros-Katsambas is mainly Cycladic in style,<sup>70</sup> demonstrating the tight link be-

tween the International Spirit and the growth of craft activity in north Crete.

It may be plausibly suggested that the growth in the economy and foreign contact accentuated the importance of self-awareness and social identity, either personal or collective. After all, the fortification at Aphrodite's Kephali implies that turbulence was not entirely absent from the EM I world. It is equally plausible that several Cretan communities attempted to filter these developments through the prism of the FN landscape, which had facilitated the absorption of Anatolian influences in the past. The mixing of Cretan and foreign cultural traits was allowed then by the EM I landscape, which represented the values and traditions of Crete. Nonetheless, there was a key difference between the FN and EM I contexts. The traits of the International Spirit were not always absorbable like the earlier Anatolian influence. For example, only the EM I deposits of Kephala at Petras include a few Cycladic-type long obsidian blades.<sup>71</sup> Poros-Katsambas shows that there were communities, and perhaps, by extension, other groups of people on Crete, which had adopted a specific way of living, working and dying, with explicit reference to places away from Crete, out at sea. These people developed a rigid frame of perception, the EM I seascape, which contrasted with the flexible FN and EM I landscape. Such a difference of perception hinged upon divergent philosophies of craft production and both betrayed and heralded divergent social values. These values were played out in funerary performances, where the seascape/landscape binary opposition was established as a principle that underlay specific cultural tendencies, economic processes and social structures and, as such, it dictated divergent ways of life to the EM I communities.

<sup>66</sup> Todaro & di Tonto 2008.

<sup>67</sup> Betancourt 2008b.

<sup>68</sup> 14 kg of obsidian were recovered in a single EM I/IIA deposit in the Sanoudakis plot (Dimopoulou 1997, 434; Dimopoulou-Rethemiotaki *et al.* 2007, 91).

<sup>69</sup> D'Annibale (2008: 192-3), estimates less than 34 cores for both FN and EM I layers at Kephala, which should equate to less than 15 kg.

<sup>70</sup> Wilson *et al.* 2004.

<sup>71</sup> D'Annibale 2008.



Fig. 4. Digital reconstruction of the area of Mochlos. View from the northwest. The cemetery is on the west side of the head of the peninsula.

## The merging of sea- and landscape

The EM II<sup>72</sup> record provides evidence to suggest that the EM I duality was transcended and an attempt was made to integrate both seascape and landscape within a single frame of perception. This was a subtle shift and not an abrupt change. For example, the topography of cemeteries continued to emphasise coastal locations, offering a good view of the sea. Furthermore, many cemeteries were placed close to harbours. Such a choice allowed a close link between cemeteries and their respective settlements and, by extension, networks of both maritime and land traffic.<sup>73</sup> The site of Mochlos offers a good example. The predominant west sea currents would lead most maritime visitors to the

<sup>72</sup> The Early Minoan II is divided into two sub-phases, on the basis of pottery sequence (EM IIA Koumasa ware and EM IIB Vasiliki ware), settlement stratigraphy (e.g. at Myrtos - Fournou Koryfi and Vasiliki) and also because most imports stopped at the end of the EM IIA as the exchange network of the southern Aegean transformed. However, the funerary field shows signs of continuity and stability throughout the EM II. Most of the Mesara *tholoi* functioned during the whole period (see the catalogue of *tholoi* by Goodison & Guarita 2005). The Malia tombs (Charnier 1 and the West Ossuary or the so called Ossuary "Renaudin;" for the Malia sites and their dating see Poursat 1988, 71-2), the tombs of Palaikastro (MacGillivray & Driessen 1990), i.e. tomb I at Galeti and tomb II at Hellenika and the cemeteries of Gournia, Sphoungaras and Mochlos (Soles 1992) were in constant use, too. Only the use of the Archanes *tholoi* Gamma (Papadatos 2005) and E (Panagiotopoulos 2002) was interrupted in EM IIB. As a whole, then, it is not unreasonable to examine the EM IIA and EM IIB funerary data together.

<sup>73</sup> Vavouranakis 2007, 71-5. Unfortunately, the EM I settlement record is still poor to allow for comparisons with the EM II period.



west side of the islet – then a peninsula (Fig. 4) – where the cemetery lies, and, then, around the coast and into the harbour on the other, east side of Mochlos. In the same vein, any boat approaching Gournia would see the hill of Pera Alatsomouri and the slope of Sphoungaras.<sup>74</sup> When entering the harbour, visitors would not miss the spur of the North Cemetery, standing out of its surrounding area. The North Cemetery and Sphoungaras were not missed by people approaching Gournia on land either. The so-called “area of the dead” at Malia<sup>75</sup> was a rocky knoll between two landing areas, the harbours of Mylos and Agia Varvara. Palaikastro featured two burial locations, namely the Galeti ridge and the Hellenika. The first extends to the east and becomes a small cape. This cape and the hill of Kastri, where Hellenika is situated, define the harbour of Palaikastro. The cemetery of Sissi was also established very close to the sea.<sup>76</sup>

Their emplacement rendered the above cemeteries liminal places between sea and land. They were the places where the exotic world of exceptional maritime adventures intersected with the familiar world of mundane, local, daily activities. Furthermore, this intersection slightly favoured the landscape over the seascape perception of the world, because the cemeteries operated as the gateways of maritime traffic to the settlement. For example, boats carrying raw gold would pass by the cemetery of Mochlos to bring the gold to the settlement, where the raw material would be used to make Cretan style jewellery. As a result, the exotic raw material was domesticated through a process of technological transformation and also through use within contexts of daily life before it was redrawn in a tomb.

The continued use of inland burial locales favoured the landscape frame of perception too. Some of these locales had been accepting interments since the EM I, such as the ossuary cave at Agios Charalambos. The EM I topographical pattern of the *tholoi* shows no changes in EM II, since many such tombs remained in use.<sup>77</sup> In addition, the *tholos* building activity intensified, with sixteen new structures in the Mesara and two at Phourni, namely *tholos* tombs Gamma and E. Therefore, funerary topographical emphasis upon the landscape was reinforced.

The topographical tendencies described above were matched by similar developments in tomb forms. On the one hand, the building of new *tholoi* and the mortuary use of caves and rock shelters<sup>78</sup> demonstrate the continuity of Cretan tomb forms. On the other hand, Cycladic chambers, cists, and small *tholoi* were abandoned, with the exception of the Krasí *tholos*, which is closer to the *tholoi* of the Mesara than the Cycladic vaulted tombs, and of the Pseira cists, which constitute a Cretan variation of the Cycladic cist tomb. Another non-typical rubble cist was built in the cave of Lenika at Kato Zakros. It hosted one interment.<sup>79</sup> This architectural form combines the Cretan version of the Cycladic cist with the local tradition of burial caves.

A similar mixing of different architectural and cultural traits may be identified in the rectangular built tomb, a new form to the EM II period (Fig. 5). This tomb type was predominantly a feature of east Crete and a Cretan invention. Its Cretan roots may be sought in the frequent use of natural bedrock ledges as the back wall of the tomb. This feature, has been dubbed “organic architecture,”<sup>80</sup> and has been regarded as an attempt to simulate the space of a cave,<sup>81</sup> just like the Mesara *tholoi*. However, the rectangular built tomb may be also linked to the Cyclades, since organic architecture was a feature of the Cycladicising Pseira tombs too. In addition, both Cretan and Cycladic tombs had walls lined with stone slabs or boulders (e.g. the rectangular tombs at Mochlos and of the burial pits at Sphoungaras). Many Cretan rectangular tombs were accessed from above, just like the Cycladic cists, e.g. Palaikastro tomb I, the ossuary ‘Renaudin’ at Malia and Mochlos tomb XIII.<sup>82</sup>

However, these similarities are compromised by several differences. Early Cycladic tombs are small,

<sup>74</sup> Boyd 1905, 181; Zois 1998, 154.

<sup>75</sup> Van Effenterre 1980, 229.

<sup>76</sup> Schoep 2009.

<sup>77</sup> For a recent re-dating and a concise catalogue of the *tholoi* see Goodison & Guarita 2005.

<sup>78</sup> Including the Charnier at Malia.

<sup>79</sup> Hogarth 1900-1, 142-5.

<sup>80</sup> Soles 1992, 210-1.

<sup>81</sup> Vavouranakis 2002.

<sup>82</sup> Soles 1992, 88-9.



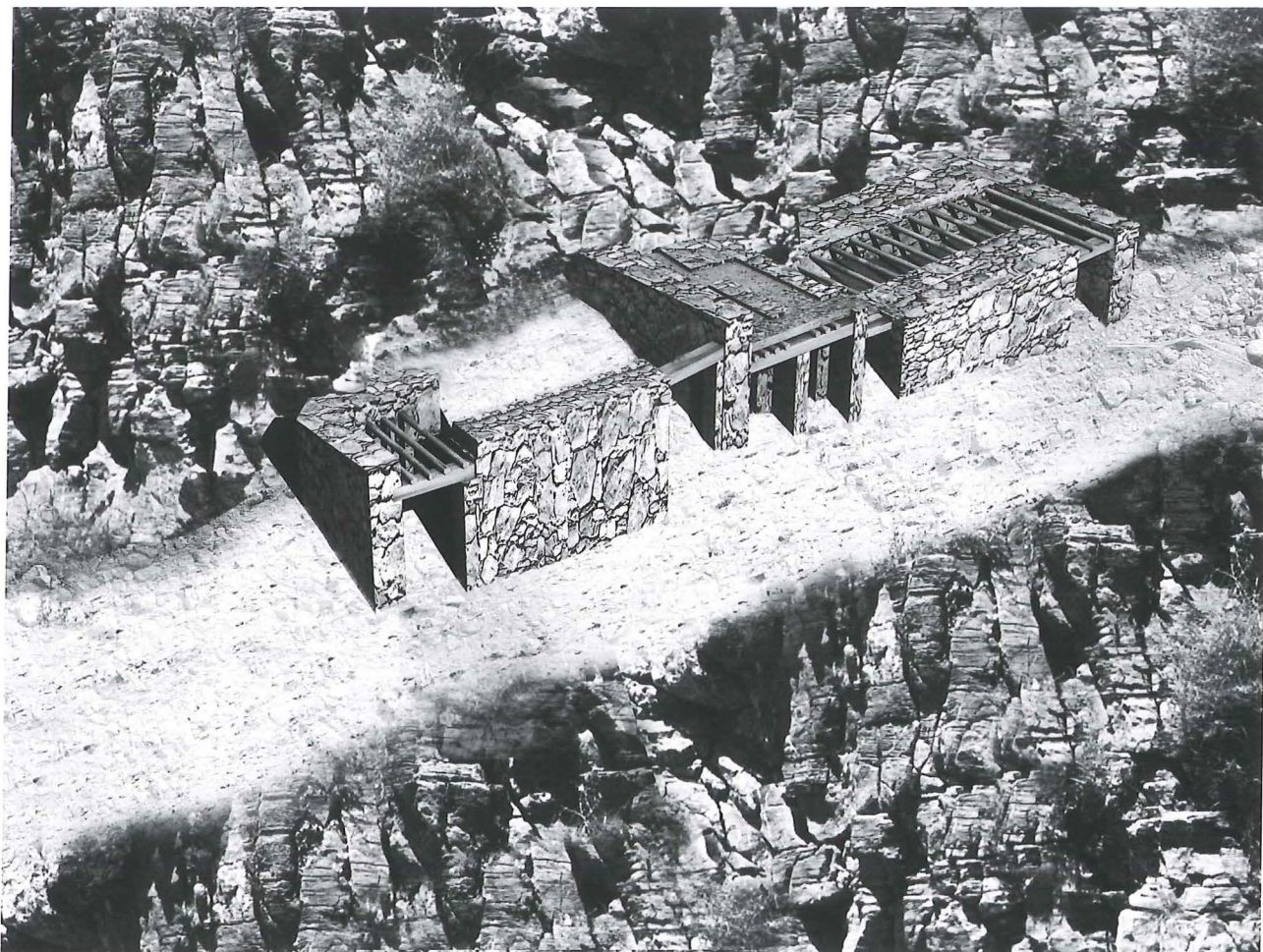


Fig. 5. Digital reconstruction of tomb I/II/III at Mochlos.

rarely reaching 1.50 m in length,<sup>83</sup> while Cretan tombs often exceed 2 m, with the exception of the Kato Zakros cist.<sup>84</sup> Moreover, cists are underground, while EM II tombs stand above the ground. Many EM II tombs, mainly at Mochlos, have doorways with alcoes. Cists are single-spaced, while tomb I at Palaikastro is a multi-cellular complex. Taking both similarities and differences into account, the EM II rectangular tomb seems to have been an offspring of the Cretan funerary tradition, which, nonetheless, retained several Cycladic architectural concepts, though customising them in a free and piecemeal manner.

The mixing of Cretan and Cycladic traits may be seen in another funerary development of the EM II period, namely the frequent organisation of individual tombs in clusters or cemeteries. During the EM I, the grouping of tombs was a feature of

the Cycladicising sites of Agia Photia and Gournes, in sharp contrast to the Cretan-style isolated caves, rock shelters and *tholoi*.<sup>85</sup> However, the notion of the cemetery spread throughout Crete during the EM II, although it was adapted to fit different types of burial structures. Thus, the single *tholos* was substituted by groups of two to three *tholoi*. The rectangular tombs at Palaikastro were organised in clusters too. The tombs at Malia were also situated in an especially designated area, albeit with a loose layout. The tombs of Gournia and Mochlos belonged to cemeteries.

<sup>83</sup> Doulas 1977, 39–42.

<sup>84</sup> Approximately 1 m X 0.85 m (Hogarth 1900–1, 143).

<sup>85</sup> However, the *tholos* may have constituted both a single tomb and a cemetery at the same time, because of its large interment capacity.



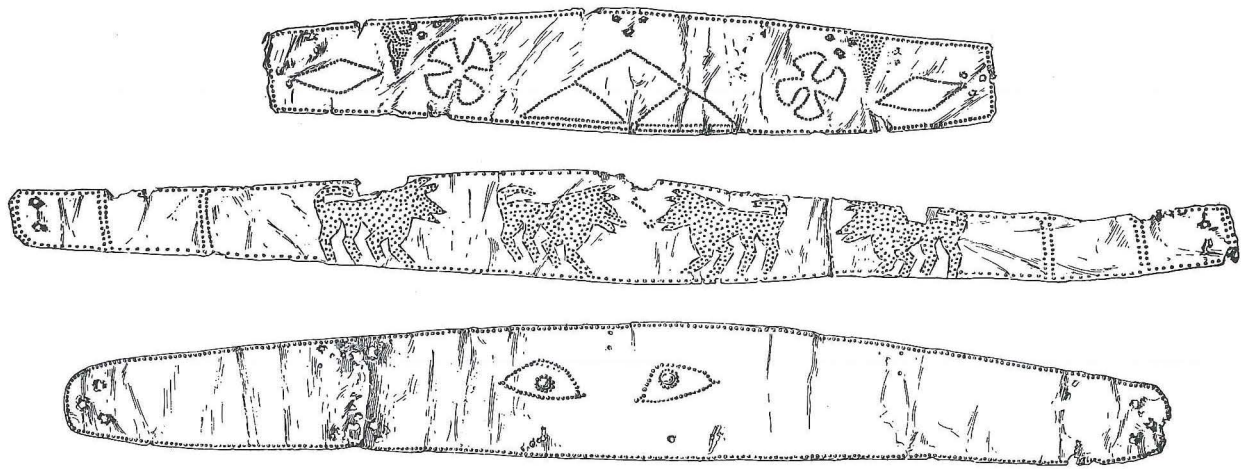


Fig. 6. Gold diadems with *repoussé* decoration from tomb I/II/III of Mochlos (not to scale; Seager 1912, fig. 9).

This shift is not only important because of the mixing of Cycladic and Cretan funerary traditions. It also served a dual social function. On the one hand, cemeteries and tomb clusters stressed the sense of communal identity that had been established since the FN and the EM I periods. On the other hand, many cemeteries consisted of distinct funerary structures, either *tholoi* or rectangular tombs. Assuming that different social groups controlled access to specific tombs, these structures provided an architectural context for stressing intra-communal differences.<sup>86</sup> Such emphasis would stand in between the Early Cycladic funerary emphasis upon individual identity and the Early Minoan emphasis upon communal identity.

The absorption of Cycladic cultural features within the Cretan matrix was a feature of EM II burial modes, too. The Cretan tradition of collective burial persisted. Cycladic single inhumations disappeared, but the dead individual retained some importance. For example, the pattern of deposition of daggers in the *tholos* of Agia Triada has been interpreted as reflecting a series of individual interments.<sup>87</sup> Consequently, new interments did not disturb older ones. This may be interpreted as care for the identity of each of the interred persons. Another example comes from Mochlos, where a dead individual was found in its original position in tomb IV/V/VI.<sup>88</sup> The cist in the Lenika cave at Kato Zakros also contained one articulated skeleton, while

the bones of four more interments lay in a confused state, together with their funerary gifts.<sup>89</sup> The above evidence has led Keith Branigan<sup>90</sup> to propose that the handling of the dead body was a two-stage process. During the first stage, the body of the dead person was simply placed in the tomb. S/he was collectivised only during the second stage, when his/her bones were rearranged and usually put together with bones from older burials.<sup>91</sup> Both stages usually, though not always,<sup>92</sup> took place in the same

<sup>86</sup> As already mentioned above, Papadatos (2007a, 438-9) has made this suggestion for the tombs of Phourni. His argument is discussed in more detail below.

<sup>87</sup> Branigan 1993, 64-5.

<sup>88</sup> For burial deposits in rectangular tombs see Soles 1992, 243-5.

<sup>89</sup> Hogarth 1900-1, 143. However, the possibility of a post-depositional disturbance of the four burials may not be ruled out completely.

<sup>90</sup> Branigan 1970a, 155-8.

<sup>91</sup> For evidence from the *tholoi* in the Mesara, see Branigan 1987.

<sup>92</sup> Agios Charalambos continued to be used exclusively as an ossuary. The Area of the Rocks at Phourni, Archanes, is also assumed to be a specially designated area for the discard of old burials (Sakellarakis & Sakellarakaki 1997, 236). However, the published information does not clarify whether the EM II pottery and obsidian blades found in the Area of the Rocks are clearly associated to the skeletal remains. On the basis of the available information, it is equally possible to argue that the EM II artifacts were ritual depositions and that the skeletal remains were deposited at a later stage.

location. This double-stage process again shows that the Cycladic funerary individualism merged with the Cretan tradition of collectivising the dead.

Funerary gifts further manifest the above tendency. First of all, the deposition of Cycladic-style pottery stopped. Additionally, popular EM II shapes of vessels found in tombs include fruit stands, jugs, bowls and cups. These vessels probably contained food and drink, either to be offered to the dead or to be consumed by the living participants. Thus their discovery may hint either towards a Cycladic-inspired focus on the dead individual or towards the Cretan emphasis on the community. However, the most telling EM IIA vessel is the Fine Grey globular pyxis. Its shape and incised decoration indicate Cycladic influence.<sup>93</sup> The discovery of one such vessel near the mouth of the interred person in the Lenika cave<sup>94</sup> suggests that these vessels placed a Cycladic-style emphasis upon the dead individual. Nonetheless, the main production area of these pots was the Mesara,<sup>95</sup> the heartland of Cretan traditions.

The examination of other types of funerary depositions also suggests an amalgamation of Cretan and Cycladic craft practices. For example, gold objects were deposited in the tombs of Mochlos<sup>96</sup> (Fig. 6) and, also, at Gournia and Sphoungaras<sup>97</sup> and in *tholos* Gamma at Phourni, Archanes.<sup>98</sup> These objects challenge one aspect of the perceived north/south division of Crete: Gold objects were mainly deposited in the *tholoi* of the Mesara,<sup>99</sup> while burials on the north coast were usually accompanied by silver objects,<sup>100</sup> following the Cycladic habit, since there is no gold ore in the Cyclades.

Cultural mixing may be seen in a gold vase-shaped pendant from *tholos* Gamma. The form of this pendant is reminiscent of Cycladic pins with miniature vase-shaped heads. In addition, it is cast, and casting is a Cycladic technique. Nonetheless, its function (pendant and not pin) and the atypical raw material (gold instead of silver) make it more likely to be a Cretan product, made after a Cycladic prototype in a Cycladic technique. In the same vein, several diadems from Mochlos and Koumasa feature *repoussé* decoration, similarly to a diadem from Kastri, the acropolis of Chalandriani at Syros, albeit made of silver. The motif of quadrupeds on

the Mochlos diadems is further reminiscent of the same diadem, which depicts male animals, birds, and rosettes.<sup>101</sup> The choice of gold and of the quadruped motif seems to be the Cretan way of loosely replicating a Cycladic diadem. Other finds from *tholos* Gamma at Phourni (Fig. 7) demonstrate the same phenomenon of the Cretan customisation of Cycladic craft practices. Thus, there are several drop-shaped pendants, which were made of bone and not stone like their Cycladic counterparts.<sup>102</sup> Obsidian is one more example of the Cretan customisation of Cycladic materials. EM IIA contexts in the Mesara show that knapping techniques continued to be different from Cycladic blade production processes. More importantly, the north coast did not follow Cycladic knapping traditions, as it had done in the EM I,<sup>103</sup> but developed distinct knapping techniques, evident in the obsidian finds at Mochlos.<sup>104</sup>

A final, very significant, example of the customisation of Cycladic material culture, are the folded arm figurines, a feature *par excellence* of the Cyclades. Similar figurines are found in Crete too, in the *tholos* tombs of Mesara and Archanes.<sup>105</sup> They are dubbed “Koumasa figurines,”<sup>106</sup> after the eponymous *tholos* site. Although their presence on Crete demonstrates an infiltration of Cycladic cultural traits, important differences may be observed even on the most canonical examples. The raw material is not always marble, but a variety of local types of stone is employed instead, while a bone figurine has been found at Archanes-Phourni. In addition,

<sup>93</sup> Betancourt 1985, 39.

<sup>94</sup> Hogarth 1900-1, 143-4.

<sup>95</sup> Wilson & Day 1994, 79.

<sup>96</sup> Branigan 1991; Seager 1912.

<sup>97</sup> Hall 1912, 52; Soles 1992, 16.

<sup>98</sup> Papadatos 2005, 36 and 2007a, 431.

<sup>99</sup> Papadatos 2007a.

<sup>100</sup> E.g. two silver cups at Mochlos (Davaras 1975, 101-3; Seager 1912, 50-2) and a pendant of silver beads at Gournia (Soles 1992, 16).

<sup>101</sup> Vasilakis 1996, 124-5.

<sup>102</sup> Papadatos 2005, 36 and 2007a, 431.

<sup>103</sup> Carter 1998.

<sup>104</sup> Carter 2004.

<sup>105</sup> Recently examined by Y. Papadatos 2003; 2007a, 425-9.

<sup>106</sup> Renfrew 1969, 19.



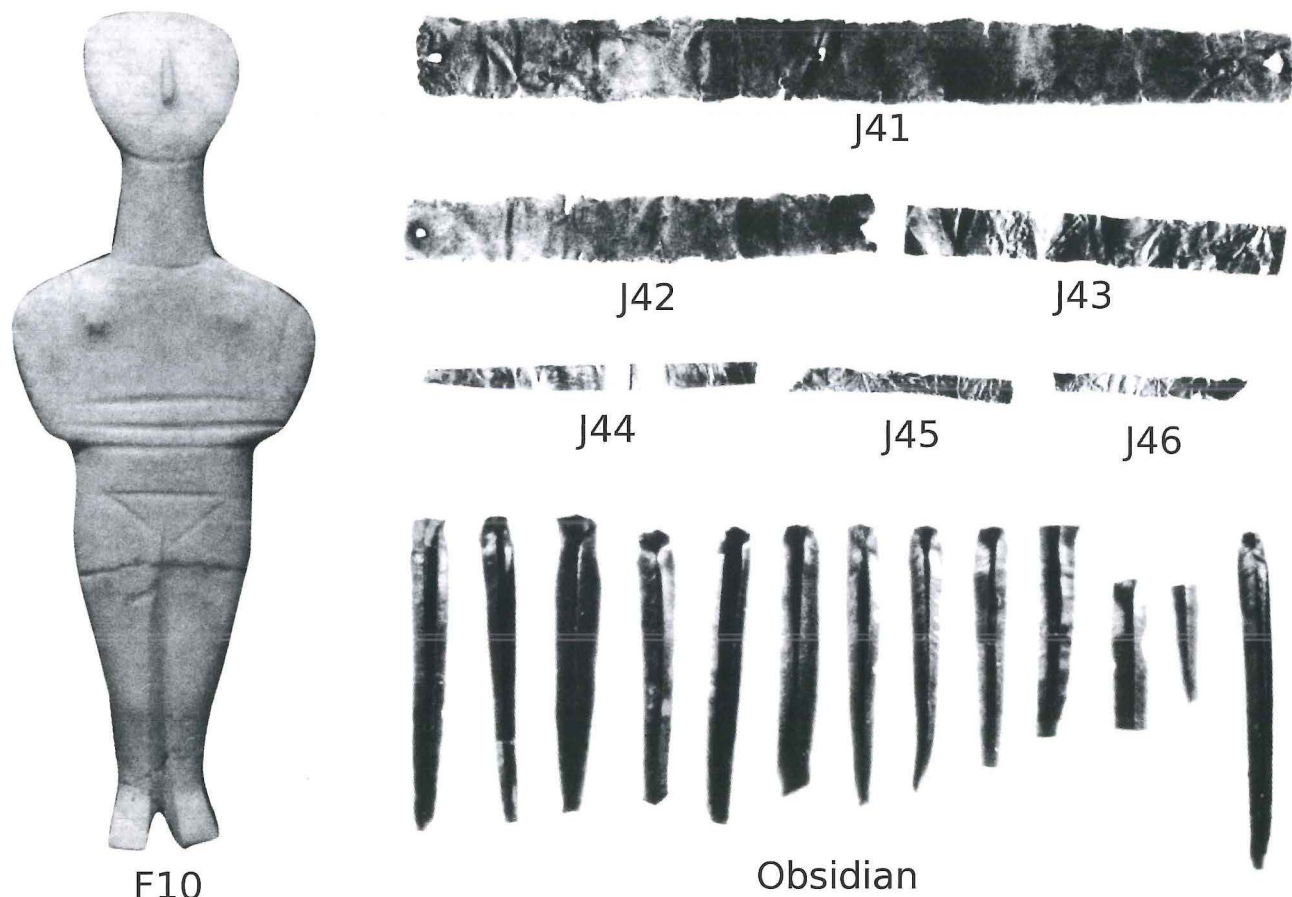


Fig. 7. A selection of Cycladica from tomb Gamma at Phourni, Archanes (not to scale; Papadatos 2005, pls 19-20; reproduced courtesy of Y. Papadatos and by permission of INSTAP Academic Press, Philadelphia, PA).

their legs are rendered separated more frequently than in the Cyclades and, most importantly, their facial characteristics are carved in detail in contrast to the Cycladic examples. These differences, and particularly the rendering of facial details, constitute a very important deviation from the Cycladic prototype norm, not only in form but also in function. The rendering of the facial details fixes the character of the figurine. In contrast, the Cycladic figurine was a surface that could be drawn on, as the remains of colour found on many figurines testify, erased and drawn upon again many times.<sup>107</sup> As a result, the Cretan figurines were the outcome of the selective reworking of Cycladic raw materials, technologies, and ideas, in order for the latter to become customised and domesticated in Crete. Such a hypothesis is further supported by the frequent discovery of these figurines deposited in *tho-*

*los* tombs, namely structures following the Cretan tradition.

The above examples demonstrate that EM II funerary ritual created a frame of perception of the world, which was based upon the mixing of Cretan and Cycladic cultural features and included both the landscape and the seascape. Furthermore, there was a greater focus on the landscape than the seascape, since most material indexes of the seascape were transformed according to Cretan practice. Although the sea continued to be significant for Cretan communities, their gaze became quite distant and funerary ritual fixed their point of view on the island. The place of the Cyclades in the social geography of the Cretan communities became less clear than in the EM I. This suggestion explains the

<sup>107</sup> Papadatos 2003.

presence of non-Cycladic imports in the cemetery of Mochlos, such as beads made of Egyptian carnelian and chalcedony.<sup>108</sup> The provenance of these objects hints at a wider and more ambiguous perception of maritime geography, unlike the EM I Cycladicising seascape, which hinged exclusively upon the International Spirit.

### *The merging of sea- and landscape perception in the context of EM II social dynamics*

The domestication of an exotic seascape matches the understanding of Crete as participating in the world of the International Spirit in its own particular way.<sup>109</sup> It also helps one understand Papadatos's<sup>110</sup> argument for the instrumental employment of the International Spirit within internal social discourse on Crete. For Papadatos, the concentration of most of the Cycladic-type artefacts in *tholos* Gamma, in contrast to its neighbouring *tholos* E in the same cemetery of Archanes-Phourni, is a reflection of intra-communal competition. A similar process, but larger in scale, may be argued for the Mesara, where the domestication of imports fuelled inter-communal friction. Thus, most of the gold, silver, bronze, faience, and ivory artefacts were concentrated in the *tholos* complexes of Agia Triada, Koumasa and Platanos, located in the Mesara plain, while the Asterousia tombs have yielded extremely few artefacts made of high value raw materials.<sup>111</sup>

Such social discourse has been explained as the result of alternative economic strategies towards complexity.<sup>112</sup> According to this theory, some communities turned to agriculture, a strategy reflected in the extensive EM II settlements, such as Knossos in north-central Crete, Malia further to the east and Agia Triada, Trypiti, and Phaistos in the Mesara. Other communities preferred to become nodes in the Early Bronze Age II trading network in the Aegean. Thus the differences between Mochlos and the sites in central Crete are supposed to reflect trading communities and agricultural polities respectively. It is only reasonable to assume that different and probably opposing economic strategies resulted in a clash of interests. This tension may have been combined with the general prosperity of

the EM II period and resulted in funerary investment, hence *e.g.* the multiplication of *tholoi* in the Mesara.<sup>113</sup>

The above explanation conceives of economic strategies as the primary motors of EM II social interaction and allows one to assume that the funerary perceptual frames of the landscape and the seascape were an epiphenomenon of economic processes, with superficial role in social evolution. Nonetheless, such an interpretative thread is fraught with problems. For example, Mochlos and Poros should not be examined together. EM I/IIA Poros is slightly but crucially earlier than the first, clearly EM IIA, burials at Mochlos. Mochlos was not a gateway channel of imports into Crete like Poros. Craft products of imported raw materials were used intensively<sup>114</sup> and then consumed in the course of funerary ritual. Only one possible stone vase workshop distributed products outside Mochlos, but it did not use imported raw materials.<sup>115</sup> Unlike Poros, valuable items at Mochlos were withdrawn and not reinvested through exchange. Such a consumer attitude required an agricultural economic basis that would finance both exchange mechanisms for the acquisition of raw materials through maritime contact and also craft activity for the making of objects. Together with the stone vase workshop, this requirement suggests that Mochlos combined – or at least attempted to combine – the trading economic strategy with its agricultural alternative.<sup>116</sup> The same may be argued for the Mesara communi-

<sup>108</sup> See Branigan 1991 for the provenance of all imports at Mochlos.

<sup>109</sup> Zois 1973, 5–6.

<sup>110</sup> Papadatos 2007a.

<sup>111</sup> Inter-communal competition might have been a generalised feature of the Mesara at the time since signs of it are seen in other types of archaeological evidence, such as architectural monumentality and elaboration. For example, *tholos* A at Agia Triada stands out of other similar structures for its series of antechambers, *tholos* B at Koumasa features an unusual double doorway and *tholos* A is the largest structure in the Platanos complex. See analysis in Branigan 1984, 30–6.

<sup>112</sup> Whitelaw 2004.

<sup>113</sup> Relaki 2004, 180–1.

<sup>114</sup> Hence the repairs on several gold diadems.

<sup>115</sup> Branigan 1991.

<sup>116</sup> See also Betancourt 2003, 6.



ties that used and consumed high value items in the *tholoi*.<sup>117</sup>

The mixing of economic strategies matches the funerary mixing of worldviews and suggests that the EM II inter- and intra-communal discourse was more an issue of social reproduction and corporate group identity than economic prevalence. It is possible that the tension in identity during the EM I period had been inherited by the EM II communities. The continuing participation of Crete in the International Spirit must have played a significant role in this tension. After all, the International Spirit hinged upon a corpus of values that defined social identity and the place of the individual within society.<sup>118</sup> During the EM I, this new corpus of values had prompted a binary opposition between a landscape and a seascape perception of the world and, consequently, landscape and seascape ways of life. The EM I Cretan cultural matrix had not absorbed the Cycladic stimulus, as it had done with the influx of Anatolian culture in the past. During the EM II, the prosperous conditions, economic, social, and other within which the Cretan communities lived, seem to have been ripe for tackling this stimulus. Landscape and seascape became the inseparable sides of the same coin as two features of the same frame of perceiving the world. The increased funerary investment that characterises the EM II period, with its monumental tombs, its many funerary depositions and the elaborate rites, suggests that the funerary landscapes and seascapes produced by ritual activity were important guides of social agency.

Within this social and ritual context, the seascape part of the EM II worldview decreased in importance. From an autonomous way of understanding the world, it was subsumed within a single frame of perception, which entailed an inland standpoint. Nevertheless, the seascape retained a significant degree of importance. After all, it evoked a sense of history, because it could be linked with the EM I period, when it had affected the definition of identity and the funerary (re-) negotiation of the rules of social behaviour in a much more fundamental manner. During the EM II, the seascape might have embodied the notion of the past, too. This notion would definitely have been a useful ideological re-

source for the new EM II extensive communities, since they would have probably sought to establish claims on land, so as to become firmly rooted in it, both literally and metaphorically. This need would again require a process of domesticating the exotic elements of the EM I past and of combining them with the needs of an agricultural community, meaning that the seascape and its material indexes should be customised, so as to operate as an instrument within the internal social dynamics of the Cretan communities.

## Early Minoan III funerary landscapes

The exploration of funerary seascapes ends with a relatively brief examination of the last part of the Early Bronze Age, namely the late Prepalatial period.<sup>119</sup> This period shows signs of a shift away from the seascape and towards the landscape frame of perception. For example, the new tombs of Chrysolakos at Malia and Rizes at Zakros were built in relatively inland places. It should be noted that this shift was not uniform. Most old burial locations continued to be used, and some new burial locales provided visual contact to the sea, such as Patema and Hellenika at Palaikastro,<sup>120</sup> the House of the Dead at Malia, Pyrgos at Myrtos<sup>121</sup> and Pacheia Ammos.<sup>122</sup>

Funerary architecture shows signs similar to the topography of burials. On the one hand, rectangular tombs became more complex than be-

<sup>117</sup> One of the Platanos diadems bears traces of repair (Vasilakis 1996, 107–8). Perhaps the pattern of use and final consumption of valuable items in the Mesara was not dissimilar from the pattern observed at Mochlos.

<sup>118</sup> Cf. similar approaches on this issue: Broodbank 2000, 166–74; Catapoti, this volume; Papadatos 2007a.

<sup>119</sup> EM III for central Crete and EM III – MM I for east Crete. It should be noted that the late Prepalatial phases of some sites may correspond to Old Palace phases of other sites. This mismatch inevitably calls for a ‘broad-brush’ approach in order to synchronically examine the funerary record on Crete.

<sup>120</sup> MacGillivray & Driessen 1990.

<sup>121</sup> Cadogan 1977–8.

<sup>122</sup> Seager 1916.



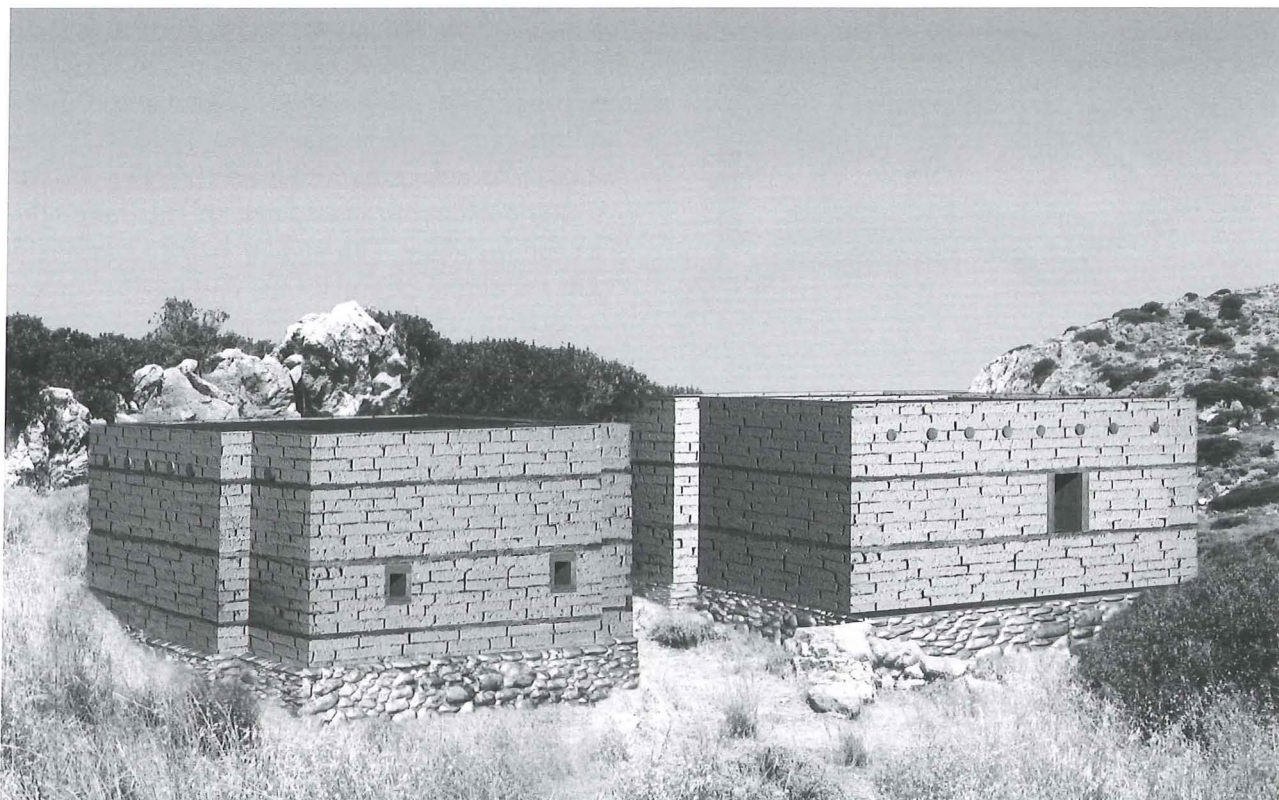


Fig. 8. Photorealistic reconstruction of the late Prepalatial tombs I and II at the North Cemetery of Gournia. View from the east.

fore and many of them resembled houses. Thus, the tombs of Patema and Hellenika at Palaikastro, tombs I and II at the North Cemetery of Gournia (Fig. 8), Chrysolakkos and the House of the Dead at Malia were multi-room complexes, with proper doorways, thresholds and benches.<sup>123</sup> The tomb of Pyrgos featured not only a proper doorway, but also a central pillar and upper floor. The late Prepalatial period also marked the addition of many rectangular built annexes to most of the *tholoi* and Phourni saw a building boom with a series of rectangular built tombs erected around the *tholoi*. These rectangular structures partially concealed the original form of the *tholoi* and created a significant, albeit superficial, sense of similarity to the rectangular 'house-tombs.' On the other hand, many of the Phourni tombs did not imitate domestic architecture, since they were accessed from above, while *tholoi* continued to be used, too. Sphoungaras and Pacheia Ammos featured simple pit burials. Despite these exceptions, the general trend towards com-

plex burial edifices was a monumental version of the EM II tradition, which, inevitably, tended to stress the symbolic domestication of the seascape and the prevalence of the landscape worldview that the EM II had advocated.

Funerary symbolism intensified the tendency described above.<sup>124</sup> For example, many *tholos* contexts mainly in the Mesara and also in the rest of Crete demonstrate a sharp rise in the numbers of serving and consumption vessels, which indicates an unprecedented focus upon food and drink,<sup>125</sup> namely products of the land. Similar symbolisms may also be sought in the popularity of bull image-

<sup>123</sup> It is indicative that the funerary character of the Malia tombs has been contested (Treuil 2006), exactly because of their close resemblance to houses.

<sup>124</sup> Vavouranakis 2007, 111–6; forthcoming.

<sup>125</sup> For the Mesara see Hamilakis 1998. For central Crete see Vavouranakis forthcoming; For east Crete see Vavouranakis 2007, 111–6. For the recent finds at Sissi, see Schoep 2009.



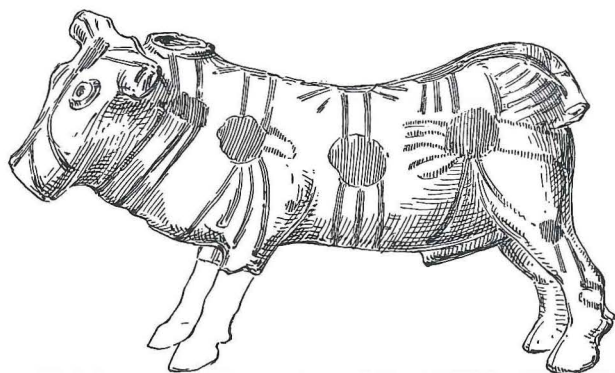


Fig. 9. Bull figurine from tomb XI at Mochlos (Seager 1912, fig. 29).

ry, demonstrated by the figurines found at Mochlos (Fig. 9),<sup>126</sup> Phourni,<sup>127</sup> and the Mesara,<sup>128</sup> and in female fertility images,<sup>129</sup> e.g. the figurine of a woman squeezing her breasts at Mochlos. The shepherd's bowl from Palaikastro is one more similar example and it stands in sharp contrast to another, earlier, artefact from a funerary context of the same site, i.e. a boat model.<sup>130</sup> The introduction of the *pithos*, a vessel initially aiming to the storage of agricultural produce, as a burial or ossuary vessel, may be also held as involving connotations of earth fertility. The earliest – EM III – funerary pithoi have been found in *tholos* Gamma<sup>131</sup> at Phourni and at Pacheia Ammos (Fig. 10). *Drakones tholoi* D and Z,<sup>132</sup> Agios Myron,<sup>133</sup> Pyrgos at Myrtos and *tholos* E<sup>134</sup> and Building 5 at Phourni<sup>135</sup> are also findspots of pithoi, all dated within the EM III – MM I time span.<sup>136</sup>

The symbolic stress on the land was accompanied by an equally marked lack of imported items or items made of imported raw materials and deposited in tombs. This lack is generally attributed,<sup>137</sup> on the one hand, to the general decline of imports due to wider changes that happened in the southern Aegean at the time and the 'transformation' of the International Spirit.<sup>138</sup> On the other hand, these changes were contemporaneous with significant social upheaval on Crete. Such upheaval included the destruction and/or abandonment of settlements, increased emphasis on defensive architecture<sup>139</sup> and temporary inhabitation of upland locations.<sup>140</sup> These turbulent conditions, in combi-

nation with the wider circulation of specific seals and the erection of several possible forerunners of the palaces, like the Early Hypogeum at Knossos<sup>141</sup> and the early monumental edifice at Malia,<sup>142</sup> may be taken to reflect the successful emergence of agricultural economy in expense of maritime contact and exchange. This suggestion blends very well with the notion of a landscape frame of perception becoming gradually stronger within funerary ritual in comparison to a seascape frame becoming correspondingly weaker.

The cemetery of Phourni comprises a significant exception to the above. The upper strata of *tholos* Gamma yielded seashells, while the excavation of the rest of the cemetery has yielded a significant amount of gold and silver jewellery and beads and seals made of imported semi-precious stones dated to the late Prepalatial period.<sup>143</sup> Phourni is, first of all, testifying that the agricultural economy was not an exclusive and inevitable strategy; there still existed a trading alternative, despite the changes in the southern Aegean. Economic choices, then, were possible and this possibility highlights the importance of collective perception and evaluation of

<sup>126</sup> Seager 1912, 64.

<sup>127</sup> Sakellarakis & Sakellarakis 1997, 543.

<sup>128</sup> Branigan 1970b, 81–3.

<sup>129</sup> Branigan 1993, 130–7.

<sup>130</sup> Bosanquet & Dawkins 1923, 12.

<sup>131</sup> Papadatos 2005, 9, 29.

<sup>132</sup> Xanthoudides 1924, 76–8.

<sup>133</sup> Alexiou 1968, 184; Alexiou 1969, 238; Lembessi 1977, 314.

<sup>134</sup> Panagiotopoulos 2002, 141–2.

<sup>135</sup> Sakellarakis & Sakellarakis 1997, 199–201, 467–8.

<sup>136</sup> See Petit 1990 for a review of the topic.

<sup>137</sup> Whitelaw 2004, 242–5, for recent update.

<sup>138</sup> Broodbank 2000, 320–61.

<sup>139</sup> For a recent review see: Alušík 2007, 149–56.

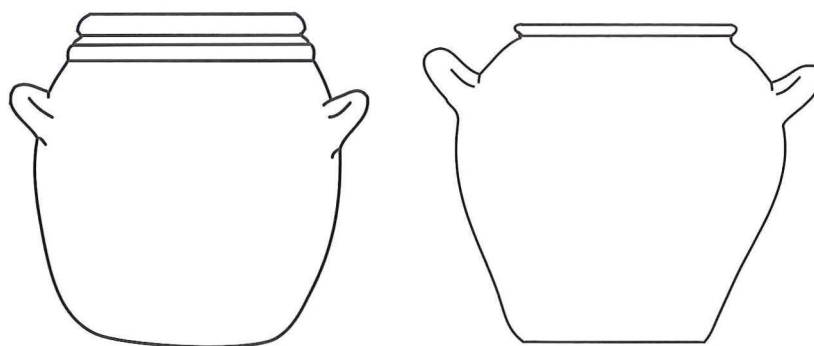
<sup>140</sup> Nowicki 2000, 30–3.

<sup>141</sup> Such as the Early Hypogeum (Belli 1999, for a recent review of the evidence and its interpretation problems) or the early Knossos earthworks (Wilson 1994).

<sup>142</sup> Recent reviews: Schoep 2002; 2006, 39–42.

<sup>143</sup> Sakellarakis & Sakellarakis 1997, 616–69 (jewellery), 672–91 (late Prepalatial seals and sealings). Karytinos (1998) has argued that the small number of seals in comparison with the high number of burials at Phourni suggests that seals were personal status items.

Fig. 10. Late Prepalatial pithos shapes from the cemetery of Pacheia Ammos (not to scale; redrawn after Seager 1916, pls I and XI).



the late Prepalatial social conditions for decision-making. Such a need underlines the continuing importance of funerary contexts, wherein social attitudes, systems of value and worldviews were renegotiated.

Despite the exception of Phourni, the overall funerary trend seems to favour earth symbolism. This trend did not only decrease the importance of the seascape worldview. It also rendered it a rather static element of funerary ritual. This happened because the late Prepalatial period saw a ritual shift towards veneration rites.<sup>144</sup> These rites aim at the living and the regeneration of society, while mortuary rites aim at the appropriation of the dead individual and his/her passage to a metaphysical order.<sup>145</sup> As already mentioned above, the seascape had been promoted through mortuary rites since the EM I, because it had been connected to the International Spirit and its focus upon ventures of heroic individuals out in the sea. In contrast, veneration rites had been connected with the cultural tradition of Crete, ever since people deposited Pyrgos style chalices in the *dromoi* of the EM I chambers tombs at Agia Photia and Gournes. The EM II stress on earth fertility symbolism and the consumption of food and drink further underlined the importance of the regeneration of society and pushed aside the dead individual and his/her seascape connotations.

### *Funerary landscapes and the appropriation of EM III social conditions*

This ritual shift was a response to the social turbulence of the EM III period. At this time, a simple symbolic reference to historic roots, *e.g.* funerary symbolism about kinship and lineage, was not

enough for a community, if it wished to survive among rival claims upon the same land and its agricultural exploitation. Veneration rites helped people see the past in a more dynamic manner, namely as a resource that could be employed to help them in the present. The notion of the regeneration of life transformed the past from static history to living tradition that could be re-worked and exploited according to the needs of the community. Cretan communities needed monuments such as Chrysolakkos, a place used for burials selectively but more frequently for the execution of ritual acts, or 'house-tombs,' which occupied prominent places in the visual horizon of people and allowed them to think that the dead and the past were always present. This change in ritual still left room for mortuary rites, which, after all, are an inevitable stage of the funerary process, since the dead body has to be tackled somehow. However, their significance must have decreased and so did the seascape connotations of the funerary frame of perceiving the world. Hence, places very close to the sea, such as Sphoungaras, Pacheia Ammos or the Charniers at Malia accepted poorly furnished burials.

This brief examination of EM III burials shows that communities were being called to (re-) act immediately upon social reality. This call favoured the notion of a closely-knit and directly graspable landscape better than symbolic references to absent (re-) sources, such as places beyond the sea or the past. The latter was still important, but only as a

<sup>144</sup> Vavouranakis 2007, 130-1, 162-3.

<sup>145</sup> For a recent appraisal of the issue of the social dimension of funerary ritual see Hayden 2009.



useful instrument that would help the late Prepalatial communities to secure their future during turbulent times. Within this frame, funerary ritual still allowed for the conceptualisation of maritime activity through coastal burial locales or the deposition of imported artefacts, but the relative importance of such a seascape was significantly weaker than during the EM II period.

## Conclusions

I have argued that people imbue their surroundings with meaning and the perspective of their perception depends upon the values and principles that define a community and guide its agency. It may be proposed then that people live in meaningful landscapes, namely meaningful frames of perception. By analogy, people that live by the sea and engage in maritime activities may be taken to live in equally meaningful seascapes. Landscapes and seascapes are not just states of the human mind. They are firmly anchored on the features of the environment, both natural (*e.g.* the mountains or the sea water) and manmade, such as structures and artefacts. These features operate as the reminders of collective values, evoke the sense of landscape and/or seascape and, consequently, allow people to understand their place in the world and the ways in which they should act in it. Finally, there are occasions when landscapes and seascapes come under review. For example, funerary activity prompts the (re-) negotiation of social relations, including the frames through which these relations are perceived and understood. As a result, the natural environment, the people, their material culture and agency and their landscape and seascape frames of perception, are inextricably intertwined in a dynamic relationship.

The above ideas were applied to the Early Bronze Age of Crete, when society was characterised, on the one hand, by the significance it ascribed to funerary ritual and, on the other hand, by the participation of the island in the International Spirit, a network of socio-economic interaction and exchange, mainly centred in the Cyclades, but also spreading throughout the southern Aegean. The

variable impact of the International Spirit on Crete resulted in a binary opposition of two alternative frames of perception within the context of funerary ritual, namely a landscape and a seascape.

The landscape hinged upon veneration rites and the social dimension of funerary activity, via offerings of food and drink, which brought to the fore specific expressions of commitment and value whilst explicating the basis of those values with reference to the immediate surroundings of people. The seascape was chiefly propagated within mortuary rites, which took care of the metaphysical aspect of death and the deceased him/herself, through the adornment of the body with exotic artefacts. These artefacts achieved the same effect as food and drink but at a different scale:

“The context was no longer the immediately apprehended landscape but instead absent sources and the cumulative traditions of learning. It was as if the artisans [that crafted the objects] gave absent places and the lengthy acquisition of technical mastery their physical presence in the things that they made.”<sup>146</sup>

This dichotomy was resolved during the EM II period, when the two different worldviews and ways of life were combined within a single frame of perception and social reference. This shift was subtle but decisive in that it gave the landscape more prominent place than the seascape. The latter further diminished in importance in the last part of the Early Bronze Age, when emerging land disputes on Crete and the simultaneous transformation of the International Spirit promoted a landscape perception of the world.

These are the main points of a historical narrative about the Early Minoan period, which saw the people of Crete acting in places imbued with meaning. They dwelled in seascapes and landscapes, which operated as a basic matrix of value that filtered economic, social, political and cultural conditions, such as the International Spirit or the late Prepalatial rivalry for land management, which characterised the social trajectory towards the first palace societies on Crete. As such, the landscapes

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<sup>146</sup> Barrett & Damilati 2004, 166–7.

and seascapes were also ways of experiencing the world. They were filters of collective perception that were appropriated within funerary rituals. As a result, people became knowledgeable agents, empowered to make better sense of their social context and act both within and upon it. Such a narrative has the advantage of avoiding pitfalls of previous research, particularly as regards the impact of the International Spirit. Therefore, it provides a more meticulous understanding of both the Early Minoan archaeological record and also the social agency behind this record.



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# Towards a conceptualisation of the sea: artefacts, iconography and meaning\*

*Ina Berg*

## Introduction

The sea has long captured the imagination of societies and has often been viewed as either a barrier to or a bridge for communication. Recent work has stressed that perceptions of the sea, not unlike peoples' understanding of earthly landscapes, are culturally determined.<sup>1</sup> While drawing on approaches to landscapes,<sup>2</sup> scholars working on seascapes have stressed that water, and thus the sea, is an inherently different substance with radically different qualities from soil and earth. Whereas both may be hard to cross and may require great endurance, the land (and indeed the air that allows us to inhabit the land) is a substance humans are intimately familiar with from childbirth on. We all have the ability to move on it by walking, running, climbing or jumping without having to draw on anything outside our own body – animals, carts, bicycles or cars will speed up our journey, but are not essential. True, our journey might be dangerous and lead us into unfamiliar territories, but the physical experience of placing our feet on the ground, one after another, is one we are thoroughly acquainted with.

In contrast thus stands the sea, which humans cannot walk on or indeed inhabit in any meaningful way. While we can swim through water, distances thus covered will be short. While we can submerge ourselves in water, the time we can spend in it is very limited. Water thus requires special knowledge (e.g. tides, winds, geography), skill (e.g. navigating, sailing) and equipment (e.g. boats, diving equipment, wetsuits) merely as a prerequisite for movement through and across it. Finally, we should not forget that water, as a substance, is very different from land: if land is firm, immovable and solid, then water is moving, constantly changing and liquid.

These differences, many scholars have argued, make the sea a substantially different kind of crossing than land-based journeys.<sup>3</sup> Anthropological case studies also support this view: the Gawa Islanders of Papua New Guinea, for instance, view land (associated with stability and weight) and sea (associated with speed and lightness) as separated by a liminal threshold (beach). The Trobriands, on the other hand, perceive the sea itself to be the liminal zone between their homeland and distant shores.<sup>4</sup> However, while archaeologists cannot but help to generalise, we must nevertheless acknowledge the likely existence of multiple attitudes of the sea within every society.<sup>5</sup> Neither should we assume that a community's interaction with the surrounding sea remains unchanging throughout time. Recent case studies from the Pacific, east Africa and prehistoric Aegean demonstrate that interaction zones may expand (e.g. Grotta-Pelos culture) or contract (e.g. EC III period) over time depending on changes in political, religious, social and economic networks;<sup>6</sup> and in line with these changes we must assume that people's attitudes also underwent change.

However, for those people who traversed it and lived on or near it, the sea took on an 'unforget-

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<sup>1</sup> Broodbank 2000; Eriksen 1993, 135; Gosden & Pavlides 1994.

<sup>2</sup> E.g. Bender 1993; Cosgrove 1998; Ingold 1993; Tilley 1994a; Tilley 1999.

<sup>3</sup> Cf. Broodbank 2000; Patton 1996.

<sup>4</sup> Helms 1988, 24–5.

<sup>5</sup> Hau'ofa 1993; Jolly 2001.

<sup>6</sup> See Broodbank 2000.



table presence' and became an intimately familiar landscape which provided infinite clues about social history, historical and mythical events, seasons, navigation, fish migrations, etc. In fact, a fisherman's experience is not limited to the sea's surface; G. Pálsson<sup>7</sup> in his work with Icelandic fisherman emphasises their ability to perceive the ocean as a three-dimensional experience (or even four-dimensional if we include time as a variable): they not only understand the surface features, but actually 'see' the fish, and the composition and layout of the sea bottom. Such knowledge was also evident among Shetland fishermen whose names for fishing grounds made reference to the type of seabed in the area.<sup>8</sup> Therefore, what an inexperienced observer might perceive as an undifferentiated sea surface is in fact a landscape with known places, which encapsulates a myriad of histories, experiences, skills, and relationships.<sup>9</sup> In fact, for many communities the sea is much more than merely a guide to fishing grounds – it also has become a guide to their social history. "Certain reefs, channels, passages, and seamarks are associated with particular spirit beings...Places on the ocean are often identified as sites of great historical events, both encoding and lending credibility to oral traditions."<sup>10</sup> In some instances, defined areas of the sea may actually represent a family's or kin group's territorial holdings. As on land, such areas frequently serve as ancestral memorials and as markers of ownership and are thus an essential dimension of a group's social and mythical history.<sup>11</sup>

## Attitudes towards the sea

Most cultures have a distinctly ambiguous relationship with the sea. The frequently cited fragment 'On Women' by Simonides, a Greek poet of the seventh century BC, provides an illustration of the sea's 'two faces':

"She [the woman] has two characters...just so the sea often stands without a tremor, harmless, a great delight to sailors, in the summer season; but often it raves, tossed about by thundering waves. It is the sea that such a woman most resembles in her

temper; like the ocean, she has a changeful nature" (Fragment 7.27–42).<sup>12</sup>

When the sea is perceived as a positive substance, it is regarded as benevolent, calm, vitalizing, and cleansing. It provides a means of income through fishing or trading, encountered trials make men stronger and contact with far-away places makes men wiser. Saviour, Calm, Swiftwave, Wavecease are only a few examples of Nereids' names listed by Hesiod (Hes. *Theog.* 240–255), which mirror this positive view of the sea. On the other hand, however, the sea has its dangerous side, as it is unpredictable, changeable, treacherous, threatening, corrupting, unclean and exposes travellers to greater or lesser discomforts. The two 'moods' of the sea are reflected further by the characterisation of many of its mythical inhabitants as half human and half beast.<sup>13</sup> This ambiguity was also evident in Byzantine literature where adjectives associated with water reveal the sea's multifaceted nature: on one hand it can be life-giving, nourishing, flowing with riches, healing, and pain killing, on the other it is death-dealing, barren, wild, pitiless, hostile, warlike, and man-slaying.<sup>14</sup>

Calamities in the world's oceans and the Mediterranean Sea have contributed to our perception of the sea as a truly dangerous place. Even nowadays, trawlermen have the highest death rate of any profession in Britain. In 1998 alone, there were 366 accidents, 26 vessels lost at sea and 26 fatalities.<sup>15</sup> In addition to abundant shipwrecks, ancient literary sources bear witness to the dangers of sailing in the Mediterranean: for example, Byzantine maritime loans always incurred the maximum interest rate.<sup>16</sup> In the *Odyssey* Homer relates how heavy storms battered Odysseus' ship again and again on his journey from Troy to Ithaka (e.g. Hom. *Od.* 9.69–76,

<sup>7</sup> Pálsson 1994, 910; cf. Thompson 1995, 62.

<sup>8</sup> Nicholson 1983, 105.

<sup>9</sup> E.g. Hassan 1997.

<sup>10</sup> Feinberg 1995, 7; cf. McNiven 2003; Rainbird 2004, 5.

<sup>11</sup> Barber 2003; Hviding 1995; McNiven 2003.

<sup>12</sup> Simon. 7.27–42, cited by Lloyd-Jones 1975.

<sup>13</sup> Lindenlauf 2003, 417.

<sup>14</sup> Vryonis 1993, 124–6.

<sup>15</sup> O'Hanlon 2004.

<sup>16</sup> Laiou 1993, 80.

79–86), ultimately leading to the loss of his entire crew when a storm ripped his boat apart (Hom. *Od.* 7.265–274; 12.417–468). Subsequently, our hero was shipwrecked again upon leaving Calypso's island (Hom. *Od.* 5.292–445). As a consequence of the dangers encountered at sea, many cultures locate their cosmological place of death in it or require souls to traverse it to reach their final destination. Ships, by crossing this dangerous substance, may themselves become associated with death. Such is the case in Greek and south-east Asian mythology, where boats are employed to ferry souls to the land of the dead.<sup>17</sup> A particularly close link is apparent in Austronesian-speaking communities, where “terms for ‘boat’ and ‘coffin’ can be interchangeable.”<sup>18</sup>

Due to the dangers and uncertainties encountered by those travelling the seas, it is not surprising to find that societies imagined the sea in general and dangerous locations within it (e.g. whirlpools, fringing reefs, channels) to be the domain of powerful supernatural beings who control wind, currents and waves; these creatures need to be placated with sacrifices, prayers and by upholding certain taboos to insure a safe journey. According to Greek mythology, the god Poseidon was believed to reside in the sea together with mythical sea creatures, such as the Nereids. *Tamudurere*, a spirit which controls the magic of sorcery and warfare in Papua New Guinea, lives in the deep sea, while *silava*, powerful place spirits in the shape of octopi, fish or floating logs, can be found in areas with treacherous currents and high waves.<sup>19</sup> Actions by these beings can be influenced by following the appropriate ritualised behaviour resulting in the use of magic, taboos and rituals for virtually every aspect of a sea-going enterprise – including the building of the boat, the making of fishing tackle, the acquisition of sailing, fishing and navigating knowledge, fishing and trading activities, appropriate behaviour whilst on board, and, of course, the departure and return of the travellers.<sup>20</sup>

## The Minoans and the sea

Unlike the later Classical Greek or Roman period where literary sources provide a substantial amount

of information about how the literate classes viewed the sea, Minoan attitudes towards the sea have to be deduced from the surviving evidence of their physical engagement with it, such as iconography, ships, fishing equipment, and food remains. The remainder of this paper thus is a first tentative exploration of the potential of the evidence currently available to us.

## Iconography

Minoan depictions of seascapes rarely represent the element of water iconographically; instead marine animals, marine vegetation and ships are utilised to give an indication of the intended setting.<sup>21</sup> While isolated motifs of fish, cuttlefish and shell appeared in MM I–II, their use expanded into a large variety of media only in the Protopalatial period. Octopuses, crabs, triton, fish, dolphin and marine vegetation are, for example, engraved on MM II–III seals, fish are depicted on pottery, and flying fish, crabs, argonauts and shells are modelled in relief and there is evidence of use of seashell appliques too.<sup>22</sup> Dolphin, octopus and argonaut are motifs on Kamares Ware vessels and appear to take their inspiration from wall paintings. In the Neopalatial period, marine imagery is present in abundance on clay reliefs, stone vases, metal work, seals, faience, wall painting as well as pottery. In addition, real shells and imitations thereof often occur – one might draw attention to the hundreds of shells from the Temple Repositories at Knossos. The miniature frescoes at Thera with their depiction of coastal scenes, the dolphin fresco from the Queen's Megaron at Knossos and the LM IB Marine Style signal that Minoan engagement with marine life reached its greatest heights in the LM I period, although marine motifs are eagerly copied by mainland artists and continue

<sup>17</sup> Ballard *et al.* 2003, 392.

<sup>18</sup> Ballard *et al.* 2003, 392.

<sup>19</sup> Lepowski 1995, 50–1; also Barber 2003, 435.

<sup>20</sup> E.g. Gladwin 1970; Grimble 1982; Nicholson 1983; Wachsmuth 1967.

<sup>21</sup> Morgan 1988.

<sup>22</sup> For some examples, see Poursat & Knappett 2005.





Fig. 1. Marine Style jug of the 'Marseilles type,' decorated with argonauts, from Kato Zakros (photo courtesy of L. Platon; for a description see Platon 2008).

to play an important part in Mycenaean iconography.<sup>23</sup>

## The LM IB Marine Style

Of all the depictions of marine life in Minoan art, the Marine Style, which became popular on clay vases of the Special Palatial Tradition during the LM IB period, has received perhaps the most attention (Fig. 1). The Special Palatial Tradition refers to four styles (Marine Style, Floral Style, Abstract/Geometric Style and the Alternating Style), which appear to form one single iconographic tradition. As motifs sometimes cross-over and the styles utilise a similar range of shapes, it has been suggested that they form the products of one specialist workshop.<sup>24</sup> A single workshop location is supported by (an admittedly rather limited) petrographic and chemical analysis of the clay, which showed that

most Cretan samples analysed could be linked to a central Cretan composition, most likely Knossos.<sup>25</sup> Over 300 Marine Style vessels<sup>26</sup> have been found at 19 sites in Crete, although their main concentrations are at Knossos, Palaikastro, Kommos and Zakros (Fig. 2).<sup>27</sup> Interestingly, Marine Style vases found on the islands and the Greek mainland were not exported from Crete but were manufactured in mainland production centres (most likely Mycenae, Korakou, Athens and Thebes, as well as Aigina). As it is uncertain whether they were produced by mainland or itinerant Cretan painters/potters and thus whether the images reflect mainland or Cretan traditions and attitudes, they have been excluded from this analysis.<sup>28</sup>

The Marine Style is characterised by what Furumark<sup>29</sup> has termed 'unity syntax'; that is, a composition that treats the vase as a single decorative field united under a single theme. The centre of this syntax is the main motif (most commonly octopus, argonaut or starfish – normally depicted 'floating' in the centre of the vase with a preference for a radiating or revolving arrangement) and almost always repeated one or more times around the vase. Subsidiary motifs, such as triton, argonaut, sea urchin, rockwork and marine vegetation, serve as filling ornaments.<sup>30</sup> Scholars have drawn attention to the strong syntactic links between motifs, composition and vessel shape.<sup>31</sup>

<sup>23</sup> For summaries of motif development see Bradfer 2000; Furumark 1941; Hiller 1995; Krzyszkowska 2005; Morgan 1988; Niemeier 1985.

<sup>24</sup> Betancourt 1977a; Betancourt 1977b; Betancourt 1985.

<sup>25</sup> Jones 1986, 442–57; Mountjoy *et al.* 1978; Mountjoy & Ponting 2000; cf. Müller 1997.

<sup>26</sup> In her corpus, Mountjoy (1984) lists 288 Marine Style vases from Crete. Müller (1997), on the other hand, lists 584 vessels. However, he also includes vessels that, strictly speaking, do not belong to the Marine Style. Taking into account recent publications from Kommos and Archanes, the total number of vases can be estimated at around 315.

<sup>27</sup> Bradfer 2000; Mountjoy 1974a; Mountjoy 1974b; Mountjoy 1984; Müller 1997.

<sup>28</sup> Jones 1986; Mountjoy & Ponting 2000.

<sup>29</sup> Furumark 1941.

<sup>30</sup> Bradfer 2000; Betancourt 1985; Mountjoy *et al.* 1978; Niemeier 1985.

<sup>31</sup> Furumark 1941, 162–3; Müller 1997; Popham 1967, 341; Sakellarakis & Sapouna-Sakellarakis 1997, 447.

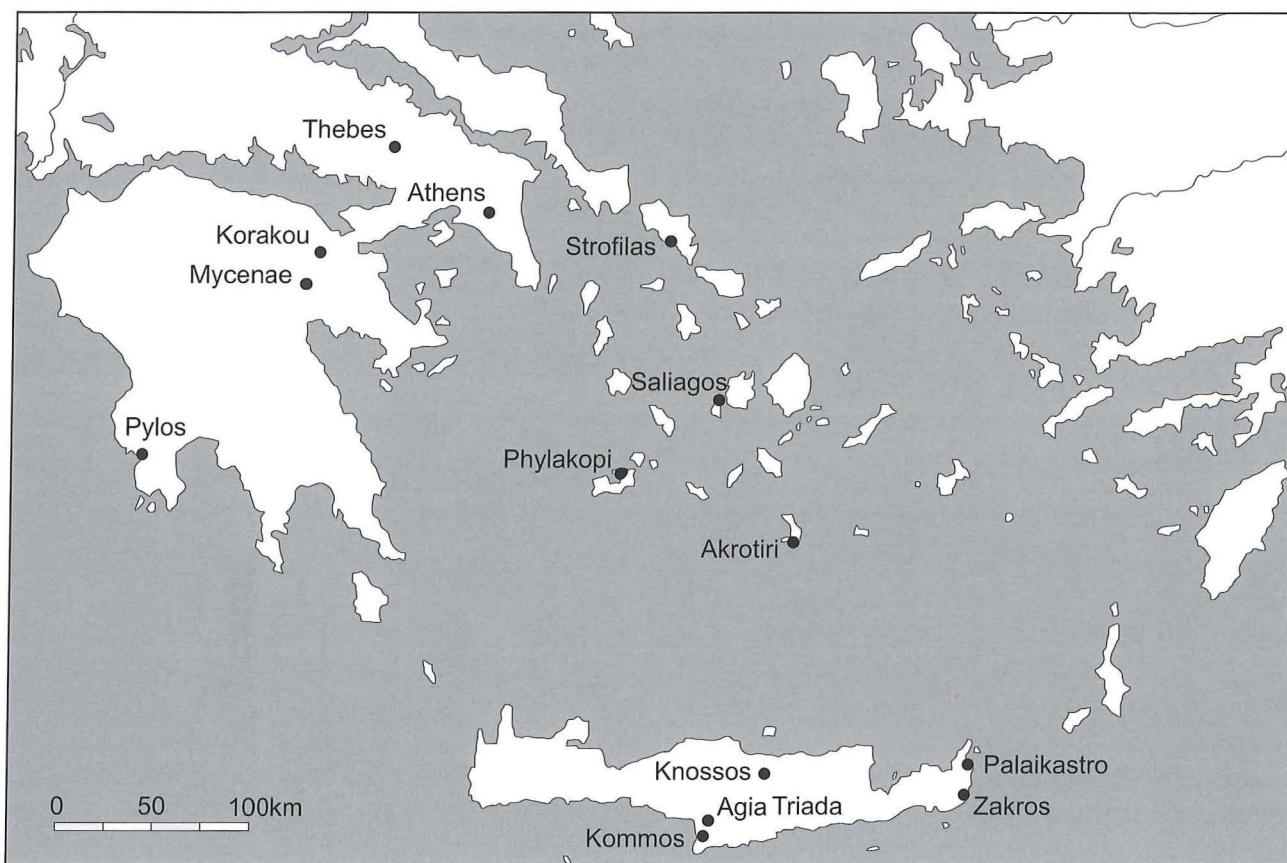


Fig. 2. Map of the southern Aegean with main sites mentioned in the text (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis).

For example, the octopus with its radiating arms is used for larger globular vessels and its arms grow upwards when shown on a narrow vessel, while whorl or triton shells on rhyta are depicted vertically with the thicker end facing upwards, thus carefully mirroring the shape of the rhyton. As regards the naturalism of the images, they do not depict a particular animal taxon, but rather capture the general look of a species, especially for those not found near the shore.<sup>32</sup>

There is little doubt that the Marine Style is somehow linked to ritual activities and beliefs. However, the strength of this connection and the precise meaning are still under debate. Aside from a few very early general references,<sup>33</sup> a cultic meaning of marine imagery was originally suggested by P. Betancourt<sup>34</sup> and further elaborated on by P. Mountjoy.<sup>35</sup> In her article, the author demonstrated the close connection between marine motifs and cultic building contexts at ten Cretan sites – the

best-known example being the Temple Repositories at Knossos, where “faience reliefs of flying fish, rocks, shells and argonauts were found, as well as large numbers of painted sea-shells.”<sup>36</sup> While the vessels used for the Marine Style – with the exception of the rhyton, funnel and S-handled jug – were probably not exclusively made for ritual purposes, they too are frequently found in ritual contexts. Unfortunately, the precise religious meaning of marine imagery, beyond its evident connection with the sea, remained uncertain. Indeed, the author proposed that the particular choice of motifs might have been governed more strongly by the shape requirements of the vessel than by the sym-

<sup>32</sup> Gill 1983; Morgan 1988 for dolphins.

<sup>33</sup> See Müller 1997 for a summary.

<sup>34</sup> Betancourt 1977a.

<sup>35</sup> Mountjoy 1983.

<sup>36</sup> Mountjoy 1983, 240.



bolism inherent in the motifs themselves.<sup>37</sup> At this point it is worth reminding readers that P. Mountjoy allocates only c. 35 (out of c. 300) Marine Style vases to ritual contexts, and that any contextual analysis is hampered by the many unprovenanced or unstratified pots.

## Marine Style: exploring the potential of alternative approaches

Uncovering the precise meaning that resides in images is always a difficult task.<sup>38</sup> Clearly, marine imagery exists in the art of many societies. However, each will interpret the marine environment in a different way, depending on the kind of relationship and knowledge societies had of this particular sphere. “People are not so much representing a nature that is ‘out there’ as encoding it.”<sup>39</sup> Often, cultural significance might be attached to these depictions, but the precise meaning will be different from society to society and, having been made for past viewers, first needs to be decoded by us. A useful illustration of this point is provided by J. Crowley,<sup>40</sup> who contrasts Aegean water imagery with Near Eastern and Egyptian depictions. The author found that everyday experiences shaped the art in each society: Aegean artists portrayed the open sea, while Mesopotamian and Egyptian craftsmen only knew river environments. More importantly, the context in which water was alluded to was different in each culture: Near Eastern and Egyptian artistic traditions perceived the environment merely as a backdrop for depictions of deities and powerful rulers, while Aegean people experienced the sea as an important and integral part of their lives. In relation to the Aegean, research summarised above followed several strategies by investigating the relationship between images and find context, by looking for correlations between different motifs and by investigating the context of production. The results were very encouraging and demonstrate the potential of iconography in eliciting deeper cultural meaning. One dimension that was, however, ignored is that of the physicality of the marine creatures. This ap-

proach takes its inspiration from recent debates on materiality, material properties and qualities, and the social context within which they function,<sup>41</sup> and hopes to elicit hitherto hidden facets of, attitudes to or perceptions of Minoan engagement with the sea by comparing known characteristics of the actual animals and the attributes that were emphasised in the Marine Style.

The octopus (order *Octopoda*), the most common Marine Style motif on Crete, is characterised by its globular fleshy and boneless body, which often possesses wart-like protuberances. Eight long arms with suction cups are united at the base underneath the head with its large and prominent eyes. Their blood contains copper-rich hemocyanin, which gives them their blue colour. Octopuses live in lairs in shallow waters near the shore; the lairs can be easily recognised by the food debris and stones accumulated around the entrance. The animal moves by crawling with its arms or by swimming head-first by expelling a jet of water or contracting its membrane. It catches its prey with its arms or by enveloping it with the membrane to which all its arms are connected. Its life-span is moderate and lies between six months and five years. Octopuses are intelligent animals that have good eye sight, a good sense of touch and possess good short-term and long-term memory. They have several unusual defence strategies, such as expelling a cloud of ‘ink’ to escape from predators, change colour to mask their presence, and to automise their limbs in order

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<sup>37</sup> While most scholars agree that there is a religious component to the Marine Style, there is a real danger that we are confusing decoration with vessel shapes. Was it the decoration that infused shapes with ritual significance or was it the shapes that held the ritual meaning, while the decorative schemes were appropriate but not necessarily religious in themselves? Mountjoy (1983) has made a considered argument for the latter scenario. Even if it was the shapes that were of prime relevance in these religious contexts, the marine imagery chosen did not seem incompatible with such uses and thus require further analysis in their own right.

<sup>38</sup> Morphy 1989a; Ryan & Crabtree 1995; Tilley 1994b; Willis 1990.

<sup>39</sup> Morphy 1989b, 2.

<sup>40</sup> Crowley 1991.

<sup>41</sup> Gell 1998; Graves-Brown 2000; Ingold 2007; Jorge & Thomas 2006/7; Miller 2005; Tilley 1999; Tilley 2004.



to distract predators or to release a caught arm.<sup>42</sup> When touching octopuses, the qualities that are most noticeable are the wetness and slimy consistency of the body, the difficulty in controlling the animals, and its ability to move and slip away easily. Once an octopus has got hold of an object or human, it is the great strength of its suction cups that is noticeable. The dexterity of its arms is remarkable. Two typical behavioural gestures are associated with the octopus. The first one is the elegant jet-propelled swim when the animal glides head-first through the water with its arms neatly aligned floating behind. The second one is the defence position where the animal's head is raised above the seated body with the arms curled upwards.

Of the listed physical features only a few have caught the attention of Minoan painters (Fig. 3A). While the eight arms with their suction cups are shown to the side of the body, and the double head with its prominent eyes clearly identifies the painted animal as an octopus, not all features are recorded true to nature. For example, painters do not always seem to be aware that all eight arms extend from the web and they are sometimes shown as growing out from a body like branches from a tree trunk. As regards behavioural characteristics, octopuses are normally shown as belonging into the marine environment by association with sea vegetation and other sea animals. However, since rock and coral are combined with both littoral and pelagic species, their depiction is unlikely to be an allusion to the octopus's habitat but rather a standardised, thematic rendering of the sea. The animal's arms are normally displayed as radiating in all directions from the body with the ends often curled in. This arrangement of the arms is not a behavioural pattern that stands out in nature and appears to be more of an iconographic convention that allows coverage of the whole vessel. However, it might have taken inspiration from seeing octopuses crawling on the sea floor looking for or eating food, or from seeing the animal alive on the floor of a boat or clinging onto the arm of the fisherman after capture. The curled ends might make reference to the dexterity of the animal. Surprisingly, none of the features that intrigued later Greek writers, such as colour changes, ink clouds, automising limbs or its ability

to 'walk' on land, appear to have inspired painters of the Marine Style. Overall, these depictions do not show knowledge of the octopus's habitat or behaviour, and appear to be void of any emotions towards it: they are not depicted as dangerous (e.g. defensive gestures, ink expulsion), fierce, calm, or indeed as involved in any kind of activity (e.g. eating, hunting, swimming, lair building). Except for their associations with the sea in general, the paintings are thus void of any natural context.

The argonaut (*Argonauta argo*; also called the 'paper nautilus') is a pelagic octopus that lives and feeds close to the sea surface. It has a round body with two prominent eyes. From the body spring eight arms with suction cups. The first pair of arms extends into broad oval membranes whose skin glands secrete calcium carbonate to form the shell. Only the large females (up to 30 cm long) are able to secrete the ribbed white paper shell of up to 30 cm in size. The body of the female is mostly hidden inside a shell, but the shell's actual purpose is that of an egg-case. While the argonaut can leave its shell occasionally, it cannot form another one if separated permanently and will die. The existence of the smaller (2 cm) male was unknown to biologists until the 19<sup>th</sup> century. Despite their conspicuous eyes, their eye-sight does not seem to be good and they detect prey through touch. They feed during the day using their tentacles to grab the prey (e.g. crustaceans, molluscs, jellyfish) and drag it toward the mouth. The animal swims in a jerky motion by means of jet propulsion; air in the shell insures that the animal remains suspended in water. When threatened, it can change colour, eject ink or, most commonly, retreat into the shell whose entrance it covers with the membranes.<sup>43</sup> The life span seems to be longer than that of other octopods. Unfortunately, not much is known about argonauts as they are difficult to hold in captivity and most of our knowledge stems from specimens found floating on the sea or washed up on the beach. The qualities of an argonaut are those of a normal octopus (wetness, slimy consistency, flexibility, glid-

<sup>42</sup> Boyle 1983; Lane 1957.

<sup>43</sup> Lane 1957; Wells 1962.



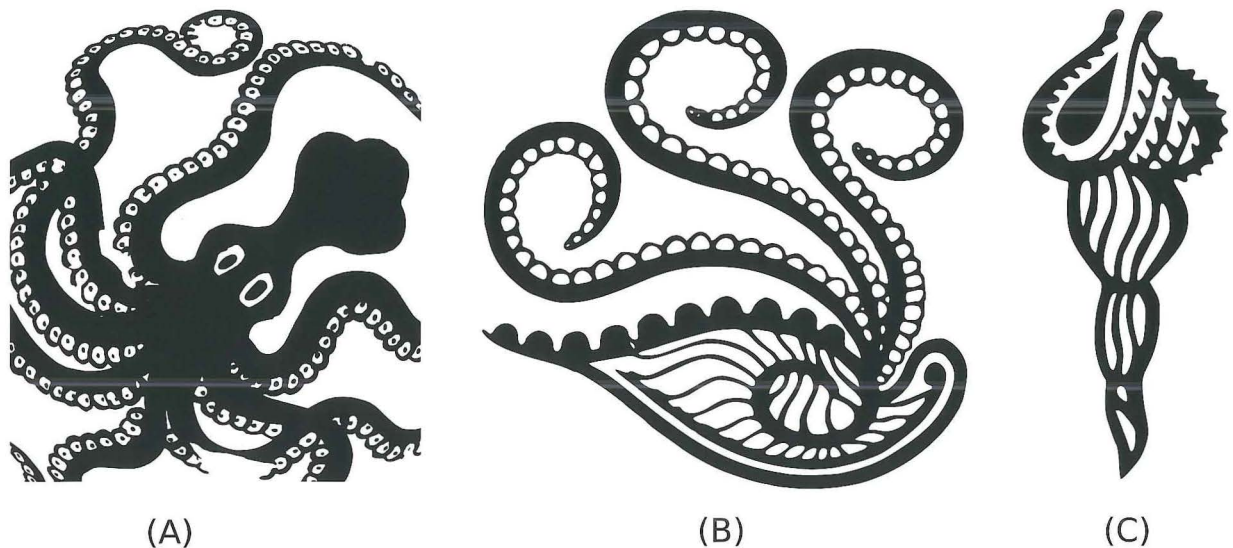


Fig. 3. Marine Style imagery: (A) octopus, (B) argonaut, (C) triton (after Betancourt 1985, pl.20G and Pendlebury 1939, 206, fig 37; modified and redrawn by the author and G. Vavouranakis).

ing movement, strength and dexterity), combined with the tactile sensation of the fragile shells whose lightness and ribbing would be particularly noticeable. The most typical posture is when the octopus is hidden inside the shell with the eyes still clearly visible, the arms barely hanging over the edge and the two membranes stretched over the shell. The second recognisable gesture is that of arms trailing behind the shell when using jet propulsion.

In the Marine Style, the argonaut is depicted as a greatly stylised and standardised motif which focuses on the three curled arms with suction cups that rise out of the broad end of a sizable striped shell (Fig. 3B). While the suction-clad arms identify the animal as an octopus, all paintings are characterised by a reduced number of arms, a lack of the body with the prominent eyes and a lack of webbing on the first pair of arms. The ribbing of the shell (indicated through stripes) is shown as vertical, diagonal or horizontal, rather than radiating out from a single point. The shape and entrance of the shell are unlike that of a real argonaut. Also, both the painted animal and shell are shown upside-down when compared with life specimens. The posture shown does not have an equivalent in nature, but most likely takes its inspiration from the animal exploring its surroundings with its tentacles. Being shown in conjunction with other marine motifs,

most commonly rockwork, it is clear that no depiction of its real habitat has been attempted. Unlike Classical times, there is no hint in the imagery of stories related to sailing, nor is there any evidence that typical behavioural characteristics, such as ink ejection, colour change, jet propulsion, covering the shell with its webbed membranes or retreating into its shell, captured the painters' imagination. Argonauts are displayed in an emotionless and highly stylised manner that makes it clear which creature is referred to, but does not attempt an accurate and naturalistic portrayal of it. It is hard to shake the impression that painters only had a hazy knowledge of argonauts – probably through casual reports by fishermen and sailors, and shell remains washed onto beaches.

The third main motif (also frequently used as a secondary motif or filler) to be touched upon here is the triton shell (genus *Charonia*). Tritons are large pelagic predatory snails whose shell can grow to 30 cm in size. The animal's body is yellowish with brown specks and it has two feelers. The shell is tall, elongated and spiral-shaped with markings on its smooth exterior. The snail can close the entrance to the shell using a 'lid'. They live on the sandy sea floor or rocky bottom, frequently near coral reefs, below tide levels. They are carnivores and feed on molluscs and starfish. The animal typically crawls

on the sea floor with the shell oriented horizontally on top or can be found sitting on top of a starfish whilst feeding off it.<sup>44</sup>

In Minoan art, tritons are depicted as elongated, twisted shells that are subdivided into three to four sections with an opening always clearly indicated in the largest one (Fig. 3C). The exterior shell markings are clearly visible and can run in any direction, while the section with the opening often carries thorn-like protuberances. On most vessels, in particular rhyta, the shell is shown floating vertically with the larger section at the top, thus cleverly mirroring the shape of the vessel. Characteristic postures, such as the snail crawling along the sea floor or eating starfish, are not being referenced in Marine Style images. In fact, the motif only makes reference to the shell and never shows the snail that inhabits it. The marine context of triton shells is indicated through associated motifs, like the starfish, octopus, argonaut, rockwork and marine vegetation, though their relative size is determined by the needs of the composition. As the shell is always depicted floating, there is no reference to the snail's natural habitat. Except for the prickliness of the shell and the markings, no qualities of the triton shell have been emphasised. Being qualities that can be observed on the 'dead' shell, it seems most likely that the painters did not know these shells once housed an animal or were aware of their particular living environment. The motif thus gives the feeling of detachment and lack of knowledge of the subject.

## A lack of knowledge?

Contrasting with the stylised and artificial Marine Style depictions is evidence of boats, fishing methods, fishing equipment and food remains which demonstrates that the Minoans had the capability to engage with both the deep sea as well as the littoral range, and were in principle able to gain an intimate knowledge of it and its inhabitants.

### *Ships*

Rock art depictions of boats are already known from LN Strofilas on Andros.<sup>45</sup> Information about

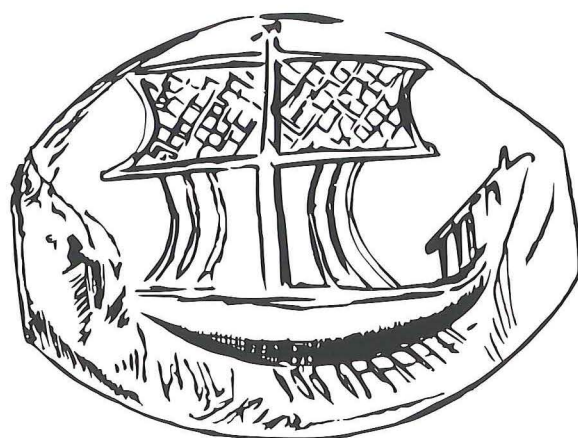


Fig. 4. Late Minoan seal depicting a vessel under sail. The hatches below the boat probably indicate oars (after Casson 1995, fig. 39; redrawn by the author).

Bronze Age boats comes from boat models, wall paintings, images on ceramics and seals, shipwrecks and experimental studies.<sup>46</sup> While paddled or rowed boats were the only means of transport prior to the introduction of sailing boats towards the end of the Early Bronze Age, iconographic evidence makes it clear that two categories of boats can be distinguished from the Middle Bronze Age onwards: smaller boats for coastal journeys and larger sailing merchant boats or galleys for long-distance sea voyages (Fig. 4). An Early Cycladic rock graffiti from Naxos and a terracotta model from EM I-II Palaiakastro on Crete most likely depict what we can assume to be the most common type: a compact and sturdy boat with a small carrying load which could be paddled by a single person making it most suitable for coastal journeys or short crossings.<sup>47</sup> Small to medium-sized vessels, interpreted as small fishing boats, are also shown on the Miniature Fresco at Akrotiri on Thera.<sup>48</sup> Sailing vessels with an estimated length of between 10 and 30 m and characterised by large cargo space, fast travelling speed

<sup>44</sup> Hayward & Ryland 1990; Wirtz & Debelius 2003.

<sup>45</sup> Televantou 2008.

<sup>46</sup> Bass 1987; Casson 1995; Christensen & Morrison 1976; Johnston 1985; McGrail 1987; Morgan 1988; Severin 1985; Severin 1987; Wachsmann 1998.

<sup>47</sup> Doumas 1965, fig. 4; Evans 1928, fig. 137.

<sup>48</sup> Morgan 1988, pl. 160.



and a large travelling range are frequently depicted on Minoan seals and sealings, on two sherds from Phylakopi as well as on Thera wall paintings.<sup>49</sup>

A recent re-assessment of the capabilities and reach of sailing boats has established that sailors had great skills and were capable of long journeys across the open sea, which would have required night-time travel. With a sail capable of tacking and jibing, sailors were able to sail at an angle to the wind at any time in the year.<sup>50</sup> While it is likely that the majority of movements were on the local scale and involved coastal travel with stop-overs, Minoan sailors had the skills and equipment to explore the open sea as well as coastal areas with ease and engage with the sea in a meaningful and lasting way.

### *Fishing*

Despite the availability of both coastal and sea-worthy boats, knowledge of sea creatures could potentially have been limited by the capabilities of available fishing methods. This does not appear to have been the case. Based on excavated small finds, bone remains and iconographical depictions, J. Powell<sup>51</sup> has been able to identify four fishing methods for which evidence exists that they had been employed by prehistoric fishers in the Aegean: 1) Collecting, diving and spearing; 2) Fishing with traps; 3) Fishing with nets, and 4) Fishing with hook and line. Collecting, diving and spearing relates to the exploitation of marine species found near the seashore, such as sea urchin, crab, shell and octopus. These methods required nothing more than a basket, fork and knife (collecting), stone, etc. as weight, a bag and knife (diving), or spears made of wood with bone, stone or metal points, possibly with an attached line for create a retrievable harpoon (spearing). Animals targeted with this technique are primarily littoral ones, such as octopus, eels and *murex* shells, but can stretch to pelagic fish. Fishing with traps requires in-depth knowledge of the species to be captured to set it in the right location, depth and season. Traps can be temporary (made of terracotta pots or baskets) or permanent, built-structures made of wood and netting. The latter variety is unlikely to have existed in the Aegean, while the presence of the former is indicated by *murex* shells and eels.

Fishing with nets is the most labour- and equipment-intensive method, but has the greatest potential for a large catch. Nets can be fixed or mobile, but their depth is rarely deeper than a few fathoms and they are therefore often restricted to areas near the shore. While nets can potentially be used on a ship on the open sea, their effectiveness is dependent on the travelling speed of the boat which must be greater than that of the species to be caught (i.e. 4–6 knots) – an unlikely scenario. Netting can be identified by remains of the net itself, needles, floats and weights. At the moment, evidence for netting in Minoan Crete is circumstantial due to the multifunctional nature of the equipment used; conclusive evidence is first available from the Mycenaean period. Fishing with hook and line can be undertaken from the shore and offshore and is the most widely practiced method. Lines can be stationary or movable, use one or multiple hooks or lines, and reach depths down to fifty fathoms. Successful use requires good knowledge of fish habitat and behaviour. Evidence suggestive of the use of fishing lines can be found in gorges, hooks, weights and sinkers, rods and the lines themselves. In the prehistoric Aegean, line fishing has existed since the Neolithic period. That lines were used to catch both littoral and demersal species using methods such as handlining and trolling can be deduced from the size of the hooks.<sup>52</sup>

While fishing concentrated on littoral species, fishing equipment existed also to catch pelagic species. However, regardless of which technique is chosen, the labour-intensity and effectiveness of the fishing and trapping equipment was only suited to produce small catches.

### *Minoan diet*

As demonstrated by the evidence of boats and fishing equipment, the Minoans undoubtedly possessed the skills and equipment both for coastal and

<sup>49</sup> Casson 1995; Morgan 1988; Wachsmann 1998.

<sup>50</sup> Berg 2007.

<sup>51</sup> Powell 1992; Powell 1996, 77–166; also Guest-Papamanoli 1983.

<sup>52</sup> Powell 1996.

open water fishing. However, the actual remains of fish bones show an intriguingly selective consumption pattern. Fish bones currently constitute only a small percentage of the total animal bone assemblage.<sup>53</sup> A comparison of fish remains from several sites shows that there was no unified picture regarding fish consumption: each site consumed different proportions of different species of fish from different types of habitats. However, multi-fishery is commonly observed and an overall predominance for fish from inshore or moderately deeper coastal water – caught with nets and hook and line – is apparent at most sites (Table 1). This preference for coastal fish from a reliable source is understandable given the annual and seasonal variability of catches of pelagic fish.<sup>54</sup>

Unlike fish, the preservation of marine invertebrates is very good and consequently our picture of their exploitation is more complete.<sup>55</sup> Several sites, including Akrotiri, Palaikastro and Kommos, have produced large samples of molluscs. L. Karali,<sup>56</sup> for example, analysed mollusc remains from the 1967 to 1987 excavation seasons at Akrotiri and has identified 23 marine species. *Murex* and *patella* are the most common species adding up to around 85% of the total assemblage. Except for 31 triton shells, at home in the deep seas, all molluscs were collected from the shore. Most shells seem to have been eaten raw, used as fish bait or as ornaments. A similar procurement and consumption pattern can be observed at Palaikastro with the distinction that the most common species of shell is *murex* – discovery of several substantial *murex* deposits makes it likely that they were used for dye production.<sup>57</sup> *Patella* was by far the most common mollusc at Kommos and, together with *monodonta* and *murex trunculus*, was probably collected as food or fish bait.<sup>58</sup> In addition to species that leave traces we should also assume the consumption of sea urchins, crabs, cuttlefish, octopus, etc – all of which can be found near the coast.<sup>59</sup>

Unlike the Neolithic site at Saliagos where evidence of tunny bones indicated that the inhabitants were comfortable and successful at traversing the deeper seas in order to catch pelagic fish and that seafood made up a considerable proportion of their overall diet,<sup>60</sup> Bronze Age fish and mollusc data

show a distinct preference by the Minoans for littoral food procurement. More importantly, if the limited available isotope data are an accurate portrayal of past dietary habits, then seafood formed only a very minor part of the normal Cretan Bronze Age diet.<sup>61</sup> This pattern might easily be interpreted as relating to convenience in procurement, food preferences, or limitations in fishing equipment. However, the contrast with the marine-oriented Neolithic Saliagos people is so stark that such an interpretation appears unconvincing. While all these factors might have contributed, taken together with our iconographic analysis a more complex picture is emerging.

## The Marine Style, Minoans and the sea

To access prehistoric mindsets and attitudes is a problematic undertaking even when iconographic depictions are available. And while no conclusive answer can be offered at this stage, the presence or absence of specific types of evidence hints at some intriguing interpretations of the symbolism associated with the sea.

Unlike other seafaring cultures, there is no evidence that the classification of animals is gendered.<sup>62</sup> Likewise, a reference to foods consumed in the particular Marine Style vessels can surely also be excluded since the motifs are so clearly chosen for particular shapes and the shapes are predominantly (liquid) serving vessels. The images are void of any kind of activity – creatures are depicted (e)motionless and stylised. Neither are there any displays of human-animal interaction, such as fishing, collect-

<sup>53</sup> Trantalidou 1990, 402.

<sup>54</sup> For a more detailed summary see Berg 2007; a diachronic view of fish consumption is offered by Theodoropoulou 2007.

<sup>55</sup> Karali 1999.

<sup>56</sup> Karali-Yiannacopoulou 1990.

<sup>57</sup> Reese 1987.

<sup>58</sup> Reese 1995, 240–73.

<sup>59</sup> See also Berg 2007.

<sup>60</sup> Evans & Renfrew 1968.

<sup>61</sup> Richards & Hedges 2008.

<sup>62</sup> E.g. McGhee 1994.



Fish taxa	Palaikastro Building I	Kommos	Akrotiri	Lerna	Habitat
	MM II-LM IIIA	MM IB- LM II	LC I	MH	
<i>Apogonidae</i> (Cardinalfish)	★	★			Common in coastal lagoons or reefs where it lives near caves and crevices at depths of 1-50 m.
<i>Atherinidae</i> (Silverside)	★				Shoal fish, usually found in shallow, inshore waters.
<i>Blenniidae</i> (Blenny)	★				Demersal, inhabits reefs, reef crests,, and coral rubble in shallow water areas of less than 1-6 m.
<i>Carangidae</i> (Mackerel, pilotfish)	★	★	★		Pelagic shoal fish, lives in deep water but may approach closer to the shore during migrations.
<i>Carcharhinidae</i> (Shark, ray)		★			Epipelagic, occurs in inshore and offshore waters from the beach to a depth of c. 200 m.
<i>Centracanthidae</i> (Picarel)	★★		★		Pelagic shoal fish.
<i>Dasyatidae</i> (Stingray)	★				Demersal, most commonly frequent shallow waters, but may lead a pelagic life-style.
<i>Gadidae</i> (Shore rockling)		★			Inhabit shore pools to sublittoral waters. Preference for rocky bottoms.
<i>Labridae</i> (Wrasse)		★			Demersal, lives on rocks and eel-grass beds in coastal waters down to a depth of 60 m.
<i>Mullidae</i> (Goatfish, Red mullet)	★				Demersal shoal fish, lives in coastal waters at depths of less than 15 m.
<i>Pomacentridae</i> (Damsel-fishes)	★				Demersal shoal fish, inhabits reef habitats, rocky areas or sea-grass beds at depths of 2-15 m.
<i>Scaridae</i> (Parrotfish)		★			Littoral, usually found on rocky and sandy shores down to 30 m.
<i>Sciaenidae</i> (Meagre)	★				Demersal species, solitary, prefers rocky coasts.
<i>Scombridae</i> (Tunny)		★	★		Pelagic shoal fish, lives in deep waters but may approach closer to shore at times.
<i>Serranidae</i> (Grouper, sea bass)	★★	★★			Demersal species, solitary, lives inshore near rocks down to 100 m depth.
<i>Sparidae</i> (Sea bream, porgy)	★★	★★	★	★	Demersal species, offshore at depths of 200-500 m in winter, inshore in summer.
<i>Sparidae/Labridae</i>	★				See above.

Table 1 (opposite). Fish remains from selected Middle and Late Bronze Age sites. \* indicates presence of fish taxa in assemblage; \*\* indicates dominant species in assemblage. Akrotiri: Trantalidou 1990; Gamble 1979, Mylona 2000, Mylona 2008; Kommos: Rose 1995, 204–239; Lerna: Gejvall 1969; Palaikastro: Riley 1999, table 21. Habitat information is based on Froese & Pauly 2010; Whitehead *et al.* 1984; Whitehead *et al.* 1986.

ing or consuming, that might shed light on function. Instead, the motifs are exclusively used in a stylised and generic marine context without appreciation of the animals' real habitat. Thus, it could be argued that either the particular combination of this very restricted range of motifs, or indeed the mere presence of any one, is being used as a stylistic convention for the sea itself. As such, we have to entertain the possibility that it is the sea, rather than the creatures that is being referenced. Having said that, the virtual exclusion of fish from among the Marine Style images indicates that the selection is not a random one and that some kind of logical categorisation is at play, such as has been seen by J. Pálsson<sup>63</sup> in Iceland. In the Icelandic world view, sea creatures are subdivided into fish and nonfish whereby sea-women (a mythical creature that was fish in the sea and human at land), salmon, trout and other specific fish fall under the category 'fish', while seals, otters, sea-dogs, mermaids, sea-men, and whales were 'nonfish'. With regard to the Minoan scenario we can only speculate: since we assume that fish, molluscs and shellfish were all eaten, and since the images depict both littoral and pelagic species, the difference might lie in the proximity of octopuses, tritons and argonauts to the sea floor – a space further removed or, at least, different from the realm inhabited by fish.<sup>64</sup>

This observation fits in well with interpretations of marine imagery proposed for other media and/or for the Postpalatial period. Preliminary interpretations of octopus imagery, for example, have been provided by S. Hiller<sup>65</sup> and N. Marinatos.<sup>66</sup> Starting from the pragmatic observation that octopuses are depicted on the *floor* frescoes at Knossos, Agia Triada and Pylos, Hiller sees the choice and location of the motif on the floor as mirror of the octopus's real-life marine habitat. On a metaphorical level, the octopus's proximity to land (and indeed its ability to survive on land for several hours) distinguishes it from other marine animals; it thus inhabits a

realm neither fully water-borne nor completely land-based. Combined with its unusual, 'demonic' shape, S. Hiller sees the octopus as the powerful marine equivalent to mythical land creatures, such as lions and griffins. The location of the octopus motif directly in front of the throne at Pylos makes a metaphorical connection between the power of the sea and the power of the Mycenaean king a possible scenario.<sup>67</sup>

An alternative interpretation of the octopus motif is as a symbol of death or the journey into an afterlife. The starting point for this interpretation is the realisation that octopuses often appear painted on larnakes of the Postpalatial period (fish, squid, argonauts and boats also appear) and that gold foil in octopus-shape was found in one of the Mycenae Shaft Graves. N. Marinatos<sup>68</sup> speculates that it was the animal's ability to grow new arms when existing ones have been lost or cut off that made it such an appropriate symbol for a set of beliefs linked to life after death, regeneration, or cyclical transformations. Given the preponderance of marine motifs on Postpalatial larnakes, it is possible that the sea in general was considered the final resting place for the dead or the location of the Afterworld.<sup>69</sup> Whether this explicit funerary symbolism can be backdated to the Neopalatial period requires further investigation.

A further suggestion for the religious significance

<sup>63</sup> Pálsson 1990, 124–5.

<sup>64</sup> Strictly speaking, argonauts live near the sea surface, but since they are being depicted as octopuses, they are likely to have been perceived as bottom-dwellers.

<sup>65</sup> Hiller 1995.

<sup>66</sup> Marinatos 1993.

<sup>67</sup> Hiller 1995, 567–8.

<sup>68</sup> Marinatos 1993, 195, 230–1.

<sup>69</sup> Watrous 1991. V. Watrous also draws our attention to the use of marine motifs on a MM III burial pithos at Mochlos and two from Pachyammos cemetery (Watrous 1991, footnote 116).



of marine imagery was provided by M. Gill,<sup>70</sup> who argued that their meaning was based on the importance of fish, crustaceans and molluscs as a food source; and the images should be read as something akin to a 'harvest' prayer. On a more spiritual level, marine creatures might have acted as animal attendants or symbols of a supernatural being whose realm was the sea. Unfortunately, the lack of seafood in the Minoan diet makes the 'harvest' prayer proposition appear less likely for the Bronze Age, though it could still be a viable hypothesis for Neolithic or Mesolithic contexts. Acknowledging religious symbolism, J. Driessen and C. Macdonald<sup>71</sup> view the creation of the Marine Style and its use on vases in the context of *elite* legitimisation strategies as a response to the Thera earthquake, volcanic eruption and subsequent tsunami in mature LM IA,<sup>72</sup> which must have undermined the power of the palaces and their ability to control nature. Marine imagery is thus seen to reflect the awe with which Minoans came to view the power of the sea, or might even be a direct reference to where Minoans saw the cause of the earthquake residing in. If a palatial product, the Marine Style might have served as reminder of the need to trust in the palaces to contain the destructive powers of nature. This interpretation takes account of the sudden appearance of the Marine Style, but does not provide an adequate explanation for the long history of marine depictions in Minoan art before and after the Thera *hiatus*, nor for the stylised, but always non-menacing portrayal of sea creatures. While the distribution of the Marine Style vases and their association with the other Special Palatial Tradition pottery are convincing indicators of *elite* involvement, the iconography seems to make reference to symbolic meanings whose importance goes well beyond the question of power and elite involvement.

## Conclusion

The sea was not a strange or unfamiliar place for the Minoans, most of whom lived by or near the sea. The evidence presented indicates that they possessed boats capable of exploring the coast as well as sailing ships or galleys that could safely travel

across the open sea. With other landmasses or islands almost constantly in view, navigation rarely was a problem, and the existence of goods and shipwrecks hint at regular contacts between different regions. Fishing equipment existed to catch or collect littoral and pelagic foodstuff, but fishbone and mollusc evidence firmly suggests that the exploitation of the sea was limited to animals that can be found on the inshore and deeper coastal waters but only exceptionally stretched to the open seas. The faunal evidence is supported by iconographic data, which highlights the lack of fundamental knowledge of some pelagic species, such as triton shells and argonauts. Indeed, isotope analysis suggests that marine food was only a minor component in the Minoan diet. The contrast between capability, availability and actual use represents, I would argue, a certain ambiguity towards the sea; encompassing both the familiar (shore and coastal waters) and unfamiliar (open sea). None of this ambiguity, however, comes to the fore in the marine motifs, which do not engage in any kind of activity and are utterly void of emotion.

As Minoans allocated animals to specific environments, we can infer a worldview that, at its most basic level, contrasts land and sea. The sea, for instance, is represented by octopuses, fish, dolphins and marine vegetation, while land is symbolised by mountains, humans, land animals and mythical creatures. The observation that fish are not depicted on Marine Style vases might indicate a further logical subdivision of the sea environment, namely into a realm inhabited by octopus, triton shells and argonauts and another occupied by fish. Whether this structuring is related to Postpalatial beliefs in the sea as a location for the dead or a liminal zone that needs to be crossed to reach the *Afterworld*, requires further research. The fact that marine imagery appears on a variety of media in domestic, funerary and ritual contexts increases the probability that we are dealing with motifs that had a multiplicity of functions. On the other hand, the com-

<sup>70</sup> Gill 1983, 81.

<sup>71</sup> Driessen & Macdonald 1997; Driessen & Macdonald 2000.

<sup>72</sup> Bruins *et al.* 2008.

parative lack of seafood in the Minoan diet – especially in contrast to the Neolithic – is striking and could be interpreted as deliberate avoidance; a food taboo. Given that the Minoans possessed the capability to exploit the sea, such a taboo takes on an even greater importance and is likely to be linked to symbolic meanings associated with the sea itself and/or its inhabitants. To gain deeper insight into Minoan perceptions of the sea and its creatures, our next step has to be a diachronic analysis of the artefactual and iconographic evidence of both land and sea imagery. It is hoped that, by comparing and contrasting expressions of environments over several centuries, patterns and transformations will stand out clearly.



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# Fish and ships: Neopalatial seascapes in context

Matthew Haysom

## Introduction

In one of the earliest surviving works of literature (Pl. *Leg.* IV 704-5) set on Crete three men, a Cretan, a Laconian and an Athenian walk from the coast up to the birthplace of Zeus, high in the mountains. As they walk they discuss the foundation of an ideal city. One of the most important criteria for a suitable spot for such a city is that it should be sufficiently isolated from the sea. After a brief discussion they decide that the site on Crete, suggested by the Cretan, is suitable. This seems surprising today when Crete is seen primarily as an island, with all the intimacy with the sea that is associated with islands, and demonstrates that any single topography can inspire multiple cultural responses.

The aim of this chapter is to assess the cultural responses to the sea of the inhabitants of Crete in the Neopalatial period (Fig. 1). I will also say something about how and why these responses may

have differed from the preceding Protopalatial period. The manifesto of landscape archaeology, to examine the use and perception of landscapes, is now well established. It is a testament to the success of the approach that it can come as a shock to find that as recently as 1999 Knapp and Ashmore could regard an interest in non-economic perspectives on the landscape as new.<sup>1</sup> Neopalatial Crete provides an unusual but potentially productive case study for landscape archaeology. Unlike most prehistoric archaeologies, the archaeology of Minoan Crete can draw upon a rich iconographic record of people and animals in landscapes. Comparison of this record with the archaeological record for how the landscape was used provides a powerful tool to help access those issues of meaning and perception that so much modern landscape archaeology finds most interesting. When it comes to an examination

<sup>1</sup> Knapp & Ashmore 1999.

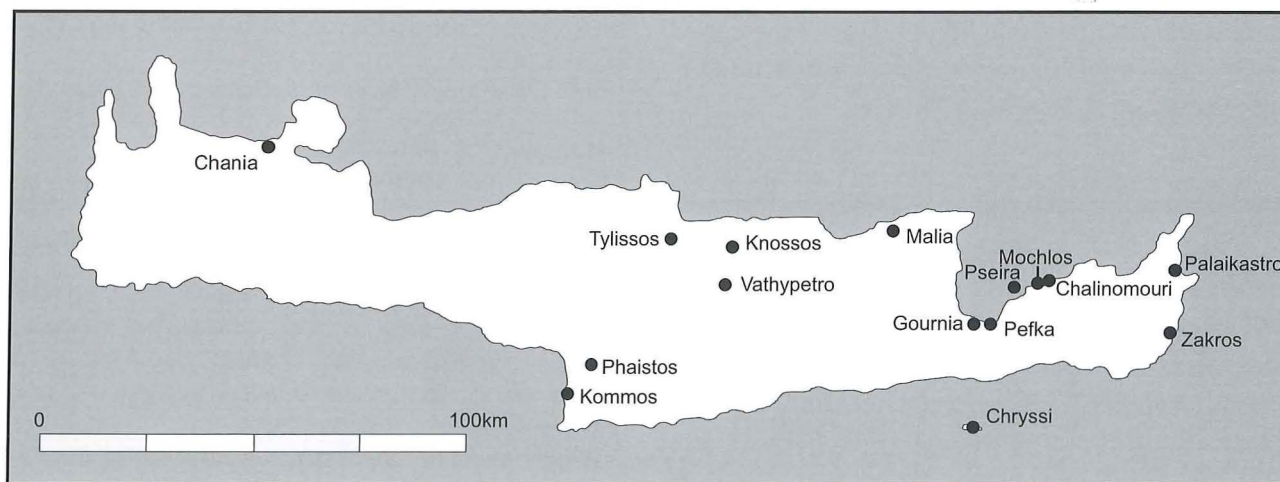


Fig. 1. Map of Crete with main sites mentioned in the text (drawn by G. Vavouranakis).



of the sea, however, such an approach is hampered by a relative lack of discussion concerning the use of the sea in the period. There is, of course, the huge and long-running debate over long distance contacts and the smaller but equally old debate on the Minoan thalassocracy. But other important aspects of the sea – as a source of food and natural resources, or as a medium of shorter distance communication – which would certainly have had a bearing on cultural attitudes are much harder to access with currently published information.

There is a long running theme in Minoan archaeology, closely connected to the debates over thalassocracy and long distance trade that sees the Minoans as a maritime civilisation. This impression is reinforced in the popular mind's eye by such Minoan or supposedly Minoanising imagery as that found on Marine Style pottery or on the ship fresco from Akrotiri. In recent years it is perhaps best evinced by what would otherwise be the surprising inclusion of the small, little known, prehistoric settlement of Neopalatial Pseira in a much admired recent book focusing on the Classical and Medieval Mediterranean. The settlement appears as an exemplar in the proposed argument for an “inside-out geography” of the Mediterranean, with the sea as the normal centre and the land as the marginal fringe, “its marginality increasing with distance from the water.”<sup>2</sup>

The aim of this chapter is to problematise this modern impression of Bronze Age Crete. Through a comparison of the ways in which the sea was used and the ways in which the sea was depicted, this study will draw out and highlight some of the complexity in their relationship to the sea manifested by the inhabitants of Neopalatial Crete.

## The sea as an arena of human activity

The ways in which the Minoans used the sea can be divided into two categories: as a domain from which resources could be harvested and as a medium of trade and communication. Two aspects of the latter have received the most attention from scholars. The debate over long distance trade with

North Africa and the Levant is one of the central and formative arguments of Aegean archaeology and its outline should be familiar to any Aegean archaeologist. That Crete, Cyprus, Egypt and the Levant were involved in the same overall network of connections is not doubted. The arrival on Crete, from at least the Early Bronze Age, of raw materials, finished objects, and even craft techniques, ultimately deriving from the great Bronze Age powers in Egypt or Syria is incontrovertible; as is the distribution of Minoan pottery overseas.<sup>3</sup> The Minoans adopted and adapted images, such as genii and lions, of ultimate Egyptian or Levantine origin<sup>4</sup> and apparently Minoanising frescoes adorn sites such as Tell el-Dab'a.<sup>5</sup> The real debate centres on the degree to which this contact was direct, its intensity and diversity.<sup>6</sup> A parallel debate is that concerning Minoan influence, colonisation and hegemony in the Aegean. Again, extensive Cretan influence on the material culture of the southern Aegean and less extensive influence further afield is manifest in the archaeological record.<sup>7</sup> The debate concerns whether similarities in material culture came about by population movement from Crete or the operation of some process akin to peer polity interaction and whether shared material culture equates to a shared sense of identity,<sup>8</sup> whether the appearance of elements of Cretan administration represents control or merely communication; and whether

<sup>2</sup> Horden & Purcell 2000, 133–4.

<sup>3</sup> Betancourt 1998; Cline 1994, tables 64–6; Kemp & Merillees 1980; Phillips 2008; Rehak & Younger 1998; Warren, 1995; Watrous 1998.

<sup>4</sup> Aruz 1995; Phillips 2008, vol.1 chapters 12–9; Weingarten 1991.

<sup>5</sup> Marinatos 1998; Bietak 2005.

<sup>6</sup> Central to this question is the identity of the Keftiu in the Theban tombs if, as they initially appear, they are Cretans then references to Keftiu in other contexts would encourage the idea that contact was intense, diverse and direct. For the debate on their identity see Duhoux 1999, Wachsmann 1987.

<sup>7</sup> Key introductions include Davis 1979; Davis 2001, 19–94; Doumas 1982; papers in Hägg & Marinatos 1984; papers in Macdonald *et al.* 2009; Mountjoy & Ponting 2000; Rehak & Younger 2001, 426–33; Wiener 1990.

<sup>8</sup> Broodbank 2004; Broodbank & Kiriati 2007; Davis & Gorogianni 2008; Melas 1988; Melas 1991; Knappett & Nikolakopoulou 2008; Wiener 1990.



written sources from the Near East or from distant times in Greek antiquity can shed light on Aegean Bronze Age political geography.<sup>9</sup>

It would be foolish to attempt to resolve either of these enormous, complex and long running debates here. For the purposes of this paper it is probably sufficient merely to recognise that, whatever the precise mechanisms and results, Neopalatial Crete was receiving, and had been receiving for time immemorial, luxury goods and cultural influences from long distance sea-trade and must have had intensive and extensive sea-borne contact with the rest of the Aegean. Rather than dwell on these well known issues I would like to turn the attention of the majority of this section to two more aspects of the Minoans interaction with the sea that are much less well discussed and synthesised but may have had just as much, if not more, impact on Bronze Age Cretans' perception of the sea: the sea as a source of harvest and as a medium of short distance travel.

## Harvesting the sea

Although some scholars have seen fishing as playing an important role in the economies of the Pre- and Protohistoric Aegean, the Mediterranean has been seen by many as a relatively poor sea and its various crops have been thought of as playing only a very minor role in the economies of those ancient peoples living around it.<sup>10</sup> On the one hand, with its high salinity, the Mediterranean has been seen as offering a meagre food chain and is certainly much less bountiful than, for example, the nearby Atlantic. On the other hand, the way in which a variety of historical and ethnographic sources have been read has encouraged the idea that fishing was generally a bare subsistence activity engaged in by only the poorest in Mediterranean societies.

Recently these views have been questioned. While it is accepted that today the sea compares very unfavourably to the Atlantic as a fishery, it is argued that it may have been more than sufficient for some of the pre-industrial societies on its shores. The Mediterranean, it has been pointed out, is an extremely complex environment.<sup>11</sup> There are great

regional differences in potential fish stocks and the shoaling of certain species near the coast could have provided important cyclic annual economic events. Moreover, the large number of tuna bones found at the Middle Neolithic site of Saliagos has encouraged the suggestion that inhabitants of the Aegean were capable of extensively exploiting large, numerous and therefore important deep sea species from a very early period.<sup>12</sup>

If the potential of the sea's harvest to the Minoan economy should not, then, be *a priori* underestimated, it is extremely difficult on present evidence to establish the degree to which the Minoans actually exploited this potential. Information is available about four sites of our period where fish bones were systematically collected by wet sieving. Those from Kommos and Pseira have been largely or wholly published as have those from the industrial quarter and from the rural house at Chalinomouri in the environs of Mochlos.<sup>13</sup> The fish bones from Palaikastro remain unpublished but preliminary observations are available.<sup>14</sup> The evidence from these studies must be used with caution and much has been written about the various factors that can skew the faunal record, however, all conform to a picture of coastal fisheries, with large numbers of bones from small coastal species and with those few exceptions being easily attributable to species known to occasionally stray close to the coast – no equivalent of the concentration of tuna, a deep water pelagic fish, at Saliagos have been found. It is perhaps unrealistic to make any definitive statement from this evidence about the importance of fish-

<sup>9</sup> Karnava 2008; Krzyszkowska 2005, 188–92; Niemeier 2004, 394–5; Starr 1955.

<sup>10</sup> Braudel 1972, 138–9, 144; Gallant 1985, 40; Halstead 1981, 199–200; Horden & Purcell 2000, 190–1; Mylona 2003, 193; Riley 1999, 56, 59.

<sup>11</sup> Horden & Purcell 2000, 191–2; Powell 1996, 11–15; Riley 1999, 57.

<sup>12</sup> Renfrew *et al.* 1968; Riley 1999, 86.

<sup>13</sup> Kommos: Rose 1995a; Ruscillo 2006; Pseira: Rose 1995b; Rose 1998a; Rose 1998b; Rose 1999; Mochlos: Mylona 2004.

<sup>14</sup> The bones from building I have been studied by Mylona but they are not yet published. A provisional table and discussion based on personal communication is available from Riley 1999, 80, 86, table 21.



ing to the overall economy, but the fish bone evidence from these sites is compatible with Gallant's model for ancient Aegean fishermen as undertaking coastal fishing with labour intensive techniques that could supplement but not support a subsistence economy.<sup>15</sup> What evidence there is for fishing techniques is also compatible with Gallant's model. Fishing with hooks, spears, a variety of nets are attested in the Late Bronze Age – methods that seem to have been labour-intensive yielding small catches relative to effort.<sup>16</sup> Gallant argued that using such methods “the average catch of one fisherman would provide him only one half of his daily needs.”<sup>17</sup>

As uncertain as the evidence for the role of fishing in the economy may be, even greater uncertainty must surround any extension of the idea that fishermen were of low status and seafood a poor man's dish from classical parallels into Prehistory.<sup>18</sup> Certain types of fishing were engaged in by the elites of Late Bronze Age Egypt and fishing equipment has been found in apparently prestigious tombs on the mainland.<sup>19</sup> Similar evidence is hard to find from Neopalatial Crete and we should beware extending conclusions from these neighbouring societies to the island, but these examples do at least warn against assuming that fishing was necessarily a low status activity.

One of the limitations of the fish bone evidence available thus far is that it all comes from coastal sites. This deprives us of what might otherwise be important clues to the status of seafood in the Neopalatial diet. Was fishing merely done on a subsistence level as a low status supplement to the diet of coastal communities or did it go beyond subsistence? Was seafood a sought after commodity adding variety and flavour to cooking? The evidence from shells, which are more easily spotted and collected by archaeologists, can go some way to filling the gap. They, however, have the problem that they may be used for ornament and other purposes that do not have to do with diet. Reese reports finding shells at such inland sites as Vathypetro, 15km from the sea, while at Tyllissos, 7km from the sea, Reese specifically states that limpets were *eaten*.<sup>20</sup> These discoveries might indicate that even the most inland of Minoan sites acquired fresh seafood. Numerous

on rocky shores, shellfish such as limpets can hardly be described as a luxury. Yet they were not only collected by the poorest in coastal communities as an addition to a meagre diet. Rather they may have been acquired by those in society with sufficient economic surplus to exchange for, or power to arrange for, the transportation of fresh seafood over quite long distances. This can only have been for the non-utilitarian function of adding variety to their diet. If true, this would be neat support for the suggestion made at the dawn of Minoan studies that, based on the range of ceramics, the Minoans must have had a sophisticated cuisine.<sup>21</sup>

The debate surrounding the gathering of salt in Aegean Prehistory parallels that for fishing. Although salt has the potential of being an important contributor to the economy as a preservative, the established view seems to be that its collection and use was too labour intensive for it to have been used much in Prehistory.<sup>22</sup> As with fishing, this view has been challenged.<sup>23</sup> A tablet from Ugarit recording 1800 jars of salt may be taken to suggest that large quantities of salt were circulating in the Late Bronze Age.<sup>24</sup> Astonishingly, positive evidence for salt comes from two contexts associated with Neopalatial Crete. Salt was discovered in the bitumen residue inside a LM IB cup found in Egypt and, more amazing, around 0.5 kg of salt was collected from the Neopalatial layers of a cave near Zakros. In the latter case the salt has been analysed.<sup>25</sup> It was all sea salt and was kept in pots but had been subjected to a variety of treatments. Some was purified and finely ground, suitable for a condiment or taste additive in cooking. The majority, however, was

<sup>15</sup> See also Betancourt 2004, 145; Mylona 2000, 564.

<sup>16</sup> On fishing techniques see Powell 1996, part III.

<sup>17</sup> Gallant 1985, 31.

<sup>18</sup> Gallant 1985, 42–3; Riley 1999, 62 interprets the nudity of the fisherman in the famous Akrotiri fresco as indicating low status.

<sup>19</sup> Powell 1993, 267; Powell 1996, 139–58.

<sup>20</sup> Reese 1987, 201; Reese 1995, 251.

<sup>21</sup> Hazzidakis 1934, 58.

<sup>22</sup> Gallant 1985, 37; Halstead 1981, 200.

<sup>23</sup> Powell 1993, 294–5.

<sup>24</sup> Knapp 1991, 36.

<sup>25</sup> Kopaka & Chaniotakis 2003.



Fig. 2. View of the island of Pseira from the south (<http://en.wikipedia.org/wiki/Pseira> 7 June 2010).

rough pounded and less pure. It seems to have been alternately layered in pots as a preservative with, as yet unrecognised, organic materials. These finds do not clear up the question as to whether salt was used for preserving produce on a large scale in the Neopalatial period. It has been suggested that preservation techniques in Prehistory, rather than providing practical solutions for the disposal of large quantities of foodstuff, mostly provided speciality foods.<sup>26</sup> The finds from near Zakros come from a region that has natural salterns where until recently salt was scraped from the rock biannually to provide local needs.<sup>27</sup> This is the kind of method that Gallant had doubted, on ethnographic data, would provide enough for large scale preserving. Even if he was right the potential importance of salt should not be underestimated. Salted food products such as *garrum* could have had considerable value as a trade good and salt could have had important uses in the production of other commodities such as leather or textiles.

Quantities of murex shells at a number of Minoan sites have, for some time, been cited as possible evidence for the production of the famously valuable

dye. The various species of murex that can be used to produce dye need to be collected in vast quantities to do so and all could alternatively have been eaten or used as fish bait. A survey of the evidence by Reese, however, not only concluded that murex dye production did take place in Minoan Crete but even suggested that they may have pioneered the technique that later spread to the Middle Helladic mainland and finally to the Levant only some time later.<sup>28</sup> Ruscillo's experiments with dye production have thrown light on the process and highlighted parallels between the shell evidence from Kommos and the experimental results – for instance in the proportion of small individuals caught but not processed or the number caught by trap versus by hand – which support the conclusion that dye production was taking place. Ruscillo even believes she can identify what would be perhaps the earliest known dye production installation in the form of

<sup>26</sup> Cavanagh 2007 with further references.

<sup>27</sup> Kopaka & Chaniotakis 2003, 64.

<sup>28</sup> Reese 1987.



MM IB/II architectural remains in the area under P5 in the southern area at Kommos.<sup>29</sup> Most recently several contexts in east Crete with evidence for murex processing, most notably a large MM IIB workshop at Pefka, have been identified.<sup>30</sup>

## Short distance sea travel and the importance of Pseira

The site of Pseira (Fig. 2) has an importance to our understanding of the sea in the Neopalatial period that belies its small size and relative poverty as an archaeological site. That a settlement which for the period and area was apparently basically normal (for a given value of normal)<sup>31</sup> thrived on a barren offshore island could in itself be taken as telling us something about the intimacy of the Minoans with the sea. That the only other time the island was occupied was by a monastic community that presumably chose the site because of its departure from normal settlement patterns, only serves to highlight the peculiarity of the Bronze Age settlement and of the overall relationship to the sea implied by its existence.

Pseira is perhaps most important for the evidence it provides for the intensity of short distance sea travel of people and goods around Crete. The degree to which goods moved around Crete in the Bronze Age has become increasingly well understood in recent years.<sup>32</sup> Such high bulk, low value items as storage jars seem to have moved surprising distances even in the Early Bronze Age.<sup>33</sup> It is much more difficult to establish the degree to which this extensive interregional movement was seaborne as opposed to overland. Indeed, the aforementioned transport of storage jars in the Early Bronze Age has been related to the introduction of the domesticated equid suggesting the latter rather than the former. The importance of this question should not be underestimated. It is the intensity of this kind of movement over the sea that should be most important to our acceptance or otherwise of Horden and Purcell's inside-out, sea-centred geography as applicable to Minoan Crete.

Survey and excavation of Pseira reveals that by the Middle Minoan period the island was fully ter-

raced with two dammed reservoirs being added to provide a water supply in LM I.<sup>34</sup> By the beginning of LM I the settlement must already have been close to the island's subsistence limit. Examination of the fish bone evidence has shown that, contrary to expectations, fishing played little role in sustaining the community on the island.<sup>35</sup> Yet the settlement carried on growing and even seems to grow considerably after the Thera eruption in LM IB. Almost every productive activity attested at the settlement required goods brought in over the water. Building materials<sup>36</sup> – some ashlar from the quarry at nearby Mochlos and presumably at least some wood – would have to have been transported to the site by sea, as was all of the community's pottery<sup>37</sup> – essential to its everyday lifestyle. But perhaps most striking of all is that both raw stone for stone vase production and the raw material for weaving were brought to support these 'cottage industries' on the island.<sup>38</sup> Short to medium distance coastal sea trade and movement must surely have been both normal and frequent for a site like Pseira to have been considered for settlement in the first-place, never-mind

<sup>29</sup> Ruscillo 2006, 807–16.

<sup>30</sup> Three papers on murex dye production in east Crete were due to be presented at the KOSMOS 13<sup>th</sup> International Aegean Conference in Copenhagen in April 2010. For the industrial murex facility at Pefka see Apostolaki 2008; for murex processing on Chrysi island see Apostolaki *et al.* 2009.

<sup>31</sup> I call the settlement basically normal because its layout with central plateia and building (BS/BV) so closely mirrors that of Gournia. Though small on a general Cretan scale, at 1.5 ha it falls at an intermediate point in the regional settlement size-hierarchy.

<sup>32</sup> See for example Day 1997; Day & Wilson 1998; Haggis 2000.

<sup>33</sup> Whitelaw *et al.* 1997.

<sup>34</sup> Hope-Simpson & Betancourt, 1990; Betancourt & Hope-Simpson 1992; Betancourt 2005b, 286–94.

<sup>35</sup> Betancourt 2005a, 145, and see above.

<sup>36</sup> On the site's architecture see McEnroe 2001.

<sup>37</sup> Day 1997, 225.

<sup>38</sup> Clay discoid weights, normally interpreted as loom weights (but see Powell 1996, 115), were found in buildings BS/BV, AD centre, AC, BW, AG, AB, BC, BE, BN east, BX, BY, DA and area BR; raw stone for stone vases was concentrated in building AE, Betancourt & Davaras 1998, 82–3. I assume sheep would not be kept on the island and flax would not be grown given the space limitations.

for it to then flourish and support such a range of activities.

We must be careful here not to regard Pseira as necessarily normal. Other sites like it have not yet been found. The particular geography of the Mirabello Bay region, where the shortest distance between two sites is almost bound to be over water, may have made sea travel a norm in a way that would not apply to the Mesara plain or the hinterland of Knossos. Nevertheless, there are some signs that would support our taking Pseira to be a symptom, if an extreme symptom, of a more general regularity and normality in short distance sea communication. As we have seen, the problem is not with establishing that things moved from place to place but with establishing that they did so by sea. Betancourt has argued that the distribution of distinctive Gyalis obsidian at sites along the north coast indicates the existence of an east-west trade route that may have carried other materials as well and was comparable with short to medium distance coastal trade of the early twentieth century.<sup>39</sup> Ultimately the choice of whether to travel by land or sea would be journey specific. It is unlikely that anyone journeying from Knossos to Phaistos went by sea. But there does seem to be good reason to believe that short to medium distance coastal travel was both normal and frequent – a conclusion that has potential implications for the earlier question concerning Crete's relationship with the islands. If a normal way of travelling from place to place along the north coast was by sea then travelling to one of the islands may have been very similar. This sea-centred geography may well have meant there would be closer links between a coastal Cretan community and a southern Cycladic community than there would be with another Cretan community on the other side of the mountains. This, in turn, means there is no reason to follow Niemeier in believing that a unified Crete was a prerequisite for Cretans making expansionistic moves overseas.<sup>40</sup>

## The Neopalatial image of the sea

Having gained an insight into the role of the sea in Minoan life we can now turn to look at how and

under what circumstances the Minoans depicted the sea. Marine motifs appear in all iconographic media in the Neopalatial period. In general, two types of archaeological material, wall paintings and seals, are particularly prominent in discussions of Minoan iconography. Of these, wall paintings are obviously the most easily contextualised.

### *Wall painting and the sea*

Comparing marine motifs in representational wall paintings from Bronze Age sites on Crete with those on other Aegean islands reveals the following patterns:<sup>41</sup>

Over 37 representational wall paintings are known from 4 sites in the Aegean islands outside Crete. Three of these sites have wall paintings depicting marine or maritime motifs: the ship fresco, ikria fresco, fishermen fresco and a nautilus frieze from Akrotiri (LM IA); the flying fish fresco and seated woman in marine setting from Phylakopi (LM I); the dolphin fresco and miniature fresco depicting ships from Agia Irini on Kea (LM IB).

Over 71 representational wall paintings are known from 15 sites on Crete. None of these depict maritime motifs and marine motifs are only known from 3 paintings: 2 (the dolphin fresco and Argonaut frieze) from the palace at Knossos and 1 (the marine floor in the 'shrine') from Agia Triada.

Sea related motifs, then, seem to be underrepresented on Crete in comparison to on the other islands of the Aegean. This may come as a surprise to those who are used to thinking of the ship fresco from Thera as a snapshot of a maritime Minoan civilisation. The question arises, however, as to

<sup>39</sup> Betancourt 1997; Betancourt 2005a, 145.

<sup>40</sup> Niemeier 2004, 393; for a different angle on an equally assumed Knossian hegemony see Knappett & Nikolakopoulou 2005.

<sup>41</sup> In the category representational I categorise such things as floral friezes or sprays of foliage but not such things as rosettes. The figures here are based primarily on Immerwahr's 1990 catalogue supplemented by marine floors, which she deals with in her text but does not include in the catalogue, the report of the Lily fresco from house X at Kommos, Shaw & Shaw 1993, pl. 28b-c, and by Rethimiotakis' 2002, pls. xvi-xvii, report of wall paintings from Galatas.



whether this is a real pattern or merely the result of such factors as archaeological survival. The extraordinary circumstances of Akrotiri's destruction inevitably raises the question of whether it should be regarded as typical in most respects of contemporary fresco painting on Crete that has just not survived. At least with regard to the depiction of the sea I would suggest that the answer is no and that here we can see a real difference between the subjects that were chosen for wall paintings on the islands as opposed to on Crete. The disjunction, close to one between all and nothing, between sea imagery at all but one of those few island sites with wall paintings and a total absence of maritime imagery and only a couple of pieces of marine imagery from the large corpus of Cretan wall painting, is too much to be dismissed as coincidence and the vagaries of survival.

This disjunction may be even more marked for the Neopalatial period as there are reasons to think that in each case marine motifs all date after the LM IB destructions.<sup>42</sup> If true, this would leave us with no sea related wall painting on Crete set against sea related wall painting at all but one of the contemporary island sites where such paintings have been discovered.

It should be emphasised here that this opposition only concerns wall painting. Marine and maritime motifs found on the walls of Akrotiri are found in other media on Crete. We should not necessarily, though it might be tempting, take this as proof that these motifs also existed in wall painting on Crete. Known Cretan wall paintings make up a fairly confined and homogeneous body of imagery out of the much broader total iconographic record. The same types of images – principally large scale women and nature scenes – turn up again and again, but many of the images known in other media do not appear. This selection of certain types of image is an important contextual clue to their significance and methodologically it is more acceptable to build interpretation on what is known and published rather than on what might be discovered in the future. At present it, therefore, seems best to conclude that for some reason on Crete sea-related motifs were not favoured for wall painting whereas on the islands they were. Given that wall painting

is normally considered to have been an elite preserve this is potentially of great importance to our understanding of attitudes to the sea of these elites on Crete as opposed to the islands. To assess its significance, however, we must first turn to depictions of the sea in other media.

### *Seals, sealings and the sea*

Neopalatial seal iconography presents, in comparison to wall painting, a fantastically diverse range of imagery: while some motifs, such as the grappling lion, are particularly common, a range of motifs, such as the Chania goat milkers,<sup>43</sup> can appear as single or occasional instances. The seals of the Neopalatial period exhibit a complex relationship between motif, style, technique and material. In such dizzying diversity, patterns are hard to identify and simple presence/absence patterns should not be expected. The search for patterns is further complicated by the usual chronological uncertainties compounded by the fact that individual seals can crop up long after they were first made. Perhaps more problematic, given the observations of the previous section, is the suspicion that there may have been island and mainland workshops producing seals so similar to those of Crete that they are currently indistinguishable and simply regarded as 'Minoan'.<sup>44</sup> However, the sheer number of seals and sealings lends hope that what survives may be close to a representative sample. A number of sealing deposits provide some, albeit partial, picture of the seals in use at various times and places. And, unlike representational wall painting, which only really gets going in the Neopalatial period, sealstones can be used to chart patterns of change between the Proto- and Neopalatial periods – potentially a powerful interpretive tool.

<sup>42</sup> On the Dolphin Fresco, which was found with late material, and for which there are stylistic arguments for a LM II-IIIa date see Immerwahr 1990, 102, 146 Kn no. 6; also Hood 2005, 71-2; Militello 1998, 331-2. The Argonaut Frieze, also found in late material, is now accepted as LM III (Hood 2005, 74); the marine floor from Agia Triada is also now very likely to be LM III (Militello 1998, 331).

<sup>43</sup> CMS V suppl. 1A 137.

<sup>44</sup> Krzyszkowska 2005, 119-20.



In the Late Prepalatial period marine and maritime imagery was rare in a representational seal iconography that was all but confined to floral motifs, insects, lions and a very few humans.<sup>45</sup> In contrast, by the latter part of the Protopalatial period fish and ships become quite prominent among what remains a relatively narrow range of representational motifs. It might just be possible to suggest a geographical distribution pattern for this imagery. Both fish and ships are common motifs among those from the Atelier des sceaux and Quatier Mu at Malia.<sup>46</sup> They do not appear at all, however, in the range of images presented by the sealings from Protopalatial Phaistos, where the only reference to the sea comes in the form of some cephalopods and triton shells.<sup>47</sup> Care needs to be taken here. Circumstances at the two sites are very different. Phaistos represents some portion of the images mobilized in the administration of the palace. The atelier deposit at Malia represents the products of a single or a small group of craftsmen in the town. The apparent absence of ships at Phaistos may, for instance, be due to the particular concerns of whatever portion of palatial administration the sealings from Phaistos represent. But seals from known contexts elsewhere could be taken to support the idea that images of fish and ships were preferred in the north and east of the island compared to the south. Fish and ships are known from several sites in the north and east,<sup>48</sup> but I have only come across one ship from the Mesara plain.<sup>49</sup> Fish appear as one of the signs in Cretan Hieroglyphic, which is supposed to have been confined to the north.

Comparing the Neopalatial seal iconography with that of the Protopalatial period one immediately finds that in at least naturalistic imagery – the imagery that is today the most highly valued of Neopalatial seal carving – sea related motifs greatly decline in frequency. With only a couple of fish and fishermen, a few ships and dolphins, a couple of strange tree carrying boats, and the occasional shell or cephalopod, sea related motifs go from being numerous within a limited range of imagery to rare within a wide range of imagery.<sup>50</sup> This can be highlighted through a comparison with other images that span both periods such as the lion, which remains very prominent in all phases of Aegean seal

carving, or the goat/agrimi and bull that seem to multiply exponentially in the Neopalatial in comparison to the preceding Protopalatial. The pattern is further highlighted through a survey of images that appear on sealings from Agia Triada and Zakros.<sup>51</sup> These provide our main snapshots of the body of imagery that could be mobilised in Neopalatial sealing administration and in each case marine and maritime imagery is almost entirely lacking. This pattern, however, becomes more complex once one starts to look at the contexts of those sea related images with a known provenance and once one includes the less naturalistic sealstones of the so called talismanic style.

Starting with the sealstones of the talismanic style, one finds that, in contrast with more naturalistic styles, fish, cephalopods and ships are among the most common motifs.<sup>52</sup> Generally this fits with a pattern of the talismanic style preserving and developing Protopalatial motifs that fall out of favour in other types of seal. This pattern is best seen away from sea-related imagery in the prominence of pottery depictions on talismanic seals – a theme that, like fish and ships, had been common in the Protopalatial, but had all but disappeared from non-talismanic seals in the Neopalatial.

<sup>45</sup> E.g. dolphins: CMS II 6 155.

<sup>46</sup> E.g. Fish: CMS II 2 87, 172, 238;; Ships: CMS II 2 100, 163, 177, 195; CMS II 6 176, 177, 178; fisherman CMS II 2 174.

<sup>47</sup> Cephalopods and shells (all triton): CMS II 5 301, 302, 303, 304, 305, 306, 312. CMS II 5 245 is a possible exception but the image is too unclear to be certain.

<sup>48</sup> E.g. CMS II 2 249, 261, 267, 276, 298; CMS V suppl. 1B 333.

<sup>49</sup> CMS II 1 287 – but Sbonias 2000, 290 includes it in the pre-palatial Archanes script group.

<sup>50</sup> E.g. fish: CMS II 3 327; CMS II 4 98, 114; CMS II 6 134; fishermen: Kenna 1960, no.205; CMS VII 88; ship: Evans 1928, fig. 147b; dolphins: Kenna 1960, no. 203; tree or shrine carrying boats: Wedde 2000, nos. 904, 907, 908; shells: CMSII 8.1 152 (triton); cephalopods: CMS II 3 91; CMS II 6 128 (paper nautili). On fish imagery generally see Gill 1985; for a useful collection of known ship imagery from the Aegean Bronze Age see Wedde 2000; for marine life see Younger 1988, 205–10.

<sup>51</sup> Agia Triada: Levi 1925–6; CMS II 6; Zakros: Hogarth 1902; CMS II 7.

<sup>52</sup> Onassoglou 1985, motifs SS, KS, SE, OK, KR, FP, FI.



The significance of this pattern depends on the value that one wishes to ascribe to talismanic seals – a far from straightforward matter. It is tempting to dismiss talismanic seals as second class, without smoothing or modelling to hide the basic strokes – lines, circles, dots, ovals and arcs – achievable with a rotary tool, they have been described as “swift to produce and striking in appearance”.<sup>53</sup> A large number of talismanic sealstones have survived, but only a very few impressions of talismanic seals have been found in sealing deposits. One obvious way to interpret this would be to conclude that talismanic seals were only peripheral to sealing administration.<sup>54</sup> However, talismanic seals are usually made out of hard stone, which is difficult to work and frequently imported, while some naturalistic seals are made only of soft stone. The boundaries of the style are not hard and fast rather there are multiple shades between the most naturalistic and the most talismanic of seals. It may seem probable that the gold rings and finely wrought naturalistic motifs on hard stones were more highly prized than either talismanic seals or naturalistic seals in soft stone. But precise value and significance is impossible to establish with no knowledge of how seals related to individual people, and at least one case exists of a seal with a fine naturalistic motif on one side and a talismanic device on the other.<sup>55</sup> Ultimately the existence of a pattern in the evidence combined with a degree of fluidity may be thought of as indicative of the degree of agency (individual choice) involved. An important element in such choices may have been whether the image was primarily intended to be viewed as an impression – when naturalistic images are at their best – or as a piece of personal adornment – when hard stone and striking design may have been appropriate.

Looking at the contexts of those few naturalistic designs with sea-related motifs one immediately finds that there is remarkable concentration in the Temple Repositories in the palace at Knossos.<sup>56</sup> There are multiple ways to interpret this. One, perhaps the least likely, is to say that there is something special about the deposit, which does contain a number of other sea related artefacts.<sup>57</sup> Another, perhaps more tempting interpretation, is to suggest a chronological explanation. We have already seen

the popularity of the sea in the Protopalatial period and the lack of sea related motifs in the sealing archives from the end of the Neopalatial period. The Temple Repositories, dating early in the Neopalatial provide one of our few glimpses of the period in between. Another glimpse may be provided by the hieroglyphic deposit at Knossos, its dating possibly spanning the transition from Protopalatial to Neopalatial, though it is plagued by uncertainties. It too contains a number of sea related images.<sup>58</sup> The divide between Proto- and Neopalatial is somewhat artificial. There is no reason why we should believe changes in attitudes to the sea coincided with a gap between two modern constructions rather they may well have happened, perhaps gradually, over the course of the Neopalatial period. A third explanation that could be suggested, however, would be regional. Two remarkable seal impressions from the Little Palace at Knossos attest to an extremely rare instance of the popular Protopalatial image of the sailing ship – as opposed to the weird tree carrying boat – as a suitable image for naturalistic seals of the highest quality.<sup>59</sup> If they represent products of the advanced Neopalatial period rather than the Final Palatial period, they may be used to suggest an abiding interest in the sea at Knossos that has not been found elsewhere. It should be remembered here that the sea was underrepresented in the Protopalatial sealing deposit at Phaistos; so its lack at nearby Neopalatial Agia Triada could be seen as merely a continuation of regional tastes and concerns. We simply have no evidence to say whether the sealings from Chania and Zakros represent a decline in sea imagery over the Neopalatial or a continuing lack. Similarly, we lack extensive evidence from Malia to compare with the Protopalatial deposits. Nevertheless, we should not allow these concerns to distract

<sup>53</sup> Krzyszkowska 2005, 134.

<sup>54</sup> Krzyszkowska 2005, 136 suggests there may be a chronological dimension to this.

<sup>55</sup> CMS VII 65.

<sup>56</sup> CMS 8.1 34 (dolphin), 135 (ships), 151 (triton), 152 (triton), 154 (crab), 155 (crab), 156 (crab), 159 (fish), 163 (ship/boat).

<sup>57</sup> Panagiotaki 1999, 78–81, 129–31.

<sup>58</sup> CMS 8.1 36 (cephalopod?), 89 (ship), 157 (fish, cephalopod).

<sup>59</sup> CMS 8.1 133; Hatzaki 2005, 181.



us too far from the overall pattern of a comparative lack of sea imagery outside talismanic seals in the Neopalatial period especially in comparison to land-based motifs with a Protopalatial pedigree, such as bulls and goats, which seem to greatly increase in popularity.

The evidence from seals, then, is predictably complex. I have attempted to show that shades of regional difference as well as diachronic change may be visible that could be further illuminated by a more thorough study than that possible here. Overall, however, there does appear to be a move away from marine and maritime imagery in the course of the Neopalatial period particularly in the most high quality seals and in the seals that were most frequently used in administration. Can this pattern be related to a general lack of sea imagery in Neopalatial imagery and, if so, how?

### *The sea in clay, faience, ivory and bronze*

The relative underrepresentation of the sea during the Neopalatial period in wall painting compared to the contemporary islands, and in at least naturalistic seals compared to the preceding Protopalatial period, is particularly striking because it contrasts with its appearance in other media. In most of the other surviving products of Cretan Neopalatial portable material culture – pottery, faience, ivory and stone vases – marine motifs are found and, at least in the first two cases, they can be counted as amongst the more common motifs.

Marine motifs appear on Cretan pottery from at least the MM II period. Cephalopods with their swirling limbs were made particularly fitting to the kamares style<sup>60</sup> and shell impressions were favoured in relief work<sup>61</sup> – a style particularly associated with the latter phases of the Middle Minoan period but surviving to the end of the Late Minoan I, at least in the form of an intriguing group of scoops with relief marine decoration around their rim.<sup>62</sup> However marine motifs were always less common than floral ones and any discussion of marine motifs on pottery naturally turns to the LM IB marine style. Best thought of as a subset – if a particularly coherent subset – of the wider tradition that has been called the “Special Palatial Tradition”,<sup>63</sup> the Marine

Style represents a genuine explosion and floruit in marine imagery on pottery. Not common, Marine Style pottery is nevertheless found in a wide range of different contexts and the style was used for a wide range of vase shapes.<sup>64</sup> To conclude that it had a special religious significance, as has been suggested, would be to turn this general contextual pattern on its head, even if these vases occasionally find their way into the types of context we may want to label religious. If, as has also been suggested, the Marine Style comes from Knossos it may fit in with the suggestion, made above on the basis of Neopalatial seals, that Knossos retained a particular interest in sea-related motifs that was not shared to the same extent by other parts of Crete. Caution is needed here, however, since in the literature elements of portable Minoan material culture can sometimes come from Knossos by default.<sup>65</sup>

The most elaborate pieces of sea related imagery in faience date to either late in the Proto- or early in the Neopalatial period and come from Knossos. The appearance of what seems to be the prow of a ship among the pieces of the town mosaic (MM III) may suggest that the whole was once a general seascape-townscape-landscape with a similar range of themes to the later ship fresco at Akrotiri.<sup>66</sup> The town mosaic may once have formed the decoration of a wooden box or chest. Faience pieces from the Temple Repository have similarly been reconstructed as a scene on a wooden panel (the side of a box?) depicting flying fish and marine rockwork.<sup>67</sup>

<sup>60</sup> See, for example, Walberg 1976, motifs AU, AR, AS.

<sup>61</sup> Foster 1982, 87–8, 92–3, 100–3.

<sup>62</sup> Poursat 1984; for examples on successive LM IB floors in a room at Mochlos see, Soles & Davaras 1994, 400. Their use is something of a mystery but Barber 1991, 70–6 makes an argument for similar vases with an internal handle being spinning bowls.

<sup>63</sup> Betancourt 1985, 140–8.

<sup>64</sup> Mountjoy 1984; Mountjoy 1985; many of the contexts Mountjoy accepts as shrines can be doubted see Haysom 2005; Haysom 2007.

<sup>65</sup> Marine Style vases outside Crete, analysed by Mountjoy *et al.* 1978, seem certainly not to be of the same manufacture as analysed Cretan sherds.

<sup>66</sup> Foster 1979, 101–17, fig. 32; Waterhouse 1994.

<sup>67</sup> Foster 1979, pl. 13; Panagiotaki 1999, 78–81 argues they cannot all have come from the same panel.



If, as has been suggested, floral motifs from the same context were part of a similar panel then we would see here an equation of marine life and flowering vegetation similar to that found in pottery.<sup>68</sup> From later periods of the Neopalatial surviving faience marine imagery is confined to model shells. These range from the large nautilus shell found at Zakros through hanging ornaments (jewellery?) to appliqués possibly also the decoration of wooden boxes.<sup>69</sup> Such model shells may be seen as a natural extension of the popularity of moulded shells as a relief surface treatment in clay.

Marine plaques and appliqués also exist in ivory and bronze, where they make up the full body of marine imagery in these two media.<sup>70</sup> However, this picture may change, at least for ivory, when the promised corpus of Aegean ivory appears. As with faience these plaques may have been used to decorate wooden boxes. Zakros may provide some clue as to the use of such boxes, if Platon's suggestion that they were used to store administrative documents is accepted.<sup>71</sup> This may also apply to the plaques in the Temple repositories, where they too were found in association with sealings and Linear A tablets in an area that at the time was the most direct route from the central court to the magazines of the west wing.<sup>72</sup>

It is, perhaps, the Minoan's use of marine motifs on containers, whether boxes or vases, that has done most to conjure the modern day impression that their imagery shows a fascination with the sea that is entirely suitable for an island and nautical people. But these motifs must be viewed in the context of the lack of sea related imagery on Cretan walls and the regional and diachronic patterns observed in seals. It is worthwhile, for instance, pointing out that some of the most important manifestations of the marine in, for example, Marine Style pottery or in faience are connected to Knossos. In the case of seals I suggested that in the Neopalatial period marine and maritime motifs were rare in those seals that had naturalistic, complex, potentially narrative images and a more active role in administration – where the image was most frequently viewed in isolation, impressed into clay. Instead, such motifs became concentrated in the kinds of seals that were worn principally as personal adornment where the

decorative effect of a hard colourful stone and a striking abstract image were most important. The use of marine motifs to decorate containers could be seen as an extension of this pattern.

Minoan aesthetics seem to manifest a long standing and abiding taste for whirling, spiralling motifs. Nature provided two great bodies of inspiration for the rendering of these motifs into more naturalistic forms – the floral and the marine (it is perhaps this taste for the whirling that explains why it is cephalopods rather than fish that appear).<sup>73</sup> Given the other conclusions of this study it may well be significant to note that out of these two the appearance of the marine is by far the rarer. But the question remains whether the consistent appearance of the floral and the marine on the same types of object represents simply a coincidence arising from their common adaptability to a decorative aesthetic or whether there is some deeper cultural association at work beneath the parallelism of the marine and the floral. To progress with answering this question we need to turn to the images found on stone vases.

### *Stone vases: men, women, the mountains and the sea*

Relief stone vases provide one of the most remarkably informative bodies of imagery from Crete (as opposed to Thera). In combination with seals and Cretan wall painting they allow us some access to

<sup>68</sup> Foster 1979, 81; Panagiotaki 1999, 75–8 accepts that most of the faience may have come from a panel but points out that one of the pieces is three dimensional so cannot have done.

<sup>69</sup> Foster 1979, 81–6.

<sup>70</sup> There is an ivory plaque with marine rockwork from Zakros (Platon 1987, fig. 2, photos 2, 5); an ivory fish from Archanes (Sakellarakis & Sapouna-Sakellarakis 1997, fig. 831) and a bronze appliqué cockleshell from Gournia (Boyd-Hawes *et al.* 1908, pl. 11); Bronze vases appear with relief shell decoration on the mainland but I know of none from Crete (Matthäus 1980, nos. 184, 331).

<sup>71</sup> Platon 1971, 151, 158–9 seems to provide positive evidence both for plaques of this sort being used to decorate boxes and for those boxes being primarily used for administrative documents.

<sup>72</sup> Panagiotaki 1999, 245–57, 271–6.

<sup>73</sup> Walberg 1986.



specific cultural associations of the sea in the Neopalatial period.

Perhaps the most interesting thing about these relief stone vases is that when they depict people, those people are always men. The suggestion that they depict a fairly narrow range of male activities and concerns seems very convincing.<sup>74</sup> Bull wrestling and unarmed combat between men are shown on the boxer rhyton and at least four fragments from other vases have a similar theme.<sup>75</sup> The Peak Sanctuary rhyton depicts a building, frequented by wild goats and birds amidst a rocky landscape.<sup>76</sup> This is usually interpreted as a Peak Sanctuary. A fragment depicts a similar building visited by a lone man who seems to be depositing some sort of offering.<sup>77</sup> A second fragment, which can perhaps be related, shows men processing past such a building with ladles in their outstretched hands.<sup>78</sup> Another type of structure, interpreted as an altar in a walled temenos in a landscape populated by at least one tree, is raced passed by a couple of men.<sup>79</sup> One small fragment depicts a man clambering among rocks firing his bow, another depicts a galloping boar, and another a man dragging a reluctant goat by the horns, a plumed boar's tusk helmet appears below them.<sup>80</sup> The Harvester Vase and Chieftain Cup both depict male processions of some sort and attest to the variety of male costume/insignia.<sup>81</sup> Combat, competition, hunting and/or warfare, and several types of what we might reasonably call ritual or religion – related to, at least, agriculture and wild rocky places – are all alluded to. An overlap can be detected between the images on these stone vases and the images on relief gold and silver vessels such as the Mycenae Siege Rhyton or the Vapheio gold cups depicting bull-grappling.<sup>82</sup> That the two types were somehow equated is made more plausible because stone vases could themselves be gilded in part or in their entirety.

That the sea should appear amongst this body of imagery is surely significant. In terms of marine imagery there are several fragments depicting dolphins or octopi and marine rockery, a nautilus frieze and the arms of an octopus in extremely high relief.<sup>83</sup> Maritime imagery is slightly more problematic. Two fragments of relief rhyton from Brauron depict, on the one, rows of either cloaked or shield-

bearing men, a motif that is surely the *ikria* of a ship and the snout of a dolphin and, on the other, two supine men amongst the tri-curved pattern that is the common Minoan depiction of seawater.<sup>84</sup> The problem, given their context, is whether to accept these, as seems to be widely done for the very similar silver Siege Rhyton, as Cretan products reflecting Cretan culture rather than either made by or for islanders, or mainlanders. From Crete itself the only piece of maritime iconography – if that is an appropriate term – comes in the form of a spectacular dark steatite triton discovered at Malia and decorated in a low relief with two so-called genii standing on a platform amidst the marine rockwork that elsewhere shelters octopi.<sup>85</sup>

In our interpretation of this image perhaps the best starting point is the platform. Similar platforms appear in several contexts which have been seen as ritual/religious, in rocky flower-strewn landscapes, where it is associated with women.<sup>86</sup> Sometimes these platforms are supported on highly distinctive incurved bases. Platforms of this sort seem to transcend the conceptual gap between the real world and that religious world specific to the Bronze Age Cretan imagination. They are depicted surmounted by fantastic creatures such as the genii (if they are not men in costume) or the griffon accompanying the female in the famous Akrotiri wall painting, but

<sup>74</sup> Rehak & Younger 2001, 407.

<sup>75</sup> Warren 1969, P472, P475, P495, P496; also Koehl 2006, no.651.

<sup>76</sup> Koehl 2006, no. 204.

<sup>77</sup> Koehl 2006, no. 764.

<sup>78</sup> Koehl 2006, no. 763.

<sup>79</sup> Koehl 2006, no. 765.

<sup>80</sup> Koehl 2006, no. 769, no.771, no. 112; Marinatos 2005, 154 raises the possibility that the man is in a boat, which would put it with the maritime imagery examined below.

<sup>81</sup> Koehl 2006, no. 110; Warren 1969, P197.

<sup>82</sup> Davis 1977, 223, 256–8.

<sup>83</sup> Baurain & Darcque 1983, figs.18, 39, 40; Koehl 2006, no.111, no. 773, no.775, no.236; Rehak & Younger 2001, fig.6.

<sup>84</sup> Koehl 2006, no.818, no.819.

<sup>85</sup> Baurain & Darcque 1983, figs.13–4.

<sup>86</sup> The most famous depiction is the platform of the saphron “goddess” from Akrotiri xeste 3, Doumas 1992, fig.122; for some Cretan examples see Halbherr *et al.* 1980, figs. 64–5; Militello 1998, pl.4, E.



the incurved bases have also been found collected together blocking a doorway at Archanes.<sup>87</sup> In the latter context they are perhaps best seen as in storage, waiting to be moved and set up elsewhere – perhaps in the surrounding countryside – at appropriate times. In other words these bases are part of a sort of portable cult space, a dais set up to contact the religious otherworld depicted in iconography. For the purposes of this paper what is most interesting is that, with the exception of the genii on the Malia triton, these platforms are generally found in rocky blossoming landscapes. This artefact, therefore, seems to extend the parallelism between the marine world and rocky landscapes found generically in other media – pottery, faience – and give it a ritual/religious dimension. Moreover, while, when they are in rocky landscapes, the platforms are associated with women, the genii, so far as they are gendered, seem to be male. They are seen doing the same kinds of activities as Minoan men such as spearing bulls.<sup>88</sup>

The suggestion has been made, not least on the basis of these depictions of women associated with rocky landscapes and ritual platforms, that a structural dichotomy existed – similar to that suggested for Classical Greece – between men/culture and women/nature.<sup>89</sup> Can the existence of male genii on a ritual platform in a marine context be used to add another element to the structural opposition: what rocky flowering landscapes were for women, the sea was for men?

In truth, the relationships between men, women, various landscapes, animals and activities is more complex than the simple structural dichotomy implies – too complex, in fact, to be fully explored here. In terms of rocky landscapes men are found equipped with bow and arrow (hunting?) or visiting Peak Sanctuaries. The real distinction seems to be that whereas in other settings, for example associated with a tree and a pithos (perhaps in agricultural land), men and women are depicted together,<sup>90</sup> in the rocky landscapes they are always apart. Here, presumably distant, at least conceptually, from human settlement, in this landscape that is the concern of so much Minoan imagery, the sexes are separated. This may also be the case with the sea, though the body of images is much more limited:

with this point we come finally to those strange tree or shrine carrying boats. In each case the people associated with these boats are women.<sup>91</sup> Thus the parallelism between rocky and marine landscape can be maintained. Both are regions where the sexes are separated. The opposition between women/ritual platforms and men/peak sanctuaries in the rocky landscape is paralleled by an opposition between (male) genii/ritual platforms and women/tree carrying boats in the sea.

## Conclusions: a realistic complexity?

This study has attempted to chart the various patterns in the distribution and contextual associations of sea related imagery in Minoan Crete. All patterns in archaeology are to some extent patterns of presence and absence. The old adage that absence of evidence is not evidence of absence always hovers threateningly. Some of the patterns charted here may be regarded as more certain on such grounds than others. The patterns and conclusions are rather nebulous and exist at several steps remove from the specific reason why a ship might have been depicted in one case or a cephalopod in another. Such depictions may well not have had much to do with each other in the eyes of a Bronze Age Cretan. Specific explanations for images, such as that the unique appearance of ships in naturalistic seals from Knossos was related to a Knossian maritime empire, or that the decline in sea related imagery in the course of the Neopalatial was a result of the effects of the Thera eruption, might be suggested. But such interpretations build on conclusions drawn from a much wider array of material than that studied here, any or all of which can be

<sup>87</sup> Sakellarakis & Sapouna-Sakellarakis 1997, 80–1, figs. 62–4.

<sup>88</sup> Compare, for example, CMS II.6 no.37; CMS II.7 no.31.

<sup>89</sup> Rehak & Younger 2001, 439.

<sup>90</sup> Most famously on the Vapheio ring, CMS I 219; for the storage of water in pithoi beside fields as a normal part of the agricultural landscape see Watrous & Blitzer 1999, 907.

<sup>91</sup> Wedde 2000, nos. 904 (now lost), 907 (CMS V suppl.1A 55), 908 (now lost).

doubted. These specific explanations do not negate but must take account of the more general patterns and conclusions drawn here.

Regionalism, over very long periods, with regard to the frequency and prominence of sea related motifs in surviving elements of material culture, is the safest of the observed patterns. Whether in the sealings of Protopalatial Phaistos, or the sealings, frescoes and stone vases of Neopalatial Agia Triada, the sea is consistently less prominent in imagery from the Mesara than it is in imagery from the central north coast. This is important because by comparing the diverging uses of the sea attested in the two areas, one can assess what sea-related activities engendered an iconographic concern with the sea. So far as we can tell, fishing – labour intensive, coastal, providing variety to a primarily land-based diet – was more or less the same along north and south coasts. Evidence for long distance trade comes most distinctively from Kommos, which has been described as the “most important settlement not only on Crete but throughout the Aegean for ceramics imported from outside the Minoan-Mycenaean sphere in the Middle and Late Bronze Age”.<sup>92</sup> The existence of a unique monumental structure at Kommos, though its precise function is disputable, is surely connected with and attests to the importance of long distance trade at the site. This same community may also, as we have seen, have been amongst the pioneers of a sea-based luxury (murex dye) that was to be a valuable element in maritime trade. Yet the nearby sites, Phaistos and Agia Triada, turn their back to the sea, showing little iconographic interest in this source of wealth. What makes the central north coast distinctive from the south is the likely intensity of short to medium length sea journeys. Phaistos remains the only major Minoan centre near the south coast. Its powerful, wealthy neighbours, places worth going – Archanes, Knossos, Malia –, were all more easily reached by land. For the communities of the north, wealthy neighbours further along the coast combined with the communities of the Aegean islands and mainlands of Greece and Turkey provided a vastly wider array of relatively nearby places worth going to by sea. In other words, in terms of Horndon and Purcell’s sea centred geography, Crete is

schizophrenic when it comes to short-medium distance connectivity and it seems that this is reflected in regional variations in the quantity of sea imagery. If one accepts that imagery is an index of world-view, it may be that what had the most impact on attitudes to the sea was this type of connectivity rather than either the sea as a source of harvest or as a medium of long distance trade.

The diachronic pattern is most easily seen in seals and, partly because it is more complex, it is less certain than the regional. Sea imagery descended from Protopalatial motifs – fish, cephalopods, ships – is preserved and developed in the more abstract talismanic seal tradition. But it seems to be underrepresented in more naturalistic seals. In other words sea themes have become concentrated in one style. It may be that the difference between the styles was partly to do with the degree to which the quality of the image itself was important – a conclusion that may be supported by the rarity of talismanic seal impressions on sealings where only the image may be viewed. In other words, sea related imagery remained popular as a body of traditional themes on seals that were primarily items of personal adornment, but was not favoured for seals which were likely to be frequently used to make sealings where the image itself grew in importance. Knossos provides either or both a regional variation to this pattern and a snapshot of a continued prominence of marine and maritime imagery in the early phases of the Neopalatial period.

The absence of sea-related imagery in Cretan wall painting may be seen as an extension of this pattern in another medium, since representational wall painting on Crete only really gets going in the Neopalatial period and is naturalistic. This absence when compared to wall painting from the islands might be considered the least secure of the patterns observed. But the frequency of this imagery on the islands means this pattern will take more than one or two new discoveries on Crete to overturn. Moreover it can be seen as a continuation of the popularity of sea-related and specifically maritime

<sup>92</sup> Rutter 2006, 646–7, see also pages 682–5 for a summary of Neopalatial imports.



imagery in the Cyclades in other media and in other periods.

Overall the impression gained from this study is that in spite of long distance trade, the influence of Minoan material culture overseas, and possible overseas expansion, the sea and particularly maritime themes were not particularly prominent in their iconography. Marine life, like rocky flowering landscapes, was a constant source of decorative motifs. The sea found a place, if a minor place, in the combative world of male competition and ritual. It paralleled in some ways the rocky interior as a place of sexual separation and ritual, but it was always far less prominent. We may see the Minoans as a maritime civilisation, they may indeed have been a maritime civilisation, but by the Neopalatial period they depicted themselves primarily engaged with and concerned with the land of Crete. The inhabitants of the Mesara, in spite of the seaborne wealth brought by Kommos, or the inhabitants of Neopalatial Zakros, its palace's stores packed with luxuries brought over the sea, consistently look to the land in their imagery. Crete is big enough that, unlike Thera or Melos, its inhabitants can on occasion see themselves as occupying a continent rather than an island. Powerful, wealthy, culturally influential Neopalatial Cretan communities may have been particularly likely to have had such a view of themselves in comparison to neighbouring islanders.

For those who may find such a conclusion unpalatable or overly dependent on the gaps in our knowledge, I will return to the island of Pseira. This community sitting on its off-shore island perfectly exemplifying Horden and Purcell's sea-centred geography does indeed have sea related iconography – some Marine Style vases and a range of those scoops with relief marine decoration around the rim. But in the sphere of imagery related to land and sea the island really stands out because of a surprisingly numerous series of bull-askoid rhyta.<sup>93</sup> With as long a history in the Mirabello region as anywhere on Crete, Betancourt's suggestion that

they represent Knossian imperialism must surely be discarded.<sup>94</sup> Indeed, in the Neopalatial period this assemblage of bull-askoid rhyta from the island is unique. Here the Pseirans seem to have a quantitatively distinctive fixation on an animal they are unlikely ever to have kept on the island. At the same time the bedrock of the settlement's central plateia was left uncovered in a deliberately natural and un-worked condition.<sup>95</sup> This is surprising given its inconvenience for a major thoroughfare and given that the community was clearly capable of major landscaping operations, with the complete terracing of the island and the construction of two artificial reservoirs. But the natural bedrock recalls both those rocky landscapes, popular in iconography, and the living bedrock that was such an important feature of Peak Sanctuaries. Rather than celebrating in imagery the maritime, like Cycladic islanders, these Cretan islanders with their terracotta bulls and rocky plateia were intimately engaged with a land-centred Cretan world-view, concerned with the power and prestige of the bull and the rocky steadfastness of mountains.

<sup>93</sup> Nine of these have been found Pseira: one each from building BQ: Seager 1910, 30–1; Betancourt, Davaras *et al.* 1999, 134–6; building BT: Betancourt & Davaras 1999: 182; building AA: Seager 1910, 24, 36, fig. 15; Betancourt & Davaras 1995, 19, 21, 23; Building AF north: Betancourt 2001, 145, pl. 35; Betancourt & Davaras 2009, fig. 14, pl. 15 AF208; the find spots of four more discovered by Seager are not recorded (Seager 1910, 24, 31); and the modern excavations found a horn that probably comes from such a vase as a surface find (Floyd 1998, 73, no. 252, fig. 17).

<sup>94</sup> Betancourt 2004, 22–7; for two fragments of bull rhyta from Early Minoan Myrtos see Warren 1972, 219–20, 266; for bull rhyta from Middle Minoan tombs at Mochlos see Seager 1912, 58–60, fig. 29.

<sup>95</sup> Betancourt & Davaras 1999, 167.

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# A view from the sea<sup>\*</sup>

John G. Younger

## The West House frescoes, Akrotiri, Thera: a description and interpretation

The eruption of the volcano of Thera, at the end of the late 17<sup>th</sup> century BC,<sup>1</sup> preserved the harbor town, now known as Akrotiri (Fig. 1), on its south coast. Its buildings still stand to two storeys and their fresco decorations are well preserved. Some of the most impressive come from the upper storey of the West House (Fig. 2).<sup>2</sup> Two rooms contained frescoes: room 5, entered from the foyer room 3, had two life-sized fisherboys and a long miniature frieze just below the ceiling (at the *epikrinitis* level) showing ships and cityscapes; and room 4, a more private room south of room 5, had paintings of a life-sized girl with an incense burner and ship cabins (*ikriai*).

Visitors entering room 5 (middle of the east wall) would have first seen two life-sized paintings in the southwest and northeast corners of the room. Two nude fisherboys hold strings of dolphin fish and tuna;<sup>3</sup> they face in to the windows and the north corner.<sup>4</sup> Above them is the miniature frieze that encircles the room;<sup>5</sup> again visitors standing in the entrance would have easily read the frieze from left to right, first townscapes and other vignettes spreading above the west and north walls and continuing slightly, with one townscape (Town 1), to spill onto the east wall above the door to a make-shift closet. Then a separate episode, the Nilotic fresco, spanned the rest of the east wall, above the heads of our visitors. In the south wall, above the doorway leading into room 4 and over a pair of cupboards, was the Naval Procession fresco.

Much of the frieze has survived fairly well:<sup>6</sup> the Meeting on the Hill and other scenes (north wall), the Nilotic fresco (east), and the Naval Procession (south); little has survived of Town I over the west wall.

The surviving fresco on the north wall is complicated (Fig. 3):<sup>7</sup> left to right, a large ship (like some in the Naval Procession) and a boat, men gathered ('Meeting') on a hill, herdsman with cattle, men gathered above (beyond) a building, pots at a well, two women carrying waterjars on their head, a man driving sheep from a corral

<sup>\*</sup> The title comes from Morgan 1988, 32. She writes that the Naval Procession frieze in the West House, Akrotiri, 'offers more of a total view of the land than The Landscape. It is a view 'from the sea', one which any traveller in the southern Aegean would recognize'. Also see Shaw 2000. Many of the points discussed here are also touched on in Press 1991 and Renfrew 2000. I am grateful to Giorgos Vavouranakis for the invitation to contribute to this volume, his patience, and his deep knowledge of theory. I am grateful too for his comments, those of the anonymous reader, and those of Erik Hallager. I grew up near the sea and thinking about it has been most satisfying.

<sup>1</sup> Manning *et al.* 2006.

<sup>2</sup> Doumas 1992, 44-97; Doumas 2005; N. Marinatos 1984; Morgan 1988; Televantou 1994. Although the building is oriented northwest to southeast, it is conventional to label the walls as if the building were oriented to the north; the main entrance to room 5 is therefore in the middle of the east wall.

<sup>3</sup> Economides 2000; and Mylona 2000.

<sup>4</sup> In the northeast window was found the elegant plaster altar; N. Marinatos 1984, fold-out fig. 17.

<sup>5</sup> Televantou 1994, fold-out drawings 9-13.

<sup>6</sup> Televantou 1994, 187-201: west frieze, Town I (color pl. 25); north frieze, the Meeting on the Hill, shipwreck, rural scenes, soldiers, Town II (color pls. 26-44); east frieze, Town III and the Nilotic frieze (color pls. 45-53b); south frieze, Town IV, Naval Procession, and Town V (color pls. 54-70b).

<sup>7</sup> Televantou 1994, fold-out drawing 1.



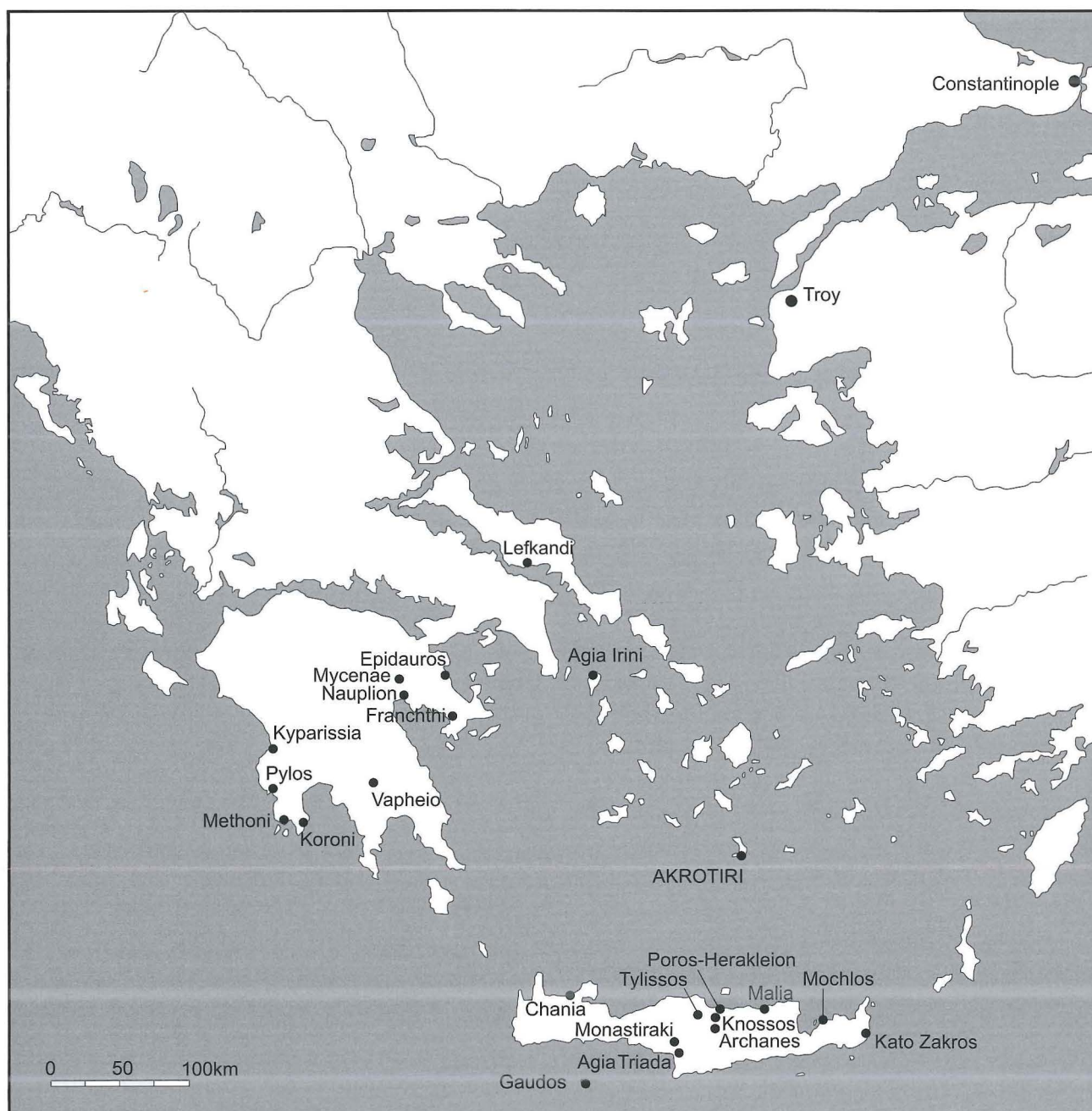


Fig. 1. Map of the southern Aegean with Akrotiri and other main sites and places mentioned in the text (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis).

around a tree, another man leading goats to it, and near the shore a line of marching warriors wearing boar's tusk helmets and carrying lances, swords, and tower shields toward a town. Beyond the warriors is Town II with buildings on a hill and on the coast, the latter with a series of triangular projections down one wall (a fort?). And below all this is the sea, on which are at least five ships, but in it (below

the women watercarriers) nude men flounder, probably drowning from a shipwreck; they have a distinctive tufted hairstyle and one of them carries an ostrich-wing shield; Herodotos would identify these as the Libyan Makai.<sup>8</sup>

<sup>8</sup> S. Marinatos 1974, 40-1, 44-5; *Hdt.* IV.175.

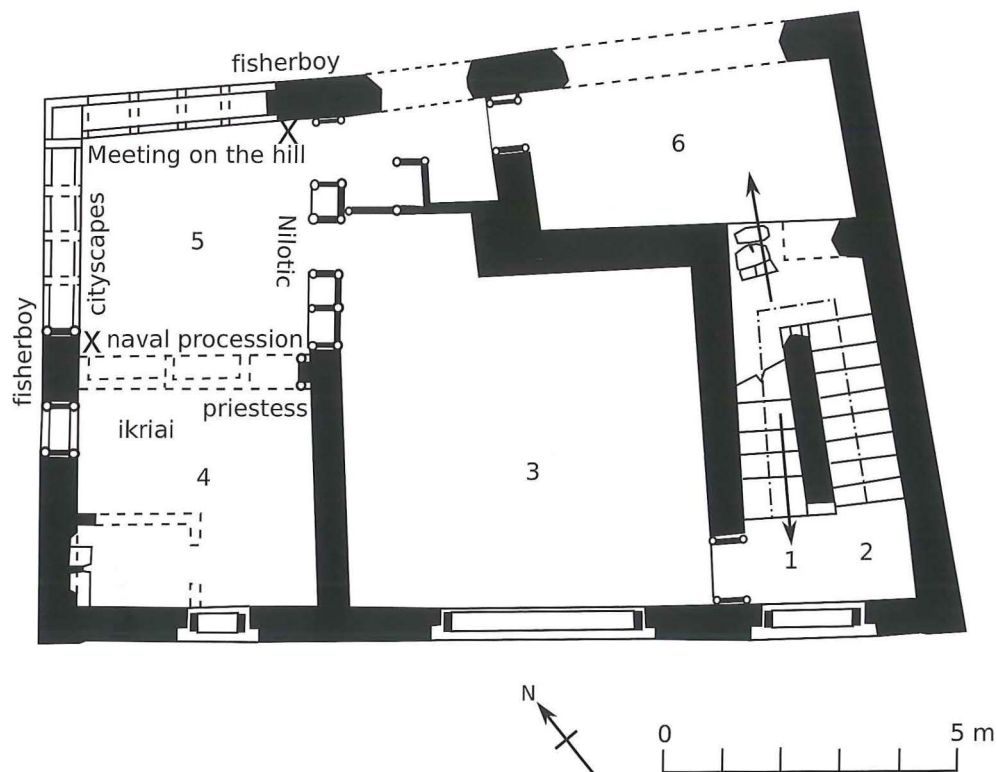


Fig. 2. Labeled plan of the upper storey of the West House, Akrotiri (after Morgan 1988, figs. 1 & 2, and Televantou 1994, fold-out plan 9; modified by the author and redrawn by G. Vavouranakis).

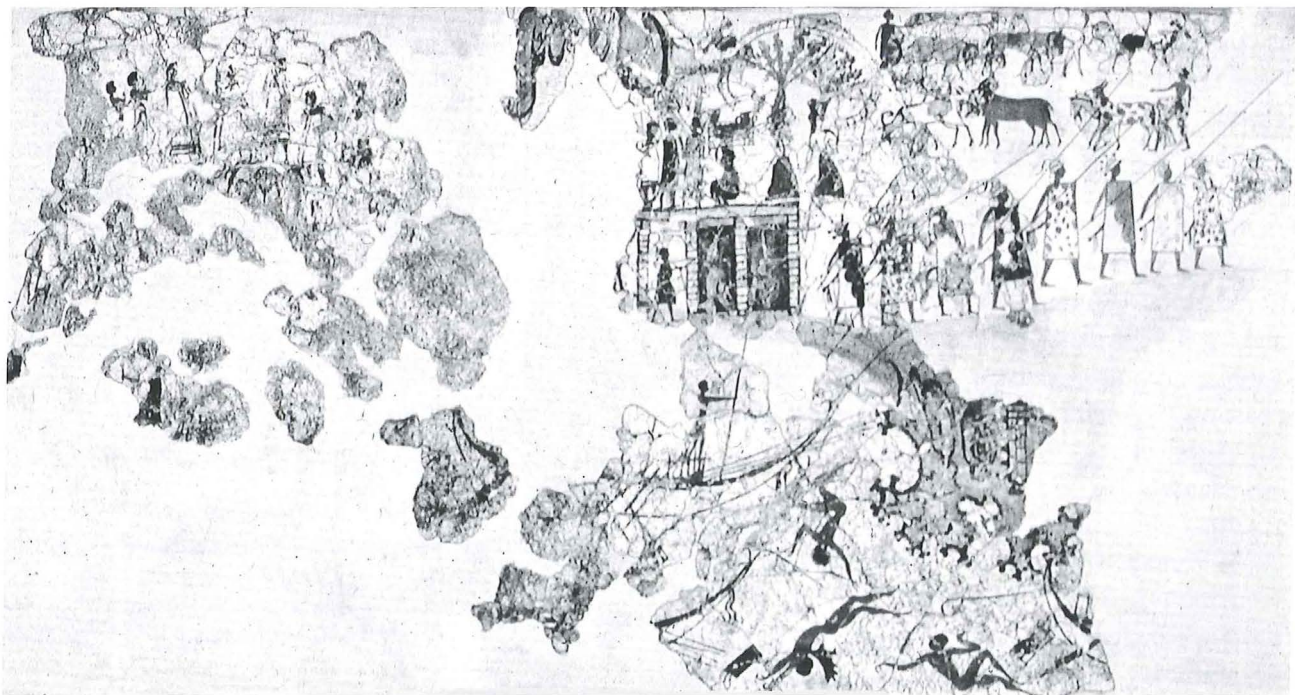


Fig. 3. West House, Akrotiri, part of the north fresco ('Meeting on the Hill') (modified from Doumas 1992, pls. 26–29).





Fig. 4. West House, Akrotiri, part of the south fresco ('Naval Procession'), Arrival Town (modified from Doumas 1992, pl. 38).

The Nilotic fresco that survives on the east wall<sup>9</sup> is slightly shorter than the rest of the fresco, and half as high. Through it runs a wavy river flanked by palms, reeds, and 'easter egg' rocks, colorful boulders that are a hallmark of Minoan riverine scenes.<sup>10</sup> Along the river a feline (lioness?) hunts waterfowl, and a griffin in flying gallop chases a deer (?) on the other side of the river.

Although this room's frieze is unique in several aspects, most of the individual elements are known from other media.<sup>11</sup> The shipwrecked sailors recur on fragments of a niello dagger from the Vapheio Tholos; soldiers also march along the coast on fragments of a stone vase from Epidauros; and Vapheio cup A presents a corral-like net for ensnaring bulls.

Other elements are common enough to be *topoi*. *Topoi* consist of frequently repeated scenes; they contribute to an official art, one that was meant to reinforce society and social control. They constitute the building blocks of the Aegean or Minoan symbolic self-view, a symbolic reality that is 'more or less equivalent to "collective understandings" or "social attitudes"' <sup>12</sup>

Townscapes are common enough to comprise such a *topos*: the Town Mosaic from Knossos, the Silver Siege rhyton from Mycenae, sealings from Chania (CMS VS, 1A, no. 142) and Kato Zakros (CMS II, 8, nos. 218, 219), and frescoes from Agia Irini, Tylissos, and the Mycenae Megaron all present individual towns. West House Towns I, II and III, however, are odd: they have isolated, triangular projections, painted solid black, atop their walls, while Town II also has a series of such projections down the side of one wall (perhaps to hinder a siege).<sup>13</sup>

The Nilotic fresco, in its entirety, also includes *topoi*: the river and felines hunting waterfowl occur on a niello dagger from Shaft Grave IV, and a griffin runs in flying gallop on a sword from Shaft Grave V.<sup>14</sup>

In the Naval Procession on the south wall two headlands jut from either side toward the middle and on each is a cityscape.<sup>15</sup> Between them is the open sea, spreading also to the top and bottom of the fresco with ships and boats moving to our right; among the ships cavort dolphins. The Departure town (Town IV, at our left) consists of a cluster of buildings with a gate by a shore lined with reeds. Men stand looking at the ships. A small stream surrounds the town<sup>16</sup> and connects to another stream at the top left of the fresco, where a lion hunts stags. This stream seems to lead to the Nilotic fresco on the east wall. The Arrival town (Town V, at our right) has a city wall and a large gate; Horns of Consecration top several walls. Both men

<sup>9</sup> Televantou 1994, fold-out drawing 2.

<sup>10</sup> See the Partridge fresco from the Caravanserai at Knossos (Immerwahr 1990, 174 Kn No. 20).

<sup>11</sup> Morgan 1988, 150-4.

<sup>12</sup> Knappett 2005, 4. Cf. Lacan's symbolic reality, the rules of society; Žižek 2007, chap. 2.

<sup>13</sup> Televantou 1994, 265-7, compares these to projections atop other buildings in Aegean art, but notes eventually that their singular isolation and solid, triangular shape are unique.

<sup>14</sup> Niello dagger NMA 765 (Marinatos & Hirmer 1960, color pls. XXXV top, XXXVII top); griffin sword NMA 747 (Karo 1930, pls. XCI, XCII).

<sup>15</sup> Televantou 1994, fold-out fig. 3.

<sup>16</sup> Streams that run year round in the Cyclades are rare. The most famous is the Inopos on Delos that ends today in a marsh, much like the Perissos in Naxos.



and women watch the fleet advance. Two women and a male child (Fig. 4) are on a parapet at the extreme left of the town; the two women wave to the approaching fleet. Below, youths, some nude, some in loincloths, stand on solid ground, perhaps a wharf, while other nude youths run along the top of the ridge at upper left to a small cluster of buildings, a look-out.

There is a variety of vessels in the Naval Procession fresco: canoes, small boats, sailboats, and elaborate, paddled ships. In the middle of the strait, one vessel is the most impressive: it has a lion-aegis stern, necklace-like rigging, sequin-like decorations on the high prow, and niello-like decorations on the hull (lions running in flying gallop). Eight (?) pairs of men sit cloaked beneath a canopy from which hang their helmets; a man (captain of the ship? admiral of the fleet?)<sup>17</sup> sits in a separate stern cabin, in front of which a pilot holds a steering oar; and some 21 paddlers (therefore a total of 42?) bend over the gunwale.<sup>18</sup>

In back of this principal ship is a second, almost as grand; it lacks only the necklace-like rigging. In front of the pilot a youth stands with arms crossed, perhaps beating out the rhythm for the paddlers.<sup>19</sup> Four other ships in the procession have cabins and stern and prow decorations; these too are paddled.

The occasion of the Naval Procession fresco has been debated but it may celebrate the opening of a conventional sailing season in the spring – certainly the decorative rigging and ornamentation imply a festive occasion, one that probably recurred.<sup>20</sup> I am reminded that the Athenians celebrated Theseus's departure on 6 Heketeria (late April) and return on 7 Pyanopsion (late October); these dates could refer to the opening and closing of a similarly conventional sailing season.<sup>21</sup> I say 'conventional' because in reality, boats sailed and still sail the Aegean at all times of the year – the sea may be dangerous, but it facilitates communication.<sup>22</sup>

The length of the large boats and number of paddlers may identify them as longboats suitable for hunting tuna or other large fish,<sup>23</sup> to which the frescoes of the two fisherboys with their catch also refer. It has been pointed out that the larger boats are toward the top of the fresco, and this position implies that these are farther out at sea – the

viewpoint of the Naval Procession's artist therefore may have been from inside the caldera of Thera.<sup>24</sup>

While the occasion of the Naval Procession may have been specific, that same specific moment does not seem to apply to the other cityscapes and events depicted on the west and north walls (the Meeting on the Hill, warriors, drowning men). Instead, the entire miniature fresco of room 5 should convey a wider narrative with a long timeline.<sup>25</sup> The individual vignettes could then refer to adventures during a sea voyage, identifying landmarks, both familiar and strange, and celebrating the triumphant return of the sailors.<sup>26</sup>

Besides the sense of familiarity with some elements in the West House frieze, and the comfort these may have given its audience, there is another striking familiarity, the opposition of some of the scenes. They are not, as has been remarked, unconnected.<sup>27</sup> The gay flotilla and leaping dolphins contrast sharply with the sober watercarriers and

<sup>17</sup> S. Marinatos 1974, 43, 54, opts for 'admiral' of the fleet, and for narrative purposes I shall adopt this identification.

<sup>18</sup> Marangou 1990. Broodbank 2000, p. 343 n. 3, comments that the ships 'are being propelled over what is clearly a short distance by swarms of paddlers (not rowers) in a manner similar to the technique required for an EBA longboat some 500 or more years earlier' and he wonders about this 'curation of archaisms'. Forty men row the impressive ship on the Late Geometric bathing dish ('louterion') in the British Museum (Langdon 2008, 21 figs. 1.1–3).

<sup>19</sup> Morgan 1988, 118. Younger 1998, 46: contemporary Egyptian 'chironomists' directed singing and instrumental music.

<sup>20</sup> Morgan 1988, 161–2.

<sup>21</sup> Broodbank 2000, 94–6; also Lambrou-Phillipson 1991, 12.

<sup>22</sup> Davis 1999; Berg 2007, xv & 19–22, points out that it is easier to go by sea from one end of a Cycladic island to the other than it is to go by land.

<sup>23</sup> Broodbank 2000, 256–8; also Koutsouflakis 1999.

<sup>24</sup> Strasser 2005; Strasser 2010 forthcoming. Compare Shaw & Luton 2000.

<sup>25</sup> Doumas 2005, 74. Morgan (1988, 165) comes to the conclusion that the vegetation in the frieze refers to the months of May to June. This is hardly surprising; what would be surprising would be a painting that refers to winter.

<sup>26</sup> N. Marinatos 2000, 907–8; Shaw 2000, 269; and Televantou 1994, 337–8. Cf. Gell's discussion (1998, 248–9) of reality and art objects as stopped time, the realized moments of discontinuity in time's continuous flow.

<sup>27</sup> Morgan 1988, 150.



herders, while they in turn contrast sharply with the marching warriors;<sup>28</sup> the orderly confrontation of the Meeting contrasts with the scatter of drowning sailors below; and the departure Town IV is of course shabbier than the fancier arrival Town V. Such contrasts are the stuff of literature. On other examples of Aegean art we see contrasting similes: as lions chase their prey so men run down their enemy (stele NMA 1427 found over Mycenae Shaft Grave V) or even hunt the lions themselves (the two sides of niello dagger NMA 394 found in Mycenae Shaft Grave IV).<sup>29</sup> I am reminded of similar structuralism in the 'Shield of Achilles' (*Il.* 18.478-617, esp. 509-26), the opposition of war and peace: war leaders in council, warriors and herders, lions and cattle. One could stand in the room and narrate the frieze as a moralizing *ecphrasis*.

What part does the Nilotic fresco with griffin and lions play? Scholars assume that, because of the palms, lion, and griffin, this world is exotic to the Aegean, an 'other' world apart from the townscapes. There have been long-standing debates, however, as to whether palms and lions are instead native to the Aegean,<sup>30</sup> but we all know that griffins are imaginary. We all 'know' this, but did the Aegeans? From the fact that one is depicted leashed to a real window in Xeste 3, I assume that the Aegean artist and audience thought griffins were as real as the goddess they attend. Medieval Europeans thought unicorns were real—they had physical evidence for them, the tusks of the narwhal brought back from exotic expeditions.<sup>31</sup> Likewise, it is possible the Aegeans thought griffins were real because they also had physical evidence for them, the giant eggs (ostrich eggs to us) that they imported from Egypt.<sup>32</sup> Late in the Bronze Age griffins are depicted with babies in nests, so the Aegeans may have thought griffins laid eggs and raised griffin chicks.<sup>33</sup>

Let us assume therefore that the Nilotic fresco merely presents an exotic world, a world that few Aegeans actually saw (palms, felines, large rivers) and therefore could embellish with further exoticisms (griffins) that they did not see but could imagine due to the large eggs ('griffin' eggs) that implied their existence.

What then would be the narrative function of the Nilotic fresco? The Nilotic section forms only

an episode in the miniature frieze, but from its placement (on the east wall directly following the adventures detailed over the west and north walls and preceding the south wall's Naval Procession), it could be read as the final episode, preliminary (ante-climax) to the fleet's home-coming. Its narrative position and its exotic character have parallels in our earliest Greek travel literature. The end of Menelaus's *nostos* is signaled by his side-trip to an island off the coast of Egypt where he battles the 'Old Man of the Sea' in order to learn the whereabouts of the 'true' Helen (*Hom. Od.* 4.410-425). And Odysseus's voyage to the fantastic land of the Phaiacians precedes his actual home-coming to Ithaca (*Hom. Od.* 6-7, 13). We may even assume that such fantastic elements, conveying to us the danger of the ultimate stage of the journey and the despair *in extremis* of the hero, only heighten the exhilaration of a safe return.<sup>34</sup>

It is thus possible to incorporate all the elements of the West House frieze into a holistic interpretation: it represents a 'real' voyage taken by real people, who traveled amongst distant lands and experienced dangerous adventures, the last understandably climactic before the joy and celebration of a safe return.

<sup>28</sup> Compare Renfrew 2000, 136-7.

<sup>29</sup> Marinatos & Hirmer 1960, color pls. XXXV & XXXVI and B/W pl. 146, respectively.

<sup>30</sup> Palms: Morgan 1988, 24-8; lions: Thomas 2004.

<sup>31</sup> Pluskowski 2004.

<sup>32</sup> Rehak 1994, 83. Ostrich egg imports, Sakellarakis 1990.

<sup>33</sup> Adult griffins: with chicks in a nest on the pyxis from Lefkandi (Vermeule & Karageorghis 1982, no. XI 91, 144 discussion; also Demakopoulou 1988, 128 no. 68), and with chicks above them on a Pylos sealing (CMS I no. 304). Compare the large Archaic bronze plate from Olympia which depicts a mother griffin and her chick (Hampe & Jantzen, 1936-7, 90-2, pls. 34, 35). There is only one other Bronze Age female monster depicted with her infant: on the fragment of a krater also from Lefkandi (Vermeule & Karageorghis 1982, no. XI 65), a mother sphinx tends her young.

<sup>34</sup> All three episodes (Menelaus's wrestling match, Odysseus's stay in Scheria, and the Nilotic scene) could illustrate situations 14 and 15 (magic and guidance in overcoming difficulty) in Propp's schema of folktales (1984); these situations must precede the homecoming, situation 20, but not necessarily directly (the intervening situations do not need to occur in Propp's schema; they are simply elaborations).



As a holistic narrative, the West House Miniature Fresco may find parallels in a miniature fresco recently found at Tel Kabri in Israel: two small boats move below a cape toward a town with buildings and people standing on their roofs.<sup>35</sup> This discovery tempts me to imagine that a prehistoric ‘Odyssey’ was already a *topos* in the eastern Mediterranean.<sup>36</sup>

## Cartography: itineraries, maps, and portolans

In its ribbon-like layout, the West House miniature fresco resembles a rolled-out, illustrated map, identifying towns, surrounding landscapes, and coastal regions. In concept, and perhaps in fact, such maps may have existed in the Late Bronze Age.

Until recently, circumstantial evidence for boats (Melian obsidian and tuna bones at mainland sites like the Franchthi cave) suggested seafaring in the Mesolithic period,<sup>37</sup> but recent evidence from the south coast of Crete and from the southern island of Gavdos now pushes seafaring back into the Palaeolithic period.<sup>38</sup> In the Early Bronze Age (ca. 2300–2200 BC) incised images on clay ‘frying pans’ of the Cyclades give us an idea of what such tuna-hunting boats looked like.<sup>39</sup> We may suppose that inter-island travel was frequent, as it is today, and that it often assumed conventional routes and behaviors,<sup>40</sup> as well as spontaneous sailing from place to place.<sup>41</sup>

To navigate their way across the Aegean and eastern Mediterranean, sailors would have to have relied on several aids. Navigation at night by the stars was not only possible, but even necessary at times.<sup>42</sup> Still, the waters of the Aegean and south Anatolian coast are so treacherous, with many capes, rocky islets, and sudden gusts of wind, that day sailing, port hopping, and hugging coasts that offered periodic shelter must have been normal.<sup>43</sup> We can imagine, therefore, that these sailors must have had the various ports of call firmly in mind (at least as a cognitive map).<sup>44</sup>

Might early sailors have had something more tangible to rely on as they sailed? For the Classical period, for instance, a few formal naval narratives,

the *periplous* (‘sailing around’ or circumnavigation), and, for the Medieval period, the *portolan* (naval charts) give short written and sometimes illustrated accounts of typical sea journeys, sea geography, coastal towns, and their harbors and amenities.<sup>45</sup> Such charts and accounts, however, may have existed earlier.<sup>46</sup> Certainly from the time of the first boats in the Aegean we may imagine that some kind of portolan existed, even if it were only conceptual or anecdotal, incorporating the viewpoint of the sailors at sea as they sailed from port to port, describing the coast as they saw it.<sup>47</sup>

But real accounts do survive from the Bronze Age. For instance, an Egyptian inscription on a statue base of Amenhotep III (ruled 1391/1388–1353/1351) at Kom el-Hetan lists 14 Aegean place names (Fig. 5): Crete (a heading), Amnisos, Phaistos, and Kydonia (modern Chania); Mainland (a heading), Mycenae, ‘Tegai’ (Thebes? Tegea?), ‘Messana’ (Pylos? Messana?), Nauplion, Kythera, Ilios (Troy), Knossos, Amnisos (again), and Lyktos (Classical Lyttos).<sup>48</sup>

With little modification, we can imagine the Egyptian itinerary. In the eastern Mediterranean naval circulation was primarily counter clockwise,

<sup>35</sup> Niemeier & Niemeier 2000; see also Cline & Yasur-Landau 2007.

<sup>36</sup> Elster 2007.

<sup>37</sup> Ammerman this vol; Broodbank 2006; Broodbank & Strasser 1991.

<sup>38</sup> Kopaka & Matzanas 2009; Kopaka & Matzanas 2011 forthcoming; Mortensen 2008; Strasser *et al.* 2009, 2010 forthcoming.

<sup>39</sup> Koutsouflakis 1999.

<sup>40</sup> Graziadio 1998.

<sup>41</sup> Agouridis 1997; Artzy 1998; Mavridis & Tankosic 2008; Stampolides 2003. Dogan & Michailidou (2008) note unexpected sea routes.

<sup>42</sup> Davis 1999.

<sup>43</sup> Callender 1998, 6.

<sup>44</sup> Tolman 1948 coined the phrase ‘cognitive map’. For the international flavor of such ports, see Watrous 2007.

<sup>45</sup> Reinders 2001; and Diller 1952.

<sup>46</sup> Janni 1998 argues against the existence of maritime charts before the Hellenistic period, but his definition of such charts may be too limiting.

<sup>47</sup> Marangou 2002, 15, conveys the tenor of such descriptions.

<sup>48</sup> Bachhuber (2006, 345) gives the basic bibliography; and Wachsmann 2000.





Fig. 5. Map of the eastern Mediterranean, including the places mentioned in the Kom el-Hetan inscription. For a more detailed map of the Aegean see Fig. 1 (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis).

from Egypt north along the Levantine coast, west along the south Anatolian coast and Cyprus, to the Aegean, and south from Crete across open water to Libya and Egypt again.<sup>49</sup> The Egyptian embassy should have entered the Aegean at the southeast corner, run along the north coast of Crete to Amnisos (port of Knossos), with an overland side-trip south to Phaistos, before sailing west along the north coast to Chania and then up to the Argolid, with side-trips to Pylos, Thebes, and Troy, then back to Crete. The last addition, Lyttos (at the eastern edge of the Pediada), might refer to Malia since Classical Lyttos's port was at Chersonisos, just west of Malia.

A set of five Linear B texts from Pylos similarly list towns along the coast of Messenia but in a precise order, north to south: *ku-pa-ri-so* (modern Kyparisia), *me-ta-pa*, *pe-to-no*, *ro-o-wa* (Classical

Pylos?), *a-ke-re-wa* (modern Pylos?), *ka-ra-do-ro* (Phinikous near Methoni?), and *ri-jo* (Koroni).<sup>50</sup> (We might wonder if the 'Catalogue of Ships', Hom. *Il.* II, incorporated information from similar Linear B lists.)<sup>51</sup>

It is obvious that both the Egyptians and the Mycenaeans had a good cartographic sense of the Aegean landscape. In fact, one of the earliest surviving maps in the modern sense is that preserved on the Turin Papyrus dating to the third year in the reign of Ramses IV (1155/1151-1149/1145 BC). We even know who drew and annotated the map: the Scribe-of-the-Tomb Amennakhte, son of Ipuw, who also drew up the plan for Ramses's tomb (KV 7).<sup>52</sup> The map depicts the eastern end of the wadi Hammamat (south is at the top) with its *bekhen*-stone (graywacke) quarry, gold mines, and mining village – the geological and topographical detail is startling, down to trees, different geological strata, and abandoned blocks. On the back of the map Amennakhte made notes.

Few naval accounts have survived from the Classical and Roman periods: for example, the fragmentary account by Pytheas of Marseilles describing his voyage to the north Atlantic and circumnavigation of Britain *c.* 300 BC<sup>53</sup> and the 'Periplus of the Red Sea' by an anonymous Alexandrian probably dating to the reign of Nero.<sup>54</sup>

Another type of early naval map is the Medieval portolan. One of the earliest to survive is the well known Peutinger Table (13<sup>th</sup> century AD) that copies a late Roman map (early-mid 5<sup>th</sup> century);<sup>55</sup> its narrow and long format (H. 0.34, L. 6.75 m) is probably not coincidentally similar to that of the earlier papyrus scroll-maps, like that

<sup>49</sup> Lambrou-Phillipson 1991; Wachsmann 2000; Watrous 1992, 169-83, fig. 11. Fragments of faience plaques have been found at Mycenae that bear the name of Amenhotep III and may be testaments to this voyage, even if they might have been locally made (Lilyquist 1999).

<sup>50</sup> *Docs* 2, 183-94; and Chadwick 1972; Chadwick 1977. Also see Wachsmann 1999.

<sup>51</sup> Dickinson 1999.

<sup>52</sup> Harrell & Brown 1992a; Harrell & Brown 1992b.

<sup>53</sup> Cunliffe 2002.

<sup>54</sup> Casson 1989; Megalommatis 1994.

<sup>55</sup> Bibliotheca Augustana 1996.



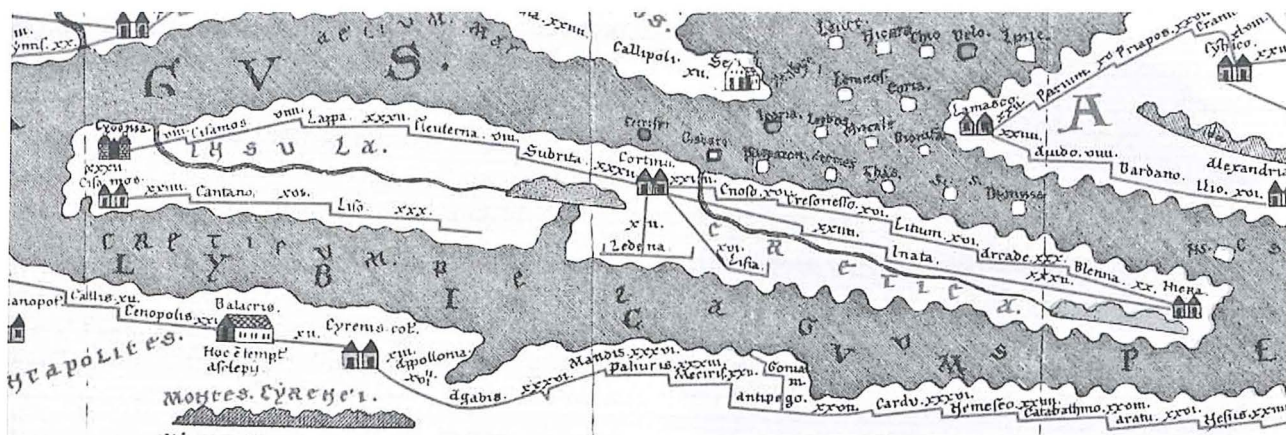


Fig. 6. Peutinger Table (13<sup>th</sup> century AD), Segments VIII and IX, depicting Crete and the Cyclades (modified from Bibliotheca Augustana 1996, /tab-pe10.html).

of Amennakhte. Segment IX of the Table depicts Crete and the Cyclades (Fig. 6). In Crete, small architectural icons denote important towns: a pair of buildings for Hierapytna in the east, Gortyna in the center, and Kydonia wrongly in the southwest (it is actually in the extreme northwest of the island), and two fortification towers for Kydonia (Chania). The twin buildings are conventional, scattered over the entire Table. But the fortifications at Kydonia are like other special icons elsewhere on the map (the Pharos, for example, marks Alexandria and a seated god, helmeted and holding a spear, marks Constantinople, as if conflating the statue of Zeus from Olympia with the Parthenos from Athens).<sup>56</sup>

With such *exempla* before us we can imagine a Bronze Age portolan also using special but recognizable icons to denote specific places: the 'Master' impression for Chania (below), the large Lion Gate at Mycenae (almost duplicated by a conversely small sealstone CMS I, no. 46),<sup>57</sup> two sealings from Kato Zakros (CMS II.7, nos. 218, 219) that depict clusters of tall buildings, and the Sanctuary Rhyton that portrays a peak sanctuary,<sup>58</sup> perhaps Traostalos north of Kato Zakros. Similarly, the details specific to each of the cityscapes in the West House fresco (like the coastal fort with triangular projections) could function as identifying icons for locating specific spots along the coast.<sup>59</sup>

It may not be coincidental that the West House miniature frieze is in nearly the same format as the papyrus maps and the Peutinger portolan and of a

similar height (H. c. 0.42 m [the Nilotic fresco is half as high]; its length, under 16.00 m is more than twice that of the Peutinger table). Amennakhte's map is in tatters but its height is preserved, 0.41 m (ca. 0.40 m is a conventional height for papyrus documents)<sup>60</sup> and its length survives to 2.80 m. The intact, and longer, Great Harris Papyrus (mid 12<sup>th</sup> century BC) contains a history of the reigns of Ramses III and IV;<sup>61</sup> its height is conventional (0.46 m) but its complete unscrolled length (41 m) is two and a half times the length of the West

<sup>56</sup> The Zeus entered the Palace of Lausus after AD 395 (Kedrinus, *Hist. Comp.* I, p. 564), and it was destroyed in the fire of 475 (Bassett 2004, 99 & 101). The fate of the Athena Parthenos is uncertain: it may have been lost in a fire in the 5<sup>th</sup> century AD or it may have been seen in Constantinople in the 10<sup>th</sup> century (schol. Aristid. *Or.* 50, s.v. 'ivory Athena': 'set up in the Forum of Constantine and in the Bouleuterion' by Arethas archbishop of Caesarea; cf. Richter 1930, 220).

<sup>57</sup> The motif, two animals flanking a gate may have been a common icon: cf. the almost identical CMS I, no. 46 from Mycenae Chamber Tomb 28; CMS II.7, no. 74, a sealing from Kato Zakros with two recumbent lions flanking a gate, and a fresco fragment from Pylos (Immerwahr 1990, 198, Py No. 12, pl. 77) with a feline atop a building, restored as two felines atop a gate.

<sup>58</sup> Shaw 1978.

<sup>59</sup> Compare the much earlier Egyptian 'Tehenu' palette (ca. 3300-3200 BC; Petrie 1953, 15, pls. G19, G20) with abstract stockades enclosing identifying insignia, presumably those of captured towns in the Delta.

<sup>60</sup> Parkinson & Quirke 1995.

<sup>61</sup> Grandet 1994.





Fig. 7. The 'Master' impression (CMS VS.1A, no. 142) from Chania, LM IB context (photo author).

House miniature frieze. The ribbon-like format of the West House frieze, and its iconography, may both derive, therefore, from real, ancient, papyrus scroll-maps.

If we regard the West House miniature fresco as an Aegean portolan, then we can mark surviving features that seem distinctive of specific geographies: the stream around Town IV, the Horns of Consecration atop buildings of Town V, and the distinctly Aegean costumes of all the people on land may all connote familiar places in the Aegean, while the triangular projections on buildings of Towns I-III, the tufted hair of the drowning sailors, and the ostrich-wing shield of one of them may denote the unfamiliar.

The artist assumes a viewpoint far from his subjects, in the caldera of Thera or out at sea. In fact, this viewpoint, from out at sea looking back to the land, is often assumed by the Minoan artist. On the Mochlos ring,<sup>62</sup> we see a woman in a boat saluting an enclosure on land; in the boat, there is a stepped altar containing a tree.<sup>63</sup> We know in what direction the boat is heading since it incorporates typical features of Aegean boats: a regarant animal head ('aegis') tops the stern, and the prow consists

of a long spit with gathered clumps at the end.<sup>64</sup> The Mochlos woman is thus landing the boat, bringing the tree to the enclosure (in fact, all other such depicted enclosures have the tree already in them).<sup>65</sup>

The sealing from Chania with the 'Master' impression presents another view from the sea (Fig. 7).<sup>66</sup> a man in a kilt stands in the 'Commanding' pose, holding a staff in front of him, on a cityscape consisting of buildings and two large gates flanking what could be a grotto.<sup>67</sup> Below the cityscape are typical Minoan sea rocks (looking like flat omega curves) and, below that, a net pattern, a shorthand for water.<sup>68</sup> Because the impression was found at Chania and Chania is on the sea with a good harbor, it is tempting to identify the cityscape as a portrait of Chania. If so, we viewers of the Master impression are standing out at sea (or on the north mole of the modern harbor), looking south to the acropolis (the grotto, if such there were, must lie behind the tall Venetian Arsenal at the base of the acropolis, Fig. 8).

Out at sea, looking back to land, is also the viewpoint of portolans, which give us the coastline with illustrations of identifiable landmarks along the way, landmarks that would have been familiar to travelers, like the towers on the Peutinger Table indicating a considerable settlement at Kydonia, possibly with military installation, or the Pharos to mark Alexandria. The statue that marks

<sup>62</sup> CMS II. 3, no. 252.

<sup>63</sup> Compare CMS VS.1A, no. 55 from Makrygialos, and II.6, no. 20, a sealing from Agia Triada.

<sup>64</sup> Wedde 1990 gives the criteria for distinguishing stern from bow (and incidentally proves that the woman on the Ring of Minos is poling her boat backwards); also Hiller 2000.

<sup>65</sup> See, for example, the Agia Triada Sarcophagus: Marinatos & Hirmer 1960, color pl. XXVIII.

<sup>66</sup> Hallager 1985; CMS VS.1A, no. 142. Valério 2007. Valério 2008 has recently demonstrated that this pose constitutes the origin of Linear AB sign *du*, and the Minoan men in this pose as DU-PU<sub>2</sub>-RE, or 'lords'.

<sup>67</sup> Hallager 1985, 17, identifies the central element as 'the clearly marked summit' of a 'mountainous landscape'.

<sup>68</sup> Crowley 1991. See, for example, the Silver Siege rhyton (Sakellariou 1975), a fragment of a stone relief vessel from Knossos (Evans 1930, 100, fig. 59), and a sealing from Knossos (CMS II.8, no. 264).



Fig. 8. View of the acropolis of Chania, from the north quay (photo author).

Constantinople would be a slightly different kind of illustration, probably not indicating a landmark seen by passing ships but rather a monument seen by visitors, two chryselephantine statues which would conceptually mark the city's status as the capital.

## The artist as agent: collective and individual

Similarly, the artist of the Miniature Fresco also included distinctive features of the landscape both to identify landmarks necessary for the sailor and to enrich the geographical narrative. Most of the features of the fresco that survive are Aegean in character, from the jewelry-like rigging of the ships in the Naval Procession to the costumes of the men in the Meeting on the Hill. In any narrative we would expect something similar: the incidental would be familiar in order to contrast with the unfamiliar, which in turn drives the narrative.

For the familiar (against which the unfamiliar stands in marked contrast), the Thera artist selected elements from two sources, the stockpile of Aegean, mostly Minoan, *topoi* and the normal activities of Aegean life. In selecting *topoi*, the artist was participating in a collective consciousness of what was expected and what was considered proper to depict. But the other source of inspiration for the West House artist was life itself, the real *ephemera*, corresponding to the real world:<sup>69</sup> women fetching

water, men bringing in or taking out their flocks, the nude youths running to glimpse the arriving fleet. Modern illustrated maps may include similar, typical aspects of everyday life,<sup>70</sup> which may serve little or no topographical function, but they do contribute a comforting familiarity.

For the *topoi*, the artist turned to what was socially acceptable, a stockpile of proper images, perhaps, or to a patternbook, real or conceptual. The artist's inclusion of *ephemera*, however, depended upon his own creative sense, his personal imagination; in selecting real life, the artist would be acting as an individual.<sup>71</sup> He would have had to break free of the social constraints to include only *topoi*, and this is something that Aegean artists rarely did – Minoan or Aegean art does not usually treat the everyday. Instead, the usual subjects in Minoan art are formal, focusing on ritual action and elite personages (e.g., the robing scene from the House of the Ladies; the phases of girlhood in the frescoes from Xeste 3; and processing men in Xeste 4).<sup>72</sup>

We can characterize this official art as art commissioned by the authority in power to

<sup>69</sup> Cf. Lacan's real reality, a reality that happens on its own, not because of society or our construct of it: Žižek 2007, chap. 2.

<sup>70</sup> A rare illustrated map of Kansas (1930), for instance, includes small pictures of cows, potatoes, farmers: Glazer 2009.

<sup>71</sup> Cf. Lacan's imaginary reality, one that we construct: Žižek 2007, chaps. 1, 4.

<sup>72</sup> For the themes of the Xeste 3 frescoes, see Rehak 2002; Rehak 2005; Rehak 2007.



replicate its concerns, primarily the maintenance of public and divine order. We see the concerns of state in the later Linear B tablets: the offerings to divinities, preparations for feasts, ordination of officials, disbursement of troops and *corvée* labor, and allotment of raw materials to be turned into goods fit for trading. Thus, official art would include the insignia of power (e.g., Horns of Consecration) and the depiction of repeated state-sponsored rituals, processions, and other events like bull-leaping, banquets, and warfare.<sup>73</sup> As the maintenance of order is manifested through precise repetition in state-sponsored art, events, and ritual, so repeated *topoi* are the art-analogues for these repeated events that affirm order and control.<sup>74</sup>

The official, monumental, and ritual quality of most Aegean art must reflect central social values, a felt social propriety, that art should serve a purpose, presumably that of the state (howsoever that is conceived). If this is true, Aegean artists would not have been totally free to depict what they wanted – or rather, if they depicted what they wanted to depict, it had to dovetail with what was thought proper to depict and what was commissioned for depiction. Most of what we see in Aegean art therefore has been carefully selected for us to see by the authority in power (or by societal expectations) and by the artist adhering to the state's ideals. In other words, *topoi* refer to the constant maintenance and affirmation of power – they contribute to the social meaning of art.<sup>75</sup>

Themes that do not exist at all in Aegean art are, conceptually, legion if not infinite. I mention three examples that involve women:<sup>76</sup> we see no mothers nursing their infant,<sup>77</sup> no women playing musical instruments,<sup>78</sup> and no women working textiles.<sup>79</sup> There are a few depictions of women with girls<sup>80</sup> and women dancers,<sup>81</sup> and lots of depictions in fresco, on seals, and in ivory of women wearing the elaborate textiles that they did indeed weave. But I assume women nursed children and worked textiles (as the Linear B tablets tell us) and I hope they created music. So I interpret the total lack of these scenes to some kind of social prohibition.

Themes that exist in only a few depictions are perhaps even more intriguing. It would be tempting to view these as artistic renegades that escaped the

censorship of social propriety, perhaps attesting even to a resistance against it – were there not the tendency among Aegean archaeologists to view any rare scene as religious.<sup>82</sup>

<sup>73</sup> Aegeanists speak of two kinds of art, fixed (frescoes, architecture) and portable, the latter constructed especially for display in processions. We see items like vessels, textiles, and double axes portrayed in processions on sealings from Agia Triada and Kato Zakros (CMS II 6, nos. 9, 10; CMS II 7, no. 7) and in such frescoes as the Cup Bearer from Knossos (Immerwahr 1990, 174–5, Kn No. 22). Such portable art was apparently mass produced, sometimes in the same workshop (Younger 1978, Younger 1981).

<sup>74</sup> Repeated *topoi* form the core of an artistic lexicon for constructing a particular, symbolic view of society, in this case of central Minoan society (cf. Lacan's symbolic reality, a construct of society: Žižek 2007, chaps. 1, 6).

<sup>75</sup> Langdon 2008, 23, might disagree: 'Comparison against an external framework of parallels can check speculative excess, but cannot ultimately explain meaning'.

<sup>76</sup> I mention women here because I am interested in ancient gender and sexuality, and because I am Director of Women, Gender, and Sexuality Studies at Kansas University.

<sup>77</sup> On the lack of mothers in Aegean art, see Kopaka 2008, Pomadère 2008. There are few preclassical kourotophoi; cf. the Late Neolithic terracotta figurine from Sesklo (Pomadère 2008, p. XXXIa), and the late Neopalatial or early Final Palatial terracotta figurine (HM 8345) from Mavrospelio Tomb VIIB (Forsdyke 1926–7, pl. XXI). Most preclassical kourotophoi take the form of Mycenaean terracotta figurines (French 1972, 142–4; Demakopoulou 1988, 224 no. 209, fig. on 222; Pomadère 2008, pl. XXXII). And there are two Minoan feminiform vases that have holes in the nipples for pouring out whatever liquid had been put inside: HM 5499 from Mochlos and HM 8665 from Malia (for both, see simplified drawings, Goodison 2008, pl. XXXg, h).

<sup>78</sup> Younger 1998, esp. chapter 2, 'Music and society'.

<sup>79</sup> There are no depictions of textiles workers, either men or women, but according to the Linear B tablets women do most of that work (Shelmerdine 2008, 141).

<sup>80</sup> Younger 2008.

<sup>81</sup> The 'Sacred Grove and Dance' fresco from Knossos (Immerwahr 1990, 173, KN No. 16), the miniature fresco from Agia Irini, Kea, and, restored, Tylissos House A (Immerwahr 1990, 189 A.I. No. 4, and 184, TY No. 1, respectively). Interestingly, there are no depictions of male dancers.

<sup>82</sup> Arthur Evans provides a wealth of examples of this tendency to identify odd objects as religious (e.g., 'Horns of Consecration,' 'Temple Repositories,' 'Sacral Knot,' 'Snake Goddess,' 'Lustral Basin'). Macaulay 1979 spoofs this practice by describing the excavation of an American motel by a Howard Carter-like archaeologist, who identifies various objects as religious (a shower cap as a 'Ceremonial Burial Cap' and a toilet as a 'Sacred Urn'). The short, illustrated book is



Taking just frescoes from Akrotiri as examples, we could follow this trend and see virtually everything as religious. If the wall-paper design of crocus in Xeste 3 refers to a ceremony involving preadolescent girls gathering saffron, then do the repeating large clumps of papyrus (House of the Ladies) or the repeating ship cabins (West House) also refer to formal events?<sup>83</sup> Do the Boxing Boys (building Beta), different in status (one wears jewelry, the other not), also refer to a similar coming-of-age ceremony, but for males?<sup>84</sup> The pair of antelopes (building Beta), are they about to mate and therefore is the scene about fertility (is that also the 'meaning' of the Spring fresco from Delta room 2)?<sup>85</sup> If a blue monkey attends the goddess in the upper Xeste 3 fresco, and another decorates a shrine (sector Alpha), then do the blue monkeys that mimic musicians and soldiers (Xeste 3, room 4) or simply cavort in a colorful landscape (building Beta) also refer to religious events?<sup>86</sup> Arguments in this vein reduce everything to a single, simple explanation (it is religious) whose very monotony robs it of meaning.

Let me take one more image, interpret it as religious before re-interpreting it as real and personal. One image from the Procession Fresco depicts two women and a boy on a parapet at the left side of the Arrival town; the two women wave to the incoming fleet.<sup>87</sup> The woman in front also holds on to the boy; surely she is his mother (the other could be an aunt, nanny, or friend). The two women seem like everyone else in the Arrival Town, eager to greet the fleet. But the balcony on which they stand has a ledge on which sit two Horns of Consecration.<sup>88</sup> Two terracotta architectural models preserve similar balconies, one from Monastiraki with a small Horns of Consecration<sup>89</sup> and a second from Archanes with a figure standing on the balcony (no Horns of Consecration).<sup>90</sup> Is the mother and her son just another religious *topos*, a blending of two *topoi*, 'balcony with Horns of Consecration' and 'woman on balcony'?

If so, the artist has taken this *topos* and, in its narrative context, given it a new life. For these three people are prominent; they are the only ones within the town that make any gesture (a few boys outside on the wharf raise their hand).<sup>91</sup> I imagine

the women waving to the arriving fleet because they are intimately involved, the front woman and boy being, we can imagine, the wife and son of one of the men in the fleet, perhaps the 'admiral'.<sup>92</sup>

Such everyday scenes are not found in Crete; they come from the islands. A fresco somewhat similar to that of the West House comes from the Northeast Bastion at Agia Irini, Kea: ships, a townscape, waiting women, and a deer-hunt.<sup>93</sup> We may see additional narrative touches in the frescoes from Xeste 3:<sup>94</sup> one of the girls gathering crocus stamens has red hair and blue eyes, and the goddess's griffin is leashed to a real window so it will not fly away. A surprise is the earliest example of perspective, again from Xeste 3, a deliberate shift in the angle of the rings in the tapestry fresco from room 9.<sup>95</sup>

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often required reading in introductory courses to archaeology (a web-search on 'motel of the mysteries syllabus' will find many such courses).

<sup>83</sup> Doulas 1992, pls. 2-5 & 49-62, respectively. N. Marinatos 1984, 9, describes the papyri as depicting 'another "religious landscape"'.  
<sup>84</sup> Doulas 1992, pls. 79-81; N. Marinatos 1984, 109-10.

<sup>85</sup> Doulas 1992, pls. 82-4 & 66-76, respectively. N. Marinatos identifies the antelopes and nearby Boxing Boys as examples of 'ritual competition' (1984, 112; n. 85, above), and the Spring Fresco as a 'religious landscape' (92).

<sup>86</sup> Doulas 1992, pls. 122, 147, 95-6, and 85-9, respectively. N. Marinatos 1984, 116: 'the monkeys of B6 are depicted in association with the natural environment of the divinity'.

<sup>87</sup> See the reconstruction drawings, Pomadère 2008, pl. XXXId.

<sup>88</sup> In fact, Televantou 1994, 268-71, calls the ledge an altar.

<sup>89</sup> Karetsou & Andreadake-Vlazake 2000, 63-4 no. 41.

<sup>90</sup> Morgan 1988, 79-83, pl. 111, esp. pl. 111B.

<sup>91</sup> Morgan 1988, 118.

<sup>92</sup> It is interesting that the only children in Linear B whose both parents we know are the sons of men rowers and women textile workers (Shermerdine 2008, 147).

<sup>93</sup> Immerwahr 1990, 189 A.I. No. 4.

<sup>94</sup> Doulas 1992, pls. 100-30; Rehak 2007.

<sup>95</sup> Doulas 1992, pls. 136-7. The next example of perspective is a similar shift in viewpoint for the vertical flutes in the column capital behind the 'Sitopotnia' in the Room of the Frescoes, Mycenae (Immerwahr 1990, 191 MY No. 6). Both shifts in perspective are simple: the rings and flutes in three-quarter profile from one side shifting, mirror-like, to the other side, on the other side of a vertical axis. S. Immerwahr (1990, 41, 71) notes an absence of any perspective and does not mention these examples.



The inclusion of everyday scenes, some narrative, some perspective, and the exclusion of obvious references to Knossian palatial art (no overtly religious ritual, no stately procession, no bull-leaping, banquets, or actual warfare) could distinguish Cycladic frescoes just as much as their unusual outline technique on white backgrounds and wallpaper designs.<sup>96</sup>

## The sea: a bridge and a barrier

We might even think of these special aspects as referring to a Cycladic resistance to Minoanization.<sup>97</sup> Two factors undoubtedly facilitated this resistance, the distance between Crete and the islands and the sea that spanned that distance. Knossos's central interest in people and processes seems to have dimmed the farther away they were; this can be demonstrated in the later Linear B documents.<sup>98</sup> And the intervening sea would have heightened this diminishing of control.<sup>99</sup>

If Minoan central society exercised a grip on iconography in Crete,<sup>100</sup> that grip seems loose enough in Thera to permit the artist to see, and depict, a mother and son, perspective, and watercarriers, none of which occurs in Crete. So what precisely is the apparatus that allowed the Thera artist to see and to depict things the Knossian artist could not? To prepare us for answering this question, we first need to understand modes of seeing and their implications.

Modern art theory treats at length the modes of seeing, what is selected for viewing and how it and we the viewers are manipulated in the process. There are many ways to depict the act of viewing. Some art includes spectators who focus our viewing, but most depictions simply present the object being viewed, with no spectator in attendance, as if the scene was being relayed by an impartial camera.<sup>101</sup>

Modern discussions have often explored how the mere act of viewing eroticizes the person being viewed,<sup>102</sup> for viewing involves an inequality of power: as the artist controls what is depicted/viewed, so the active viewer seems to control the passive viewed object. The 'gaze' 'signifies a

psychological relationship of power, in which the gazer is superior to the object of the gaze'.<sup>103</sup>

If the (active) viewer seems to control a (passive) viewed object, we may therefore characterize the process sexually: since 'control' is constructed as masculine in a patriarchal system, the active subject would be male and the passive object would be female. From this sexual characterization of viewing some psychologists have generalized a theory of social control that removes Freud's super-ego from the individual: it is society's 'gaze' (its 'super-vision') that controls the actions of individuals in the same way individual men might view and control individual women.<sup>104</sup>

<sup>96</sup> Immerwahr 1990, 79, 82–83.

<sup>97</sup> Berg 2007, xviii, speaks of the islanders negotiating their own degree of Minoanization. For descriptions of Minoanization see Hood 1983, Wiener 1983. Gell (1998) argues that works of art in general are political agents.

<sup>98</sup> Killen 2008, 168. There was probably stronger resistance to Minoanization on the mainland. As a total assemblage, the objects from the Mycenae Shaft Graves look more like a hodge-podge collection of *chachkas* (showy trinkets) of Minoan, minoanizing, Anatolian, Baltic, and Egyptian derivation, designed to impress their viewers and to refer to the importance of their owners rather than reflect the appurtenances of Minoan religious or social influence.

<sup>99</sup> Thera was not, of course, totally resistant to Minoanization. Many clay sealings were found in Delta rooms 18a and b, and these came from Knossos, presumably sealing messages from the palace written on vellum: CMS VS 3, nos. 391–401, 404–405 from Delta 18b, and 402 from 18a, the last found with the Linear A tablets. The clay of the sealings is probably Knossian but the clay of the tablets looks local.

<sup>100</sup> In my study of Minoan corseting (Younger 2000b), I likened this grip to the actual one that laced the corset the 'Snake Goddesses' wear.

<sup>101</sup> Chandler 2000.

<sup>102</sup> Compare the similar discussions of viewing in Roman art: Elsner 1995; Fredrick 2002 (most of the studies concern texts); and Zanker 2004. In Classical art women fetching water were eroticized; it was one of the few occupations that brought Athenian women out of the home. So men ogled and harassed them at the fountain house, and gazed at them as they walked, their bodies swaying to keep the waterjars balanced on their heads – the waterjars, too, often carry erotic scenes: Keuls 1985, 232–3; Younger 1997, 135; Younger 2005, 139 s.v. 'Water'.

<sup>103</sup> Schroeder 1998, 208.

<sup>104</sup> The erotic phenomenon of the 'gaze' was first explored by M. Foucault (1977); J. Lacan (1978, 72) used the gaze to re-interpret Freud's super-ego: society's gaze keeps us in line – 'I



I have detailed this theory of the gaze in this emphatic way because, while it accounts for the social prohibitions against depicting 'improper' scenes, I find it problematic in other aspects. For example, it does not explain what happens to us when we the spectators become superfluous or when the figures we see in a painting seem to watch us;<sup>105</sup> nor does it explain the psychology behind depicting male nudes.<sup>106</sup> And actually the theory fails to explain precisely how viewing an object controls it –I may stare at something or someone but I am not therefore in control of it/her.

This last type of viewing, staring, has implications for interpreting the West House miniature frieze. Staring is a purely passive phenomenon: I open my eyes and I view whatever comes into my vision.<sup>107</sup> This is the pose of the artist of the West House miniature fresco: out at sea in boat, sailing past the coast, recording what is seen.

There are thus three major iconographic issues in the West House Miniature Frieze: its overall structure and narration, the *topoi* (the familiar), and the *ephemera* (the special). The overall structure of the frieze, and its narrative content, very likely depended on the patron, the 'admiral', to whom the portolan format, the periploous subject, the specific Naval Procession, the ship cabins in room 4, and even the fisherboys might all be relevant.<sup>108</sup>

The *topoi* are there because they suited the audience's expectation of the socially and politically familiar. Without them, the fresco would have been too strange to be interpretable.<sup>109</sup>

For the *ephemera*, the artist must have felt safe to present them because the separation between artist and subject, as created by the assumed viewpoint (the artist at sea, the subject on land), would imply a similar distance between artist and the Minoan social values that would have constrained him.

While the sea therefore is a bridge, facilitating a general Minoanization and the more specific progress of the fleet through the islands, it is also a barrier against the immense social and political control of Minoan formal art that threatens to overwhelm the Thera artist. Floating past his subject, he feels free to include it, whatever it might be.<sup>110</sup> The larger social 'gaze' demands the formal *topoi*, but it is the artist's personal 'gaze' and

see only from one point, but in my existence I am looked at from all sides'. The gaze is usually discussed as if gendered: if society objectifies us, so the male artist objectifies the female subject of his art: "because it is *women* who are thus detached from the action and objectified, the subliminal effect is to identify the act of looking as male: the 'objectivizing' power of the gaze is given over to men, who thus become the 'subjects' of vision, while women are 'subjected' by patriarchy as the 'objects' of vision" (R. Williams 2004, 250 emphasis original).

<sup>105</sup> Roman third and fourth style paintings problematize what it means to be a spectator. For instance, while a couple has sex, chamber servants are often present, looking on (e.g., Marcadé 1965, pl. on p. 15: an erotic painting from the House of Caecilius Jucundus; and the 'Warren Cup', D. Williams 2006) –we spectators are simply not needed (Younger 2005, 138 s.v. 'voyeurism'). Or in other paintings, small anonymous people stand in half-open doors and windows and on balconies, looking down at us, the real inhabitants of the room (e.g., paintings in *triclinia* p, 'Ixion room', and q in the House of the Vettii, Pompeii, Peters 1977, pls. 65–69; 73; figs. 16–21; 26).

<sup>106</sup> Why did Classical Greek art insist for so long on depicting males nude and females draped, even when it could depict the anatomy of both sexes relatively realistically? The question has been asked many times –with no scholarly consensus on an answer (Stewart 1998 *passim*; Bonfante 1989), though it might be simplistic to point out that male nudes show us their genitals which are the basis for citizenship, and clothed woman display what makes them useful, their product.

<sup>107</sup> The French author Alain Robbe-Grillet questions this presumed grip on reality (does viewing affect the object viewed?) in several of his novels, most notably *Le Voyeur* and *La Jalousie* (Robbe-Grillet 1955, 1957). In both novels, the narrator describes in numbing detail what he sees, and occasionally what he sees may be acts that he has caused — or imagined. In *Voyeur*, this is the murder (or not) of a young girl; in *Jalousie*, this is the adultery (or not) of the narrator's wife with 'Franck'.

<sup>108</sup> The patron, who is partially responsible for the fresco, is also its recipient (Gell 1998, 47–8) and, to the extent that the frieze depicts his own voyage, he is its subject (Gell 1998, 52–3: the 'prototype as agent').

<sup>109</sup> Eco 1986 notes how an audience depends on the familiar predecessors of objects in order to know how to deal with them (e.g., the doors of early elevators looked like doors to rooms). Bolter & Grusin (1999, 19) also stress that media 'emerge from within cultural contexts, and they refashion other media, which are embedded in the same or similar contexts.' I think of CDs and DVDs; they look like old phonograph records, so we know what to do with them. Laser scanners, however, can read any shape.

<sup>110</sup> Aegean personal freedom is a subject that has not, to my knowledge, received any in-depth treatment. The Linear B documents mention officials who must have had some personal liberty; the Minoan roads in Crete suggest people traveled; the dedications at peak sanctuaries imply large numbers of visitors; and much trade was probably carried out by free individuals in 'tramp vessels' (Phillipson & Lambrou-Phillipson 1999,



personal freedom from convention, guaranteed by the sea that isolates and cushions him and his subject, that allow the ephemera.

## Conclusions

The Miniature Frescoes from the West House contain elements of an official art emanating from the cultural center at Knossos (the naval procession as ritual, the townscapes and marching soldiers as examples of public order). But the frescoes add what seem to be idiosyncratic scenes: the two fisherboys, the girl with incense, the ship cabins. If we imagine a personal program, an iconography that had a relationship with the inhabitants of the building (S. Marinatos's 'admiral' and his family), then we could see the girl as his daughter, the fisherboys as his son or sons, the adult men in the 'Meeting on the Hill' as his ship captains, the townscapes as the locale of his voyages, the naval procession as his homecoming ceremony, and the woman with the boy as his wife and son.

Such an interpretation would then go on to see the rest of the Miniature Fresco as narrating events consonant with an actual voyage. This may seem plausible when it comes to the Meeting, drowning sailors, the marching soldiers, but it stretches credulity to imagine that men herding goats and sheep or women carrying waterjars constituted events worthy of depiction. Yet they do particularize the narration of that voyage; they present incidents that may connote 'peace' in contrast to the martial aspects of marching warriors and drowning sailors and even the threat of discord that seems to underlie the confrontational Meeting on the Hill. If any of this is plausible, then it may be safe to assume that the watercarriers and herders are there because they are real, just as real as the sea voyage itself, the admiral, and his safe return after dangers encountered in exotic lands –and because they suited a narrative desire to define the goal of the voyage: to reach home safely.

The artist deliberately placed the sea between himself and his subject both to convey the effect of the fleet itself moving through these waters and to remove control over what he saw and recorded.

This is not only his control of his subject matter but also the control of central Minoan society over what was proper for him to record. Putting the sea between him and his subject removed all control, Minoan and his own, separated both artist and viewer from what is seen, and dampened the immediacy of the viewer's experience.<sup>111</sup>

The sea as barrier thus contributes to a sense of isolation that 'is redemptive, since it generates a consciousness' of what is (*ephemera*), instead of only what must be (the expected).<sup>112</sup> In addition, sailing encourages passive gazing. As a passenger on a ship, I look out as the landscape slips by (passing through my field of vision), and I see whatever is there, as if I were a subjective movie camera mounted on the gunwale producing a film strip<sup>113</sup> that records the villages (*chorai*) tucked high into mountain folds, isolated farm houses in the plains, the *skalas* (small ports) along the coast.

It is not just the distance that objectifies what I am looking at; it is also the physical separation, the impossibility of crossing the watery divide to engage with what I see. I remember standing at Apollonia on Melos, looking across the strait (a kilometer or less) to Kimolos and watching a woman hang a red shirt on a line to dry – the air was so clear, I saw it flapping in the wind and her slight struggle

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573). The relationship between artist and the state must have varied. Hard stone seals, for instance, were probably markers of specific administrators and therefore commissioned by the state (Younger 2000a), but the makers of soft stone seals, like those found in Poros-Iraklion, could have been working for private commissions (Dimopoulou 2000).

<sup>111</sup> Bolter & Grusin (1999, 11) assume that the sense of immediacy, of the 'you are there' effect, is a central goal of art: "to achieve immediacy by ignoring or denying the presence of the medium and the act of mediation." Putting the sea between spectator and subject, however, denies this immediacy.

<sup>112</sup> Lotringer 1974, 564, speaking of the structuralism of Michel Butor.

<sup>113</sup> Considering the height of these miniature scenes (maximum c. 42 cm) and their combined length over four walls (ca. 16 m), the total effect is indeed like a cinematic film strip of scenes filmed while gliding along the shore; in fact, the separate scenes resemble separate stills in a movie film. Bolter & Grusin (1999, 4) would describe how the artist "experiences the world in a continuous, first-person point-of-view shot, which in film criticism is called the 'subjective camera.'"

to fasten it with clothes pegs. The distance made it impossible to assist her, but the intervening sea made even the thought of assisting her impossible. And so I watched, a voyeur with no emotional engagement – I watched with a detachment that was both affective and literal.

In the West House frescoes this detachment is presented as real (the artist out at sea), and it produces a fictional disengagement, a fictional impartiality, as if there were no artist at all (the fictitious subjective camera), merely an incorporation into the field of vision of whatever has passed across it.<sup>114</sup> The result, an apparently random juxtaposition of ephemeral vignettes, creates a new dyad, view: viewed (not the structuralism of the theoretical ‘gaze’, viewer: viewed), in which the apparent elimination of the artist apparently freed him from the social obligation of producing only a series of conventional Aegean *topoi*.

The West House Miniature Fresco thus employs a host of structuralist dyads. In addition to the dyad view: viewed caused by the apparent elimination of the immediate artist, we have: a periploous over the sea mirrored in a circumnavigation around the room; vignettes of real towns and settlements encountered along a real voyage, but incorporating unseen fantastical elements that are crucial to the success of any story; peaceful images contrasting with scenes of violence; and *topoi* that give the narrative a formal, acceptable character, contrasting with real everyday events that tie the narrative to real lives as lived. And finally, the Naval Procession not only concludes the frieze’s narrative but also represents a radical summary: the final lap is short but it is a fractal of the whole, with a distinct beginning and end that echoes the longer voyage whose travails and marvels are summarized in the

fierce animals painted on the hulls and enchanting jewelry-like rigging of the important ships.<sup>115</sup>

The West House frieze around the room is like a portolan map in hand, but with the sea facilitating the gaze between eye and subject. The artist’s view from the sea would be a natural standpoint for any islander. And it brings with it two major implications: the sea both facilitates and hinders communication, the sea both isolates the voyager and frees him to go anywhere and to see whatever is in view. The two implications are linked, for out at sea the fresco artist had an unimpeded view of the coast, yet he is incapable of choosing, let alone controlling, what he sees there. And what he sees is a narrow strip of coast infinitely long, bounded above by blue sky and below by blue sea – exactly like the portolan itself.

An islander knows that the sea is both barrier and bridge. Across the bridge to Thera came Knossian dictates and influence. But as a barrier, the sea could also mitigate the Minoan grip. This metaphor of barrier-bridge emphasizes the end points, the departure and the arrival, but it is actually on the barrier/bridge – in the midst of the sea – that the artist is free.

<sup>114</sup> Like Robbe-Grillet’s novels (n. 108, above), Jacques Prévert’s poem, *Dejeuner du Matin* (1946), describes the making of a cup of coffee in such detail that we know it masks the sense of loss. Similarly, the detailed ephemeral scenes in the West House frescoes create a narrative: even without the immediacy of the artist, we moderns are connected by these *ephemera* to the immediacy of ancient life.

<sup>115</sup> Gell 1998, 69–71, discusses how intricate art ‘enchants’ the viewer, as if by magic.



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# Politics of the sea in the Late Bronze Age II-III Aegean: iconographic preferences and textual perspectives\*

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## Introduction: aims and methodological considerations

“islands (...) are *living spaces (habitats)* surrounded by radical shifts in habitat.”<sup>1</sup>

Terrell’s definition, with its intellectual debt to biogeography,<sup>2</sup> provides us with an excellent starting point for assessing a universal human perception of waterscapes, as it emphasises that any encounter with them is by definition an encounter with a prime aspect of otherness, a habitat *alien* to humans. Familiarity with (and survival in) the waterscape entails specific knowledge whose rudiments do not occur instinctively to human mind, but have to be learned from experience or, more significantly, from more experienced individuals. This fact forms the basis of a differential access to maritime knowledge that immediately bears upon *conceptual asymmetries* in the way waterscapes (of which seascapes are the vastest and most imposing) are perceived. To reverse the title of a recent paper by Gabriel Cooney,<sup>3</sup> ‘seeing sea from the land’ is crucial to the formation of diverse possible attitude towards seascapes.

In Mediterranean archaeology the importance of the sea far exceeds that of a mere geographical labelling of the discipline. Various depending on an array of topographical or cultural variables, people living in (or having access to) coastal environments experience a sporadic, frequent or constant encounter and/ or interaction with this enormous mass of water. It may be a commonplace that sea is ambivalent and that its cultural conceptualisation encompasses extremely diverse values of quite simi-

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<sup>1</sup> Terrell 1999, 240 (original *italics*) responding to Rainbird 1999.

<sup>2</sup> One of Rainbird’s points against the application of island biogeography to the study of island Prehistory has been the uncompromisingly ‘processual’ character of the former and the fact that it downplayed the importance of human agency. Yet, the very fact that the *object* of ‘island archaeology’ concerns past human activity *within a particular category of ecosystems* places biogeography and ecology at the heart of the very definition of the discipline. We should be aware that an attack on the relevance of biogeographical theory altogether would be to throw the baby out with the bathwater.

<sup>3</sup> Cooney 2003.



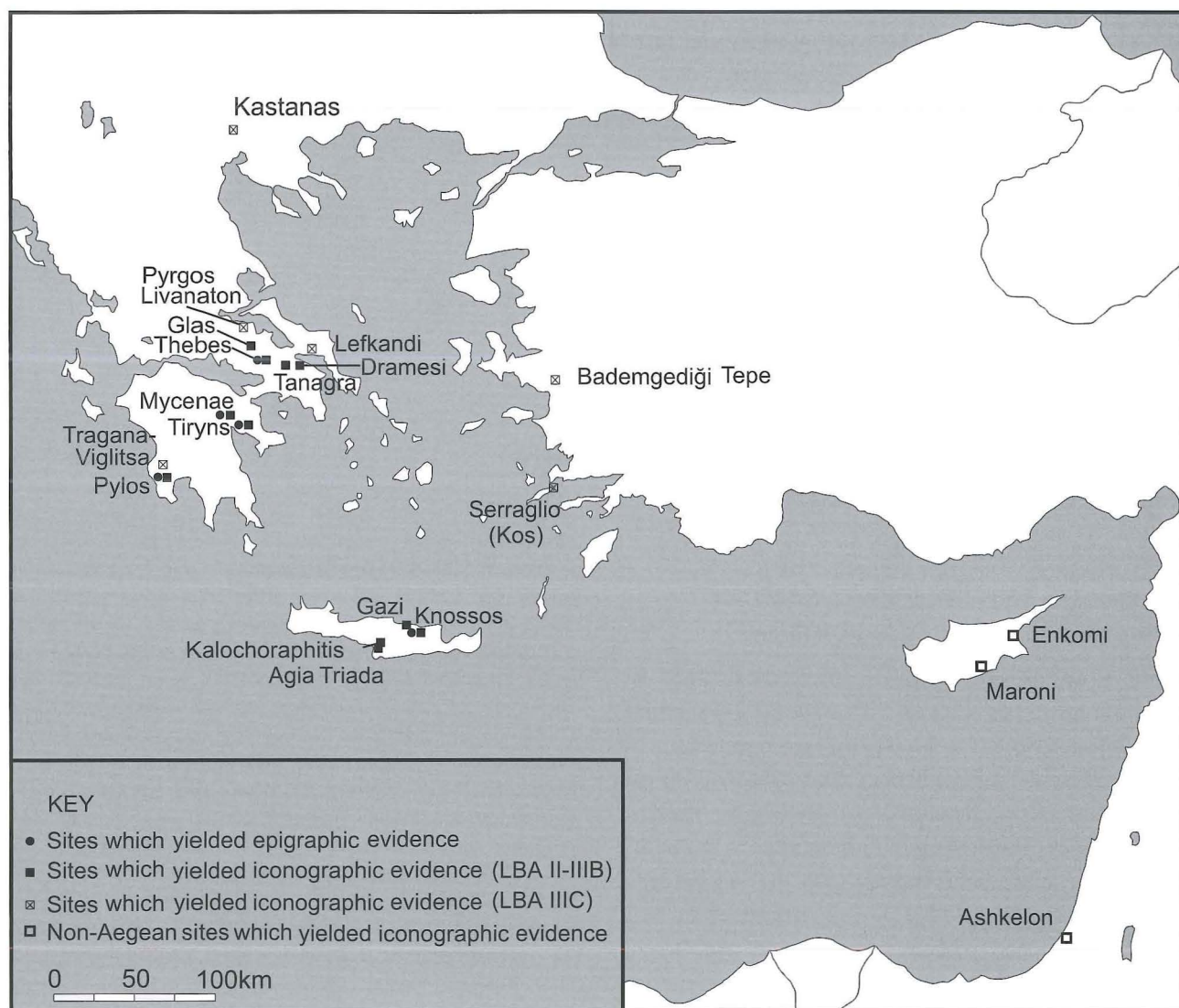


Fig. 1. Map of the Aegean and the eastern Mediterranean with main sites discussed in the text (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis).

lar properties; it can be both a venue of communication and a reason of isolation, both a lively resource and a hostile environment or even a deadly threat and, of course, the imagined home of controversial supernatural beings and a vital aspect of cosmological order.<sup>4</sup> The diverse attitudes towards the sea are cultural artefacts defined by each individual or each community's potential and success in 'mining' the physical properties of the seascape: where a farmer sees a boundary, a mariner sees an opportunity. Habitat diversity urges specialisation and differentiation (perhaps initially, but not exclusively, as an adaptation strategy) and forms conditions of aspectual inequality. Moreover, this very

'multivalence' lies at the heart of the seascape's potential as a symbolically charged area.

By definition, the conceptual reference of a symbol extends beyond its immediately perceived physical properties and is defined culturally (and therefore never objectively). Subjectivity and ambiguity are inherent to symbolic interpretation and the same object embodies different meanings in different contexts for *different* recipients; the latter point implies that human agency should by no

<sup>4</sup> For a recent review of Greek attitudes towards the sea (through 1<sup>st</sup> millennium BC literary *testimonia*) see Lindenlauf 2003, 416-9 (with basic references).

means be underestimated. Of course, to paraphrase A. Appadurai, a symbol is 'a scarce resource'; its interpretative diversity is not unlimited and it cannot be infinitely re-interpreted, or else it loses its reliability and strength; one has to look precisely for the "norms, pertaining to authority, continuity and interdependence which govern the terms of the debate" over a symbol's meaning.<sup>5</sup> However, while symbols may be ambiguously *consumed*, they are *produced* aiming at interpretative precision and explicitness: their possible 'etic' ambiguity can contrast their 'emic' clarity.<sup>6</sup>

This chapter aims to explore symbolic aspects of the seascape and of human activities taking place in it through the examination of images and texts from the Late Bronze Age (thereafter LBA) II-III Aegean<sup>7</sup> (Fig. 1). The choice to consider imagery and textual evidence alongside (at least as long as they co-existed in the 'palatial' phases) will be accounted for through a very brief and selective discussion of their nature and interpretative potential. Imagery should not be understood only as a set of representations resulting from the interaction between the human agent creating the image ('artist'), the nexus of conventions underlying the formation of imagery at culture-level (Lyvia Morgan's "idiom" as close to 'style'<sup>8</sup>) and the actual real-life prototypes of imagery. The analogy between language and imagery implied and used by Morgan<sup>9</sup> seems at least heuristically useful. There is certainly something of value in applying the division between the material and 'non-material' properties of an image-bearing artefact to a 'holistic' approach to imagery: the interaction between its two substances, as a material artefact bearing a representation *and* as a visual representation with meaning, is crucial to iconographical interpretation.<sup>10</sup>

It is of paramount importance to stress the *selectivity* of iconography. Imagery depicts (either real or imagined) aspects of the world, but *not everything* (real or imagined) is depicted; along with 'idiom', the selection of *which* aspects of reality or imagination will be visually represented is a cultural condition. Access to the formation, maintenance and manipulation of imagery is usually subject to control, which may *-inter alia-* take the form of specialist artisans *attached* to sociopolitical elite group(s),

so that iconographical preferences must be comprehended as parts of elite strategies of ideological manipulation and *not* passive reflections of reality. For the purposes of this discussion, I consider as 'elite' all those groups that had political aspirations that could indeed be materialised and the potential to fashion any aspect of imagery accordingly.

This selectivity should caution against using imagery as a source of information on *actual* practice. It is of course highly likely that the meaning of an image reflects the significance of its prototype, yet the 'significance' has to be further specified by asking two fundamental questions: who initiated or supported its creation (the identity of the 'patron')<sup>11</sup>

<sup>5</sup> Appadurai (1981, 217) made this point originally with reference to the ideological manipulation of the past.

<sup>6</sup> The terms 'emic' and 'etic', ultimately derived from structural linguistics, reflect the dichotomy between the standpoint in the subject's own terms (in our case, how LBA Aegeans saw things) and the extraneous standpoint (how a 20<sup>th</sup>-21<sup>st</sup> century researcher views the Aegeans). Although this division has been largely explored in ethnography and despite its subsequent massive introduction in archaeological thinking by Post-Processualist writings, it is extremely useful in our discussion and interpretation of iconographical and textual material.

<sup>7</sup> Chronological abbreviations used: LBA I or Early LBA for LH I-IIA, LM I and LC I, LBA II for LM II and LH IIB, LBA III for LM/ LH/ LC IIIA-C and PBA for Postpalatial Bronze Age or LH/ LM/ LC IIIC. LM II-III A1, where the 'Room of the Chariot Tablets' Linear B deposit might also be placed (Driessen 2000), sets the earliest limit of what O. Dickinson has named the "Third Palace Period" (Dickinson 1994, 13 fig. 1.2). Absolute dates for each ceramic phase here follow Rehak & Younger 2001, 391 table 1 and Shelmerdine 2001, 332 table 1.

<sup>8</sup> Morgan 1985, 9; Morgan 1988, 14. T. Earle (1990, 73) has explicitly highlighted the ambivalence of definition of 'style' from an archaeological perspective by acknowledging that 'style' is both a passive tradition, learnable at and during social integration of an individual, and an "active medium of communication by which individuals and social groups define relationships and associations".

<sup>9</sup> Morgan 1985, where she *passim* refers to "syntax", "idioms", "code" and "language" in Minoan iconography.

<sup>10</sup> This corresponds to John Bennet's scheme for the analysis of a Linear B administrative document, which distinguishes between its properties as an *artefact*, with its own taphonomy, degree of preservation, material constraints and context, and as *text* (Bennet 1988, 511 fig. 1).

<sup>11</sup> I here accept that the overwhelming majority of (if not entire) the 'artistic' production of the Aegean Bronze Age is not predominantly linked to the modernist view of art as experi-



and who may be intended as its recipient? Along the same argumentation lines as above, it is imprudent to assume the significance of the prototype on the basis of its iconographic counterpart *alone*, because this would be a perfectly circular argument that would constantly 'feed' the initial assumption: the belief in the absolute reliability of iconography.<sup>12</sup> It cannot be denied that an image is created, maintained and consumed predominantly because someone wishes to display a purposeful message and wishes to have it received by certain people. Inferences about the message of an image should be, at least in pre-industrial contexts, a reference to the context of its creation and use and less on the very individual who executed it. Whether and how far the message reflects 'reality,' it must be researched, not assumed, and anyway this must succeed the study of the image *per se*.

Elements of the above theoretical comments on the formation of imagery could be applied *mutatis mutandis* to the formation of written documents. Although an administrative text is expected to record 'true' facts in a more straightforward manner, it is still rather up to the interests of the elite administration (which is a cultural variable) how much of the 'true' facts will be recorded and how will they be contextualised. Both categories of evidence reflect different aspects of what *we* (from our *etic* perspective) may term an 'elite bias', different filters through which Aegean LBA II-III elites chose to record whatever suited or interested them from a range of available real or imagined subjects.

## Maritime imagery in the 'Palatial' LBA II-III Aegean

The LBA II-III period in the Aegean has been 'blessed' with diverse genres of evidence that can be interlinked and integrated. This period sees the flourishing, collapse and aftermath of Aegean literate administrations which practiced record-keeping in clay documents using the Linear B writing system to record the earliest form of Greek so far preserved. The sophistication of the economic structure of these complex institutions and their apparent literacy are sufficient reasons to maintain here

a clear distinction between the 'palatial' phases and the period immediately following the collapse of these administrations and this distinction is explicit in the differing artistic output of the two periods<sup>13</sup>. Beginning with Spyridon Marinatos' mainly art-historical (and for this very reason still valuable) overview of Creto-Mycenaean "θαλασσογραφίες" (Greek term for representations of seascapes),<sup>14</sup> Aegean Bronze Age maritime imagery is so far analytically treated in thematic studies.<sup>15</sup> In the past two decades or so, the primacy of the interest of Aegean prehistorians in 'trade/ exchange' or 'for-

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mentation in form and style and creative exploration. I accept as more likely that the choice of subject and production of the artefacts that comprise our corpus of 'Aegean imagery' involved entities much broader than the individual 'artist', such as the communal preferences of the elite that 'patronised' such production.

<sup>12</sup> The succession of the following sentences indicate the sort of circular reasoning involved: 'We have scenes of warfare' → 'This is a warlike society' → 'Since this a warlike society and we have warfare imagery, imagery reflects the actual state of things'. The 'conclusion' is really the initial assumption needed to proceed from the first to the second sentence.

<sup>13</sup> As a convention, the LH/ LM IIIA-B ceramic phases will be referred to as 'palatial', despite the fact that clear evidence for 'palatial' administrations *at the end* of LM IIIB in Crete is controversial (Rehak & Younger 2001, 458-9 with references). This adjective will be equally conventionally extended to the preceding LBA II (LM II/ LH IIB), although it is hard to support the notion 'palatial' outside Knossos at this phase. The 'postpalatial' Bronze Age (PBA) conventionally will hereafter designate only the LH/LM/LC IIIC periods. It should also be strongly born in mind that 'palatial' may disguise a degree of diversity in political organization, as most regions in the Greek mainland and the islands are not known to have strong interactions with any 'palatial' administration (or relevant evidence has yet to be produced) and therefore remained 'non-palatial' to a substantial degree throughout LBA III. Moreover, significant variation *among* LBA III administrations (e.g. Knossos and Pylos) should not be overlooked.

<sup>14</sup> S. Marinatos 1931 (a chapter of his 1925 doctoral dissertation of such θαλασσογραφίες in ancient art). This research also formed the basis of his important 1933 article on ship iconography.

<sup>15</sup> See e.g. Karali 1996 on Minoan marine invertebrate imagery (particularly molluscs), S. Marinatos 1933, Gray 1974 and Wedde 2000 (the last three all concerning ships, the latter being one of the most comprehensive, exhaustive and methodologically sound subject-oriented overviews of Aegean Bronze Age iconography).



eign contact'<sup>16</sup> may ensure that maritime matters attract scholarly interest. However, it would seem that the majority of Aegeanists view the sea in its economic sense, as a venue through which commodities are mobilised and various forms of exchange, including most prominently long-distance trade, are accomplished. Although the economic significance of maritime activities cannot be overestimated, for the purposes of this chapter the question needs to be explicitly made: Is this economic perspective satisfactory for the interpretation of the importance of the sea and maritime activities, as depicted in Aegean LBA III imagery and included in contemporary administrative documents?

The brief exploration of LBA IIIA-B imagery below will follow a different way of categorising the evidence in broad categories according to the artefact type (and, therefore, the corresponding craft) that accommodates the image. In this manner, imagery on plaster, ceramics and glyptic will be discussed separately, followed by a survey of textual evidence that is contemporary to (and often contextually linked with) this iconographic material. The special properties of certain artefacts on which imagery is depicted and the special status of specific crafts/ 'artistic media' need to be taken into consideration as factors significantly affecting the iconographic message.

### *Painted plaster decoration*

Painted plaster (mural frescoes or stucco floors) are of special importance because of their immobility and immediate architectural associations and spatial references, that make the study of 'pictorial programs' both feasible and appropriate. In most cases, this specialised craft is assumed to have had a particular status, which is confirmed by its contextual and chronological associations. One may argue for a change towards 'centralisation' of plaster with *figural* decoration in the LBA III Aegean, as it is nearly exclusively found within structures that belong or are immediately adjacent to 'palatial' administrative complexes.<sup>17</sup> However, even more compelling for the status of the craft is the chronological implication: decorated plaster in general nearly vanishes after the collapse of LBA III Aegean administrations.

Maritime imagery is found on both horizontal (painted stucco floors) and vertical (wall-paintings) plastered surfaces in a number of LBA III sites (Table 1). It is fair to state that maritime subjects are the *exclusive figural* subjects for LBA III *floor* decoration,<sup>18</sup> while even some of the more abstract patterns have been argued to refer to representations of the sea *per se* (such as the tricurved arches<sup>19</sup> or 'wavy' lines), although the patterns of veined stone are equally convincing prototypes.<sup>20</sup> LH III plaster floor decoration features a separation of the surface in painted and/or incised grid squares,<sup>21</sup> which is, however, not always measured and executed with

<sup>16</sup> Cullen (2005, 54 Table 3.5, source: *IDAP*).

<sup>17</sup> However, it must be noted that fragmentary evidence from sites which have not produced remains of administrative activity indicates that undecorated, monochrome or plaster with simple abstract motifs may occasionally be found outside 'palatial' or 'quasi-palatial' contexts (e.g. Nichoria: Walsh & McDonald 1992, 458, Zygouries: Hirsch 1977, 23). See also M. Shaw 1997, pl. CLXXXIX.

<sup>18</sup> Hirsch 1977. These appear alongside abstract decorative motifs that may imitate carpets (Rodenwaldt) or stone paving (Hirsch).

<sup>19</sup> S. Marinatos (1931, 116–7 figs. 5–6) has already intriguingly argued for an interpretation of this motif as reflecting the sea surface just disturbed by a breeze and reflecting Aegean sunshine. Televantou (1994, 163) suggested that such indication of the sea through a motif originates in crafts that make no use of colour, such as repoussé metalwork.

<sup>20</sup> The only way to decide between the two would be colour, yet precise colour conventions are very imperfectly understood in Aegean art and no conclusive results can be reached on this basis. Although one could draw on the 'contextual' association of specific abstract motifs with securely identified maritime themes, such as marine fauna or ships, it could be hazardous to try to devise an 'one-to-one' set of correspondences in these cases; there remains enormous work to be done before we can define an Aegean equivalent for the strict composition rules and near-obsession with pictorial consistency observed in, e.g. Egyptian painting.

<sup>21</sup> Its origin had been sought before in painted Helladic imitations of Neopalatial Cretan square stone paving (Hirsch 1980, 461–2), but the existence of *painted* Minoan prototypes has been argued on the basis of a striking Minoanising plaster floor from the Canaanite 'palace' of Tel Kabri (Israel) dating to the local MBA IIB in the late 17<sup>th</sup> century BC (Niemeier 1996). Niemeier's theory does not leave enough room for the contextual difference between Minoan art in Neopalatial Crete and Minoanising art (even if indeed produced by Cretan artisans sent abroad) in a Canaanite setting. In this context, it may be significant (though an *argumentum ex silentio*) that clear



Site	Area/ Building or Room	Location	Subjects depicted	Date
Knossos	'Domestic Quarter': 'Queen's Megaron'	Upper floor? <sup>1</sup>	Dolphins <sup>2</sup> ; small fish	LM IIIA1
Knossos	'Domestic Quarter': East-West Corridor	Wall painting (dispersed)	Nautili (part of frieze with repetitive animals)	LM IIIB?
Agia Triada	<i>Sacello</i> H	Floor (found <i>in situ</i> ) <sup>3</sup>	Large mollusc; at least 11 dolphins and fragments showing many examples of at least 2 different fish species (quasi-parallel arrangement)	LM IIIA
Tiryns	Room VII <sup>4</sup>	Floor (found <i>in situ</i> )	Square grid pattern; heraldic 'back-to-back' arrangement of dolphins; single octopuses appear independently per square, both alternating with tricurved arches <sup>5</sup>	LH IIIB
	Room XXI <sup>6</sup>	Floor (found <i>in situ</i> )		
Pylos	Room 6 <sup>7</sup>	Floor (found <i>in situ</i> )	Square grid pattern; abstract patterns indicating veined stone slabs and a <i>single</i> octopus	LH IIIB
Pylos	Corridor 49 (adjacent to Room 50) <sup>8</sup>	Floor (found <i>in situ</i> )	Square grid pattern; 3 dolphins per square in parallel arrangements alternating with various abstract motifs.	LH IIIB
Pylos	Room 50 <sup>9</sup>	Floor (found <i>in situ</i> )	Square grid pattern; 3 dolphins per square in parallel arrangements alternating with various abstract motifs; fish (alone in square 6E and with dolphins in square 5B) also represented	LH IIIB
Mycenae	Room 30 <sup>10</sup>	Wall-paintings	Suggested identification as 'ship cabins' ( <i>ikria</i> ) (at least 4 different panels)	LH IIIB
Pylos	Outside NE wall of palace <sup>11</sup>	?	Certain ship representation (rigged pole survives)	LH IIIB
Pylos	Room 32, wall-fill (in secondary use?) <sup>12</sup>	?	Tail of a marine animal (large fish or dolphin?) and a part of a (border) floral motif	LH IIIB
Pylos	Room 2 (Inner Propylon) <sup>13</sup>	Wall-painting	Nautili frieze with horses and architectural façade.	LH IIIB
Pylos	Room 16 <sup>14</sup>	Wall-painting	Nautilus (almost certainly part of a frieze)	LH IIIB
Pylos	Room 20 <sup>15</sup>	Wall-painting	Nautili frieze	LH IIIB
Pylos	NW slope dump <sup>16</sup>	Wall-painting	Nautili frieze	LH IIIB
Pylos	NW area outside the 'palace' <sup>17</sup>	Wall-painting	Nautili frieze	LH IIIB
Pylos	SW area outside the 'palace' <sup>18</sup>	Wall-painting	Nautili frieze	LH IIIB
Pylos	Hall 64 <sup>19</sup>	Wall painting?	Naval scene with at least 3 vessels (one at least without mast)	LH IIIB?
Thebes	K. Douros plot <sup>20</sup>	Wall-painting?	Fragments of a possibly extended marinescape scene (including a variety of fish species and dolphins)	LH IIIB
Gla	Plaster dump E of Room N1 <sup>21</sup>	Wall-painting	Minimum 7 dolphins in light-blue/grey background; minimum 2 nautili (clearly identifiable by the naturalistic representation of their tentacles) and possible representations of marine flora	LH IIIB
Gla	Room H4 (dispersed) <sup>22</sup>	Wall-painting (south wall?)	Mollusc tentacles (probably nautili)	LH IIIB

Table 1 (opposite). Maritime imagery on decorated plaster in the LBA III Aegean (references are restricted to most essential).

#### Notes to Table 1

<sup>1</sup> The suspicion (expressed earlier by S. Hood, see Hirsch 1977, 12) that this was not a wall-painting as originally reconstructed is most explicitly argued for by Koehl 1986.

<sup>2</sup> Morgan (1988, 61, citing the advice of zoologist F. Fraser, B.M.N.H.) identifies these mammals as *Stenella styx* (Euphrosyne Dolphin), although she notes the artistic hybridization of features from different species in the way dolphins are represented in Aegean art. It would seem that creatures, whose familiarity with both the 'artist' and the recipients of the imagery is predominantly based on sporadic encounters, tend to be represented according to artistic conventions rather than real-life observation.

<sup>3</sup> Hirsch 1977, 10–11 (with references), figs. 1–3; Militello 1999, 345–7, fig. 1 (with references). L. Banti in 1939 initially favoured a Neopalatial date; a LM IIIA1–2 date is currently accepted (following Banti's revision of her own dating and P. Militello's meticulous study of the Agia Triada frescoes: Militello 1999, 347 with references).

<sup>4</sup> Hirsch 1977, 38–9 (no. G20), figs. 22, 24, 25b.

<sup>5</sup> If the latter abstract motif is accepted as an artistic convention of the sea (see *supra*), then the physical (due to alternation) link of the three subjects would become conceptual as well.

<sup>6</sup> Hirsch 1977, 40–1 (no. G24), figs. 26–7.

<sup>7</sup> Hirsch 1977, 34 (no. G8), figs. 16, 17a.

<sup>8</sup> Hirsch 1977, 35 (no. G10), figs. 17b, 21.

<sup>9</sup> Hirsch 1977, 35 (no. G11), figs. 17c, 20.

<sup>10</sup> Shaw 1980.

<sup>11</sup> M. Shaw 1980, 177–8, ill. 12; M. Shaw 2001, 38–40, fig. 1. The identification was also made nearly simultaneously, yet independently, by J. van Leuven (M. Shaw 2001, 38, n. 5).

<sup>12</sup> Lang 1969, 128–9, pl. 71, col. pl. H; M. Shaw 2001, 40, Taf. 6:2.

<sup>13</sup> Lang 1969, 147–9 (1 F 2), pls. 79–81, col. pl. J, R.

<sup>14</sup> Lang 1969, 149, pl. 79, col. pl. J.

<sup>15</sup> Lang 1969, 149, pl. 81, col. pl. I.

<sup>16</sup> Lang 1969, 149–50, pls. 82–3, col. pl. R.

<sup>17</sup> Lang 1969, 150, pl. 84, col. pl. I.

<sup>18</sup> Lang 1969, 150, pl. 85, J.

<sup>19</sup> Brecoluci 2004; 2005.

<sup>20</sup> Spyropoulos 1971; Boulotis 2000, 1097, n. 4, 1131, 1141, fig. 8 (with references).

<sup>21</sup> Iakovidis 1998, 186, col. pls. VIIa (dolphin fragments), VIIb (Argonaut fragments), IX (preliminary reconstruction of dolphin fresco).

<sup>22</sup> Iakovidis 1998, 184.

the presumed care, as can be evident from surprising inaccuracies in the stucco floor in Room 6 (the 'megaron') in the Pylos Main Building (see also below).<sup>22</sup>

Final Palatial Crete has yielded two important plaster floors with marine fauna representations from Knossos (the 'Dolphin Fresco', originally reconstructed as a wall-painting) and Agia Triada (known as the 'Banti Floor'). A most interesting aspect of the reconsideration of the famous Knossian representation by Robert Koehl is his intriguing reconstruction of a border of inlaid purple limestone sculpted in sea-rock shape (a form already familiar from the Marine Style) that can be interpreted as the *frame* of the overall marinescape composition.<sup>23</sup> Turning our attention to the Mainland, evidence for decorated plaster floors predominantly comes from LH IIIB structures at the major administrative complexes. The spatial distribution of the figural maritime motifs, namely octopuses and heraldically arranged dolphins, in the Tiryns Upper Citadel shows a restriction to certain rooms, which may

be meaningful as it involves spacious areas whose great importance we would have good reasons to assume otherwise: the 'large megaron' (=Room VII) and the vestibule (=Room XXI) of a small structure immediately to the east of the 'small megaron' (=Rooms XVII–XVIII). The special link between vestibule XXI and the large 'megaron' is not immediately apparent, but the connection between the importance of the most spacious Room VII and the appearance of the maritime subjects is hard to dismiss as coincidental, especially when *no* such images are identified in the portico and vestibule (Rooms V–VI) of this hall.<sup>24</sup>

extant evidence for the application of painted square grid on plaster floors from MM–LM Crete (even in LM III) is still missing.

<sup>22</sup> See Hirsch 1977, fig. 16. Some inaccuracies have also been noted in the planning of the grid in the 'large megaron' (Room VII) at Tiryns (Hirsch 1977, 37).

<sup>23</sup> Koehl 1986, pls. 25 (preserved inlaid slab), 26 (colour reconstruction).

<sup>24</sup> Hirsch 1977, 39–40 (nos. G21–22), fig. 22.



In the LH IIIB Main Building at the 'palatial' complex of Ano Englianos (Pylos) in western Messenia, some quite discernible variation in the way the single octopus is executed can be detected in the grid squares among the three floor areas where the marine fauna has been depicted.<sup>25</sup> In Room 6 (the '*megaron*' again), the importance of the solitary octopus seems outstanding: this image, the single figural motif on the floor of this important spacious hall, decorated the square directly in front of the possible location of a luxurious seat ('throne?') and between it and the central hearth. Although its precise significance still eludes us, the location and the choice for the decoration of this square indicates equally strongly the importance of the object being thus demarcated (a possible 'throne?'), as well as the significance of the maritime associations of the figure employed for this special demarcation, which is so far unparalleled in other extant decorated floors from the Aegean. In areas 49 and 50, which adjoin each other, certain differences from the Tirynthian pattern can be detected: (a) the three dolphins per square are arranged in parallel, (b) the figural maritime subjects are accompanied by a *variety* of abstract motifs (of which none compellingly represents the water and the tricurved arch motif is absent from Pylos) and (c) fish have been added in the range of marine fauna represented on the floor of Room 50.<sup>26</sup> One is tempted to note that the floor decoration of Room 50 looks like an attempt to adjust into the grid system an arrangement of the images more at home in an undivided surface: one is reminded of a similar arrangement of dolphins and fish in the Agia Triada grid-less seascape floor. On the contrary, the 'heraldic' dolphin pairs at Tiryns suggest a syntax more consistent with the attempt at easier symmetry than the square grid indicates. However, one further conclusion may be more significant; on the basis of the Pylian and Tirynthian evidence, a link between the use of figural marine subjects for floor decoration and the importance of the areas thus decorated can be plausibly suggested.

Frescoed wall decoration from at least three Mycenaean administrative complexes (Mycenae, Pylos and Thebes),<sup>27</sup> albeit fragmentary, has recently revived the interest in the significance of maritime symbolism in the later LBA. The amazing discover-

ies at Thera had, *inter alia*, a profound impact in the way motifs and themes related to maritime activity could be thereafter recognised; the identification by Maria Shaw of a series of panels from wall decoration in Room 30 of the 'palace' complex within the citadel of Mycenae as '(ship) cabins' (*ikria*<sup>28</sup>), drew a parallel to the well-known (and significantly better-preserved) frescoes from the West House at Akrotiri (Room 4).<sup>29</sup> The abstraction of the LH IIIB presentations notwithstanding, thematic similarity with the Thera fresco is intriguing, although the Mycenae fresco shows a cabin with significant differences from the Thera one.<sup>30</sup> More significant however is the location of both images in small

<sup>25</sup> Hirsch 1977, fig. 17a-c. However, especially within Room 50 the octopuses exhibit a degree of similarity (Hirsch 1977, 35), which *may* indicate stencil drawing.

<sup>26</sup> Hirsch 1977, 35 fig. 20. The fish in square 5B are identified as 'sharks' by Hirsch.

<sup>27</sup> Although these are too fragmentary for any meaningful analysis, one should also mention fresco fragments of marinescape imagery from beneath the LH IIIB1 House of the Oil Merchant at Mycenae (dolphins) and from a LH III context at Argos (molluscs) (see Boulotou 2000, 1131 n. 154 with references).

<sup>28</sup> For the appropriateness of the Greek word *ἱκρία* see M. Shaw 1980, 167 n. 1 where it is admitted that its use for ship cabins is post-Homeric and metonymic. The term's popularity with reference to these Aegean images is entirely due to its use by S. Marinatos in the Akrotiri preliminary reports. Here the term will be used conventionally.

<sup>29</sup> M. Shaw 1980. For this theme in Akrotiri see Morgan 1988, 137-42 and Televantou 1994, 33-46, 131-56. The symbolism of Aegean *ikria* has recently come again into focus thanks to the analytical publication of a new presentation on an one-handed LM IB cup from Building A at Mochlos, where Davaras argues for the possible interchangeability between the 'altars' or 'shrines' observed aboard in certain Neopalatial images, such as the 'Ring of Minos' or the 'Mochlos Ring', and '*ikria*' (Davaras 2003, 7-9).

<sup>30</sup> (1) The possible location of the Mycenae cabins *amidships* (a central pole is possibly shown) contrasts the placement of Thera cabins close to the stern and (2) the Mycenae cabins lack the roofing and emblematic ornamentation of fictitious floral motifs of their Thera counterparts. Televantou (1994, 147) has advanced two alternative scenarios to explain the appearance of the theme in LH IIIB Mycenae suggesting influence from a (hypothetical) Cretan or Cycladic prototype either directly or through the intervention of an earlier Mycenaean example. However, both scenarios are speculative and downplay the fluctuations in artistic interrelations and iconographic significance from the early to later LBA.



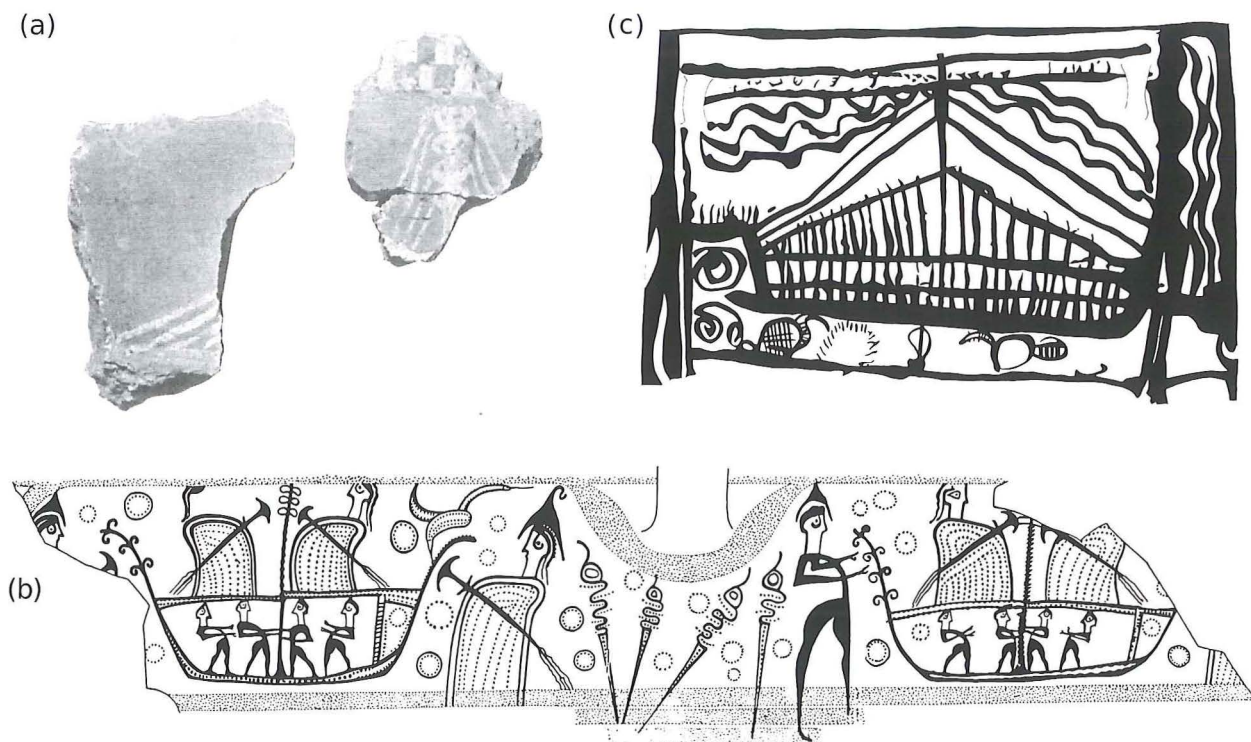


Fig. 2. LBA IIIB ship imagery: (a) Pylos ship fresco fragments (LH IIIB, after Lang 1969, pl. L; courtesy of Department of Classics, University of Cincinnati), (b) Enkomi tomb 3 amphoroid crater (LH IIIB, after Sjöquist 1940, fig. 20:3), (c) Gazi larnax (LM IIIB, after Wachsmann 1997, 346, fig. 10). Figures not to scale.

rooms,<sup>31</sup> in panels arranged in a frieze-like manner, a spatial configuration which supports their similar ‘functions’.

M. Shaw’s compelling identification of a *ship representation* on fragment 19 M ne from a Pylian plaster dump<sup>32</sup> (Fig. 2a) enhanced significantly our knowledge of maritime imagery in LBA III ‘palaces,’ a thematic category previously represented at Pylos by the *nautili*<sup>33</sup> friezes.<sup>34</sup> Regarding the ship fresco, Shaw has suggested its original location in Hall 64 (Southwestern Building) in accordance with the possible military interpretation of the image she advocates, as this Hall yielded the well-illustrated battle imagery. Although there is no compelling reason to accept this provenance,<sup>35</sup> Shaw’s insistence that there must have been a naval theme in this area, compatible with the militaristic overtones of its extant fresco imagery proved to be extremely intuitive.

Recent ongoing work on material that had been omitted or not given sufficient focus in Lang’s monumental publication, undertaken as part of the

<sup>31</sup> Although both Mycenae ‘palace’ Room 30 and Akrotiri West House Room 4 could have been residential spaces, I see no compelling reason to rely on Tsountas’ and Marinatos’ original interpretation of these rooms as bedrooms (cf. M. Shaw 1980, 177). Shaw has also suggested that similar cabins may be depicted in some obscure fragments from Thebes (M. Shaw 1980, 178 ill. 13, found with the Kadmeion procession), although their fragmentary state impedes any secure restoration.

<sup>32</sup> M. Shaw 2001, 38–40, fig. 1.

<sup>33</sup> With the exception of the remarkable Knossian composition and in spite of their popularity in the Palace Style, *nautili* are a quite rare theme in fresco-painting.

<sup>34</sup> Such friezes come from the Inner Propylon or Room 2 (1 F 2), Room 20 (3 F 20), Room 16 (2 F 16), the NW slope dump (4 F nws), and from the areas NW and SW outside the ‘palace’ (5 F nw, 6 F sw) (Lang 1969, 141–3, pls. 79–85, col. pls. I, J, R).

<sup>35</sup> On the contrary, there are some significant clues for the opposite. Shaw’s main argument is the presence of the checkerboard pattern above the ship, a motif she considers only known from Hall 64 in Pylos (M. Shaw 2001, 42). However, checkerboard has also been retrieved from Room 5, the ‘*megaron*’s Vestibule (see Lang 1969, 68, on fragment 14 H 5), as well as in Room 20 and fragments from other plaster dumps. More significantly, as recent progress in the conservation and



Hora Apotheke Reorganisation Project (HARP) under the general direction of Jack Davis and supervised by Haricleia Brecolaci, has revealed one more ship fresco, bearing a zig-zag pattern previously unattested among Pylian imagery.<sup>36</sup> Placing this new naval scene in the wider context of the 'violent' iconography of Hall 64 where it was found and evaluating its role in shaping a coherent 'Pylian identity'<sup>37</sup> is tempting. Ongoing work<sup>38</sup> shows that, *unlike* the ship from the southeast slope dump, where a mast pole is clearly discernible, the image from Hall 64 is entirely untypical in the context of LBA III Aegean ship imagery. Pending its final publication, we may anticipate a possible parallelism of the *unicum* zig-zag pattern running along its hull with earlier images that bear a similar motif in the same position, such as the well-known polychrome matt-painted sherds from Volos *Kastro*.<sup>39</sup> Additionally, the absence of a mast and the *possible* presence of a structure in stern position (cabin or parasol?) are strongly reminiscent of Neopalatial glyptic ship images, collectively labelled as 'ritual craft'.<sup>40</sup> The interpretation of this entirely untypical image, itself a part of scene which included at least three vessels, is still unclear, although a military one must be considered as doubtful for the time being, since human figures have not yet been reported. However, its overall *early* connotations,<sup>41</sup> surprising as they are, are so strikingly evident that the possibility of a deliberate conservatism, even archaism, possibly of some religious motivation, might also be tentatively entertained.<sup>42</sup>

As this text goes to the press, new and important discoveries at Iklaina, a site that must have been a district centre in the Pylian 'Hither Province', may revolutionise our picture of LH Messenia. Fresco fragments from the 2009 season (reportedly dated by associated pottery to no later than LH IIIA1) reveal part of a naval scene with a ship (part of the bow is probably discernible) and two male rowers, accompanied by two dolphins..<sup>43</sup>

Fragments of a large-scale marinescape fresco representation (including various fish species and dolphins) were recovered in a rescue excavation at Boeotian Thebes (K. Douros plot), c.400 m south-east of the 'House of Kadmos,' but its whereabouts are not yet fully clear.<sup>44</sup> In LH IIIB Gla (Boeotia)

painted plaster fragments with marine fauna have also been recovered.<sup>45</sup> The extremely fragmentary material came from the plaster dump east of Room N1, which included at least seven naturalistic dolphins, can be plausibly interpreted as material removed from building N (Rooms N1-N3). The interpretation of the fragments as *wall*-paintings seems safely deduced from the evidence of mud-brick imprints traced on the backside of some of them.<sup>46</sup>

The fragments comprising the 'Argonaut Frieze' were found in the 'Domestic Quarter' (Knossian complex: East Wing).<sup>47</sup> The state of preservation does not allow us to discern whether this is part of a larger composition with a greater thematic range

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study of Pylos plasters has confirmed, the black pigments in the checkerboard from Hall 64 and on 19 M ne can be distinguished chemically (Brecolaci 2004).

<sup>36</sup> Brecolaci 2004.

<sup>37</sup> Davis & Bennet 1999.

<sup>38</sup> Brecolaci 2005. Since this material is still not properly published but still under study, all notes presented here must be considered as provisional.

<sup>39</sup> For the well-illustrated Volos matt-painted sherds, probably advanced to late MH, see Immerwahr 1985; Wedde 2000, 319 nos. 545-6; Petrakis 2006, 194 fig. 4, 218 no. 11 with references. Until the proper publication of the find, it is not possible to reject a link with the 'horizontal ladder' pattern on certain LH IIIC ship images on pictorial pottery (see *infra*), although this would not be expected.

<sup>40</sup> Wedde 2000, 339-40 nos. 901-12; see especially the gold signet-ring no. 902, a stray find made at 1927 near Herakleion, now at Ashmolean Museum (Inv. No. 1938.1129), which shows a zig-zag motif along the hull (also in Evans 1928, 250, fig. 247b).

<sup>41</sup> These early links are even further augmented by the Thera parallels cited for the oars of the scene (Brecolaci 2005).

<sup>42</sup> Another Pylian ship image might bear some resemblance to the new ship fresco: the sketch on the *verso* of tablet **PY An 724**.

<sup>43</sup> Cosmopoulos 2010 (p. 14, fig. 33a of the \*.pdf document) and pers.com.; Petrakis 2010, 56.

<sup>44</sup> Spyropoulos 1971; Boulotis 2000, 1097, n. 4, 1131, 1141, fig. 8 (with references).

<sup>45</sup> The Gla frescoes are under study by Dr C. Boulotis (for a summary presentation of the painted plaster from Gla based on preliminary notes of his study, see Iakovidis 1998, 183-7 and Boulotis 2000, 1120-1, 1131-3, figs. 19-20).

<sup>46</sup> I wish to thank Dr C. Boulotis for kindly providing this crucial information.

<sup>47</sup> Evans 1935, part 2, 888-91, figs. 870-1, Suppl. Pl. LXIV; Immerwahr 1990, 177 [Kn 32]; Hood 2005, pl. 8.5a-b.



or if it consisted of the repetition of nautil in a horizontal row, in a truly frieze-like manner. It may be significant that the most extensively preserved Knossian maritime compositions come from the same area (Domestic Quarter); moreover, the same area of the East Wing may preserve certain indications of what Immerwahr considers as stylistically (no more and no less than that) more advanced fresco presentations, among which the 'Argonaut Frieze' figures prominently.<sup>48</sup> Serious gaps in the documentation and stratigraphic reconstruction of any part of the Knossian complex notwithstanding, it is interesting to note that such a view may somewhat bridge the gap between the Knossian fresco production and the seeming popularity of nautil in the Pylian complex (references in Table 1).

A relatively good case can be made that the spatial interlink of these themes within the artificial architectural environment may somehow reflect an abstract contemporary Aegean cosmological ideology: With the exception of Gla, maritime imagery with no apparent human intervention (e.g. marine fauna or abstract designs with possible maritime associations) is reserved for floor decoration. On the contrary, human maritime activities (which are predominantly identified by the representation of ships or ship apparatus) are found on the walls. However, in the light of the recent evidence from Gla, Maria Shaw's suggestion of an "aversion on the part of Aegean artists to painting a seascape on a wall, where it might create the impression of a vertical plane"<sup>49</sup> may need to be modified.

Aegean LBA III perceptions of 'pictorial programming' might indeed be more complicated than hitherto assumed; however, one needs to bear in mind the remarkable agreement among actual 'palaces' (centres of literate administrations) on this specific point. Perhaps Gla, a site which lacks evidence for record-keeping and whose position in the settlement hierarchy of LBA Boeotia we are not yet positioned to assess, should be seen as the 'odd one out' here, rather than suggesting the invalidity of the link between floors and marine fauna themes, shared by Tiryns, Pylos and Knossos (Theban evidence being ambiguous), which were all administrative centres at some point during LBA III. Even if Agia Triada had never been the seat of an

administration in post-LBA I times, the occurrence of marinescape floor decoration there concurs with this site's remarkable prosperity during LM IIIA2.<sup>50</sup>

### *Pictorial ceramic decoration*<sup>51</sup>

The abundance of maritime motifs among pictorial pottery styles of the LBA II-III Aegean certainly deserves attention. The same range of marine invertebrates (octopuses and nautil) that appear in plaster also predominate in the Cretan 'Palace Style' (LM II-III A1), whose themes have been argued to express the political ideology of the contemporary Knossian elite<sup>52</sup>. This may indeed be hinted at by the correspondence, both stylistic and thematic, but also occasional and non-systematic, between this special ceramic class and fresco presentations. Although the earlier appearance of a similar ceramic monumentality occurs in Mainland elite funerary contexts in the earlier LBA, what we may legitimately call the 'Palace Style' continues mostly from the LM IB Special Palatial Tradition; its earlier Helladic attestations can be considered as a response to the emerging need for conspicuous mortuary consumption of the early Mycenaeanised Helladic world. Although true Marine Style largely ceases to exist along with the Neopalatial administrations,<sup>53</sup> a range of maritime subjects, including octopuses,

<sup>48</sup> Immerwahr 1990, 99, 142 and 177, where the 'Frieze' is called "Postpalatial?" Although the question-mark reveals her hesitation, 'Postpalatial' in Immerwahr's work implies an LM IIIB date.

<sup>49</sup> M. Shaw 1997, 489. However, she acknowledges the swallowfish frieze from LC I Phylakopi whose "rhythmical composition makes it practically assignable to the class of "wall-paper" decoration" (M. Shaw 1997, 489, n. 50). This aesthetic evaluation of the Phylakopi frieze is weak though, as the same "wall-paper" repetition is what characterises (on even a greater degree) LH IIIB decorated floors as well.

<sup>50</sup> La Rosa 1997.

<sup>51</sup> I have presented and briefly considered aspects of the corpus of MBA-LBA Helladic and Cycladic ship representations on pictorial pottery in Petrakis 2006 (catalogue updated in early 2004; addenda in the present section on Postpalatial pictorial pottery).

<sup>52</sup> Hiller 1995.

<sup>53</sup> There are a few remarkable exceptions though, such as the Ephraean goblet (a typical LM II shape) from the 'Unexplored Mansion' with true Marine Style decoration (see references in Mountjoy 1984, 183 [Kn 97], pl. 28b).



*murex* shells and nautili, figures prominently among Knossian Palace Style jars and their earlier Mainland homologues.<sup>54</sup> Marine vertebrates, predominantly fish-like creatures, which could in one or two obscure cases be dolphins, are one of the two most prominent themes of a newly emerged class of Knossian pictorial pottery, whose development is contemporary with the peak of the Palace Style (LM II-III A1).<sup>55</sup>

Marine motifs are also ubiquitous as filling motifs in all phases defined by Vermeule and Karageorghis<sup>56</sup> in their survey of LH III pictorial pottery; although they chose deliberately not to consider the mass of the category known as 'Octopus Vases', attributing the Early Pictorial I (LH III A1 early) marine scenes to Cretan (Marine and Palace styles) influence,<sup>57</sup> two white-dotted octopuses dominate the *main* views of the famous 'Zeus crater' from Enkomi 'pushing' the notorious balance-holding 'god' to the side.<sup>58</sup> The so-called Maroni Fisherman fragment (Early Pictorial III, end of LH III A1) depicts a naked (?) youth holding a fish from its tail, a posture and theme vividly recalling the late MC Phylakopi stand.<sup>59</sup> As in Cypriot and Levantine material, fish are relatively rare among Early and Middle Pictorial (LH III A1-2) vase-painting from the Aegean, although some notable examples stand out.<sup>60</sup> The rarity of marine scenes is noticed in Middle Pictorial II, although the use of the whorl-shell increases amidst the earlier preference for floral or other abstract filling motifs in Middle Pictorial III (end of LH III A2).<sup>61</sup> A strange marine creature (a large fish or a cetaceous mammal?) appears to chase a chariot in a well-known Ripe Pictorial I (early LH IIIB) amphoroid crater from Enkomi, an unusual combination of terrestrial and marine themes that has even been interpreted as a humoristic allusion.<sup>62</sup> Also relevant in this context may be the LH IIIB1 terracotta 'rhyton' from the Tiryns Epichosis decorated with painted scale pattern, obviously intended to represent a large predatory fish<sup>63</sup>. Although the species is not readily identifiable, it is interesting that a marine animal was included among the powerful animals preferred for the Aegean figure-head rhyta repertoire, most of which are associated with distinct masculinity or aggression (e.g. bull, lion, boar).

With notable exceptions, such as the amphoroid crater from Enkomi tomb 3 (Ripe Pictorial I) (Fig. 2b), ship imagery is extremely rare in LH pictorial pottery before LH IIIC.<sup>64</sup> The Enkomi images, albeit possibly aiming at non-Helladic tastes (as the

<sup>54</sup> For marine invertebrates and the tricurved arch/ "sea" motif in the Knossian Palace Style see Niemeier 1985, 13-43, 95-8 respectively. For a catalogue, full with distribution charts of different decoration syntaxes and motifs, of Mainland monumental so-called 'palatial amphorae,' which peak at LH IIA, see Kalogeropoulos 1998.

<sup>55</sup> The other one being birds. Crouwel & Morris 1995 provide the essential catalogue and discussion of this material from Knossos. An important suggestion by Hiller (2006) attempts to link the emergence of this new pictorial style with the Amarna style in Akhenaten's Egypt. This theory concerns us peripherally here, since it enable us to view the popular birds of this early Knossian pictorial pottery as part of 'waterscape' scenes, particularly riverscapes, along with reeds, papyri, waterbirds and perhaps felines. However, popularity of such imagery in Amarna may not be necessarily linked with the Knossian themes, since such or similar scenes had already made their appearance in earlier LBA (e.g. the Mycenae Shaft Grave V and Routsis tangles inlaid daggers (LH I and LH I/IIA respectively), the riverine scenes in the Miniature Frieze in Room 5 of the West House at Akrotiri, Thera (LC I) or the 'Birds and Monkeys Frieze' from the House of the Frescoes, Knossos (LM I), see thoughtful survey in Morgan 1988, 34-40).

<sup>56</sup> Vermeule & Karageorghis 1982.

<sup>57</sup> However, they noted the remarkable amphoroid craters with large white-dotted octopuses from Enkomi and Alalakh, as well as the impressive Maroni fish-vase. The latter they saw as reflecting influence from frescoed decoration with the "torsional diving arrangement" of its large "sharklike predators rather than dolphins" (Vermeule & Karageorghis 1982, 17 nos. III.7-9).

<sup>58</sup> Vermeule & Karageorghis 1982, 14-5 no. III.2.

<sup>59</sup> Vermeule & Karageorghis 1982, 24 no. III.30.

<sup>60</sup> Vermeule & Karageorghis 1982, 77 nos. VII.7-12.

<sup>61</sup> Vermeule & Karageorghis 1982, 31-2.

<sup>62</sup> Vermeule & Karageorghis 1982, 40-1 no. V.18

<sup>63</sup> Voigtländer 2003, 130, 230-1, Taf. 94: R3; Koehl 2006, 131, no. 369. Sherds from a similar rhyton (Voigtländer 2003, 130, 230, Taf. 94: R1) were also found in the same deposit. Three LH IIIA2-IIIB1 fish-shaped rhyta are known from Ugarit and Near Eastern imitations have been published from Kamid el-Loz (Lebanon) and Enkomi (Koehl 2006, 124-5, nos. 339-41; 241, no. WA3; 243, no. C2), which implies that the shape was primarily responsive to Levantine preferences.

<sup>64</sup> Vermeule & Karageorghis 1982, 45, pl. V.38; this statement leaves aside material of uncertain date as well as representations that have been placed at the IIIB2-IIIC 'transitional' period (e.g. Mountjoy 2005).



concentration of pictorial pottery in Cyprus and the Levant may indicate), show a heraldic arrangement of two imposing male figures aboard, plausibly identified as status warriors by their swords, which could indicate a military connotation for the composition. A group of Ripe Pictorial II (LH IIIB late) vases from Cyprus depict fish of various kinds and arrangements, not unusually juxtaposed with birds,<sup>65</sup> and this appears to correspond with a revival of the overall popularity of the theme in contemporary Greek mainland.<sup>66</sup> The same relative popularity of fish (plus a few possible dolphins) observed in the earlier Knossian pictorial pottery seems to feature also in the Transitional Pictorial phase on the Mainland.<sup>67</sup>

The dependence of LBA figural vase-painting on other Aegean arts and crafts is not straightforwardly apparent. Generally speaking, it is easy to see some influence from fresco-painting in earlier examples of pictorial pottery (LM II-III A1 and those termed as 'fore-runners' by Vermeule and Karageorghis<sup>68</sup>), but the stylistic affinities of the two media seem far more distant in the later LBA III. Although the whole issue is extremely complex to handle with in this short overview, one issue particularly akin to LH III pictorial pottery has been what could be termed its 'thematic unawareness': subjects that are logically incompatible appear together (e.g. fish and birds in a row, large fish and a chariot or flowers and whorl-shells together as fill-motifs). Although the symbolic significance of juxtaposing subjects from different cosmological realms (land and water) is a possibility (but see *infra* on N. Marinatos' 'Octopus Garden'), other explanations have been put forward. Susan Sherratt has produced the most interesting interpretation of this condition, suggesting that most fill-motifs deliberately aim to imitate Aegean 'figural textile-work' and that thematic 'compositions' aim at a concentration of elite symbols (e.g. chariots, horses, bulls) on the same pot or group of pots that would become usable by socially pretentious and aspiring groups.<sup>69</sup> In the same argumentation line, it would also be likely that the employment of marine themes had elite connotations as well. If Sherratt's suggestion is followed, it would seem that thematic selection and combination on pictorial pottery seems not to aim at narrative compat-

ibility, but as *accumulating* images with compatible and supplementary prestige connotations. This view could place the study of 'pictorial programs' (at least as far as pottery is concerned) on an entirely new basis and remains to be tested as a starting point for the study of composition principles in Aegean art.

The function of LBA III *larnakes* as funerary containers may bear significantly on the meaning of the imagery they accommodate, although it is not clear in which way. Maritime themes are not uncommon in LM III examples, yet they are extremely rare on LH examples, all from the chamber tomb cemeteries at Tanagra (Boeotia).<sup>70</sup> Marine fauna (in descending order of frequency: octopuses, fish, nautili, shell and starfish) appear most frequently on the chest-shaped type and persist throughout the LM IIIA-C period. Merousis has noted that seascape compositions with more than one animal species are extremely rare, while most motifs exist solely. Most intriguingly, we do have evidence for the representation of ships in at least three LM IIIB examples, from Gazi (Fig. 2c), from Kalochoraphitis and from a private collection in Switzerland without secure provenance and one from Tanagra (Boeotia)<sup>71</sup> that have often raised the

<sup>65</sup> Vermeule & Karageorghis 1982, 57-8 nos. V.126-141.

<sup>66</sup> Vermeule & Karageorghis 1982, 105-6 nos. IX.112-122.

<sup>67</sup> Vermeule & Karageorghis 1982, 117-9 nos. X.83-117.

<sup>68</sup> Especially items considered as Cretan imports; Vermeule & Karageorghis (1982, 74-5 nos. VII.H-K) catalogue a Palace-Style jar (LM II-III A1) from Deiras tomb 6, a LM IIIA1 pyxis from Mycenae, the remarkable LM IIIA1 'basket' from Varkiza (with marinescape subjects) and a pictorial fragment (LM II?, from a large crater or even a *larnax*) from Pindar Street, Thebes, depicting the quite rare (for *any* period) 'fishing-by-net' theme.

<sup>69</sup> Sherratt 1999, 189.

<sup>70</sup> No particular significance should necessarily be placed on this concentration, as the Tanagra chamber tomb cemeteries feature a highly untypical -by Helladic standards- concentration of *larnakes* anyway. N. Marinatos 1997 and Merousis 2000b comment on the differences between LM and LH *larnakes*. The Tanagra material remains largely unpublished and even incompletely presented, yet the rarity of marine themes on these *larnakes* has already been noted: Marinatos 1997, 289; Merousis 2000b, 278.

<sup>71</sup> For the remarkable LM IIIB *larnax* from Gazi, see Alexiou 1973. For the other two see Merousis 2000a, 138 cat.no. 79 and 196 cat.no. 220 respectively. The Swiss *larnax* is illustrated



question of the relevance of maritime journeys to Aegean afterlife beliefs (see *infra*).

### *Terracotta boat models*

Aegean models (i.e. three-dimensional reduced-scale imitations) of sea vessels are certainly a special artefact category, although poorly informative on the morphology of their prototypes: They mostly depict small boats (of the sort of small boat depicted in monochrome manner in the South Miniature Frieze at the West House), rather than ships with mast and sails and are usually very abstracted. The presence of terracotta boat models seems initially compatible with what *could* be the offering of a boat model in a burial rite represented on the long-side panels of the Agia Triada sarcophagus (LM IIIA2), yet their occurrence in LBA funerary contexts is not at all overwhelming: With few exceptions (including two boat models from Tanagra cemetery at Boeotia), published examples do not seem to have been deposited in burials.<sup>72</sup> Examples are known from Agia Irini,<sup>73</sup> Mycenae, Tiryns, Athens Agora, Argos, Asine and Phylakopi.<sup>74</sup> With reference to the 'boat model' depicted as if offered in the Agia Triada sarcophagus, it may be significant with reference to Cretan afterlife beliefs that such boat models are so far absent from LM III mortuary contexts altogether and are extremely rare in LM III Crete in general.<sup>75</sup>

### *Glyptic*

Aegean Bronze Age glyptic is an intriguing category of image-bearing artefacts that have had both symbolic and, at least theoretically, practical (i.e. sphragistic) administrative use. It is difficult not to link the demise (but, interestingly, not total abandonment) of the specialised craft of seal-engraving after LBA IIIB with the nature of a seal as an administrative tool and the demolition of the context of socio-economic activity in which their function and status configuration was to be understood. The fact that apparently *early* seals were impressed in the vast majority of the extant corpus of the LH IIIB administrative sealings<sup>76</sup> and the immediately implied use of century-old administrative seals is very intriguing, as it appears to

counter, rather than follow changes in iconographic preferences during this period.

Ship imagery is definitely more common in Neopalatial glyptic than in later Aegean groups<sup>77</sup> and the theme is even more rare on glyptic thought to have been produced on the Mainland. The same would also apply to identifiable marine fauna, which clearly forms a minority in the iconography of Aegean LBA glyptic either as main or as filling motifs (although the so-called 'talismanic' group are at least partly responsible for this Neopalatial maritime bias).<sup>78</sup> It is interesting to note that in most cases where water *does* appear it accompanies ter-

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in Wachsmann 1998, 131 fig. 7.7. For the Tanagra *larnax* see Spyropoulos 1973, 21, pl. 10 and Wedde 2000, 330. I do not here accept that the Episkopi (near Hierapetra) LM IIIB *larnax* depicts a ship (Wedde 2000, 330 no. 697). The crescent hull is apparently four-wheeled and this seems most likely to be an untypical rendering of a chariot.

<sup>72</sup> Of the 28 more or less likely LBA IIIA-C examples, only 5 (2 from Tanagra, 2 from Megalo Kastelli (Thebes) and 1 from Mycenae Tsountas chamber tomb 79) have a secure provenance from a funerary context (counting based on the catalogue in Wedde 2000, 308-12). Following Wedde (2000, 195 n. 150), excluded here are the ivory duck pyxides from Zapher Papoura (Knossos) and Mycenae.

<sup>73</sup> Early LBA possible bronze models of 'longboats' from Agia Irini recall the lead (EBA?) long-boats (or dug-out log-boats?) presumably from Naxos and now in the Ashmolean Museum (Oxford), whose authenticity, however, has been questioned (see Wachsmann 1998, 69-70, fig. 5.1: lead boat models, 102, figs. 6.33-34: bronze boat model from Agia Irini).

<sup>74</sup> Reference is here restricted only to the relatively securely dated examples. For the full corpus see Wedde 2000, 308-12, nos. 301, 307, 309, 311-5, 317-36.

<sup>75</sup> One should mention the terracotta models from Knossos Unexplored Mansion (LM IIIA1) and Agia Triada Piazzale dei Sacelli (LM IIIC) (Wedde 2000, 309 no. 301, 311 no. 325).

<sup>76</sup> Krzyszkowska 2005, 233-5, with references.

<sup>77</sup> E.g. Alexiou 1973, 12.

<sup>78</sup> Younger 1988, 205-9. A few of the latest Knossos and Pylos sealings may be worth-mentioning here: The notorious 'horse on ship' sealing from Knossos (Wedde 2000, 346 no. 958), has long been recognised as the result of the horse's image as "superposed" upon the ship's (Evans 1928, part 1, 244 fig. 141a). It is unclear whether there is any structural relationship between the two images, but it is highly unlikely that sea-transport of equids has anything to do with this superimposition and we do not have any evidence for Aegean image composition ever formatted in such a way. Four dolphins swimming round a single octopus are depicted on Pylian inscribed seal-



restrial, not aquatic subjects.<sup>79</sup> This would indicate that in the case of the representation of aquatic animals (fish, dolphins and invertebrates) in glyptic, waterscape functioned as a prerequisite, which was to be ‘assumed’ by the viewer and therefore need not be explicitly represented.

This section seems the most appropriate place to mention the quite unusual *graffiti* of ships on the Dramesi ‘stele’ (early LH or LH IIIB?).<sup>80</sup> In addition to its being uncomfortably schematic, this iconographic idiom is so poorly represented in Aegean material that its conventions are very difficult to illuminate.<sup>81</sup> However, the Dramesi *graffiti* (either early LH or LH IIIB) also include one of the earliest representations of the enigmatic ‘horizontal ladder’ pattern in Aegean ship imagery, a stylistic convention that will be discussed below with reference to LH IIIC examples on pictorial pottery.

## Maritime affairs in Aegean LBA III ‘palatial’ administrations: Texts in context

The need to record economic activities that motivated the composition of the extant Linear B documents makes it nearly a commonplace that information on spheres other than that of ‘palace’-administered economy can only be deduced by implication with varying degrees of certainty. Maritime activities are no exception and despite their obvious economic significance, maritime activities occur very erratically in the extant textual corpus.<sup>82</sup> Biases both inherent in the textual data (a ‘palace’-centric view) as well as due to accidents of discovery make *ex silentio* arguments inappropriate. Evidence from the documents can be broadly divided into indirect (implying contacts or familiarity with places and activities that presuppose navigation) and direct (concerned explicitly with maritime activities). Other, more subtle references to maritime affairs of the Linear B administrations will not be pursued here. It is, for instance, highly plausible that references to *a-ne-mo i-je-re-ja* ἀνεμων ἱερεῖα ‘priestess of the winds’ as oil recipients in clearly religious contexts (**KN Fp(1) 1.10, Fp(1)**

ings **Wr 1326.α** and **Wr 1330.α** (*CMS* I, 312), whose texts, however, have been produced by different scribes. A longboat with men aboard is depicted on two more sealings from metal rings (the non-inscribed *CMS* I Supplement 193 and the inscribed *CMS* I Supplement 179 = **PY Wr 1415.α**). However, Aegean evidence does not sufficiently support a consistent link between specific themes in seal imagery and the owner’s administrative responsibility.

<sup>79</sup> Younger 1988, 319.

<sup>80</sup> Although the function of the slab is not known, its funerary context is relatively secure: it comes from the dromos of a damaged tomb near Dramesi, currently in the Schematari Museum. Its date has been debated though: Blegen (1949) suggested a LH I date but a LH IIIB date has also been proposed (see entry in Wedde 2000, 328). The unclear interpretation and date of a stone Knossos pyramidoid artefact ‘embraced’ by a naturalistic octopus relief accounts for its restriction to this footnote reference (Niemeier 1985, 15 Abb. 3:15 accepts a Final Palatial (LM II-III A1) date). Evans (1935, part 2, 650–2 fig. 635) dated this artefact to LM II as stylistically close to “Palace Style” depictions of such molluscs and interpreted as “clearly a weight” *approximating* –as the excavator of Knossos readily admits– 60 ‘light’ Babylonian *minas* (Evans 1935, part 2, 651). Its alternative interpretation as a symbolic anchor of religious significance, supported by the choice of depiction of a marine animal (Davaras 1980), has gained less support (see De Fidio 1998–9, 42 who follows the ‘orthodox’ interpretation of the object as a weight).

<sup>81</sup> A schist slab from Kouphota (near Siteia) is somewhat obscure and has no clear context (Wedde 2000, 328 nos. 678–80). Other parallels for LBA ship *graffiti* on stone come from Cyprus: a Late Cypriot IIIA (12<sup>th</sup> century BC) stele from Enkomi and from the walls of Temple I and on the altar of Temple 4 at Kition (see Wachsmann 1998, 147–8, figs. 7.33–8 with references). Yet the hypothesis that these “*may* represent Achaean [*sic*] ships” (Wachsmann 1998, 147, original *italics*), if based (as it seems to be) on some LH IIIC pottery found in the site, is very fragile. The “ship” *graffito* from a gypsum block in the inner (‘sepulchral’) chamber of the monumental Temple Tomb at Knossos (Evans 1935 part 2, 956, Suppl. pl. LXVIB) has been rejected by Gray (1974, 44) and is considered as doubtful by Wedde (2000, 238, 316 no. 508). While its date is uncertain (arguably, but not certainly LM II-III A), its unique features (a sharp triangular component) and its destruction during the last war impede its proper interpretation.

<sup>82</sup> Four important synthetic papers (Killen 1985, 262–70; Palaima 1991; Olivier 1996–7) and segments in a general textbook (Ruipérez & Melena 1996, 166–7, 176–80) have commendably assembled the evidence and attempt a preliminary analysis. The fact that economising managing of ‘palatial’ affairs was the *raison d’être* of these documents should not be used as an indication that the economic exploitation of the properties of the seascape was the exclusive formative agent of LBA III Aegean attitude(s) towards the sea. Although the transport of the LM IIIB inscribed stirrup-jars (now generally accepted as mostly of west and south central Cretan production) demonstrates an aspect of overseas trade (presumably in oil) between Aegean literate administrations in the 13<sup>th</sup> century BC, this will not be treated here.



13.3 [twice]) reflect the incorporation of the very practical concern over sail-filling blows into Knossian state ritual; however, although reasonable, the nautical associations of this cult personnel are not readily apparent in their textual environment.

*Indirect evidence: Ethnic adjectives, toponyms and LBA Greek onomastics*<sup>83</sup>

As commonly noted in relevant surveys, the only direct evidence for contact between two LBA III Aegean polities *may* be included in tablet **MY L (<X) 508** from the 'House of Shields' at Mycenae (LH IIIB1): the allative *te-qa-de* (Θήγ<sup>w</sup>ανς-δε) is justifiably perceived as a safe reference to a shipping of *pu-ka-ta-ri-ja* (a type of cloth<sup>84</sup>) 'to (a) Thebes', presumably from Mycenae, where the inscription was produced and found. Killen reads much into the fact that this exceptional record was found at Mycenae (although not in the 'palace' proper), which might hint at the exceptional position of Mycenae as a hub in the nexus of interconnections among Aegean 'palatial' polities<sup>85</sup> or at the 'clearinghouse' function of the 'Ivory Houses' complex, to which the 'House of Shields' belongs.<sup>86</sup>

The distribution of textual occurrences of adjectives and types plausibly deriving from this toponym in all four major Linear B collections (Knossos, Pylos, Mycenae and Thebes itself)<sup>87</sup> might indicate Thebes' supremacy in inter-polity contacts<sup>88</sup> or suggest that more than one sites bore that name in the 2<sup>nd</sup> millennium BC. The latter option seems for the time being the more prudent of the two; moreover, it may hint at the homonymic complication that the ethnic adjective *au-to-te-qa-jo* on **TH Ug 4** may have been devised to resolve; this unparalleled formation, unattested outside Thebes, is transcribed as \*Αὐτοθηβαῖος and might mean 'true, genuine Theban', as commonly accepted,<sup>89</sup> or, even more likely, 'a Theban of this place' (αὐτῶ [adverb] Θηβαῖος).<sup>90</sup> Although the possibility of homonyms can be entertained with regard to the Pylian and Knossian occurrences of the ethnic adjective *te-qa-ja*, *te-qa-jo* may be confidently accepted as referring to a Boeotian Theban in the context of an inscribed nodule found at the very same site, but probably, as all nodules from the same assemblage, accompanied

commodities produced at the hinterland (**TH Wu 47.β**).<sup>91</sup>

<sup>83</sup> References to commodities that could have been imported to the administrative centres, even if nearly certainly involving navigation, will not be discussed here as their relevance is peripheral. For instance: if *e-re-pa* 'ivory' reached Pylos through a Cypriot or Levantine ship, its references do not give any evidence for Pylian maritime activities (although it would be relevant if trade were the object of this study). For the sake of consistency, I will not discuss here even the more secure case of Knossian references to purple-dyed textiles (presumably reflected in the *murex* sea-shells found in Minoan sites). For references to such commodities see Palaima 1991, 283–4 and Olivier 1996–7, 285–6.

<sup>84</sup> Possibly \*πυκταλία (Aura Jorro 1993, 167–8, *s.v.*). Knossian evidence suggests a special status for this kind of textile, which is reported as being *po-pu-re-ja*, 'purple-dyed' (**KN Lc(1) 561.a** (erased); **L(7) 474**; **L 758.b**), see Aura Jorro 1993, 141, *s.v.* *pu-ka-ta-ri-ja* cloth may be further indicated by the ligature *TELA+PU*, where the syllabogram *PU* would stand as an acrophonic abbreviation of the full spelling. In nearly all cases where *po-pu-re-ja* cloth is *certainly* indicated, the type of cloth involved is *pu-ka-ta-ri-ja* or *PU*. However, the acrophonic *po* occasionally accompanying plain *TELA* at Knossos might also indicate purple-dyed textiles.

<sup>85</sup> Killen 1985, 268–9; see also Bendall 2007, 271.

<sup>86</sup> Bendall 2007, 273; cf. Shelmerdine 1997.

<sup>87</sup> *te-qa-de* **MY, TH**; *te-qa-ja* \*Θήγ<sup>w</sup>αῖᾱ: **KN, PY**; *te-qa-jo* \*Θήγ<sup>w</sup>αῖος: **TH**; *te-qa-i* \*Θήγ<sup>w</sup>αῖς (Locative Pl.): **TH**. Also comment in Bartoněk 1988, 137 and sufficient references in Aura Jorro 1993, 333–4, *s.v.*

<sup>88</sup> First argued by Bartoněk 1988, 137 but more recently resurrected in order to support the identification of the Boeotian centre with the *Abhijāwā* of certain Hittite references.

<sup>89</sup> Aura Jorro 1985, 146, *s.v.*

<sup>90</sup> The adverb would be spelled \**a-u-to* in Linear B; this type survived in later Doric, cf. Ionic αὐτοῦ, which occurs frequently in Homer with meanings related always to a precise indication of 'here' (right here/ there, in this very place *vel sim.*). Although there is no word-divider between *a-u-to* and *te-qa-jo*, such an omission is not rare in Linear B records.

<sup>91</sup> This, as well as the majority of the Theban **Wu** series, were found in the Liangas plot, which is located at the periphery of the area enclosed by the Mycenaean fortifications, possibly near some entrance to the fortification of the Kadmeia. The generally accepted interpretation of these nodules is that they reflect a periphery-to-centre flow of commodities that were later to be summarised onto longer documents analogous to the Pylian 'mixed commodities' **Un** records and eventually to be consumed in collective feasting occasions (Piteros *et al.* 1990, 181–3). The allative type *te-qa-de* (**TH Wu 51.β, 65.β and 96.β**) indicates an viewpoint extraneous to the Theban centre, possibly from the administrative periphery indicated by the Euboean toponyms the occur in the same assemblage. However, it does not necessarily follow that the sealings were produced at these peripheral sites.



Maritime transportation of livestock from Euboean sites to the Theban administration is also implied by toponyms *ka-ru-to* and *a-ma-ru-to* (Κάρυστος and Ἀμάρυνθος respectively) on Theban inscribed nodules **Wu 55.β** and **Wu 58.γ**.<sup>92</sup> In that case, it is the close proximity that facilitates a more secure identification of the LBA toponyms with their historic homonyms. If we wish to move towards areas more distant from Thebes itself, the recently published and intensively discussed Thebes tablets (Odos Pelopidou deposit) yielded new exciting evidence of this kind with the reference *ra-ke-da-mi/mo-ni-jo* in the **Fq** series<sup>93</sup> interpreted as an ethnic adjective or, more likely, as a (derived) anthroponym.<sup>94</sup> Even if this is eventually accepted as a reference to southeastern Peloponnese, its precise definition remains elusive (Is a site called 'Lakedaimon' or a territory implied?). Peloponnesian references in this Theban series are further augmented if one accepts that *a-ka-de-i* relates to Arcadia.<sup>95</sup> The adjective *za-ku-si-ja/-jo* modifies non-functional and old wheels at Pylos (**PY Sa 751; 787.B**) and perhaps wool at Mycenae (**MY Oe 122**). A less clearly read occurrence (*za-ku-si-jo*) identifies rowers (to be discussed further below) on the long inventory of **PY An 610.12**. The occurrence of early Mycenaean built and tholos tombs in Zakynthos (Keri, Planos) might suggest a plausible link with southwest Peloponnese, where this tomb-type shows its most dense LBA concentration, so the appearance of the ethnic on Pylian texts finds at least some indirect archaeological corroboration. Pylian occurrences of *ke-re-si-jo*, *we-ke* describe two variants of a specific bronze tripod ideogram (*\*201a<sup>vas</sup>* in **PY Ta 641.1** and *\*201b<sup>vas</sup>* in **Ta 709.3**<sup>96</sup>), clearly designating their Cretan craftsmanship in these cases;<sup>97</sup> the analysis of archaeological correlates of ideograms by Vandenabeele and Olivier has supported the attribution of the types thus ideographically represented to LM workshops.<sup>98</sup>

However, more obscure and difficult to interpret are certain one-off textual references to familiar toponyms found in sites remarkably distant from the sites bearing the same names in post-Bronze Age times. The possible reading of the ethnic *na-u-pi-ri-jq-i* (Dative Plural in **KN Fh 5432**) on

a Knossian document<sup>99</sup> may or may not relate to the Argolid site. In this case, excluding the possibility of a similar LBA Cretan toponym must rely upon the absence of *\*na-u-pi-ri-jo* from other LM documents. Similarly, the significance of a 'flock supervisor' at Knossos named *a<sub>3</sub>-ku-pi-ti-jo* (**KN Db**

<sup>92</sup> Aravantinos 1987; Palaima 1991, 278.

<sup>93</sup> Masculine Dative Singular *\*Λακεδα(ι)μνίῳ*, 'to the Lakeda(i)monian': **TH Fq 229.4**, 253.[3], 258.3, 275.3, 284.[3], 325.[1], 339.[3], 382.[3]. *ra-ke-<da>-mi-ni-jo* in **Fq 254[+]**255 is in all probability a scribal mistake. In five instances by Scribe 305 (**TH Fq 229.4**, 253.[3], 258.3, 275.3, 284.[3], 254[+]255.13) *ra-ke-da-mi-ni-jo* is accompanied by what was initially read as the ideogram FAR (flour). Palaima (2006a, 145–8) has argued persuasively that the sign transcribed as FAR in the *editio princeps* is in fact sign *\*65, ju* which plausibly stands for *υἱὸς / huyos* (< Proto-Greek *\*huyus* < PIE *\*suyus*), 'son' (also in Duhoux 2002–3, 237–47). An interesting variant for the name is provided by **TH Gp 227.2** (probably by Scribe 306): *ra-ke-da-mo-ni-jo-u-jo*, which, apart from being explicit on the presence of the Mycenaean word for 'son' (*-u-jo*), also features the inter-consonantal vowel *-(m)o-* (as opposed to the dead vowel in *-mi-*), which produces the more familiar *Λακεδα(ι)μόνιος*, 'Lakeda(i)monian'. Duhoux (2007, 102–3) has shown that this onomastic variation has historical parallels (Κλεομένης, Κλέομ(μ)ις). The overall interpretation of the word seems to be more likely the 'son of (a man called) Lakeda(i)m(o)nios' rather than the 'Lakedaimonian son' or 'son of (a place called) Lakedaimon'.

<sup>94</sup> Yves Duhoux has argued with good reason that *ra-ke-da-mi-ni-jo* could very well be an *anthroponym* (Duhoux 2002–3, 179), supported by the references to 'son' (see previous note).

<sup>95</sup> Masculine Dative Singular, possibly *Ἀρκάδεῳ*, 'to the Arcadian?': **TH Fq 240, Fq 276**. Other possible (but far less convincing) references to 'foreigners' from the same Theban assemblage may be included in **Fq 214**: *a-ra-o* (from Halai in Opuntian Locris, unrelated to any maritime itinerary) and an *o-to-ro-no*, 'Othronian' (too far fetched in my opinion). Recently, Alexander Uchitel drew an attractive analogy between the new Thebes **Fq** tablets and Sumerian texts mentioning 'messengers' stations' at Lagash (Ur III period) as well as Persian documents from Achaemenid Hadaran (Uchitel 2004). Uchitel's suggestion might imply that the Theban centre sent rations to personnel placed in distant locations, which is so far unparalleled in other 'palatial' administrations, but this has implications apparently beyond the scope of this work.

<sup>96</sup> See the classification of these ideograms in Bennett & Olivier 1973, 231.

<sup>97</sup> Aura Jorro 1985, 348 *s.v.*

<sup>98</sup> Vandenabeele & Olivier 1979, 225–33; Palaima 1991, 281; Olivier 1996–7, 285. However, Matthäus (1980, 114) is less confident about this identification.

<sup>99</sup> See Palaima 1991, 280 for reference to the new joins for this document.



1105.B Αἰγύπτιος) is difficult to evaluate: the number of the sheep he is in charge of is rather modest and the main implication of this occurrence is linguistic, not historical.<sup>100</sup> The same can be said for the (ex-ethnic) personal name *mi-sa-ra-jo* (KN F(2) 841.4), interpreted as \*Μισράγος (< W. Semitic *mišr* = Hittite *mizri*, ‘Egypt’). Such diplonymy with regard to extra-Aegean territories might also be paralleled in the case of references to Cyprus (see below).

The case of *ethnica* referring to regions in the eastern Aegean and western Anatolia and identifying female textile workers at the Pylos A-series (*ra-mi-ni-ja* < Λᾶμνος<sup>101</sup>; *ki-si-wi-ja*<sup>102</sup> \*Χῖαι < toponym \*Χῖος, later Χίος; *mi-ra-ti-ja* < Μίλατος; *ze-pu<sub>2</sub>-ra<sub>3</sub>* < Ζεφυρία;<sup>103</sup> *ki-ni-di-ja* < Κνίδος) is more clear, as it may reflect an interest in acquiring personnel (of undetermined status) from an area that is, for once, geographically consistent.<sup>104</sup> Moreover, the inter-association of these occurrences in thematically similar Pylian texts enables us to resolve the question of whether this LBA Milātos referred to Anatolian Miletus or the Cretan Milatos in favour of the former. However, the many references to *mi-ra-ti-jo* from the new Thebes tablets (Odos Pelopidou deposit),<sup>105</sup> isolated as they seem to be from other West Anatolian references, could equally well refer to the Cretan site and we should not project without hesitation the Pylian testimony here.

*ku-pi-ri-jo* (almost<sup>106</sup> unanimously interpreted as Κύπριος) is perhaps the term that has attracted most attention, due to its potential to illuminate Aegean-Cypriot relations in the LBA as well as the role of Cypriot in ‘trade’ patterns of the Aegean LBA III ‘palaces.’ As is the case with Theban *ra-ke-da-mi-ni-jo*, there is no way of determining the extent of geographic reference of the toponym whence the ethnic was derived (presumably \**ku-po-ro*, Κύπρος); we are thus desperately uncertain whether the entire island, a territorial polity or a specific Cypriot site are indicated. Palaima has conveniently highlighted the main features of the term stressing the wide range of commodities and activities it is associated with (textile industry, dye material, coriander and oil), including a reference to what seems to be a religious offering of honey *ma-ki-ro-ne* \*Μαγιρόνει (Dat.) ‘to *Magirōn*’ (KN Gg(2) 995),

a Knossian *hapax*, plausibly identifiable as a theonym.<sup>107</sup> Palaima makes the important point (albeit ultimately an *argumentum ex silentio*) that, unlike the Pylian textile workers from E. Aegean/ W. Anatolia, \**ku-pi-ri-ja* women are not mentioned. Correlated with the extremely differential distributions of Anatolian and Cypriot imports in the Aegean, Palaima’s assumption that this silence is meaning-

<sup>100</sup> We have certainly more salient sources (e.g. Keftiu representations and references, Aegean *Aegyptiaka* or Egyptian *Aegaeaka*) to address the complex set of questions relating to relations between Egypt and the Aegean world in later LBA.

<sup>101</sup> The ethnic occurs certainly only in PY Ab 186.B (feminine) and possibly in An 209.2 (masculine). Note the identification of a shepherd in PY Cn 719.6 and 328.4 as *ra-mi-ni-jo* (\*Λᾶμνιος, personal name or ethnic ‘Lāmnian’ > ‘Lemnian’?). The locality where this Λᾶμνιος supervises his flock of sheep is *pi*-\*82, along with a shepherd called *ku-pi-ri-jo* in the 719.7 (Κύπριος, see below), so that this contextual association points rather to the interpretation of both as ethnics.

<sup>102</sup> Note the possible occurrence of personal names deriving from this ethnic in some Knossian texts (V(2) 60.2; Xd 98; Od(1) 570.b).

<sup>103</sup> Reported as an ancient name for Halicarnassos (Str. 14.656).

<sup>104</sup> The essential readings on these references are still Hiller 1975 and Chadwick 1988. Palaima 2007 offers the most recent overview of references of Anatolian ethnic adjectives on Linear B documents, focusing on the problems of finding the name Τρώς among these, although he finally concludes, with good reason, that types *to-ro*, *to-ro-o* or *to-ro-wo* are more likely linked with /Tlōs/.

<sup>105</sup> Masculine Dative Singular, Μιλᾶτίω: TH Fq 177.2, 198.5, 214.[J 2], 244.2, 254[+255.10, 269.3, 276.3.

<sup>106</sup> One should mention the early transcriptions of the adjective as \*Γύβλιος, deriving from Gubla (ancient name for the city later known as Byblos, thus potentially same as Βύβλιος) supported by O. Szmerenyi and M. Doria (Palaima 2005, 48 n. 41 [with references] calls this –justifiably– a “wild card”).

<sup>107</sup> A specific Cypriot link for *ma-ki-ro-ne* was suggested originally *à propos* the publication of the join among the four components of this tablet in Killen & Olivier 1966, 63; Aura Jorro 1985, 419, *s.v.*; Palaima 2005, 22–3. Μαγίριος is attested as an *adnomen* to Apollo in two Cypriot syllabic inscriptions from Pyla. As a justification of the Linear B spelling, one may compare the spelling variation among Doric μάγιος, Attic μάγειρος and Aeolic μάγουρος ‘butcher’ ‘meal-preparer’. It is quite thought-provoking to consider that this is a true LBA theonym, whose initially *sacrificial* LBA semantic context was later transferred onto the 1<sup>st</sup> millennium BC as a widely used term for *meal* preparation and butchery, as sacrificial victims were often to be consumed. Palaima has already made the highly attractive suggestion that what we have here is a case for an “arguably a Cypriot deity installed in Mycenaean Crete” (Palaima 2005, 33).



ful and indicative of Cyprus' "different relationship with the Mycenaean centres than those along coastal Anatolia" gains credence.<sup>108</sup> Equally important, I wish to argue, may be the regional variations in nuances of the term *ku-pi-ri-jo*: Its contexts are far more diverse in Knossian documents, while all Pylian occurrences most probably are personal names (**Cn 131.3**; **Cn 719.7**; **Jn 320.3**; **Un 443.1**).<sup>109</sup> Two interpretations of this term in the Knossian texts are the most compelling: either *ku-pi-ri-jo* refers to individuals (whether Cypriots or not) that had a considerable role in the management of the relationship between the Aegean LBA III administrations and the Cypriot polities (or a polity),<sup>110</sup> or it may also occasionally refer to commodities destined for Cyprus.<sup>111</sup>

Knossian *a-ra-si-jo* would most probably not have attracted significant attention at all, were it not for its phonetic similarity to *Alashiya*, the now generally accepted Egyptian, Hittite and Syrian name for Cyprus.<sup>112</sup> If the shepherd name *a-ra-si-jo* on **KN Df 1229** is indeed referring to *Alashiya*,<sup>113</sup> then the most exciting implication is not that of an added Cypriot reference in Mycenaean onomastics, but that LBA Greek-speakers knew and used a name for Cyprus that had become virtually obsolete already in Homer and later Greek and, most importantly, that LBA Greeks may have perceived some kind of *differentiation* (plausibly, but not necessarily geographical) between *Alashiya* and *\*ku-po-ro*, as could be the case between *a<sub>3</sub>-ku-pi-ti-jo* and *mi-sa-ra-jo*; this hypothesis would explain the coexistence of both names as onomastic resources in the Knossian documents, as well as their different trajectories in 1<sup>st</sup> millennium Greek.

Fishing is not attested at all in the extant Aegean administrative documents and the low status of this activity throughout classical antiquity suggests that the silence of the records may reflect the actual lack of 'palatial' interest. Even if Pylian *de-ku-tu-wo-ko* (**Un 1322.3**) is read 'to the net-maker' (*\*δεκυτοφογῶ*), as the context of this reference allows,<sup>114</sup> we do have good iconographic evidence for the use of nets in trapping from the far more prestigious *hunting* scenes.<sup>115</sup>

Finally, a source of indirect evidence for the familiarity of LBA Greeks with maritime activities,

<sup>108</sup> Palaima 2005, 29. For imports see the catalogues and tables in Cline 1994 and the further quantification in Manning & Hulin 2005.

<sup>109</sup> Reference of *ku<-pi-ri-jo>* cloth (**KN L(8) 1647**) and wool (e.g. **TH Of 26**) depends on the interpretation of the single syllabogram *ku*, both ligatured and as adjunct, as an abbreviation for *ku-pi-ri-jo*, which is arguable (accepted by Palaima 2005), but not yet definite. The full spelling *ku-pi-ri-ja* defining the wool ideogram appears in the new text of **KN Od 667** (Melena *apud* Bennett *et al.* 1989, 204–5). We should note the possibility that *ku* applied to the *Cyperus* ideograms *\*124-\**125 may be interpreted as an abbreviation for the Cyc-lades, where this plant was renowned and obtained from in classical times (Fortes 2000; Palaima 2005, 26). However, the collective geographic name *Κυκλάδες* ('the encircling ones') does not occur before Herodotos.

<sup>110</sup> Killen (1995) argued persuasively for this, accepting that Knossian *ku-pi-ri-jo*, when used as personal name, seems to function as a 'collector.'

<sup>111</sup> This is the interpretation favoured in Palaima 1991, but see Palaima 2005 for a more balanced discussion.

<sup>112</sup> This identification, hotly debated in previous decades, has now been generally settled. A recent petrographic study of letters mentioning Alashiyan affairs from Tel El-Amarna (Egypt), Akhenaten's short-lived capital, and Ras Shamra (Syria), ancient Ugarit, has suggested their provenance from the region of Troodos Mt. in central Cyprus (Goren *et al.* 2003). This study has also broader implications for the sociopolitical organization of LBA Cyprus, since the fabric of those letters is different than that of the Enkomi 'Cypro-Minoan' tablets.

<sup>113</sup> Most likely *Ἀλάσσιος*. There are indeed other possibilities, although the Alashiyan connection is the most commonly featured in the literature, like for instance with Homeric *Ἀλῆσιον* in Elis. We may also notice that the epithet known from a Phoenician inscription is *Alasiôtās*, not *Alās(j)ios*, but Palaima argues convincingly that both Mycenaean *a-ra-si-jo* and Alashi-ya could have derived from a hypothetical non-Greek *Ἀλασσα* (Palaima 2005, 49 n. 54).

<sup>114</sup> **PY Un 1322** also refers to quantities of *\*120* (GRA, wheat or barley) to an *i-te-we* (Dat; Nom. *i-te-u* *\*ιστεύς* 'loom-worker') in .4 and also records the term *we-a<sub>2</sub>-no* in .5 probably to be reconstructed as *we-a<sub>2</sub>-no[-wo-ko]* 'maker of *we-a<sub>2</sub>-no* cloth' here as well as in .6 (cf. *\*ἤεῃανός* > Homeric *ἔανός* from IE *\*wes-*). For *de-ku-to-wo-ko*, *i-te-u* and *we-a<sub>2</sub>-no* see Aura Jorro 1985, 165 and 289 and Aura Jorro 1993, 414 respectively.

<sup>115</sup> Guest-Papamanoli (1996, 343–4) considers an interesting ethnographic analogy between Minoan net-trapping of animals and *battue* hunting at Cameroon. Hunting nets are depicted in contemporary artefacts, such as the Tiryns Boar Hunt (Immerwahr 1990, 130) or the LM IIIB *larnax* from Armenoi chamber tomb 7 (Merousis 2000a, 112–3, Cat. No. 20, pl. 7 bottom). Palaima (1991, 284–5) notes the possible 'hunters' (*ku-na-ke-ta-i*, literally 'leaders of dogs') mentioned in **PY Na 248** and allows for a maritime association through the intermediate link of cloth production terms in both **PY Un 1322** and **Ad 684** (where the sons of Pylian rowers are mentioned). Needless to say, both organic remains and icono-



Table 2. LBA Greek personal names with components semantically related to maritime activities. From the semantic range of positive meanings that \**e-u* εὖ may take, I have chosen in each case the nuance that seemed most appropriate.

Linear B spelling <sup>1</sup>	Alphabetic spelling	Textual occurrences	Scribe	Find-place <sup>2</sup>	Etymology
<i>a-pi-a2-ro</i> (I: 80)	Ἀμφίθαλος	<b>PY An 192.1</b>  <b>PY Ea 109</b> <b>PY Ea 270</b> <b>PY Ea 922.a</b> <b>PY On 300.2</b> <b>PY Qa 1297</b>	22  43 43 43 Class ii 15	Room 8 (Archives Complex)  Room 8 (Archives Complex) Room 8 (Archives Complex) Room 8 (Archives Complex) Room 8 (Archives Complex) Room 99 (Northeastern Building)	ἀμφί ‘both sides’ + ἅλς ‘sea’ ‘sea-girt’
<i>e-u-na-wo</i> (I: 263)	*Εὐνάφος	<b>KN As(2) 1520.9</b> <b>KN Bk 799 verso .2</b> <b>KN Dv 1206.B</b> <b>KN Np(2) 5725</b>	105 104 117 134	Corridor of Sword Tablets? (East Wing) Area of Bull Relief (North Entrance Passage) East-West Corridor (East Wing) Area of Bull Relief (North Entrance Passage)?	εὖ ‘good’ + νᾶϋς ‘ship’ (*νᾶϋ-)
<i>e-u-o-mo</i> (I: 263)	Εὐχορμος	<b>KN Vc(5) 127</b>	124-s	Room of the Chariot Tablets (West Wing)	εὖ ‘well’ ‘suitable’ + ἡόρμος ‘harbour’ adj. use in Homer <i>Od.</i> iv 358, ix 136: λιμὴν εὐορμος
<i>e-u-po-ro-wo</i> (I: 264)	*Εὐπλοφος	<b>KN V(3) 7620.3</b>  <b>PY Jn 601.2</b> <b>PY Jn 693.8</b>	115  2 2	West Magazine VIII  Room 8 (Archives Complex) Room 7 (Archives Complex)	εὖ ‘easy’ + *πλόφος > πλόος > πλοῦς ‘navigation’
<i>na-u-si-ke-re[-we]</i> (I: 466)	*Ναυσικλέφης	<b>KN Xd 214</b>	124-x	Room of the Chariot Tablets (West Wing)	νᾶϋς ‘ship’ (*νᾶϋ-) + *κλέφος ‘glory’, ‘fame’
<i>na-wi-ro</i> (I: 466)	*Νάϋλος	<b>KN Db 1507.B</b>	117	East-West Corridor (East Wing)	νᾶϋς ‘ship’ (*νᾶϋ-) + anthroponym suffix – ἴλος?
<i>o-ku-na-wo</i> (II: 23)	*Οκύναφος	<b>KN V(2) 60.4</b>	124-B	Room of the Chariot Tablets (West Wing)	ὠκύς ‘fast’ + νᾶϋς ‘ship’ (*νᾶϋ-)
<i>o-ti-na-wo</i> (II: 53)	*Ορτίναφος	<b>PY Cn 285.14</b>	1	Room 8 (Archives Complex)	ὄρνυμι ‘rouse’ + νᾶϋς ‘ship’ (*νᾶϋ-)

<sup>1</sup> Arab numbers within parentheses in far left column refer to pages in Aura Jorro 1985 (I), 1993 (II).

<sup>2</sup> Site is indicated by each document’s abbreviated prefix (**KN** = Knossos; **PY** = Pylos).

and more specifically navigation, is the evidence of certain *noms parlants*. The choice of name for an individual is well established as related to the social (ascribed) position (most likely of the family) and it usually makes use of things, concepts and activities that enjoy a special (but not necessarily high) status.

One may recall the lively debate between parents for naming a young boy narrated in Aristophanes (*Nub.* 62–67), where such statements are made in a comically explicit manner. It is immediately apparent from the pertinent evidence (Table 2) that such ‘maritime’ onomastics indicate, unsurpris-



ingly, a special status for ‘ship’ (ναῦς) and ‘navigation’ (πλοῦς), the nouns most commonly used as components for the pertinent personal names and, unsurprisingly again, the meaning of these *noms parlants* is always euphemistic. The strong departmentalisation of the Knossian administration, where palaeographic and thematic overlap among epigraphic assemblages is rare, impedes proper prosopographic evaluations, something apparent in the case of references to Knossian *e-u-na-wo*.<sup>116</sup> Nevertheless, judging from their positions in Knossian sheep tablets, one *e-u-na-wo* and the *hapax na-wi-ro* seem to be ‘flock supervisors’ linked with the toponyms *ri-jo-no* (unidentified so far) and *pa-i-to / Phaistos/* and this may also be true for Pylian *o-ti-na-wo*, linked with *ro-u-so*; Knossians *e-u-o-mo* and *o-ku-na-wo* may be charioteers;<sup>117</sup> *na-u-si-ke-re[-we]* and Knossian *e-u-po-ro-wo* are *hapax graphomena* and occur in obscure contexts; Pylian *e-u-po-ro-wo* is certainly linked to the Pylian bronze industry; the pattern is generally inconclusive. So far, we do not possess evidence to suggest any clearcut link between the meaning of these names and the status or occupation of the individuals who bore them,<sup>118</sup> yet their existence shows that familiarity with maritime activities was significant to families whose members were linked to both the Knossian and Pylian administrations.<sup>119</sup> More important in this last respect may be the Pylian term *po-ro-wi-to* (**Fr 1218.1; 1221; 1232.1**; Genitive *po-ro-wi-to-jo*: **Tn 316 recto .1**), ingeniously interpreted long ago by Leonard Palmer as \*Πλωριστός, the most navigable (month)”<sup>120</sup> Despite reasonable doubt on whether *po-ro-wi-to* is actually a canonical Pylian ‘month,’<sup>121</sup> Palmer’s etymology remains the most convincing and, if anything, serves as a strong indicator of the importance of navigation for the Pylian polity.

### *Direct evidence: references to ship construction, maintenance and personnel*

Unfortunately, the ‘main dish’ of this brief survey of Linear B evidence is less exciting, less variable and more ambiguous than the ‘appetizers’ previously discussed. Palaima explains the general paucity of references to ships as reflecting the general paucity in explicit mention of trade,<sup>122</sup> yet he admits that

graphic evidence confirm that fishing was widely practiced as a food resource (see Sakellarakis 1974 and Powell 1992 on fishing and fishermen in Aegean art).

<sup>116</sup> Landenius Enegren 2008, 78.

<sup>117</sup> Charioteers and high-status individuals (including the Knossian ruler himself) may be assigned prestige military equipment (corselets, horses and equipped chariots) in the **Vc** records from the Room of the Chariot Tablets (Driessen 2000, 210–1) and **V(2) 60.1b** from the same find-place actually mentions *a-ni-g-ko* \*ἀνίοχοι ‘charioteers’ (literarily ‘they who hold the reins’).

<sup>118</sup> In his recent doctoral dissertation on Pylian prosopography, Dimitri Nakassis explored the two homonyms between the two alum (*tu-ru-pte-ri-ja*) records (**An 35** and **Un 443**) and the Pylian **Jn** series, namely *a-ta-ro* and *ku-pi-ri-jo*. *tu-ru-pte-ri-ja* was certainly shipped to Pylos, whether from Melos or Cyprus. Concluding –with good reason– that names reported in these alum records could relate to overseas affairs (traders or entrepreneurs), Nakassis notes that, if we are to identify them with the bronze-smiths with the same names, then some of the latter where *also* entrepreneurs: “Perhaps it is not coincidence that we also have a smith’s name *e-u-po-ro-wo*, whose name means ‘good sailing’” (Nakassis 2006, 196–7, citation from 286, n. 80).

<sup>119</sup> We will not make extended reference to onomastic or other material that can be plausibly, yet less reliably, linked with terms for the ‘sea’ in general, as in *a<sub>2</sub>-ri-e* in **An 724.5**, plausibly \*ἄλιον, an early Accusative Singular (object of verb *a-pe-e-ke* preceding it?) of ἄλιεύς ‘fisherman’. Perpillou (1968, 209) who first made this suggestion, brilliantly assumed an early meaning ‘man of the sea’ from ἅλς ‘sea’ (a word of non-IE etymology though, as can also be argued for suffix -εύς). Moreover, the Pylian ‘flock supervisor’ *po-te-u* may be Ποτεύς (< πόντος ‘sea’), but equally possibly Πορθεύς (see Aura Jorro 1993, 158, *s.v.*).

<sup>120</sup> Palmer 1955, 11 (commenting on **PY Tn 316**, then named **PY Kn 02**); also references in Aura Jorro 1993, 150–1, *s.v.*

<sup>121</sup> Genitive *po-ro-wi-to-jo* could indicate time, but the type is *not* accompanied by Genitive Singular *me-no*, μηνός, ‘month’ as in the case of *pa-ki-ja-ni-jo-jo me-no* on **PY Fr 1224**. However, it is true that the indication of the term *me-no* is far more popular at Knossos than at Pylos, so this may only indicate that *me-no* was self-evident at the latter site.

<sup>122</sup> The paucity of Linear B references to maritime affairs and to overseas trade in general is somewhat of a commonplace in relevant literature. The nature of the textual evidence enables us to imagine several reasons why this should be so, although none is more than reasonable speculation: Leaving accidents of recovery aside, seasonal timing, deteriorating trade at the close of the ‘palatial’ period (most documents were preserved as part of broad fire destruction horizons and this is the clear case with *most* Knossian and Pylian documents) and a view of LBA IIIA–B maritime trade dominated by private entrepreneurs are among the most serious assumptions put forward so far. Of course, references to trade may be hidden or implied in terms not yet interpreted in this way and Killen has argued for a special role of the individual named *ku-pi-ri-jo* as an organiser of trade between the Aegean and Cypriot polities.







fairs, probably a militaristic one, as *o-ka* \*ὄρχα ‘military unit’ (cf. ὄρχη) in **An 656.1, .11** may indicate;<sup>133</sup> fragments of both **An 724** and **An 610** were found on the same location within Room 8 (of the ‘Archives Complex’ at Pylos), a fact that gains significance from the fact and they both deal with affairs of the prominent *e-ke-ra<sub>2</sub>-wo* (**An 610.13; An 724.5**);<sup>134</sup> there is a broad correspondence between the numbers of rowers recorded with the same toponyms in **An 1** and **An 610**, which approaches a rough 1:5 ratio.<sup>135</sup> The presence of the *o-ka* leader (**An 654.11**) *ta-ti-qo-we-u* on **An 724.8** also cannot be coincidental. The broad picture from these interconnections points to the military purposes behind the compilation of these documents; what is more interesting, however, is that it might accord well with the iconographic *ethos* of Hall 64 (see also *supra*).

The remarkable thematic parallelism between the text on the *recto* and the sketch on the *verso* of **An 724** may point at the function of this image as an indicator of the document’s content, perhaps to the aid of helpers of Pylian ‘scribes’/ officials, which may have been illiterate.<sup>136</sup> Nevertheless, it might be important to stress the similarity of this image, mastless as it is, to some earlier ship imagery,<sup>137</sup> but also to the new ship fresco from Hall 64 (see *supra*).

A remarkable document from Knossos has also yielded the so far unique sign \*259 (**KN U 7700**), which evidently bears a resemblance to the image of a vessel, albeit utterly abstracted.<sup>138</sup> Unlike the sketch on **PY An 724 verso**, this sign functions properly as an ideogram followed by numeral 1. If the sign preceding the preserved sequence ] *re-ta* is identified as *g*,<sup>139</sup> we might have a sort of qualification for the number of rowers *alternative* to them being counted as men (ideogram VIR + numeral). If \*259 is indeed an ideographic rendering for ‘vessel’, an option the editors of the new text cautiously but unnecessarily hesitate to follow,<sup>140</sup> it would designate a ship’s complement of rowers; the only assumption we need to make is that this number should have been self-evident to the administration, something absolutely expected if the ‘palace’ built its own ships.

This last remark brings us to the by far most compelling evidence for ‘palatial’ involvement in maritime affairs, the occurrence of the term *na-u-do-mo*

(\*ναυδόμος < ναῦς ‘ship’ + δέμω ‘build’ ‘construct’) at both Pylos and Knossos. Their relation to ship construction is unanimously accepted, but, as Palaima recognises, their ambiguous context does not allow us to decide conclusively whether they are shipwrights, master-planners responsible for the overall construction of a single ship or specialised carpenters.<sup>141</sup> The structure of **PY Vn 865** where *na-u-do-mo* is the sole heading for a list of 12 individuals identified by their personal names leads us to two main alternatives, according to the grammatic iden-

<sup>133</sup> Aura Jorro 1993, 19–21, *s.v.* *o-ka*; an alternative interpretation as \*ὄρχα could mean ‘(office of) receptions’. Accepting a ‘military’ interpretation of the **PY An** tablets where this term appears (the so-called ‘*o-ka* tablets’) engages one to the nexus of problems related to the state of ‘emergency’ on the eve of the destruction of the Englianos complex. The so-called *o-ka* tablets are generally divided into ‘paragraphs’, distinguished by empty lines, each headed by *o-ka* designated by a masculine personal name in Genitive. It is generally assumed that this individual is the leader/ commander of each *o-ka* unit.

<sup>134</sup> It is beyond of the scope of the present work to get into the problems of the orthography and syntactic position of the type *e-ke-ra<sub>2</sub>-wo-ne* (which morphologically should be Dative but ought also to be the subject of verb –in Nominative– *a-pe-e-ke*). For recent comments on the matter see Del Frio 2002–3, 150–1 (with references).

<sup>135</sup> Killen 1983, 78. Given the certain recurrence of three toponyms among these documents, a reconstruction *ro-o-juwa* in **An 610.4** is entirely possible (suggested by Killen 1983, 74–5 and checked during autopsy by the author).

<sup>136</sup> However, it is difficult to project such an interpretation to other sketches. On the complex problems of such images see Palaima 1992.

<sup>137</sup> See already in Wachsmann 1998, 125, where it is noted that this sketchy image is quite distinct from LBA III ship imagery and more reminiscent of ‘boats’ known from MM–LM I glyptic and a late MH matt-painted jug from Argos (Protonotariou-Deilaki 1987).

<sup>138</sup> Bennett *et al.* 1989, 230–1, fig. 1; Palaima 1991, 286–7, pl. LXIIIa.

<sup>139</sup> Suggestion by Melena *apud* Bennett *et al.* 1989, 231, therefore giving out *g-re-ta* ‘rower’.

<sup>140</sup> “nous préférons le laisser dans les «non identifiés»” (Godart & Olivier *apud* Bennett *et al.* 1989, 230).

<sup>141</sup> Palaima 1991, 288. See also variety of opinions recorded by Aura Jorro 1985, 465–6, *s.v.* *na-u-do-mo*. Inconsistent with the orthography is the interpretation of the term as \*ναυδόμοι ‘temple-builders’ from first component ναῦς ‘temple’ (later attested only in Aeolic; cf. Laconian νᾱῖός, Ionic νῆός > Attic νεώς, later *koine* νᾱός). For a possible derivative adjective *na-wi-jo* see below.



tification of the term in question; a Dative Singular (\*ναυδόμῳ, 'for the shipwright') would imply that the individuals mentioned in lines .2-.9 are assigned to a *na-u-do-mo*, presumably to work under his supervision; alternatively, if we accept its identification as Nominative Plural (\*ναύδομοι), **Vn 865** would be a *list* of such specialist craftsmen. Although conclusion is impossible at this point, in both cases we have reference to individuals by personal names and not as a collective group, which may be an indicator of their relative status.<sup>142</sup> Their political significance may be further hinted by the already mentioned tax exemption of a group of *na-u-do-mo*<sup>143</sup> recorded in **PY Na 568** is the largest (50 units of flax) in the **Na** series. The generally accepted link between tax exemptions and the need of the central administration for specific specialised personnel on occasion may hint, as Palaima brilliantly observes, for a *current* (and possibly urgent?) need for ship-building in the Pylian polity.<sup>144</sup> The term also occurs in a Knossian text, although its verbal context there gives no clear information.<sup>145</sup>

The reference to *na-u-do-mo* in Linear B documents from Pylos and Knossos is fairly straightforward evidence for 'palatial' interest in maritime affairs (although hardly evidence for proper control), against which other categories of evidence have to be counted.

Those documents whose direct relevance to maritime activities has been more controversial are left for the end of this brief endeavour. Leaving the debated interpretation of *ka-ko na-wi-jo* (in the 'heading' of **PY Jn 829**) as 'ship copper/ bronze' aside as possibly irrelevant,<sup>146</sup> the materials (mostly apparently wooden) listed in **PY Vn 46** and **Vn 879** have been offered two radically different interpretations, either as building material for architectural construction or wooden parts used in ship building. The lack of helpful pinacological and palaeographic data for these documents and the uncertainty over much of the utterly technical vocabulary included in their texts impedes any conclusive decision between these alternatives, while much discussion has circled around the interpretation of *ka-pi-ni-ja* (**PY Vn 46.2-4**) either as *καπνία*, 'chimney' or as deriving from *σκάφος* (hypothetical and linguistically earlier possible form \*σκάφνος) 'boat, vessel, ship'.<sup>147</sup>

In this context, it is important to note that this use of *σκάφος* as a sea vessel is not encountered in Greek before Herodotos. Although careful in not making conclusive statements about such inconclusive information, Palaima notes that both interpretations are in line with what one is prepared to accept in the light of evidence for wall-builders (*to-ko-do-mo*, \*τοιχοδόμοι) at Pylos, and for carpenters (*te-ko-to-ne*,

<sup>142</sup> However, another possibility might be explored, though tentatively put here: that a shipwright would work with specific specialised technicians (his own 'work-team'), which he would have asked to be sent from the central administration. Along this argument line, reference by name would answer the need for specification.

<sup>143</sup> Number is indicated by the verb *o-u-di-do-si*, which is certainly 3<sup>rd</sup> person Plural (*na-u-do-mo* being its subject).

<sup>144</sup> Palaima 1991, 287, n.71. Another exempted group is collectively noted as *ma-ra-te-we ra-wa-ke-si-jo* (**PY Na 245**) \*μαλατήρες \*λαῖγᾶγέσιοι. Although the early interpretation of *ma-ra-te-we* as 'sailors' (based on the Hesychian gloss μαλατήρες· ναῦται) has not met wide acceptance, Palaima (1991, 287, n.72) draws attention to their link with the high official *ra-wa-ke-ta*, to whom rowers are also linked in **PY An 724.7**. However, from a purely morphological point of view, Petruševski's (1968, 684) suggestion for \*μαλανθήρες (Nom. Plural; Sing \*μαλανθεύς) seems to be the most plausible so far proposed, but, even if so, the meaning remains obscure (see Aura Jorro 1985, 424 s.v. *ma-ra-te-we*). An etymological link with μάλασσω is perhaps to be further explored, as this verb is occasionally used in a technical tense of preparing ('softening') raw material for further processing (usually leather, but also metals).

<sup>145</sup> **KN U 736.1**. It is also nearly certain that the term can be reconstructed from *ju-do-mo* in **PY Xa 990.1**.

<sup>146</sup> That the adjective *na-wi-jo* could be etymologically linked to *vāūs*, 'ship' is unquestionable. The problem is rather pragmatological, as it is entirely uncertain what the meaning of 'ship copper/ bronze' would mean as opposed to other amounts of *ka-ko*. It would be quite surprising if **Jn 829** were our sole record of copper/ bronze coming from overseas, since this would *ad absurdum* implicate that *ka-ko* not thus designated was local or transported through land, which must have been quite time- and labour-consuming and extremely risky. Palaima (1991, 295) justifiably favours the other alternative of *na-wi-jo* as deriving from \*νασῶς, 'sanctuary, temple' (literally: (deity's) dwelling), supported by the fact that this specific kind of *ka-ko* is given (amongst others) by a religious official, *ka-ra-wi-po-ro* (κλαῖφιφόρος, 'key-bearer'). See Aura Jorro 1985, 466, s.v. *na-wi-jo* with standard references to which Milani 1998 and Del Frio 2005 may also be added.

<sup>147</sup> Van Effenterre 1970 originally proposed the nautical interpretation of these tablets. The issue is reconsidered in Palaima 1991, 296-301 and more systematically in Hocker & Palaima 1990-1.



τέκτονες) and ship-builders (*na-u-do-mo*) as attached specialist craftsmen in both Pylos and Knossos.<sup>148</sup>

Another point should be added, however: the (probably) technical term *pa-ke-te-re* (plausibly *πακτηρες* < *πήγνυμι*) that appears on both these documents is also solely recorded *supra sigillum* on a Pylian sealing (**Wr 1415.α**) that bears the impression of a maritime theme (men aboard what seems to be a longboat).<sup>149</sup> Although such a direct link between seal iconography and their administrative use is hardly discernible in other Aegean cases, the possibility that this may not be entirely coincidental should be borne in mind.<sup>150</sup>

The enigmatic Pylian term *e-re-e-u* has also been interpreted as the title of an official responsible for rowers on the basis of the similarity of its stem with that of *e-re-ta* (the alternative being that it is an anthroponym deriving from a toponym, something like \**Ελεθεύς*). Palaima has reviewed the evidence and has favoured the former possibility, emphasising links with *na-u-do-mo*.<sup>151</sup> However, a new perspective on this term has been recently offered. After critically reviewing Palaima's suggestion, John Killen noted the particular (but by no means exclusive) relation of these *e-re-e-we* with toponyms located to the Pylian 'Further Province'.<sup>152</sup> Forwarding the equally plausible etymological relation of *e-re-e-u* with \**e-ro* ἔλος 'marshland', Killen draws an ingenious link between the eastern Messenian marshlands in the valley of Pamisos and the duties that could be revealed by the etymology of the title itself.<sup>153</sup> Although Killen very cautiously does not expand on the precise function of these officials and despite the fact that material evidence on the Bronze Age land-use of the region is at present almost non-existent (with the brilliant exception of the immediate vicinity of Nichoria), we should keep in mind the fascinating possibility that these *e-re-e-we* were connected with attempts at artificial drainage of the extensive marshland valley. Although a 'palatial' involvement in the drainage of the Kopais basin is inferred by the scale of the enterprise rather than specifically indicated, the sheer size of the Gla fortress provides us with an impressive indication for what LH IIIB polities were able to achieve. Albeit in a more indirect way, Killen's reconsideration of the term also implies a connection with extensive water-scapes and 'palatial' interest in their management.<sup>154</sup>

Another problematic piece of evidence for administrative interests on maritime affairs concerns Chadwick's interpretation of the Knossian **Vf [ex V(5)]** set (Hand 125) as related to the record of ships (although never explicitly mentioned as such<sup>155</sup>), which are (presumably) transferred to near Knossos from different Cretan provincial localities.<sup>156</sup> Palaima's exhaustive pinacological reconsid-

<sup>148</sup> Palaima 1991, 300. Hocker & Palaima (1990–1) provide a more detailed discussion of these documents with an emphasis on Bronze Age ship architecture provided by Fred Hocker's expertise. Although their analysis is extremely useful, a conclusive statement is prudently lacking.

<sup>149</sup> CMS I Supplement, no.179. Since an ideogram is lacking, the interpretation of the document is unclear.

<sup>150</sup> We must also consider that *πήγνυμι*, from which *pa-ke-te-re* may derive (cf. Passive voice stem \**παγ-* > Fut. *παγήσομαι*, Aor. *ἐπάγην* in Attic), is attested as a second component in the most usual later Greek term for a 'ship-builder' (still in use in modern Greek), *ναυπηγός*.

<sup>151</sup> Palaima 1991, 301–4. Pertinent texts are: **PY Nn 831.4** (Nominative Sing.); **Na 262.B** (Genitive Sing.); **An 723.1** (Dative or Nominative Dual?); **Cn 1197.5** and **Jn 881.1** (Dative Sing.). See references in Aura Jorro 1985, 239–40, *s.v.* The crucial evidence for such a link are: (1) the concurrence (first observed by Palaima) of *e-re-e-u* with a person named *u-re* on **PY Nn 831**(.2, .4); Palaima correctly notes that the only other Linear B lexeme beginning with this syllabogram sequence is the name referring to a person most likely supervised by a *na-u-do-mo* (**PY Vn 865.9**), thus the nautical associations of *e-re-e-u* are augmented. (2) One should also note that the tax-exemption recorded on **PY Na 262** for an *e-re-e-u*, which would link him with the also exempted *na-u-do-mo* (**PY Na 568**).

<sup>152</sup> Killen 2007, 165–6.

<sup>153</sup> Killen 2007, 166.

<sup>154</sup> This revised interpretation of *e-re-e-we* need not be incompatible with the links with *na-u-do-mo* emphasised by Palaima: tax-exemptions clearly indicate the vitality of the duties of both officials for the 'palatial' administration.

<sup>155</sup> Chadwick (1978, 201) suggests that the toponymic adjectives that appear in all instances in .B are feminine (Nominative Singular?) and could refer to the omitted noun *ναῦς*, citing the Athenian official sacred ship *Σαλαμινία* (< *Σαλαμίς*, the island of Salamis in the Argosaronic Gulf) as a parallel. Of course, projecting this Attic Classical information onto the Cretan LBA is not without its problems.

<sup>156</sup> Chadwick 1978. All tablets of the set are of the palm-leaf type with a consistent structure, where sufficiently preserved: .A includes the term *po-ti-ro* followed by two personal names (each followed by numeral "1"), the latter one featuring the enclitic *-qe*. .B includes only one word, which in most cases seems to be a toponymic adjective.



eration of the set has revealed the sole reliance of Chadwick's argument on his highly attractive (yet inconclusive) interpretation of *po-ti-ro* as 'ποντίλοι', which he interprets as 'seamen'.<sup>157</sup>

A proper interpretation of this scanty textual evidence cannot afford losing sight of the fact that in most cases a more precise interpretation largely depends on what the researcher *expects* those documents to be about, an assumption made on the basis of the broader interests of the 'palatial' administration. Even if 'palatial' involvement in ship-building is clearly manifested (in the *na-u-do-mo* references), the actual purpose of the enterprise remains elusive.

As far as military interests remain more explicit and easily-identifiable among administrative documents than properly commercial ones, the former sphere is bound to remain –at least from our *etic* standpoint– the most likely scope for the maritime activities directly recorded in the Linear B texts. That *e-re-ta* records are interlinked with *o-ka* tablets may therefore be rather indicative, although it is difficult to decide whether patterns linking these documents to more general aspects of 'palatial' socioeconomic organisation<sup>158</sup> reflect the 'norm' or exceptionally distressful situations which were specifically Pylian. A most significant conclusion reached by Killen has been that, even if responsive to an 'emergency' state, the reaction of the Englianos center moved along modes of assembling personnel that were similar to the 'regular' system of tax-assemblage.<sup>159</sup> However, even Killen's brilliant exposition of this analogy might be insufficient for deducing the historical circumstances of the Pylian references, since we are not in position to judge whether the pattern observed<sup>160</sup> in documents such as **Cn 608** and **Vn 20** is indeed 'regular' or it also stems from a pending 'crisis' or other special administrative circumstances.

While such exploitation of the sea for military purposes may be the most safely attested among the tablets, the silence of the texts cannot sufficiently support a total disinterest of the 'palaces' for the commercial aspect of maritime activity. However, as shall be discussed further below, moving to the other extreme is not reliable either; to view the 'palaces' as the sole agents of regional or long-dis-

tance trade in their contemporary Aegean world would be an inappropriate *underestimation* of the specificity and selectivity of 'palatial' economic interests on one hand, and an equally inappropriate *superestimation* of their technical means required to exercise such control.

## Post-palatial change: a view from ship iconography

The Postpalatial Bronze Age (LH/LM/LC IIIC, hereafter PBA) is widely understood as a period of instability, characterised by cultural regionalism resulting from the break of interregional commonalities. It is therefore difficult to paint a general picture of the Aegean at the time and the different regional trajectories have to be emphasised.<sup>161</sup> The demise of most crafts discussed in the previous section after the collapse of LBA III 'palatial' administrations, leaves pictorial pottery as the near-exclusive medium of figural representations in the

<sup>157</sup> Palaima 1991, 304–8. The interpretation of *po-ti-ro* as an *occupational* designation (as opposed to a personal name) seems to be safe, as indicated by the structure of most preserved tablets of the set (see footnote *supra*). In that case, *po-ti-ro* would most probably be in Nominative Plural. The only occurrence so far of ποντίλος is in Arist. *Hist.An.*, 525a, 21, where the name is mentioned as a synonym to ναυτίλος, a name used in this work of Aristotle for the mollusc nautilus or argonaut (*Argonauta argo* L.), which is notably popular in Aegean art (see *supra*). With reference to the mention of two individuals after *po-ti-ro*, Chadwick (1978, 201) makes an explicit link with Homeric evidence for the presence of *two* helmsmen or pilots (κυβερνήται, 'governors') aboard. For alternative suggestions, e.g. as a personal name \*Φορτίλος, see Aura Jorro 1993, 163, *s.v.*

<sup>158</sup> See for instance Killen 1983; Palaima 1991, 285–7; Del Freo 2002–3.

<sup>159</sup> Killen 1983, 78.

<sup>160</sup> By accepting that the same pattern as the one observed in fiscal documents appears in records such as **Vn 20** it is by *no means* implied that these parallel documents are 'fiscal' proper. The pattern may be a reflection of the structure of Pylian organization that appears in more than one aspects of the 'palatial' economy.

<sup>161</sup> Dickinson describes instability as the "keynote" feature of this period with main emphases on turbulence and population decline (Dickinson 2006, 67–76, 242–5).



LBA IIIC phase. This may go some way to explain occasionally impressive investment in high-quality craftsmanship indicated by impressive vase-painting even using some sort of 'polychrome' effects (e.g. the Mycenae Warrior Vase). Yet pictorial pottery did not penetrate elite tastes everywhere and this seemingly does not relate (at least not directly) to the prosperity or dearth of a region in the PBA: it is quite rare in Messenia (a region where a possible population decline is more 'archaeologically visible' than anywhere else) and altogether lacking in the Kephallenian cemeteries that seem to have thrived throughout LH IIIC.

Marine invertebrate fauna is made ubiquitous through the widely distributed Octopus Style stirrup jars.<sup>162</sup> Merousis notes an increase in marine fauna themes (particularly octopuses and fish) in LM IIIC *larnakes* from east Crete.<sup>163</sup> However, the most important evidence from the PBA comes from a significant corpus of ship representations stretching from Kastanas in central Macedonia (Fig. 3f) to the north up to Ashkelon in modern Israel to the east (Fig. 3g).<sup>164</sup> Crete has so far yielded very few examples, of which only the rim-sherd of a cup from Phaistos is undoubtedly correctly identified thematically and safely within LM IIIC (Fig. 3i).<sup>165</sup> These representations exhibit some degree of stylistic diversity seen most clearly when one compares the representation of human figures, e.g. the rowers from Serraglio (Kos)<sup>166</sup> and Bademgediği Tepe<sup>167</sup> with those from Pyrgos Livanaton (Phokis)<sup>168</sup> (Fig. 3e) or the recent Lefkandi representation,<sup>169</sup> mostly dated to LH IIIC Middle. Yet it is extremely important that there are three main features that define the 'idiom' of these representations and transcend stylistic idiosyncracies: the figure-headed prow, the 'horizontal ladder' pattern and the military connotations of an increasing number of examples.

The *figure-headed prow*, which in no other period becomes more prominent than in PBA iconography, has been interpreted as a sort of 'bird-head' device, although a close examination of quite detailed representations like the sherd from Ashkelon (LH IIIC Early) (Fig. 3g)<sup>170</sup> or the Pyrgos Livanaton sherds (LH IIIC Middle) (Fig. 3e top) should have this identification revised: the prow bears spikes

and appendages that make it better understood if described as 'dragon-like' or 'sea monster-like' (see also Fig. 3a-c; d top left<sup>171</sup>). It is likely that the earliest iconographic attestation of such prows is on a MH matt-painted sherd from Kolonna (Aigina)<sup>172</sup> while the same feature is clearly depicted (albeit sketchily) in the Gazi *larnax* (LM IIIB). The 'bird' identification is usually supported on the basis of the depictions of the ships of 'Sea Peoples' at the Medinet Habu temple reliefs: however, the Egyptian's artist's presumed unfamiliarity with such vessels allows for the possibility that what we see at the sea-battle relief is a conventional rendering of such 'sea monster-headed' prows. Michael Wedde's reconstruction of an actual bird on the figure-headed prow of the Tragana *Vigliſta* (tholos 1) pyxis ship

<sup>162</sup> See for instance the well-known example from Perati illustrated in Dickinson 2006, 123 fig. 5.3:2.

<sup>163</sup> Merousis 2000a, 399, pl. 6 top.

<sup>164</sup> The material is catalogued and commented in Petrakis 2006 (also Petrakis 2004 for a summary discussion). New imagery was published while Petrakis 2006 was already in press: Mountjoy 2005 published the new LH IIIB2/ IIIC Early Transitional pictorial crater from Bademgediği Tepe (W. Anatolia) and previously unpublished representations from Enkomi (LH IIIC Middle) and Ekron (Level VIIa). Dakoronia 2006 summed up the Pyrgos Livanaton evidence with some recent fragments. The new representation of rowers from Lefkandi *Xeropolis* (LH IIIC Middle) is beautifully illustrated in the cover jacket of Deger-Jalkotzy & Lemos 2006.

<sup>165</sup> This representation has been quite well-illustrated (Laviosa 1972, 9 fig. 1b; Wedde 2000, 320 no. 609). Another representation from Phaistos is of uncertain date, from LM III whereabouts though (Laviosa 1972, 11-5; Wedde 2000, 320 no. 610 where a 'LM III' date is accepted).

<sup>166</sup> Vermeule & Karageorghis 1982, pl. XII.33.

<sup>167</sup> Mountjoy 2005.

<sup>168</sup> For the Pyrgos Livanaton (identified with the Homeric *Kynos*, a name that will not be used here) material see Dakoronia 1991; Dakoronia 1995; Dakoronia 1996; Dakoronia 1999; Dakoronia 2002a; Dakoronia 2002b; Dakoronia 2006.

<sup>169</sup> See Lemos *apud* Whitley 2004-5, 51, fig. 90 (Lefkandi 2004 season report) and also illustrated in the jacket of Deger-Jalkotzy & Lemos 2006.

<sup>170</sup> Wachsmann 1998, 201, fig. 8A.1.

<sup>171</sup> Petrakis 2006, 199-206. To these examples we should now add the Enkomi representation recently reconstructed and published by Mountjoy (2005, pl. XCVIId).

<sup>172</sup> Siedentopf 1991, 55 no. 75 (with references), Taf. 14:75. The interpretation as a ship is considered as uncertain by Wedde (2000, 238).



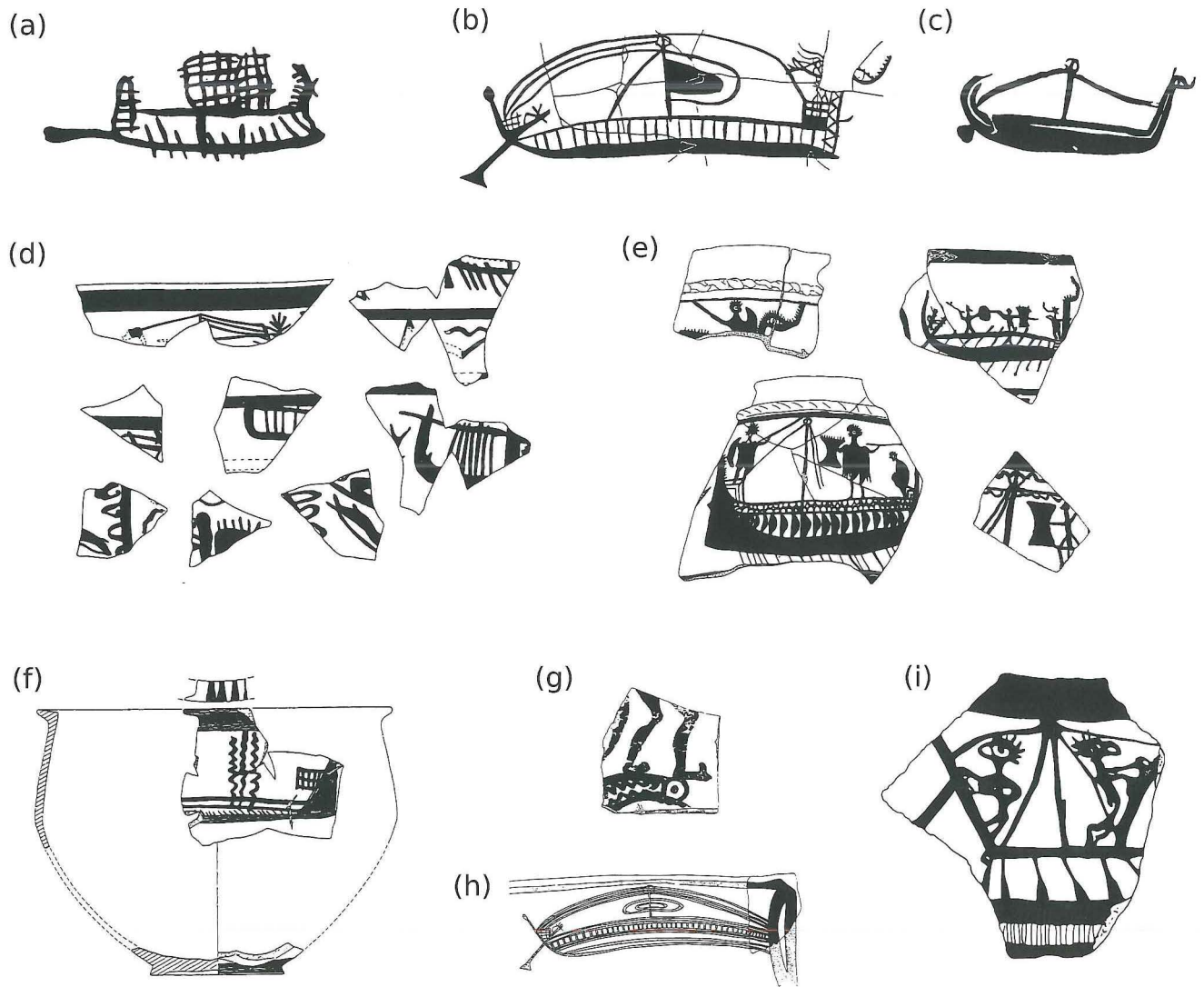


Fig. 3: Examples of PBA ship imagery. Figures redrawn by the author (Figures after Wedde 2000, courtesy of M. Wedde, except where otherwise noted). (a) Asine miniature stirrup jar, (b) Tragana pyxis (after Korres 1989), (c) Skyros stirrup jar, (d) group of sherds from the Phylakopi 'kalathos' (original drawing by P. A. Mountjoy), (e) sherds depicting Pyrgos Livanaton warships, (f) crater from Kastanas, (g) sherd from Ashkelon (Israel) (after Wachsmann 1998, 201, fig. 8A1; courtesy of S. Wachsmann), (h) krater(?) sherd from Varkiza (uncertain identification), (i) sherd from a LM IIIC cup from Phaistos (after Wachsmann 1998, 141, fig. 7.27; courtesy of S. Wachsmann). Figures not to scale.

(LH IIIC Middle)<sup>173</sup> makes the difference between bird and the creature depicted on the prow even more explicit. Egyptian ship imagery still provides an interesting interpretative clue: Although the warship as a special type of vessel is not extant in New Kingdom Egypt (rather many types of craft built for other purposes served that function when need arose), we may interestingly observe that Egyptian ships are sometimes depicted as having prows with lion-heads in whose open mouth one

can see the head of a recognisable bearded Asian.<sup>174</sup> This is a direct threat aimed at the enemy invad-

<sup>173</sup> See Korres 1989 (the most detailed study of the representation so far published) and Wedde 2000, 324, no. 643. The presence of a bird (presumably depicting a living bird, not a sculptured decoration) may be anticipated by the presence on a bird on prow in one of the ships on the Enkomi amphoroid crater (LH IIIB Early) (Fig. 2b).

<sup>174</sup> Landström 1970, 111-2 (detail 347).

ers and one directly linked to the military spirit of the representation. Likewise, a similar function for the 'dragon/ monster-like headed' prow seen in LH IIIC representations and paralleled in Scandinavian and Chinese sea vessels is certainly not out of place.

The 'horizontal ladder' pattern apparent in the majority of representations has received its most systematic treatment by Shelley Wachsmann.<sup>175</sup> However, previous considerations seem to make an assumption that might be unnecessary, namely that the motif should represent a structural "architectural element" of the actual prototype.<sup>176</sup> The problems of this interpretation of the motif as an utterly abstracted rendering of rowers based on one Pyrgos Livanaton representation and contradicting many others has been discussed elsewhere.<sup>177</sup> An alternative approach would be to examine this 'horizontal ladder' pattern within the context of the 'idiom' of LH IIIC pictorial pottery representations. A brief survey revealed that this pattern was employed on objects that have a similar quasi-cylindrical shape: human and animal neck, body of a horse/ sphinxes or griffins, serpent birds and, finally, ship's hull.<sup>178</sup> This could strongly indicate that the pattern has no architectural morphological significance, but it is an idiomatic (stylistic in the wider sense) convention for the rendering of curvy objects seen laterally, much in the same effect as that of stippling or linear shading used by modern draughtsmen.<sup>179</sup> The pattern already appears clearly on the ship of the LM IIIB *larnax* from Gazi (Fig. 2c), on the Dramesi *graffiti* ships (LH IIIB?) and its antecedents may be sought in the zig-zag motif decorating ships on the well-illustrated polychrome sherds from Volos *Kastro* (late MH) as well as on a ladder-like motif in a (controversial) ship representation from a bichrome pictorial sherd from Mycenae Grave Circle A (shaft grave V).<sup>180</sup>

Although the sea-fighting scenes depicted on the Pyrgos Livanaton vases bear a so far unparalleled explicitness for the military *ethos* of ship imagery in LH IIIC pictorial pottery, there are clearly warrior figures in the Bademgediği Tepe crater<sup>181</sup> and the Ashkelon sherd figure (Fig. 3g) could very well belong to a warrior. Such military connections of ship iconography are a recurring theme in Aegean pictorial pottery: we do have utterly abstracted figures aboard with spears from a MH matt-painted

sherd from Kolonna<sup>182</sup> and one should also remember the heraldic pair of sword-bearing high-status warriors aboard the two ships on the Enkomi amphoroid crater (LH IIIB Early). Considering these links alongside the rarity of ship imagery in pre-LH IIIC pictorial pottery, the military *ethos* of the PBA imagery does not appear as a new feature. Moreover, if we accept the interpretation favoured above for the figure-headed prow, then we may reasonably assume a military character even for some of the representations where warrior human figures are not depicted (Fig. 3a-c).

The military character of many LH IIIC representations enables us to comment upon the connection sometimes posed between LBA Aegeans and the 'Sea Peoples' on the basis of ship iconography.<sup>183</sup> However, the Medinet Habu reliefs, which constitute our primary source for the appearance of these Delta invaders, depict vessels with entirely symmetrical ends, each decorated as figure-headed, a feature paralleled only in the Tiryns sherd.<sup>184</sup> Assuming the full reliability of these images may not be wise, yet there is no way to demonstrate that the Egyptian royal artist employed to materialise the boasts of Ramses III could have devised this very feature. Wachsmann<sup>185</sup> has noted the central Euro-

<sup>175</sup> Wachsmann 1997, 345-9; 1998, 130-3.

<sup>176</sup> E.g. Wachsmann 1997, 345.

<sup>177</sup> Wachsmann 1997, 348; Petrakis 2004; Petrakis 2006, 206-9.

<sup>178</sup> See for instance (references are to Vermeule & Karageorghis 1982): Human neck: XI.31, XI.68; Animal necks: XI.9, XI.29 (horses), XI.72 (dog), XI.74, 77.1, 77.2 (deers); Animal body: XI.11 (horse), XI.91 (griffin/sphinx); Serpent: XI.90; Birds: XI.31.3, 83, 98, 99, 100-3, 108, 110, 112, 116-7, 124-5, 127, 141, 150.

<sup>179</sup> Petrakis 2004, 25; Petrakis 2006, 207-8.

<sup>180</sup> Wedde 2000, 317 no. 521 (Mycenae), 319 nos. 545-6 (Volos). Wedde (2000, 238-9) classifies both images as doubtful representations of ships, yet our specimen is too scarce to make positive or negative judgements.

<sup>181</sup> Mountjoy 2005, pls. XCVI, XCVIII.

<sup>182</sup> Siedentopf 1991, 62 no. 162 (with references), Taf. 38:162. For a general survey of the importance of maritime activities for MBA Kolonna see Muskett 2002.

<sup>183</sup> Wachsmann 1997; Mountjoy 2005 also draws parallels that she argues to support such a connection.

<sup>184</sup> Slenczka 1974, 29-30, Taf. 39:1.

<sup>185</sup> Wachsmann 1997.



pean affinities of this sort of ship imagery and this makes the ships of 'Sea Peoples' and LBA Aegeans linkable only through this European 'connection.' Of course, to assume that central European and Aegean populations were included in the 'Sea Peoples' coalition on such meagre evidence is very questionable.<sup>186</sup>

## People of the sea? The importance of maritime activities for the Aegean LBA III polities and its iconographic reflections

### *The multivalent realm: Sea and its sea of meanings*

#### *Sea as a background to long-distance trade*

Dominant and enduring questions of Aegean LBA trade include the extent of its manipulation by the 'palatial' administrative centres and the existence of private entrepreneurs. That we do have such individuals (however variably interacting with the 'palatial' administrations) in Near Eastern state-level societies is clear, yet the very genre of evidence that ensures us of their existence in a principality such as Ugarit (i.e. textual) is unavailable in the LBA Aegean. Could the paucity<sup>187</sup> of textual references to interregional or long-distance trade activities indicate that this range of activities had been undertaken by non-palatial agents? That would be a highly inappropriate indirect *argumentum ex silentio* though and some other *modus explanandi* should also be considered.

Even without direct textual confirmation, it is difficult to imagine private entrepreneurs as the exclusive or main pioneers in the establishment of trade patterns and institutions; Sherratt has moved close to the other extreme in seeing location upon important trade routes as the crucial factor for the genesis and maintenance of Aegean LBA III 'palaces.'<sup>188</sup> Given the important link between trade and the rise of social complexity and state formation,<sup>189</sup> a more plausible scenario would be that non-palatial trade agents (if they existed in the same form as

in the Near East) took over aspects of exchange in times and places where central administrations felt unable or unwilling to cope. An opportunistic and peripheral involvement of these groups that *could* occasionally rise to significance seems plausible. Therefore, to view trade as an *either* centralised or decentralised area of human action may thus be an oversimplification of what was the actual state of things in any phase of the Bronze Age.<sup>190</sup>

Sea is one area where human activity is difficult to control in absolute, 'terrestrial' terms; even moving through a seascape presupposes certain technical means and acquired knowledge. Given that both these resources could be subject to control, its economic potential must have been an obvious object of intense competition at inter-cultural and intra-cultural level alike from the very first days of navigation.<sup>191</sup>

Explicit archaeological evidence on Aegean maritime practice has so far been scanty. Shipwrecks (e.g. Point Iria at the close of LH IIIB) and imported artefacts excepted, one is left with few securely identified constructions. Building P at Kommos, with its series of long parallel spacious (total of 1500 m<sup>2</sup>) galleries opening seaward has long ago been interpreted as a shipshed.<sup>192</sup> Although this remains a highly attractive and plausible theory, the

<sup>186</sup> This seems to be assumed in Wachsmann 1997; Most studies of the problem focus on similarities in headgear and some weaponry depicted in the Egyptian reliefs, as well as on the mention of the *Peleset* = Philistines among the invaders. See Romey 2003 for an interesting exploration of these issues and a further development of some of Wachsmann's ideas.

<sup>187</sup> One should note that more optimistic interpretations have been attempted on even less explicit evidence; see for instance Marcus 2006 on the importance of maritime activities at Tell Dab'a (ancient Avaris).

<sup>188</sup> Sherratt 2001.

<sup>189</sup> Webb 1975; Kipp & Schortman 1989. Sherratt & Sherratt 1991 are also interested (amongst other things) in the political motivation of trade patterns and the interest of incipient elite groups in the acquisition of socially prestigious objects.

<sup>190</sup> Knapp 1993, 342.

<sup>191</sup> See Knapp (1993) for a useful and thought-provoking discussion on the implausibility of *true* 'thalassocracies' in the LBA Mediterranean.

<sup>192</sup> Interpretation originally by Maria Shaw, most recently discussed in J. Shaw 2006, 37–8 with figs. 26–7, 124–5.



building's *unicum* planning and inconclusive finds offer little help in its further interpretation.<sup>193</sup>

In western Messenia, investigations within the PRAP survey indicated the existence of an ingenious and elaborate artificial harbour near the coast just off the location of the two impressive tholos tombs at Tragana *Viglitsa* (interestingly, where the LH IIIC pyxis with ship representation in Fig. 3b has been found) near the village of Romanou.<sup>194</sup> Zangger observed that a large rectangular internal 'port' had been excavated and that the flow of a small river nearby had been re-diverted seawards and through the 'port' so as to inhibit (via outward 'flushing') its blocking by sediments brought in by the sea. Tentative dating suggested a date compatible with the known administrative flourishing of the Ano Englianos complex, between 1400 and 1200 BC. Although still not fully published, the elaborate planning and organisation required for its construction and maintenance is an important indication for the significance of naval activity in the region and a most serious clue that the most influential economic institution of the region, the Englianos 'palace,' was heavily (if not exclusively) involved. Indeed the existence of this 'Port of Nestor' as interpreted by Zangger and his co-workers mainly adds to the puzzle posed by the poor textual references to maritime enterprises. Recently, Hope Simpson and Hagel suggested that such harbours (either artificial or not) along the west Messenian coastline may have been plural,<sup>195</sup> but more geoarchaeological data are needed to support such a hypothesis.

Pylos is so far the only Aegean LBA site that has produced evidence for maritime activities in all three categories (geoarchaeological, textual, iconographical). A certain degree of correspondence between them indicates a strong need of the Englianos administrators to exercise some control over shipbuilding and overseas navigation; on the other hand, we cannot be certain of the extent and intensity of this control or discern between its 'regular' or 'exceptional' character.

While the paucity of references to sea trade in the extant documents from all excavated administrative centres or our own inability to discern such references does not allow us to identify the strictly economic motivation behind this interest, other pos-

sible links, specifically Pylian, compensate for this loss. The location of naval imagery in the spacious Hall 64 (Southwestern Building) would indicate that naval enterprises and even an arguable 'palatial' control over the Western Messenian coastline was a vital part of Pylian propaganda aiming at the integrity of the polity.<sup>196</sup> The provision of coastguarding services on the part of the 'palace' must have been felt as a great benefit for the local communities in times of distress, a situation that finds strong textual support in the links between the *e-re-ta* and the *o-ka* tablets emphasised above.

Although the interpretation of the historical circumstances on the very last days of the Pylian administration is far too complex to be summarily treated here, it is nonetheless attractive to consider that the iconographic programme of Hall 64 reflected the 'normal' desire of the Englianos elite to explicitly illustrate – in a room whose size could support its function for collective assemblies – its own potential to provide security through naval defense in case such a need arose. It is therefore ironic to see, in the final conflagration that actually preserved for us the pertinent administrative records, the evidence that such an attempt, if it ever took place, was unsuccessful.

### *Ships of power*

As an alien habitat, sea is a primal aspect of wild, non-human space, and ships are almost universally embodied as the means through which man 'domesticates' the '*agrios*' (in the Hodder-ian sense) seascape. Although not wishing to draw Childean references, navigation is as much a 'revolution' as agriculture is: a novel way of *re-locating* oneself within the natural world in a comparatively more advantageous niche. The special knowledge and material cost required and the significant advantages drawn from the construction and maintenance of

<sup>193</sup> J. Shaw 2006, 125.

<sup>194</sup> Zangger 1998; Zangger *et al.* 1997, 613–23.

<sup>195</sup> Hope Simpson & Hagel 2006, 210–2. They cite evidence for LH IIIB activity around the Osmanaga lagoon (on the basis of sherd material) as indication of other similar harbour-sites.

<sup>196</sup> Davis & Bennet 1999, where the general point had been originally made, although not with regard to naval imagery.



means of navigation make ships desired objects of ideological manipulation and iconographic preferences record this very desire.

It must be stressed that a ship is as multivalent as the sea it crosses. As a ship carrying a band of pirates, a merchant ship, a warship, any vessel (and particularly the oared galley depicted in most of the LBA III representations) could be used in all these ways.<sup>197</sup> By no means are these functions mutually incompatible. To quote Malcolm Webb, “fighting and trade ... inevitably became inseparably linked during the emergence of civilisation and they have extended in scope and intensity ever since.”<sup>198</sup> In particular, Webb’s framework seems to adjust quite well to Egyptian iconographic evidence where the earliest boat imagery is connected with scenes of conflict.<sup>199</sup> In the absence of explicit archaeological evidence, the specific circumstances that shaped the social context of ship-building in the various Aegean polities remain a *desideratum*. For the time being, we can attach to this theoretical framework the apparent connection of Aegean ships with warfare and military action (traceable back to the MBA and shown more exuberantly in PBA, see *supra*).

Except for the figure-head decoration of the prow, no particular part of a ship is emphasised in imagery, unless the iconographic ‘isolation’ of the Mycenae *ikria* is interpreted in this way. Commenting on the West House (Room 4) *ikria*, Morgan has suggested (on Egyptian parallels) that cabins could have been symbols of power and high social status.<sup>200</sup> It is important to stress here the military connotations of many of these sterns in Akrotiri (explicit in the boar-tusk helmets and spears above or beside many of the ‘stern-cabins’), which may suggest a warrior-status for the occupant of the cabin.<sup>201</sup> The recent identification of a small-scale such ‘cabin’ as ‘floating’ enigmatically among the men performing the Procession in the staircase of Xeste 4<sup>202</sup> should warn us that the semantic exploration of the Thera *ikria* is far from complete. Morgan entertains 1<sup>st</sup> millennium Greek *testimonia* on the high status of the stern place (where Thera cabins are invariably placed),<sup>203</sup> but it may be meaningful that the Mycenae panels most likely depict cabins placed *amidships*, as indicated by the vertical element possibly interpreted as the central mast. The possibility of a

significant semantic distance between the Mycenae and Akrotiri images should be borne in mind,<sup>204</sup> but an alternative explanation can be put forward: that the Mycenae panels depict the iconographic combination of two elements of ship architecture that were in reality structurally different and reflect a need to create a true emblematic abstraction of a ship’s image. The creation of such synthesised icons might point to the intensification of their symbolic exploitation, rather than a retreat from earlier LBA iconographic trends.

*Afterlife journeys to the ‘Isles of the Blessed’: A Bronze Age or a modern fantasy?*

The suggestion of funerary ships in the Bronze Age Aegean is initially triggered by the depiction

<sup>197</sup> This is most conveniently put forward in Wedde 1999. See also Crouwel 1999 for military use of ships in LH IIIC Middle.

<sup>198</sup> Webb 1975, 194.

<sup>199</sup> Ward 2006, 127 (with reference to Predynastic textile work and the famous Narmer stone palette).

<sup>200</sup> Morgan 1988, 137–42.

<sup>201</sup> Televantou 1994, 207–18; Lang 2002, Taf. 3:4.

<sup>202</sup> Boulotis 2005, 34.

<sup>203</sup> Morgan 1988, 140 with references.

<sup>204</sup> Religious elements based upon doubtful analogies between the significance of the Egyptian *waz* motifs and their Aegean adaptations on the Thera cabin poles (Morgan 1988, 141) or on the more firmly grounded connection of single female figures (of *presumably* divine status) with boats in Neopalatial glyptic (Boulotis 1989) no longer appear in LBA III ship imagery, might reflect the *change* in interests that maritime iconography was undergoing in LBA III (an issue to be further explored below). Cultic overtones have also been suggested for the Thera ship procession and special mention should be made to those ‘illogical’ or ‘inconsistent’ features usually taken to indicate the ‘ritual’ significance of an image. The paddling scene in the West House (Akrotiri), South Frieze ship procession has been taken to indicate such an interpretation, as it is certain (and supported by the uncomfortable posture of the ‘paddlers’) that such oared long-ships were *never* intended for true paddling (Televantou 1994, col. pls. 58–66, pl. 40a, 45 and Wachsmann 1998, 106 fig. 6.42; Wedde 1999, 475): for instance, Wachsmann (1998, 105–7) suggests that paddling should be in this case understood as an “archaic cultic practice,” a deliberate archaism with religious significance. While the unpractical nature of paddling a long ship is true, the alternative interpretation of an ‘artist’ copying from the wrong copy-book –if this was actually the way Thera painters worked, which is attractive but unproven– should also be considered.



of ships on funerary containers, most vividly represented by the remarkable Gazi LM IIIB *larnax* and the supposed boat model ‘offered’ in a processional scene on one of the long sides of the Agia Triada sarcophagus.<sup>205</sup> Moreover, cross-cultural analogies have suggested a well-grounded funerary significance of ship/ boat iconography that can be detected in communities whose viability is closely related to navigation, even as distant and unrelated as Scandinavia and southeast Asia.<sup>206</sup> However, the problem remains how to ‘anchor’ such a significance of ship imagery on Aegean evidence.

The first issue posed by this sort of evidence is the notable *rarity* of ship iconography on *larnakes* altogether (three LM and one LH examples). While this is admittedly an *ex silentio* argument, the quantity of known LBA decorated *larnakes*, makes such silence significant. If this iconographic choice reflects an afterlife belief, it may follow that this belief was held by an extreme minority of the Aegean population.

As far as the interpretation of the boat model on the Agia Triada sarcophagus’ ‘Presentation Scene’ as a representation of an actual Aegean funerary practice is concerned<sup>207</sup>, the contrasted rarity of actual models found in LM III (or even LBA III in general) funerary contexts has already been stressed. In the light of certain close thematic similarities between the Agia Triada sarcophagus and the procession fresco from contemporary (end of LM IIIA1 – IIIA2) buildings from the site itself, it would perhaps be worth considering whether the sarcophagus’ imagery is a depiction of a funerary rite *per se* or of initially *non-funerary activities put at funerary use* (as it would arguably be the case with e.g. the hunting scenes of the LM III *larnakes*). The Tanagra models (probably LH IIIB) would at first add to the evidence from the *larnax* with the abstracted ship figure from the same site, but we must also bear in mind that they come from a funerary site most untypical on the Mainland in its *widespread* use of such terracotta burial containers, so their relevance to the reconstruction of a general Aegean mortuary belief should be questioned.

Leaving ship iconography aside, Nanno Marinatos has called attention to what she dubbed the “Octopus Garden” in LM III *larnax* iconography,

which she views as an idealised ‘sacred’ paradise-like landscape characterised by a “deliberate mixing of environments of elements that should logically remain separate.”<sup>208</sup> In doing so, she provides a vastly different explanation of the same ‘thematic unawareness’ that also seems to characterise many examples of LBA III pictorial pottery and which Sherratt has explained as imitation of embroidered textile work (see *supra*). Favouring one of the two alternatives may be inevitably arbitrary, as each one is based on such fundamental opposing assumptions (namely, that the objects should be seen as thematically connected or not). However, the complete absence of Marinatos’ ‘Octopus Garden’ from Helladic decorated *larnakes* (see *supra*), is an indication that, even if such imagery indeed reflects an afterlife belief, this would have been a Cretan trait.

An inevitable question would concern the significance of the single octopus, which appears as dominant in most of its attestations. Hiller has suggested the ‘daemonic’ property of this mollusc and its possible parallel function to lions or griffins as their aquatic counterpart,<sup>209</sup> but to project this interpretation (which Hiller bases on Palace Style jars and decorated stucco floors) to the radically different context of the same marine invertebrates on terracotta *funerary* containers seems unwarranted at the present state of our knowledge. Once more, however, the lack of any regional pattern in the distribution of marine subjects and its restricted popularity<sup>210</sup> poses the question why the representation of this belief had not been more popular in the first place. It is possible that explanations other than a direct reflection of LM afterlife beliefs have to be

<sup>205</sup> Gallou (2002) provides a convenient ‘positive’ account of the evidence, as opposed to the skepticism expressed here.

<sup>206</sup> Ballard *et al.* 2003.

<sup>207</sup> For this interpretation see Long 1974, 48 with references.

<sup>208</sup> N. Marinatos 1997, 288. This practically corresponds to Merousis’s ‘thematic cycle 3’ (Merousis 2000a, 393–4).

<sup>209</sup> Hiller 1995, 568.

<sup>210</sup> Evaluation based on the catalogue and statistic graphs published in Merousis 2000a, 103–96, pls. 1–7. As noted above, it is only in the east Cretan LM IIIC examples that maritime themes acquire an obvious quantitative advantage (Merousis 2000a, 399, pl. 6 top).



devised for the iconographical choices made on the growing corpus of LM III decorated *larnakes*.

### *Reflections on the fluctuating popularity of maritime iconography in the LBA Aegean*

Even the most superficial student of Aegean art will notice that most of the themes briefly overviewed above are not LBA II-III novelties but in fact appear in late MBA/ early LBA Aegean art. The consideration of the Neopalatial period as one of the most intensive image-generating periods in Aegean Prehistory is beyond the scope of this study, yet the contrast of scarce maritime themes in the later LBA can be contrasted with the abundance of these subjects earlier: ships are an important category in the Neopalatial talismanic seals, a group that ceases to be produced in later phases, the Marine Style is by far the most sophisticated and highly executed decorated ceramic production in the contemporary Aegean and the most impressive and informative scenes of maritime activity date to LBA I period: the Miniature Frieze from West House (Room 5) at Akrotiri on Thera and a miniature fresco from Agia Irini on Keos.<sup>211</sup> Especially the Theran fresco has been frequently interpreted as evidence for maritime expeditions (even extra-Aegean, e.g. Egyptian or Libyan) in LBA I times.

When considering this earlier evidence alongside the less impressive and quantitatively inferior LBA II-III evidence, it is important to focus on what kind of other changes may be *implied* by possible change in imagery preferences. Although accidents of preservation and discovery are always an unpredictable factor, the overall impression is gained by accumulating evidence from many sites and its increasing reliability calls for explanation: Maritime themes seem to be *less frequent* in LBA II-IIIb imagery in comparison to LBA I. Whatever sophisticated scenarios we may advance to trace the earlier LBA ancestry of LBA III themes,<sup>212</sup> they cannot downplay (or serve as explanatory tools for) this different pattern of iconographic choices made. A significant *exception* emerges from the study of LBA III stucco floors: marine themes are not only the predominant, but the nearly exclusive *figural* subjects so far known, although they occasionally

*co-exist* with motifs indicating veined stone slab imitation (e.g. in the Pylos 'megaron'). It may be important that the only pottery group where marine fauna is abundant (Palace Style) dates to LM II-II-IA1, i.e. *before* the expansion of Mycenaean pottery outside the Aegean in LH IIIA2, a point that may be especially important. In all other categories (wall frescoes, pictorial ceramics and glyptic), maritime themes are generally rare in LBA III.

Returning to the well-recorded Pylian evidence, we may observe that those maritime themes that Maria Shaw<sup>213</sup> has so meticulously reconstructed are found in secondary contexts: plaster dumps and a wall fill (Table 1). Although the significance and function of the Pylian plaster dumps is not yet sufficiently understood and despite good evidence from Gla that LH frescoes were frequently renewed within the same architectural phase with no thematic change,<sup>214</sup> it is still of crucial importance to note that many of the subjects recovered from the Pylian plaster dumps are *not* recognised in the *in situ* frescoes of the Ano Englianos complex (the flower-bearing female procession being one such conspicuous case<sup>215</sup>). Although we do have a couple of notable exceptions, namely a few nautili frieze fragments and the new but *untypical* naval scene from Hall 64, maritime iconography *visible* at the time of the final destruction was evidently rare. Although the Mycenae *ikria* panels were apparently visible at the time the 'palace' was destroyed, the taphonomic evidence that we have from Pylos may indicate more explicitly what is rather implied by the overall rarity of maritime imagery in 'palatial' LBA III contexts, although uncritical projections from one site to other polities should be avoided.

<sup>211</sup> Wedde 2000, 327–8, nos. 672–6; Davis 2001, 30, fig. 4 (the material comes from area M, Room 2 (NE bastion) and is under final publication by L. Morgan).

<sup>212</sup> E.g. see Televantou 1994, 147 for inter-linking the *ikria* paintings in Akrotiri and Mycenae.

<sup>213</sup> M. Shaw 2001.

<sup>214</sup> C. Boulotis, pers. comm. July 2007. Of course, the numerous coats of plaster with identical decoration are already well-known from the monumental hearths at the *megara* of Mycenae and Pylos.

<sup>215</sup> Lang 1969, col. pl. O.



A change in the context where figural fresco decoration occurs between earlier and later LBA Aegean art seems to indicate radical shifts in elite strategies and Aegean political structure and may correspond to other evidence for similar change. More specifically, the demise of the Neopalatial 'villas' (whatever their precise function was) in post-LM I Crete and the restriction of figural plaster decoration to 'palatial' contexts in Crete and Mainland alike are general trends, although it must be noted that nothing like the Cretan 'villa' system ever existed in the Helladic world. However, these are indications that cannot really *explain* the drop in popularity of maritime iconographic and the lack of interest in sponsoring the formation of new relevant symbolic imagery. If fluctuations in the preference of a specific imagery has anything to do with what may be called the 'profit potential' of the manipulation of its symbolic value for the elite's own benefit, then we may tentatively pose the question thus: 'Why did LBA III elites cease to consider maritime imagery as resourceful as other categories of imagery?'

Quantifying the actual indirect evidence of contact between the Aegean and worlds beyond the sea may lead to the interesting observation that the bulk of actual or suspected imports belong to LBA IIIA-B.<sup>216</sup> Sturt Manning and Linda Hulin recently suggested that the patterns of Aegean 'exports' in the eastern Mediterranean and those of foreign 'imports' in the Aegean "indicate an entirely new trading reality" for the LBA III period.<sup>217</sup> The increase in both 'imports' and 'exports' observed in the LBA III (most explicit if one considers Aegean decorated pottery in the Levant and its 'explosion' in LH IIIA2) could indicate, apart from its broad correlation with the establishment of most Mainland administrations and a weakening (not necessarily a 'destruction') of the Knossian administration, a differing evaluation of *exotica* between the earlier and later LBA phases. To this evidence one could add the short duration of Keftiu 'tributes' painted in elite Theban tombs at the very dawn of this Aegean 'international outburst' and Hittite references (however debated) to *Ahhijawān* activities, mostly falling within LBA II-IIIb and adding to the impression that the role of at least *some* Aegean polities within the eastern Medi-

terranean commercial and political nexus had considerably changed from the early LBA.

Manning and Hulin make a crucial point when arguing for an engagement of the Aegean in the "periphery of the eastern Mediterranean interaction sphere"<sup>218</sup> *not before* the LBA III. It is extremely tempting to consider along with them that "the well-known Nilotic [*sic*] wall-painting in the West House at Akrotiri (...) derives its local justification and value from the very *lack of general Aegean familiarity with Egypt and the Levant*,"<sup>219</sup> a condition that was to radically change in the next few centuries. It would be intriguing to suggest that the 'grand opening' of Aegean polities to the broader Mediterranean world at the beginning of LBA III led to a *de-evaluation* of the *exotic* (either as 'imported' artefacts or images indicative of esoteric knowledge of distant worlds) that could no longer be 'monopolised' and manipulated by a restricted amount of individuals, who may have used their personal involvement in the acquisition of such goods to legitimate their political power.<sup>220</sup>

The pioneering ethnographic work of Mary Helms has underscored the importance of artefacts of distant provenience as power resources.<sup>221</sup> However, what would happen if familiarity with the world beyond the sea increased? How would that shatter the extant power relations and the status of those who used to demonstrate a *monopoly* of the valued esoteric knowledge implied by the acquisition and conspicuous consumption of such items? More importantly, is it possible to determine whether 'palatial' administrations contributed to these novel conditions and/ or predict how they would have responded to them? It is here suggested that these are the key questions to address when

<sup>216</sup> Compare the sum-up tables in Cline 1994, 13-5, Tables 2-3 and 4-6.

<sup>217</sup> Manning & Hulin 2005, 279.

<sup>218</sup> Manning & Hulin 2005, 285.

<sup>219</sup> Manning & Hulin 2005, 285 (my *italics*).

<sup>220</sup> Van de Noort (2003, 413) recently suggested from EBA British evidence that a counter-analogy can be observed in the increase of maritime trade and the deposition of *exotica* in rich burials, a situation that may be paralleled to the LBA Aegean.

<sup>221</sup> Helms 1988 (see also Broodbank 1993; Broodbank 2000 for an employment of some of her ideas to the Aegean EBA).



considering the shift away from maritime subjects potentially observed in the interests of LBA III 'imagery-formative' Aegean elites.

What then can we make out of a growing number of ship representations (mostly with military connotations) that appear again in LH IIIC pictorial pottery? At least a part of the truth would be that the collapse of the Aegean administrations combined with well-documented upheavals leading to and following the disintegration of the Hittite empire and the various Syrian principalities created new conditions for interregional exchange. Primarily because the success of a maritime journey depends on organization, specific technical knowledge and specialised personnel on a higher degree than terrestrial movement, I would accept that a disintegration of established socio-economic structure (and the fall of the LBA III administrations may reasonably have been one) must have affected navigation more severely than overland communication. Although we may still only offer speculations about the extent of 'palatial' control upon maritime trade and the possible role extra-palatial factors may have had, it should be accepted as a working hypothesis that the critical conditions that led to the collapse of the literate administrations at the close of the 13<sup>th</sup>/beginning of the 12<sup>th</sup> century BC affected both at a considerable scale. In noting the hazardous character of travel in the conditions of Postpalatial insecurity, Dickinson argues convincingly for the role of gift exchange in the establishment of personal relationships that would ensure the safe and successful undertaking of the journeys.<sup>222</sup> Along this line of argument, most precious *exotica* in PBA contexts are better described as items involved in gift exchange rather than commercial trade and, instead of being actually 'imported' goods, they rather *imply* the regions involved in exchange patterns of the commodities actually traded. In a maritime context, increase in piracy has often been assumed for the PBA as resulting from and constantly reproducing the instability following 'palatial' collapse, but the evidence is inconclusive.<sup>223</sup> More important seems to be a renewal of interest in decorated weaponry deposited in burials (as in the Thessalian site of Hexalophos), which recalls the elaborate offensive weapons of the Early LBA Peloponnesian elite funerary assemblages (e.g.

Mycenae, Routsis, Dendra).<sup>224</sup> It is certainly fairly straightforward to interpret the military overtones of many LH IIIC ship imagery as an overall reflection of the turbulent times when these representations were produced.

It is important to stress that the increase of iconographic popularity in certain themes should not be taken as a direct reflection of real life developments. Thus the creation of the long warship ('vaisseau longue' as opposed to 'vaisseau rond' used for transportation) at the close of the LBA, as postulated by L. Basch,<sup>225</sup> may be an overestimation of what kind of developments iconography may safely allude to. A renewed interest in war iconography should perhaps point that military activities had been considered a rewarding source of power, one that was worth manipulating in this way. The actual risk invested at Postpalatial sea-voyaging and the dangers encountered in such undertakings were partly compensated by the formation of an imagery depicting or implying the violent and adventurous character of maritime activities. Is it perhaps too far-fetched to suggest that this sort of iconography 'advertised' the 'heroic' *ethos* of local elites with

<sup>222</sup> Dickinson 2006, 202; of course, this could also apply to the supposedly 'secure' conditions of the 'palatial' phases.

<sup>223</sup> Dickinson (2006, 64–5) conveniently reviews relevant evidence from settlement pattern change: The Postpalatial flourishing of certain coastal or near-coastal sites (e.g. Tiryns, Volos, Palaikastro *Kastri*) speaks against the interpretation of 'flee from the coast' as a result of raiding and to interpret flourishing sites as pirate-bases is not supported by other evidence. It is nearly impossible (and for this reason, futile) to speculate on whether luxurious items in coastal sites could have been pirate loots instead of less violently acquired goods. It seems that, even here, quite local developmental trajectories have to be accepted, but no pan-Aegean maritime threat is evident.

<sup>224</sup> Dickinson (2006, 155) also emphasises the contrast between the decorated Type F and G weapons and the plain Naue Type II swords (although he notes the possibility of decorated sheaths for the latter). He (Dickinson pers. comm.) kindly reminded me of the remarkable 'warrior' burial excavated in 2007 at Kouvaras Phyteion near Amphilochoia, which, however, seems to be the exception that proves the rule: gold wire has been wrapped around the hilt of a Naue II weapon, perhaps, one dares suggest, as a *secondary* attempt to provide some clumsy elaboration. For a clear photo of this unpublished find see <http://www.epoxi.gr/News08/news8103.3htm> (6 July 2009).

<sup>225</sup> Basch 1997, 17.



an eye at the commoners' attachment to them as protectors of the community, as stabilising factors against 'bad times' of uneasiness? It seems that this reasoning is a much fruitful way of linking the popularity of 'warship' iconography with the turbulent climate of the PBA Aegean.

## Concluding thoughts

Throughout the chronological range spanned in this chapter, two significant episodes seem to affect control over power resources in the southern Aegean. The rise of the Linear B administrations in Crete and the Mainland occurred in vastly different contexts and must have shattered distinctly structured networks of power relations in each case; nevertheless, administrative terminology and certain iconographic traits employed in 'palatial' contexts during LBA III show that this event brought the conjunction of regional polities, despite their different backgrounds. In these 'palatial' contexts, we are given the opportunity to juxtapose iconographic and textual evidence, which overlap only occasionally, as in the case of Pylian military employment of naval enterprises. In addition to it being a reflection of the selectivity of 'palatial' economic interests, the much-stressed paucity of Linear B references to long distance overseas trade must be seen as the result of these administrations' insufficient technical means to exercise a significant control over maritime traffic.

Whether Aegean 'palaces' deliberately diverted their interests elsewhere or were forced to withdraw from the enterprise must remain debated; it is nevertheless likely that this situation led accordingly to a shift in iconographic preferences, seen in the discontinuity of certain earlier LBA traditions. Our fragmentary data may not be properly quantifiable and inferences about the popularity and rarity of themes might simply not stand. However, it would be thought-provoking to suggest that the political situation created from this seeming inability and/or disinterest – even eventual disinterest *because* of initial inability (which is closer to the *Realpolitik* of the matter) – may be expectedly reflected upon imagery, whose main material media became, as in the case of figural plaster decoration, nearly exclusively 'pa-

latial' in LBA III. It can therefore be argued that the rare occurrence of such imagery in 'palatial' contexts is a meaningful one and that it reflects a shift towards thematic realms which the literate administrative elites considered more worth-exploiting.

Despite such lack of evidence for tight 'palatial' control over raw material *influx* into the Aegean,<sup>226</sup> 'palaces' can still be argued to have dominated the *further* (i.e. post-arrival) processing of exotic materials and the production of prestige items, ready to enter patterns of circulation among elite groups, which were not necessarily 'palace'-based. Metals are the most conspicuous case; the possible identification of *ka-ko* as pure copper (χαλκός) or alloyed bronze notwithstanding, the 'palatial' bronze-industry, mostly known from Pylian evidence, demanded tin which *had* to be shipped to the Aegean,<sup>227</sup> whatever its precise physical provenance.<sup>228</sup> Shipping records do not exist, yet it is quite clear that the 'palace' tightly supervised the further processing of metals and the production of bronze items through the *ta-ra-si-ja* system.<sup>229</sup> Analysis of a massive amount

<sup>226</sup> We must keep in mind that even the exceptional **MY L** (<**X**) **508** does not touch on this matter, since it records a transaction between two *Aegean* polities.

<sup>227</sup> It seems quite important to add a debatable, yet just possible, mention of tin on a Knossian document: ]*ka-te-ro* on **KN Og 5515** could be κάσ(σ)τερος, syncopated form for κασσίτερος, an accepted Mesopotamian loanword (*kassi-tira*) for 'tin' (Killen *apud* Sherratt 2001, 219 n. 11). However, it is not safe to assume that this sign-sequence is complete (it could be *wa-na-]ka-te-ro*).

<sup>228</sup> Most references to the material *ka-ko* are from **PY Jn** series, which has received an analytical general survey by Smith 1992–3. We do have occurrences of the derived adjective (*ka-ke-ja-pi*, *ka-ki-jo*) in the context of chariot manufacture at Knossos (**KN Sd; So**). The term of bronze-smith (Nom.Sing. *ka-ke-u* χαλκεύς, Nom.Pl. *ka-ke-we* χαλκῆρες) also appears in the **Jn** series, in other diverse contexts indicating a recipient (in Dat. Sing. *ka-ke-we/ ka-ke-wi*; Dat. Pl. *ka-ke-u-si*) and also alongside other official titles and appellatives in **Nn 831.11** (Aura Jorro 1985, 307–8, s.v. *ka-ke-u*; 308–9, s.v. *ka-ko*, 307, 308, s.vv. *ka-ke-ja-pi* and *ka-ki-jo*).

<sup>229</sup> *ta-ra-si-ja* \*τᾱλᾱσῖα and the negatively-prefixed *a-ta-ra-si-jo* appear frequently in the **PY Jn** records, but also applied in other areas of 'palatial' economic activities, such as the textile industry at Knossos (**Lc(1), Le**). This system involved the meticulous recording of raw materials supplied to specialised craftsmen so as to facilitate control over the amount of finished product to be delivered back. Later Greek τᾱλᾱσῖα is used as



of archaeological evidence by Voutsaki has suggested that such control was arguably exercised by the 'palaces' during the LBA IIIB period, but was rather discontinued after their collapse at the close of this period, thus allowing peripheral agents to enter the circuit of valued items more prominently.<sup>230</sup>

The fall of these institutions did not simply herald an overall return to the previous situation, but rather created new regional patterns and institutions, which in turn affected significantly the production and consumption of imagery-bearing artefacts. Although the rise of warrior ship iconography was not invented in Postpalatial times, it now appears in a medium that rose to fill the vacuum left by the demise of fresco-painting, namely pictorial pottery. In an Aegean without 'palaces', however shallow-rooted and superficial these may have been, production and dissemination of imagery could at last

be set anew; even if the level of craftsmanship maintained by the 'palace' system did not continue in all its aspects, one thing did persist, perhaps because was never fully 'palatial': the import of *exotica*, either raw materials or finished artefacts from worlds beyond the sea. This persistence made sure that at least the image of a ship, Bronze Age man's only way to 'domesticate' the wild inhuman seascape, would not only live on, but would gain new levels of significance.

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a term for wool-processing into threads, probably echoing its textile associations seen in the Knossian use of the term. The most recent general treatment of this system is by Killen 2001.

<sup>230</sup> Voutsaki 2001 (using evidence from the Argolid, Thessaly and the Dodecanese).

# Appendix

## Linear B documents cited in the text

Due to space limitations, it has not been possible to include full transcriptions of all Linear B documents discussed in the text. The interested reader may look them up in the latest published editions of Linear B texts.<sup>1</sup> Therefore, this Appendix includes only notifications of reclassifications, epigraphic notes or improved readings which are not included in the aforementioned sources. Joins which did not affect the text have been omitted. Transcriptions of full texts or specific lines are given only in cases of *significant* changes, with references provided in relevant footnotes. Notes made by the author are preceded by †.

### *Texts from Knossos*

**KN Bk 799+8306** (104) Area of Bull Relief (North Entrance Passage)

Previously classified as **B(5)**. Suggested classification **Bk** in forthcoming edition of Knossos tablets.

**KN Fh 5432+5461+fr.** (141)<sup>2</sup> Unknown (Room of Column Bases?).

]pte-si / [•]-u-pi-ri-[•]-i OLE s 1

↓ *verso* ]de-ma-si OLE 2

Possibly *ku]-pte-si / na-u-pi-ri-jo-i*

**KN F(2) 852+8071+9919+fr.** (—) Area of Bull Relief (North Entrance Passage)

.1 da-wo / a-ma , e-pi-ke-re GRA 10300[

.2 OLIV+A 70 OLIV+TI 20 PYC+O 12[

Cut at left. .1 10900[ possible reading. .2 numeral 12 confirmed<sup>3</sup>.

**KN Od 667+5898+8292+fr.** (—)<sup>4</sup> West Magazine XV.

.A 'ku-pi-ri-ja' LANA 1 M 2 P 4[

.B ] [••]-ku , ke-[••]-ja M 2 P 1[

*latus inferius* ] sa-mu[ ] 1 qo-ja-te P 1[

.B [*pa-ra*]-ku possible reading; probably *ke-re*[•]-ja, but *ke-re-si*-ja has been suggested.<sup>5</sup>

**KN Og 5515+5518+5539** (—) Unknown

]ka-te-ro L 4 M[

†Probably ]-ka-te-ro; therefore, *wa-na*]-ka-te-ro a most plausible reconstruction.

<sup>1</sup> Killen & Olivier 1989 (**KN**); Bennett & Olivier 1973 (**PY**); Pini 1997 (**PY** sealings); Palaima 1988 (**PY** scribes and find-places), Melena & Olivier 1991 (**MY**); Aravantinos *et al.* 2005 (**TH**, the latest transcription of the Theban texts even more updated than the *corpus* published in 2002). Drafts of the forthcoming editions of Knossos and Pylos tablets were consulted courtesy of Professor J. Melena, whom the author thanks once more for his outstanding generosity.

<sup>2</sup> Reconstruction here follows Killen & Olivier *apud* Bennett *et al.* 1989, 215–6.

<sup>3</sup> Melena *apud* Godart *et al.* 1990–1, 375.

<sup>4</sup> Transcription follows reconstruction by Melena *apud* Bennett *et al.* 1989, 204–5.

<sup>5</sup> Melena *apud* Bennett *et al.* 1989, 204.



**KN U 7700+8284+*frr.*** (—)<sup>6</sup> Unknown

    ][ • • • ]-re-ta      \*259 1[  
] x 1 e-re-ta not impossible.

The *po-ti-ro* set by Hand 125 from North Entrance Passage is classified as **V(5)**<sup>7</sup>; reclassified as series **Vf** in forthcoming edition of Knossos tablets. There were improved readings in the following texts of this set:

**KN Vf 1583+7747+7887+9782+*frr.*** (125)<sup>8</sup> Unknown

.A            'po-ti-ro' , si-mi-te-u 1 a-ra-ko-qe 1  
.B        ]ti-ja /

**KN Vf 9006** (125)<sup>9</sup> Unknown

.A        ]pe-re-ta 1 [  
.B        ] vac. [  
.A Traces at right, possibly *ka*].

**KN Vf 9320** (125)<sup>10</sup> Unknown

    ka-di-ti-ja[

**KN Vf 9355** (125)<sup>11</sup> Unknown

.A        ]ti 1 a-[  
.B        ]vac.[  
.1 Over [[ ]].

### *Texts from Ano Englianos (Pylos)*

**PY An 724** (H 23)<sup>12</sup> Rooms 7 + 8 (AC)

**PY Cn 328** (S131 H 1)<sup>13</sup> Room 8 (AC)

**PY Jn 320** (S310 H 2)<sup>14</sup> Room 8 (AC)

**PY Jn 601** (S310 H 2)<sup>15</sup> Room 8 (AC)

<sup>6</sup> Transcription here follows reconstruction and reading by Godart and Olivier *apud* Bennett *et al.* 1989, 230-1.

<sup>7</sup> Killen & Olivier 1989, 340-7.

<sup>8</sup> Transcription follows reconstruction by Melena *apud* Godart *et al.* 1990-1, 377 and *apud* Godart *et al.* 1992-3, 57; Melena 1999, 370.

<sup>9</sup> Transcription follows reconstruction by Melena *apud* Godart *et al.* 1990-1, 385.

<sup>10</sup> Annotation *sup. mut.* in Killen & Olivier 1989, 347 has been proved invalid (Melena *apud* Godart *et al.* 1990-1, 391).

<sup>11</sup> Tablet **9355** previously classified as quasi-joined to **X 9227** (Kopaka & Olivier *apud* Bennett *et al.* 1989, 239); now joined to **9845** and possibly quasi-joined to **Vf 7577**. as suggested by Melena 1999, 373.

<sup>12</sup> Bennett 1992, 116; Note suggestions about reconstructions in numerals by Del Frio 2002-3.

<sup>13</sup> See reconstruction by Melena 1992-3a, 76.

<sup>14</sup> Transcription follows extensive reconstruction by Melena 1992-3a, 75.

<sup>15</sup> Bennett 1992, 114; Melena 1992-3b, 316; 1994-5a, 98.

**PY Jn 881** (S310 H 2)<sup>16</sup> Room 2 (Inner Propylon)

**PY Na 262** (S106 H 1)<sup>17</sup> Room 8 (AC)

**PY Nn 831** (S106 H 1)<sup>18</sup> Room 8 + ‘Chasm’ (AC)

.3 a-mo-ke-re-[ ] SA 1

†.3 *a-mo-ke-re*[-u] not impossible, but *a-mo-ke-re*[-we] \*Ἀμοκλέρης more plausible, cf. the Dative ]*mo-ke-re-we-i* in **PY Fn 324**.<sup>19</sup>

**PY Un 443** (H 6)<sup>20</sup> Room 8 (AC)

**PY Un 1322** (Cii)<sup>21</sup> Room 92 (Northeast Building)

**PY Wr 1415** (Ciii)<sup>22</sup> SW Area 27 (outside SW wall of Southwestern Building<sup>23</sup>)

**PY Wr 1326** (S1272 Ciii)<sup>24</sup> Room 98 (Northeast Building)

**PY Xa 990** (—)<sup>25</sup> Unknown

*Texts from Thebes (Boeotia)*<sup>26</sup>

**TH Ug 4** (301) Odos Pelopidou 28 [Pavlogiannopoulou plot] (‘Armoury’)

a-ka-to-wa-o / a-u-to-te-qa-jo Q[

†Proposed here to be *a-u-to* ]*te-qa-jo*, with insignificant distance between the two lexemes, a reconstruction that would accommodate alternative interpretation of the type (see text).

<sup>16</sup> Melena 1992-3b, 320.

<sup>17</sup> Quasi-join between **PY Na 284** and **Na 262** published by Melena 1994-5b, 275.

<sup>18</sup> Bennett 1992, 118.

<sup>19</sup> See Melena 1992-3a, 75-6 for a new reconstruction of **PY Fn 324**.

<sup>20</sup> Melena 1992-3b, 315.

<sup>21</sup> See reconstruction of initial lines .1-.2 by Melena 1992-3b, 323.

<sup>22</sup> Suggested reclassification as **Wp** (along with **1327**) in forthcoming edition of Pylos documents (not unanimously agreed).

<sup>23</sup> See Palaima 1988, 163, fig. 22.

<sup>24</sup> The seal impressed on this inscribed nodule has produced 10 impressions in total, of which two are on inscribed documents, the other being on **PY Wr 1330.α** by a *different* Stylus from a different Class. All ten sealings are classified under nr. 40 in Pini 1997, 24-6, Taf. 19-20: 40A-J; it shows an octopus with its tentacles ‘waving’ upwards. A similar motif (but with the direction of the tentacles waving downwards) does not appear on inscribed sealings (Pini 1997, 24 [nr. 40A], Taf. 19: 40A).

<sup>25</sup> Classified as **Xn** in Bennett & Olivier 1973, 276; reclassified as **Xa** in forthcoming edition of Pylos tablets.

<sup>26</sup> In several **TH Fq** tablets, reading *ju* (the ‘son’ acrophony, see footnote 93) instead of *far* ‘flour,’ is strongly suggested by Palaima 2006a. This is quite reasonable in cases where all the individual entries in many page-shaped inventories are eventually summed up as \*121 (HORD ‘barley’ or ‘wheat’).



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# Import-ant Aegeans in Cyprus: a study on Aegean imports in Late Bronze Age non-mortuary contexts in Cyprus\*

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## Introduction

The diverse nature of the Late Bronze Age material culture coupled with Cyprus's pivotal geographical position in the eastern Mediterranean basin have prompted major controversies regarding the questions of imports in Late Bronze Age Cyprus. Cyprus's relations with the Aegean, and specifically the presence of Mycenaean pottery in Late Cypriot contexts, have frequently overshadowed other aspects of Cypriot Prehistory. This paper will look at the different circumstances in which Aegean imports were used, adopted or rejected in non-mortuary contexts and explore some of the ways in which these imports might have influenced local communities during the Late Bronze Ages.

The very nature of imports invites multiple levels of investigation: a 'precious' possession obtained from a distant place, sometimes made of precious materials in shapes that designate cultural zones, with imagery that often is highly charged with social meaning. As such, they help to restore long distance exchange mechanisms, and they are associated with social, political and economic organisation and the negotiation of institutionalised inequality. However, the importance of imports in their deposition contexts is often simply assumed, rather than argued. S. Manning and L. Hulin<sup>1</sup> argue that the local concepts of value are related to the means of acquisition open to consumers, and the prejudices that they bring to them. Here, I will argue that the meaning of things can only be approached if context of use is considered and, if similarities and differences between things are taken into account.<sup>2</sup> Contexts create meanings and produce object biographies and social histories. Therefore, I will at-

tempt to examine the context of Aegean imports in Cyprus in order to understand the possible cultural meanings with which these imports were imbued in the past. I will consider the Aegean imports in terms of being 'exotic' as opposed to simply imported or *vice versa*. For this purpose, this study will use contextual information from seven LC IA-LC IIIA settlements, for which final publications are available, and compare the use of Aegean imports to other main categories of imported material from the Near East and Egypt.

## Major controversies in Cypriot archaeology

Two major controversies have arisen from questions of trade and relations between Cyprus and the Aegean. The first was the origin and presence of Mycenaean pottery found in Cyprus<sup>3</sup> and the second was whether Cypriot copper was transported to Crete in exchange for Minoan pottery. The large amount of Mycenaean pottery that reached Cyprus during the LC IIB-C periods (the fourteenth and thirteenth centuries) had prompted a few scholars<sup>4</sup> to believe that Cyprus was the home of Mycenaean

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<sup>1</sup> Manning & Hulin 2005, 271-2.

<sup>2</sup> Shanks & Hodder 1995, 14.

<sup>3</sup> See, for earlier studies, Åström 1973; Casson 1937; Gjerstad 1926; Sjöqvist 1940; Stubbings 1951.

<sup>4</sup> Dikaïos 1969-71; Karageorghis 1965, 220-30; Karageorghis 1978, 53; Vermeule & Karageorghis 1982, 8-9.



pictorial painting undertaken possibly by Mycenaean potters who had settled on the island. The Aegean colonisation of Cyprus was not conceived as a case of Aegean political control over the Cypriot native population although vague assumptions concerning the superiority of the Aegean culture have been made especially by the earliest scholars.<sup>5</sup> The Aegean colonisation of Cyprus was rather understood as a process of joining forces with people of different cultures living together as equals and not dominating one another.<sup>6</sup> The majority of scholars, however, believe that the Mycenaean pictorial pottery was imported from the Aegean and that by the 13th century BC Cypriot potters may have begun to imitate such vessels.<sup>7</sup> Later chemical analyses of Mycenaean ceramics<sup>8</sup> supported this argument. Any direct correlation between pottery and the linguistic/ethnic background of Mycenaean immigrants in the cultural setting of LBA Cyprus was questioned and thought untenable.<sup>9</sup>

The second major controversy, which has arisen from questions of trade between Cyprus and Crete, pertains to this simplified explanation of Cypriot copper exchanged for Minoan pottery. As Crete has scanty copper deposits, various potential sources were considered by different scholars, but attention was paid to the island of Cyprus, the most suitable candidate as a source of copper for the rest of the eastern Mediterranean especially for the Aegean region. According to H. Catling's *paradox*,<sup>10</sup> during the LC I-II (1650-1450 BC) copper intended for the manufacture of bronze artefacts was abundant in Crete as is attested by the numbers, technology and wide distribution of metal finds in Neopalatial Crete. However, the pottery record shows limited contact between Cyprus and Crete and intense Cypriot involvement with Syria-Palestine and Egypt. An additional fact is that Cyprus had not yielded enough evidence of the required technology for copper production in LC I. Therefore, Cyprus could not have supplied Crete with substantial quantities of copper. During the LC II-III (1450-1200 BC) Aegean trade activity was at its height. The Cypriot copper industry was very active<sup>11</sup> and there is abundant evidence of contact with the Aegean as is attested by the large quantities of Mycenaean and Minoan objects that were

exported to Cyprus during the LM/LH II-III. According to Catling's *paradox*, however, there are strong indications that the Aegean was faced by a metal shortage, which was never solved.

Since the publication of this article new archaeological evidence from Cyprus and the Aegean has come to light.<sup>12</sup> B. Knapp<sup>13</sup> reconsidered the basis of Catling's *paradox* ten years after and pointed out that fuller consideration of the archaeological data would reduce the discrepancies in the material record. Whilst more Minoan ceramic finds in Cyprus<sup>14</sup> found in LC I-II contexts, would strengthen the Cretan connection, by no means can the MC III-LC I copper industry on Cyprus be regarded as poverty-stricken.<sup>15</sup> More recently, L. Kassianidou<sup>16</sup> showed that traces of metallurgy on Cyprus are apparently to be found from the end of the third millennium. With regard to the LC II-III periods, the metallurgical evidence of large scale copper pro-

<sup>5</sup> Gjerstad 1926; Casson 1937.

<sup>6</sup> Catling 1973, 34-39.

<sup>7</sup> Catling 1964; Mountjoy 2005, 127.

<sup>8</sup> Jones 1986.

<sup>9</sup> Sherratt 1992, 319-26. See for current research Knapp 2008, 249-64; Leriou 2007; Voskos & Knapp 2008.

<sup>10</sup> Catling 1979, 69-75.

<sup>11</sup> As it is exemplified by the copper production centres at various LC sites such as Enkomi (Dikaios 1969-71), Hala Sultan Tekke (Åström 1982), Apliki-Karamallos (Kling & Muhly 2007; du Plat Taylor 1952), and Myrtou-Pigadhes (Catling 1957, 86-91).

<sup>12</sup> The excavations of sites like Kommos (Shaw 1998, 13-25) provide us with a different picture from Catling's account of Cypriot pottery in LM IA-III contexts as well as for Cypriot copper (Niemeier 1998, 23-39). Two copper ingots from Kommos found in LM I contexts are of Cypriot composition (Watrous & Betancourt 1990, 172 *pace* Muhly *et al.* 1988, 283-4) whereas some of the LM IB ingots from Mochlos (Sols 2008, 147, 156) and other Neopalatial ingots from Chania (Stos-Gale *et al.* 2000, 209-12) come from Cyprus. Cypriot vases were found in LM IIIA1 contexts at Kommos that were actually areas used for metalworking. This could indicate that the origin of this metal at Kommos is apt to be Cyprus. See also Poursat & Lubet (2005, 118-20) for Cypriot copper being used at MM IB Malia and Cadogan (1979, 67-8) for other possible material, such as textiles, olive oil and herbs, traded between the two islands.

<sup>13</sup> Knapp 1990, 55-9.

<sup>14</sup> I.e. Eriksson 2007, 173-6; Portugali & Knapp 1985, 60-1.

<sup>15</sup> Knapp 1990, 56.

<sup>16</sup> Kassianidou 2008, 249-67.



duction on Cyprus has increased<sup>17</sup> and the concept of a shortage of metal in the contemporary Aegean may be more apparent than real. Above all, the more practical problem of correlating the possible source of metal, Cyprus, with its actual recipient Crete still remains unsolved.<sup>18</sup>

## Contextualising the Aegeans in Late Cypriot society

The transformations that took place within Late Cypriot society have been attributed variously to urbanisation, intensification of production and trade or exchange. Y. Portugali and B. Knapp argued that although urbanisation was triggered by the development of trade and the involvement of Cyprus in the international exchange network, it appeared only after the rise of Aegean interest in Cyprus.<sup>19</sup> More specifically, the dramatic urban expansion of the 13<sup>th</sup> century BC could suggest another level of political change, what E. Peltenburg<sup>20</sup> viewed as a devolution of central authority, perhaps related to the increasing pre-eminence of Aegean traits in Cyprus.

Current research sees the Aegean imports as prestige items and associates them with the rise of social complexity on the island. Cypriot elites involved in wider economic exchanges or linked to overseas political alliances, especially with the Aegean realm during the LC IIA–C, may have used seals that display Aegean iconography to enhance their authority and, establish their identity and increase their own prestige with and beyond LC society.<sup>21</sup> As B. Knapp points out,<sup>22</sup> the deliberate use of Aegean elements in the iconography of at least some Cypriot seals, and an elite monopoly over imported pottery and other prestige goods, would have served as a strategy to enhance and consolidate political authority, to symbolize elite identity and perhaps also to establish interregional alliances.

Three recent studies argued for a rethinking of the role of exotics and have stressed the need to study Aegean imports, and specifically Mycenaean pottery, away from the polarization of prestige-commodity studies.<sup>23</sup> These studies emphasize the use and consumption of Mycenaean pottery and

argue the need for contextual analysis. F. De Mita<sup>24</sup> argues that a transformative process of consumption strategies is visible in the shift from the mortuary deposition of imported Mycenaean chariot craters found at Maroni-*Tsaroukkas* in Cyprus to a broader communal level of consumption of non-ritual contexts alongside the emergence of an industry of local manufactured imitations. L. Steel,<sup>25</sup> on the other hand, argues that imported Mycenaean drinking sets, found most frequently in ceremonial and more specifically in mortuary contexts, were associated with elite activities because they conveyed complex social messages and their use required specialised knowledge. G.-J. Van Wijngaarden<sup>26</sup> further suggests that the significance of Mycenaean pottery in the LC material culture gradually changes from a rare, exotic, prestige good during LC I to a commodity that it is rather common element in LC II–III. This was seen as a result of the active role of Mycenaean pottery in social competition, which led to the emulation and redefinition of the original status of this class of artefacts.<sup>27</sup>

These three studies signify a new approach to the study of LBA trade with specific reference to Cyprus. Although F. De Mita's proposed model comprises a rather radical and novel concept, the impact of the exotic imports on the particular society cannot be adequately comprehended on the basis of evidence of a single commodity alone. The principle audience in port communities (although port communities are not as clearly distinguishable

<sup>17</sup> Kalavassos-*Ayios Dhimitrios* (South 1987; South 1996; South *et al.* 1989), Alassa-*Pano Mantilaris* (Hadjisavvas 1986; Hadjisavvas 1996), Maroni-*Vournes* (Cadogan 1988, 230–1; Cadogan 1996) and Athienou-*Bamboulari tis Koukouninnas* (Maddin *et al.* 1983), should be added as likely copper production centres.

<sup>18</sup> See also Mangou & Ioannou 2000, 207–17; Muhly 2008, 40.

<sup>19</sup> Portugali & Knapp 1985, 44–78.

<sup>20</sup> Peltenburg 1996, 28.

<sup>21</sup> Knapp 2008, 158.

<sup>22</sup> Knapp 2008, 156.

<sup>23</sup> De Mita 1999.

<sup>24</sup> De Mita 1998.

<sup>25</sup> Steel 1998.

<sup>26</sup> Van Wijngaarden 2002, 267.

<sup>27</sup> Van Wijngaarden 2002, 272.



on LBA Cyprus as they are, for example, on Crete) act as the recipients of objects and ideas from across a wider spectrum of polities of the eastern and western Mediterranean. What also should be examined is whether (how/why) these communities might have been predisposed to receive such messages and accept gradually to alter “their perception of their ability to act and interact in this expanded world,”<sup>28</sup> although this does not necessarily imply that the direction of process of change will be from the culturally conservative mode of consumption to the more radical one.

What is suggested here, is that the variations in the cultural meanings that consumers attached to one class of imported material, such as Mycenaean pottery,<sup>29</sup> can be better understood by examining other imported material found in the same contexts. Unlike these three studies, in this paper, it is proposed that, in order to better comprehend the cultural significance that consumers attached to one category of imported material, the contextual associations of all imported material need to be investigated. The examination of the dynamic relation between the various categories of Aegean imports and local copies and the comparison with the use and function of other categories of imported material will attempt to provide further insight on how Aegean imports, rare or frequent, prestige or not, were integrated in Late Cypriot communities.

## Identities of imports

Based on the dialectic relation between the context and the material objects, the meaning of the objects derives from identification of context, while the context is understood from the relation between objects. Therefore the interpretations of artefact and context depend on each other.<sup>30</sup> The same material objects may mean different things in different contexts. Whether imports can be used as evidence of colonisation or trade<sup>31</sup> or as an indication of social complexity and differentiation<sup>32</sup> is a matter of interpretation and theoretical belief.

It has long been recognised in archaeology that the meaning of objects depends on context.<sup>33</sup> Whether an object is defined as ritual or not depends on oth-

er things in the same context. Contextual archaeology is based on the associations of things and the value of objects is realised by the contextual associations. These associations provide us with a frame of reference in which the object gains significance.<sup>34</sup> Therefore, determining the significance of objects depends on the analysis of their context of recovery<sup>35</sup> and in order to understand the significance of imports, we have to examine their context of local consumption. Consumption does not mean the end of objects, but it is a part of their overall biographies. Objects can be used in many different ways and in many different settings.<sup>36</sup> They have the ability to move in and out of different conditions of identification and alienation.<sup>37</sup> Looking at consumption (and at the demand that makes it possible) as a focus means not only sending social messages but receiving them as well.<sup>38</sup>

Objects are active participants in the construction of social realities.<sup>39</sup> As material goods, they have the capacity to play active roles in social relations among individuals and among groups of people.<sup>40</sup> People create their world in physical form by making use of objects.<sup>41</sup> Imports as objects embody the knowledge of the object's production and the knowledge of the object's consumption.<sup>42</sup> These kinds of 'knowledge' are concerned with the formal dimension of an object, its manufacture, stylistic traits or function and are associated with social practices, habits and customs, enacted by people at both the loci of production and consumption of objects.

<sup>28</sup> De Mita 1998.

<sup>29</sup> Van Wijngaarden 2002.

<sup>30</sup> Hodder 1999, 32–3, 194.

<sup>31</sup> E.g. Catling 1964.

<sup>32</sup> E.g. Knapp 1993; Knapp 1994.

<sup>33</sup> For recent discussion, see Papaconstantinou 2006.

<sup>34</sup> Barrett 2006, 195.

<sup>35</sup> Hodder 1995.

<sup>36</sup> Gosden 1999, 163.

<sup>37</sup> Miller 2005, 7.

<sup>38</sup> Appadurai 1986, 31.

<sup>39</sup> Hodder 1996, 15.

<sup>40</sup> Gosden 2004, 35–40; Gosden & Marshall 1999, 172–6; Knappett 2005, 26–30.

<sup>41</sup> Gosden 1999, 165; Miller 1987.

<sup>42</sup> Appadurai 1986, 41.

A key feature of many imports is their generic de-contextualised nature, which enables them to travel, and then to be capable of the necessary local reception and manipulation.<sup>43</sup> From this perspective the imported object goes through a process of social transformation that involves a succession of phases and changes in use and status. The recipient society places the object in a new context, associates it with other objects and values and uses it for its own purposes.<sup>44</sup> The nature, therefore, or the identity of imports is twofold. One is created by the producers and the other is created by the consumers as they re-contextualise it.<sup>45</sup> Central to this approach is N. Thomas's idea<sup>46</sup> that objects are not what they were made to be but what they have become. In situations of cultural contact what is significant is not only the adoption of alien objects and ideas, but the way these objects are culturally redefined and put to use. As these products move from their primary context to a new cultural setting, where they are immediately exposed and perhaps redefined, they go through various different stages of consumption. They may shift from ritual to domestic contexts and *vice versa*. They are accepted, used, absorbed or rejected by the local communities. They remain imports and distant or they become more familiar and locally copied. People might choose to copy an imported artefact as a whole, or might choose to copy its manufacture, its stylistic traits or its function. This might result in the introduction of new technology, new symbols, new customs and habits. It is not only a matter of market accessibility that makes an object 'usable,' but – equally – it is a matter of receptivity and acceptance by the local society. This is what permits new distant objects and ideas to be incorporated into the social activities of people and become closer to their mentality. This is what also leads to deliberate imitations of otherwise unattainable objects. Perhaps, this is what ultimately lead to the displacement of old and traditional social activities with new ones.

The 'import' is related to the notion of the 'external' but its incorporation into the local tradition is related to the notion of the 'internal.' The co-existence of these two elements, the 'external' and the 'internal,' could be seen in an artefact of imported raw material, manufactured in Cyprus and

for which imported technology might have been applied for its manufacture. It could also be seen in the use of both imported and local raw materials for the manufacture of a local product. In all cases, although the imported element varies (raw material, technology) and it is treated differently by the recipient society, this may show that the properties of the imported material have been well understood by the local population of Cyprus, who exercised 'choice' in what they used and in the way they used it. Therefore, the study of the use of the artefacts, which have been characterised as 'imports' or which demonstrate non-local elements, facilitates the understanding of how imports were integrated into LC society and might have influenced the local communities.

The following discussion concentrates on Aegean imports and local imitations from seven LC IA-LC IIIA settlements and compares distribution patterns with other main categories of imports. Although the initial intention was to include Aegean imports from Middle Cypriot contexts, the scarcity and irregular occurrence of imported objects makes it difficult to interpret them as essential components of consumption strategies of Cypriot society. Moreover, the Late Bronze Age is considered as the earliest period during which there is a steady and continuing flow of imports into Cyprus from Egypt, the Levant and the Aegean.

## Data analysis

The following analysis concentrates on five categories of material, which are associated with the Aegean: Mycenaean and Minoan pottery, bronzes, seals and ivory items. These are imports, which are artefacts imported as finished products, and hybrid products, which are artefacts found in Late Cypriot contexts that demonstrate external morphological elements: imported raw material, technology and/or style. These data are associated with rooms from

<sup>43</sup> Manning & Hulin 2005, 291.

<sup>44</sup> Antoniadou 2005, 67.

<sup>45</sup> Antoniadou 2007, 485; see also Rupp 2005, 49.

<sup>46</sup> Thomas 1991, 4.



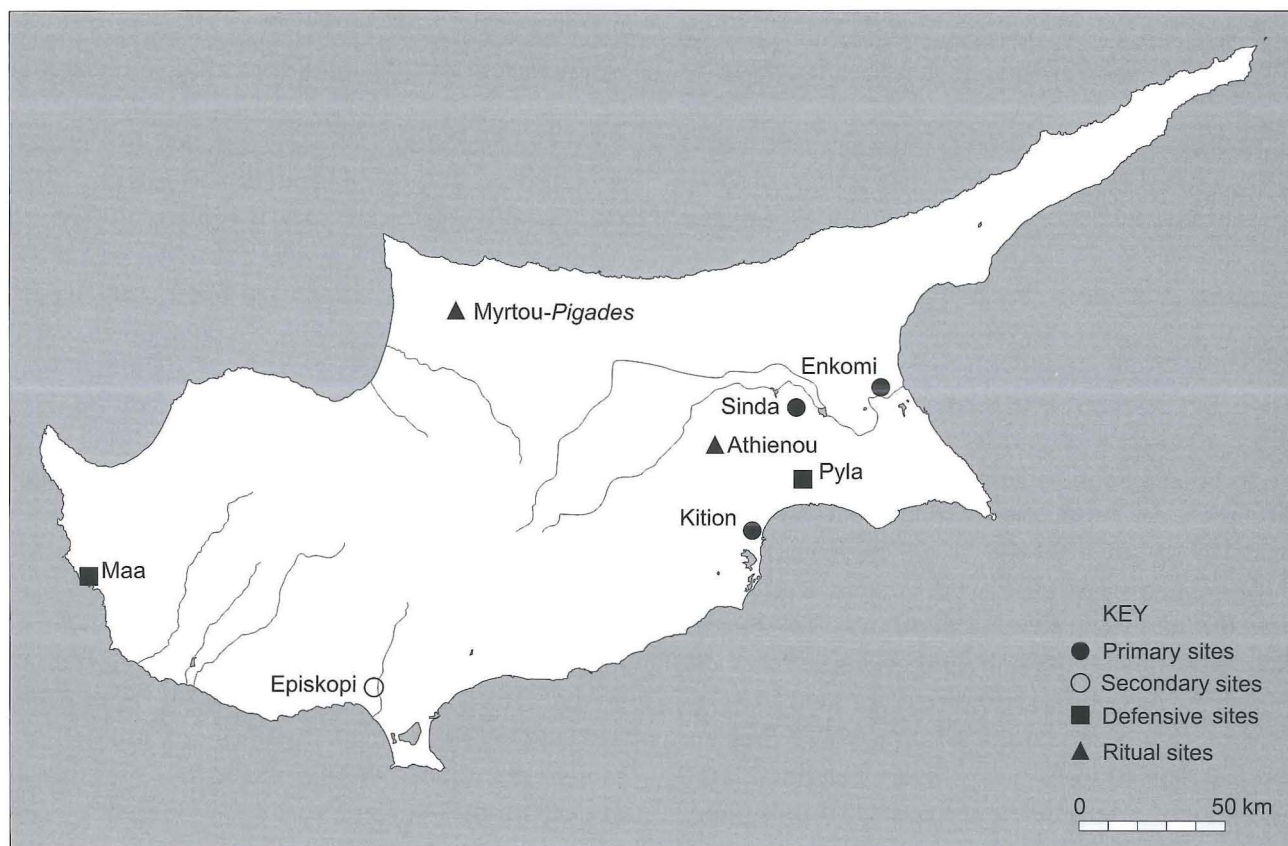


Fig. 1. Map of Late Cypriot sites in Cyprus (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis).

seven settlements which are: the primary urban coastal sites of Enkomi-*Ayios Iakovos*<sup>47</sup> and Kition-*Kathari*,<sup>48</sup> the defensive sites of Maa-*Palaeokastro*<sup>49</sup> and Pyla-*Kokkinokremos*,<sup>50</sup> the secondary inland site of Episkopi-*Bamboula*<sup>51</sup> and two sites with ritual activities, Athienou-*Bamboulari tis Koukouninas*<sup>52</sup> and Myrtou-*Pigadhes*<sup>53</sup> (Fig. 1). The settlement hierarchy system, within which these seven sites have been placed, is the hierarchy system, originally proposed by P. Keswani<sup>54</sup> and then modified by B. Knapp,<sup>55</sup> according to which the functions of the sites would seem to reflect hierarchical social and political structures. This analysis is mainly based on primary depositions of material, which are artefacts found on or just above floor depositions of rooms.<sup>56</sup> Secondary depositions of material, which are artefacts from the fill of the room, have also been considered but taking into account that this has less contextual value. Imports or hybrid products, which have been recorded by the excavator, but are not associated with a room, have not been included in this analysis.

## Mycenaean pottery

Approximately nine hundred sherds and vessels of imported and locally produced Mycenaean pottery<sup>57</sup> have been associated with primary or secondary depositions from the seven settlements included in this analysis. Only 35% of the total number of Mycenaean pottery is imported Mycenaean pottery,

<sup>47</sup> Dikaïos 1969-71.

<sup>48</sup> Karageorghis & Demas, 1985.

<sup>49</sup> Karageorghis & Demas 1988.

<sup>50</sup> Karageorghis & Demas 1984.

<sup>51</sup> Benson 1969; Benson 1970; Benson 1972; Weinberg 1983.

<sup>52</sup> Dothan & Ben-Tor 1983.

<sup>53</sup> Du Plat Taylor 1957.

<sup>54</sup> Keswani 1993.

<sup>55</sup> Knapp 1997, 53-61; Knapp 2008, 138.

<sup>56</sup> Antoniadou 2004, 50.

<sup>57</sup> For discussion on the use of different terminologies used for Mycenaean style pottery made in Cyprus, which is in many cases indistinguishable see Kling 1991, 181-3.

whereas the rest has been identified as locally made. Because Mycenaean pottery was produced in the Aegean with foreign markets in mind,<sup>58</sup> the Mycenaean pottery found in Cyprus differs from that found at home. The range of Mycenaean imports to Cyprus is restricted in comparison to the full repertoire found in the Aegean. Adapting G.-J. van Wijngaarden's<sup>59</sup> framework, three major categories of imported Mycenaean vessels have been associated with rooms in LC IB-III A:2 contexts at Enkomi, Kition, Maa, Pyla, Episkopi, Myrtou and Athienou. These are dinner vessels, including kraters, jugs, cups, bowls, chalices and kylikes, dishes and skyphoi; storage vessels, including jars, flasks, pyxides and alabastra and ritual vessels, including rhyta and kernoi. In addition, 18 Mycenaean clay human and animal figurines have been associated with a variety of contexts at Enkomi and Kition. All figurines were found in LC III A1 contexts apart from one, which was found in a primary deposit in a LC IIC industrial context at Kition Area I/Floor IV.

Mycenaean vases are associated with a variety of contexts such as domestic, industrial, craft-working and ritual in all sites and therefore could not be characterised as items of exclusive use relating imported Mycenaean pottery with a specific activity or social group.<sup>60</sup> A greater variety of shapes, including jugs/juglets, kraters, bowls, kylikes, dishes, cups, jars and stirrup jars, alabastra and flasks, appear in primary centres such as Enkomi and Kition, unlike the rather limited repertoire of shapes, including juglets, kraters, bowls and stirrup jars, which occur in secondary or tertiary sites. This indicates that sites which were directly involved in trade or exploitation of the island's copper resources had access to a greater repertoire of Mycenaean imports than smaller sites. Consequently smaller sites could have 'imported' Mycenaean imports from primary centres. What has been observed is that, despite the position each site had in the site hierarchy system, imported Mycenaean pottery was associated with all kinds of activities at all sites. The association of rhyta and kernoi with ritual activities demonstrates that there is consumptive choice for the specific vessels.

Based only on primary depositions it is evident that a great variety of vessels, including storage and

dinning vessels, were associated with domestic activities. Pottery vessels used in domestic contexts and especially for utilitarian purposes, such as the preparation of food, will have a shorter life than vessels whose use was more restricted such as ritual. Consequently, there will be a greater proportion of the more frequently used domestic wares in the archaeological record.<sup>61</sup> Moreover, P. Keswani<sup>62</sup> has noted that Mycenaean pottery found in LC tombs shows traces of wear, such as abrasion or chips, which were apparently not post-depositional. The implication is that these vessels were used for some time in the settlement before being deposited in tombs. It is important to note that recent studies on the consumption of Mycenaean pottery, which have examined a larger body of Mycenaean pottery, have come to the same conclusions.<sup>63</sup>

During the later phases of the LC IIC period, imported Mycenaean pottery co-existed with local imitations in the same contexts, suggesting that people could use both imports and local imitations for similar purposes. In addition, both types of pottery co-existed in most contexts with local ceramic wares, a fact which further suggests that Mycenaean pottery, imported or locally made, was treated in the same way as local vessels. The only apparent difference between imported and locally made is the absence of specific ritual vessels, such as the kernos and the rhyton from ritual contexts. Vessels associated with domestic contexts appear also in ritual contexts indicating a lack of consumption choices and at the same time the wide acceptance of locally made Mycenaean pottery.

## Minoan pottery

Unlike Mycenaean pottery, very few fragments of Minoan pottery have been associated with rooms

<sup>58</sup> Sherratt 1982, 183.

<sup>59</sup> Van Wijngaarden 2002, 15.

<sup>60</sup> See also van Wijngaarden 2002, 149 for Enkomi.

<sup>61</sup> Shott 1996; Varien & Potter 1997.

<sup>62</sup> Keswani 2004, 142.

<sup>63</sup> Steel 2004, 78; Wijngaarden 2002, 149, 159, 183-202, 261-80.



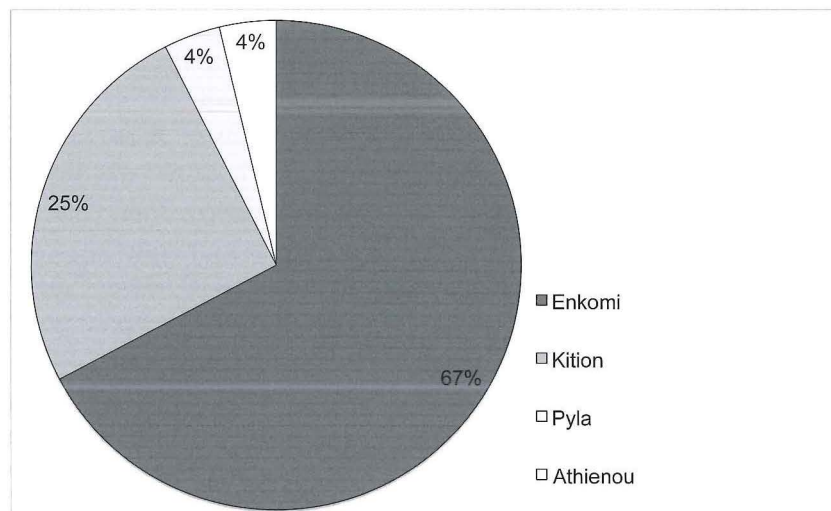


Fig. 2. Distribution of Late Minoan pottery in LC sites.

in LC contexts from the seven settlements included in the analysis. The majority comes from Enkomi (Fig. 2) and it is associated with domestic contexts in both primary and secondary deposits. Transport stirrup jars occur most frequently and the majority of items are dated to LC IIC-LC IIIA1 contexts. Despite its small quantity and the fact that it was not locally imitated, Minoan pottery was not considered as a prestige item of restricted use.

## Bronze/Seals/Ivory

Aegean influences have been identified for a number of spearheads found in LC IIIA1 industrial contexts from Enkomi.<sup>64</sup> The scarcity of bronzes with foreign influences could be interpreted as a result of the abundance of local bronzes; it could also mean that foreign elements were well incorporated into the local bronze industry and were no longer identifiable. It should be stressed that there is no distinction in distributional patterns between the bronze artefacts with Aegean affinities and those with Near Eastern influence.<sup>65</sup>

Aegean affinities are also observed in seals, the majority of which were recovered from LC IIC-LC IIIA contexts at Enkomi. Despite biases of deposition and discovery, raw accounts of seals associated with rooms suggest that these were associated more with domestic rooms than administrative or

ritual and therefore used mainly for jewellery or as amulets, rather than for marking.<sup>66</sup> The adoption of foreign iconography with strong external references to Near Eastern prototypes, as well as Aegean elements, related to ideological messages and ritual symbolisms in local production, the indication that local manufacture of seals began soon after the appearance of the first imports and the use of seals as jewellery items demonstrate the necessity of the existence and use of a pictorial medium heavily dependent on foreign images for personal expression. Ivory was imported to Cyprus as raw material presumably from Syria or Egypt and shows strong stylistic affinities with the Near Eastern and Mycenaean iconography. The majority of ivories, mainly small finds of toilet articles and miscellaneous fittings, come from domestic contexts. Despite the strong affinities with external prototypes, ivories do not have a restricted use. Perhaps, this can also explain the probable imbalance between the few imported ivories, appearing only at the beginning of the Late Cypriot period, and the many locally made ivories found in LC IIC-III A settlement cont

<sup>64</sup> Dikaios 1969-71, volume II, 278.

<sup>65</sup> See Dikaios 1969-71, volume II, 277 for Near Eastern influences identified in pins.

<sup>66</sup> Webb 2002, 128.

## Distributional patterns

Aegean imports from non-mortuary contexts at other LBA sites in Cyprus vary significantly. Imported and locally made Mycenaean pottery comprise common artefact types in most LC tomb and settlement contexts at sites such as Kalavassos,<sup>67</sup> Alassa,<sup>68</sup> Hala Sultan Tekke,<sup>69</sup> Kouklia<sup>70</sup> and Maroni.<sup>71</sup> A limited repertoire of Mycenaean pottery was also found at the production site of Apliki-Karamallos<sup>72</sup> in contrast to the complete absence of imports from the ceramic production site of Sanidha.<sup>73</sup> Mycenaean pottery is also recorded at the site of Phlamoudi-Vounari<sup>74</sup> and at the fortification site of Sinda,<sup>75</sup> whereas Late Minoan pottery is mentioned at the fortification site of Nitovikla-Korovia.<sup>76</sup> Smaller quantities of Mycenaean pottery have been reported in funerary contexts at Milia,<sup>77</sup> Kalopsida,<sup>78</sup> Ayios Sozomenos<sup>79</sup> and Nicosia-Ayia Paraskevi.<sup>80</sup> A significant amount of LM IA and LM III pottery<sup>81</sup> was found at Toumba tou Skourou. The accumulation of imports at the LC IIA cult site of Ayios Iakovos-Dhima includes an imported Mycenaean IIIA:2 juglet and a krater.<sup>82</sup>

Imported Mycenaean pottery was widely distributed in all domestic, industrial, ritual or craft-working contexts and in all sites. Therefore, this class of pottery was an integral part of the activities attested in the archaeological record and no pattern could be observed relating imported Mycenaean pottery with a specific activity or social group. In some cases, an exclusive association of certain shapes of vessels with ritual contexts, such as the conical rhyton and the chalice in Kition Area II/Floor IV, is evident. However, the ritual association of these shapes does not necessarily mean that they are prestige goods, as they might have functioned as substitutes for other precious metal rhyta. As such, they might have, in fact, permitted greater access to certain ritual practices. It is not surprising that, as S. Sherratt<sup>83</sup> mentions, Mycenaean ceramics are almost absent from the documentary and literary record of the second or the first millennia BC.

Similar distributional patterns have been observed for imported basalt tools and haematite/limonite weights or lead items. These patterns also indicate the incorporation of foreign tools into lo-

cal practices, as these were associated with industrial and domestic activities. On the contrary, gold/silver jewellery items had restricted distribution and appear repeatedly in LC IIIA1 but primarily in LC IIIA2 ritual and domestic contexts rather than industrial or craft-working. Unlike Aegean imports or locally made products with Aegean morphological elements, the use of imported precious materials from the Near East or Egypt in local manufacture indicates Cypriot society's tendency to appropriate the intrinsic symbolic value of these materials and at the same time the preference of foreign materials and symbols of the Near East/Egypt in personal items. The choice in using objects, which invoke the foreign, as personal items, is also seen in seals found in similar contexts during the LC IIC-III A periods.

## Conclusion

At the beginning of this paper, the main question to be answered concerned the cultural significance of Aegean imports in LC settlements contexts. The reasoning this paper has followed is that in order to account for the impact and the significance of Aegean imports in indigenous Cypriot history during the Late Bronze Age, we need to interpret their meaning contextually. This view does not take the properties of imported artefacts as self-evident to the people who receive them but rather, it con-

<sup>67</sup> South *et al.* 1989, 304-6.

<sup>68</sup> Hadjisavvas 1989, 38.

<sup>69</sup> Åström 1986, 7-17; Åström 1998.

<sup>70</sup> Maier & von Wartburg 1985, 149.

<sup>71</sup> Manning & De Mita 1997, 135.

<sup>72</sup> Van Wijngaarden 2002, 169-81.

<sup>73</sup> Todd & Pilides 1993, 97-146.

<sup>74</sup> Al Radi 1983, 47.

<sup>75</sup> Furumark 1965, 98-115.

<sup>76</sup> Hult 1992, 56.

<sup>77</sup> Åström 1972.

<sup>78</sup> Åström 1966.

<sup>79</sup> Åström 1966.

<sup>80</sup> Kromholz 1982, 243-7.

<sup>81</sup> Vermeule & Wolsky 1990, 381.

<sup>82</sup> Gjerstad *et al.* 1934, 356-61; Webb 1999, 33.

<sup>83</sup> Sherratt 1999, 173.



siders the meaningful associations of an imported object within its local context. Aegean imports in LBA Cyprus were used for various purposes that were indicative of the various ways Late Cypriot society perceived these imports. One thing became clear from the above analysis. The majority of the material associated with the Aegean was imported but was not considered 'exotic.' Whether this appeared in the form of import, as in the case of imported Mycenaean pottery, or in the form of hybrid products, as in the case of Aegean elements on ivory items, this was treated by the recipient society as familiar and not as prestige as was with jewellery or faience. Aegean-associated objects may have initially appealed to the elite sphere in the earlier phases of the Late Cypriot Period but, later on, their popularity increased and appeared in all kinds of contexts reflecting their incorporation in all activities of Cypriot society.<sup>84</sup> The local need

for these imported objects and the significance that Cypriot communities attached to them shows that Mycenaean pottery was treated as a class of artefact that connected domains of society rather than distinguished them. The use of Aegean elements in locally-made artefacts with strong Near Eastern elements, as in the case of ivory items or seals, shows knowledge of the properties of Aegean iconography or style and the Cypriot society's ability to reproduce these elements making the 'other' become the 'self.'

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<sup>84</sup> See also van Wijngaarden 2007, 467–8.

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# Overseas migrations at the end of the Late Bronze Age in the Aegean and the eastern Mediterranean: some reflections\*

Anastasia Leriou

## Introduction: a new theoretical framework

The transitional phase from the Late Bronze to the Early Iron Age in the Aegean and the eastern Mediterranean is regarded as period of significant turbulence and change. One of its most prevalent characteristics is the 'migratory' movements of various groups of people along the Mediterranean coasts. As these movements are substantiated by, *inter alia*, phenomena such as site establishment, development and abandonment, the research of this period may benefit significantly from the analysis of settlement patterns through the methods of landscape archaeology.<sup>1</sup> Cyprus and Crete, two of the major host-areas of such activity, are quite characteristic in this respect.<sup>2</sup> Moreover, the theoretical advance that has occurred in this field during the past decades has demonstrated that landscape is to be viewed as a non-static, interactive type of discourse, where meaning is "continually being woven into the fabric of social life, and anchored to the lived topographies of the landscape."<sup>3</sup> Thus, further insights into the various parameters – geographical, social, ideological and emotional – that determined the nature and extent of these movements may be possible.

The aim of the present paper is to introduce the concept of seascapes, a rather neglected aspect of landscape archaeology, in the discussion of the 'migrations' in the Aegean and the eastern Mediterranean during the 12<sup>th</sup>, 11<sup>th</sup> and 10<sup>th</sup> centuries BC. The fact that the vast majority of these movements used maritime routes renders the exploration of this concept imperative. Archaeologists, anthropologists and geographers argue that seascapes should be viewed as neither the neutral results of

environmental processes nor the passive receivers of human activity (economic, political, etc). Research focussing on many areas around the world has demonstrated that, similarly to landscapes, seascapes include spaces, where meanings stemming from various aspects of human experience are embedded. Ina Berg maintains that "what some might perceive as undifferentiated sea is in fact an intimately familiar environment with known places which encapsulate a myriad of histories, experiences, skills and relationships of importance for those who traverse it and live on or near it."<sup>4</sup>

Within this general framework, further explored in the contributions in this volume, the present paper focuses on the sea's power to divide and unite; in other words, the sea's potential to contribute towards the establishment of cultural boundaries, as well as facilitate connection between peoples. I

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<sup>1</sup> Desborough 1964, 217–63; Desborough 1972; Dickinson 2006, 62–7; Gitin *et al.* 1998; Karageorghis & Moris 2001; Morris 1997; Osborne 1996, 19–40; Snodgrass 2000, 304–27; Ward & Joukowsky 1992; Whitley 2001, 77–90.

<sup>2</sup> Karageorghis 2002, 73–80; Steel 2004, 187–94; Tsipopoulou & Nowicki 2003.

<sup>3</sup> Tilley 1999, 177. See also Bender 1993; Knapp 1997, 14–8; Ingold 1993; Tilley 1994.

<sup>4</sup> Berg 2007, 388. See also Feinberg 1995; McNiven 2003; Rainbird 2004.



propose to place this investigation against the background of the maritime 'migrations' in the Aegean and the eastern Mediterranean during the final stage of the Late Bronze and the beginning of the Early Iron Age, as they are generally thought to have included cultural groups of distinctively different identities. This notion has been supported by the traditional belief that islands constitute discrete physical and social entities, as most of the areas involved in these movements are islands, namely Cyprus, Crete, the Dodecanese and the Cyclades. Moreover, this cultural distinction is supposed to have been so strong that it may be readily observed in the material cultures of the societies in question.<sup>5</sup>

Lately, researchers have questioned the concept of insularity, according to which island societies are isolated, idiosyncratic and rather backward, due to the boundedness that characterises their physical environments.<sup>6</sup> Moreover, a shift of focus from land- to seascape, demonstrates that islands may be much more exposed to contact and interaction than many mainland regions. This is particularly so in respect to the lands surrounding the Mediterranean, where overland travel had not always been as easy and fast as its maritime equivalent.<sup>7</sup> Provided the availability of marine technology, islands are readily accessible by means of boats; thus, the sea may be viewed as an open field for multiple contact, interaction and negotiation, while the vessels facilitating overseas travel are "not just material possessions, but mediators between near and far, symbolic foci of power for their owners in many island societies."<sup>8</sup> The boundaries of island societies are fuzzy, whereas their members are characterised by their expectation of contact with people originating from outside the islands. Thus, despite their insular environment, islanders' identities seem largely defined by movement, contact and exchange. This is what A. B. Knapp defines as connectivity,<sup>9</sup> whereas P. Horden and N. Purcell, who coined the term, maintain that it is meant to describe "the various ways in which microregions cohere, both internally and also one with another – in aggregates that may range in clusters to something approaching the entire Mediterranean."<sup>10</sup>

Consequently, it has been acknowledged that the islanders' perspective includes the land as well as

the sea. The concept of insularity, which cannot be overlooked due to the sharpness of the sea's separating qualities, has been reconsidered during the last decade within the framework of island-mainland and/or inter-island relations; it is not regarded anymore as an absolute and permanently fixed condition, since it is directly associated to historical conditions and cultural construction.<sup>11</sup>

On the basis of these observations, it is apparent that the concepts of insularity and connectivity offer a new perspective on the cultural identities of the peoples involved in the Aegean and eastern Mediterranean 'migratory' movements at the end of the Late Bronze and the beginning of the Early Iron Age. In order to be able to apply these research tools effectively, one needs to be familiar with the pre- as well as with the post-migratory material cultures of the islands that are thought to have received the newcomers. In an attempt to provide a basic set of guidelines, it could be maintained that the intensity of the insularity observed in the pre-migratory levels is generally viewed as directly analogous to the impact that the actual migration process is expected to have had on the material culture under examination. Thus, the more isolated an island society was prior to the migration, the more clearly the cultural differentiation between the migrants and the natives is expected to be reflected in the post-migratory material. On the other hand, a wide network of contact and interconnection in the pre-migratory levels would seriously undermine all those associations observed in the archaeological record that are considered to substantiate the presence of migrant cultural

<sup>5</sup> Deger-Jalkotzy 1998; 169–239; Georgiadis 2003, 106–15; Karageorghis 2002, 71–141; Karageorghis & Morris 2001; Killian 1990; Lemos 2002, 191–225; Snodgrass 2000, 373–8.

<sup>6</sup> Cherry 1990; Evans 1977; Knapp 2007, 38–9, 45–7; Knapp 2008, 19–21; Patton 1996.

<sup>7</sup> Knapp 2007, 47; Knapp & Blake 2005, 9.

<sup>8</sup> Knapp 2007, 47.

<sup>9</sup> Knapp 2007, 46; Knapp 2008, 22–4.

<sup>10</sup> Horden & Purcell 2000, 123; also cited in Knapp 2007, 46.

<sup>11</sup> Berg 2007, 389; Broodbank 2000; Gosden & Pavlides 1994; Knapp 2007, 47–51; Knapp 2008, 13–30; Knapp & Blake 2005, 9–10; Rainbird 1999; Rainbird 2007.



groups. Consequently, a diachronic perspective is required. This is particularly so, as the boundaries maintained by differentiated cultural groups may only be identified by means of locating instances of consciously constructed demonstration of cultural differentiation in the archaeological record.<sup>12</sup> J. Hall maintains that the cultural forms employed in the active marking of boundaries tend to possess a short-term rather than a long-term discriminatory value, while the choice of medium employed changes over time.<sup>13</sup>

## The case of Cyprus

I intend to explore the theoretical considerations outlined above against the background of the widely accepted archaeological narrative of the Aegean migration to Cyprus during the course of the 12<sup>th</sup> and 11<sup>th</sup> centuries BC. According to it, various groups of people from the Aegean, mainly the Peloponnese and Crete, took refuge in the island of Cyprus after the fall of the Mycenaean palaces. Archaeologists substantiate the immigrants' presence through the identification of artefacts, tombs and architectural features of Aegean type, as well as the introduction of the Greek language. Inspiration for this hypothesis has come from various mythological traditions, according to which the historical Cypriot kingdoms were founded by Greek heroes who landed on the island on their way home after the end of the Trojan War.<sup>14</sup>

This case study seems ideal in many respects. First of all, it involves one of the largest Mediterranean islands, whereas the majority of newcomers are thought to have had originated from mainland Greece. Furthermore, Cyprus is located well outside the geographical limits of the Aegean archipelago, which is clearly defined by the coast of Asia Minor to the east and the island of Crete to the south. Together with the adjacent Syro-Palestinian coast,<sup>15</sup> the island is considered as the most distant place to have received Aegean immigrants during the period in question. The Cypriot Late Bronze Age was characterised by a distinctive material culture that is generally regarded as markedly different from its Aegean equivalent, despite the multifaceted

interrelation that has been observed between them. This is generally thought to have been facilitated through trade connections between Cyprus and the Aegean dating from as early as the 17<sup>th</sup>, although they were intensified during the 14<sup>th</sup> and 13<sup>th</sup> centuries BC.<sup>16</sup> These contacts may be viewed as part of a wider web of maritime activity that had been established since the beginning of the second millennium, if not earlier, along the coasts of the eastern Mediterranean between the mouth of the Nile, Palestine, Lebanon, Syria and the southern coast of Anatolia with overland links to much more distant lands such as Upper Egypt or Mesopotamia. By the middle of the second millennium, this network had developed considerably through the inclusion of a new 'consumer base': that in the Aegean and its western periphery. The 13<sup>th</sup> century BC witnessed the development of even longer-distance sea routes that extended from the eastern Mediterranean to Sicily and Sardinia.<sup>17</sup>

Despite the isolation/ insularity that characterised the earliest phases of Cypriot Prehistory and had led to local development and variation,<sup>18</sup> the Late Bronze Age witnessed the island's active and systematic participation in the development of the maritime network mentioned above by means of exporting copper, which effectively rendered copper working a basic constituent of Cypriot economy during that period.<sup>19</sup> At the same time, however, Late Bronze Age Cypriot societies seem to have had retained their political self-reliance. Cyprus, generally identified with the place-name *Alashiya*

<sup>12</sup> Hall 1997, 131–6; Jones 1997, 112–5; Malkin 2001, 7–9.

<sup>13</sup> Hall 1997 136; Leriou 2007, 573.

<sup>14</sup> Iacovou 1999; Iacovou 2001; Iacovou 2003; Iacovou 2006; Karageorghis 1990; Karageorghis 1997, 255–85; Karageorghis 2000; Karageorghis 2002, 71–141; Leriou 2009, 4; Steel 2004, 187–213.

<sup>15</sup> Dothan 2000; Iacovou 1999, 145–6; Mazar 1991; Waschmann 2000.

<sup>16</sup> Catling 1997; Karageorghis 1998, 28–38; Karageorghis 2002, 15–7, 27–8, 42–7.

<sup>17</sup> Cline 1995; Cline & Harris-Cline 1998; Davies & Schofield 1995; Knapp 1990; Knapp 1993; Sherratt & Sherratt 1998, 338–9.

<sup>18</sup> Clarke 2001; Clarke 2003; Held 1993; Knapp 2007: 48–9.

<sup>19</sup> Knapp 1989; Karageorghis 1990, 25, 29–30; Karageorghis 2002, 21–5; Muhly 1982; Muhly 1996.





Fig. 1. Map with main sites mentioned in the text (basic map after Daniel Dalet/ d-maps.com; modified by G. Vavouranakis).

mentioned in Near Eastern literary sources,<sup>20</sup> is thought to have been viewed as neutral territory, whether it included regional centres united under a central authority or fragmented in multiple political entities. In spite of the island's relatively close proximity to the Hittite empire and the thriving mainland centres of Byblos, Ugarit, etc. (Fig. 1), the Cypriots had managed to avoid becoming caught up in the intense political struggle between the eastern empires, Egyptian and Hittite, over the control of the eastern Mediterranean.<sup>21</sup>

A seaward perspective facilitates viewing the idiosyncratic Late Bronze Age material culture of Cyprus as largely determined by the counterbalancing conditions of insularity and connectivity. Moreover, the above discussion demonstrates that insularity is "not an absolute, perennially stable, and permanently fixed state of being; rather it is historically contingent and culturally constructed, like island identities themselves."<sup>22</sup> By investigating how insularity and

connectivity may have affected the processes of construction and projection of cultural identity, when attempting an interpretation of the archaeological evidence traditionally associated with the Aegean migration to Cyprus, one may end up with a more functional, indeed more realistic, narrative.

Providing further insight through this alternative perspective into the transitional last phase of the Late Cypriot period is essential in the light of the criticism that an increasing number of researchers have been expressing in regard to the hypothesis that Cyprus was settled by large numbers of Aegeans during the 12<sup>th</sup> and 11<sup>th</sup> centuries BC.<sup>23</sup> Objections stem from various classificatory problems, contra-

<sup>20</sup> Keswani 1993; Karageorghis 2002, 27–30; Merrill 1992; Reyes 1994, 23–4; Webb & Frankel 1994.

<sup>21</sup> Knapp 2007, 49.

<sup>22</sup> Knapp & Blake 2005, 10.

<sup>23</sup> Leriou 2007, 563–4.

dictions and inconsistencies that seem to be inherent in this archaeological narrative. These problems have been attributed to the narrative's theoretical basis, which may be effectively summarised in the infamous equation between pots and peoples (the culture-historical approach towards the archaeological record). Consequently, the principal objection is of theoretical character and lies in the use of certain groups of artefacts, pottery in particular, of Aegean origin and/or inspiration as defining criteria for the presence of a group of Aegean peoples in 12<sup>th</sup> and 11<sup>th</sup> century Cyprus.<sup>24</sup> Moreover, very limited emphasis has been placed upon the interaction between the newcomers and the natives as evidenced in the various instances of the active demonstration of identity achieved through the manipulation of material culture.

An alternative narrative<sup>25</sup> that appeared almost two decades ago explains the various changes that Cypriot societies experienced at the end of the Late Bronze Age, after the disintegration of the 'international' exchange system, in terms of significant development in the eastern Mediterranean maritime trade, which was largely maintained by the prosperous Late Cypriot IIC polities; in other words, the emergence of the so-called 'Sea Peoples' as a group of powerful and competitive freelance merchants with their own material culture. Initially the mercantile intermediaries between Cyprus and the various Levantine city-states, the Sea Peoples were transformed to formidable competitors for the very same city-states. Their base was identified with the island of Cyprus, whereas their activity is thought to have affected the southern Levant and some regions in southern Anatolia and the Aegean. This narrative, generated by what A. B. Knapp and I. Vokos<sup>26</sup> define as the 'mercantile perspective,' has been systematically criticised in regard to the societies of the southern Levant, and equally does not seem to offer a sufficient explanation for the introduction of several cultural elements of Aegean and/or Levantine type in the material culture of Cyprus during the 12<sup>th</sup> century BC.<sup>27</sup>

The increased occurrence of Aegean elements in the Late Cypriot III archaeological record, particularly when examined in the light of the turbulence attested in almost all Cypriot settlements

and the general upheaval and population movement observed in the Aegean and the regions of the eastern Mediterranean from the end of the 13<sup>th</sup> and throughout the course of the 12<sup>th</sup> century BC, does not allow the total dismissal of the hypothesis that one or more groups of people fleeing the disasters in the Aegean settled in Cyprus during the period in question.<sup>28</sup> The issue here is not about whether the Aegean migration actually occurred; it is the movement's character and extent, as well as its multifaceted effects on the local population, which happened to consist of islanders with plenty of experience in sea-faring at a time when marine technology was considerably advanced,<sup>29</sup> living on an island endowed with several ports in close proximity to the large urban centres of Egypt and the Syro-Palestinian coast, where movement and exchange thrived. The following discussion aims at casting some light on those issues by shifting the focus of attention from the detailed reconstruction of the historical events that took place during the 12<sup>th</sup> and 11<sup>th</sup> centuries in Cyprus and the relentless effort to establish the Aegean presence by means of identifying cultural elements of Aegean origin and/or inspiration in the Cypriot material culture to an evaluation of the post-migratory archaeological record<sup>30</sup> filtered through the concepts of insularity and connectivity.

## Identifying the Aegeans in Cyprus

The story begins with a simple, seemingly trivial fact: the Aegean migrants came to Cyprus from the sea. According to mythological tradition, the Cyp-

<sup>24</sup> Leriou 2007, 563–4.

<sup>25</sup> Artzy 1997; Artzy 1998; Sherratt 1992; Sherratt 1994b; Sherratt 1998.

<sup>26</sup> Vokos & Knapp 2008, 677.

<sup>27</sup> Vokos & Knapp 2008, 677.

<sup>28</sup> Deger-Jalkotzy 1994; Gitin *et al.* 1998; Oren 2000; Karageorghis 2002, 71–84; Leriou 2005, 316–7; Leriou 2007, 578; Osborne 1996, 19–24, 37–40; Vokos & Knapp 2008, 677–8; Ward & Joukowsky 1992.

<sup>29</sup> Waschmann 1998.

<sup>30</sup> Leriou 2007, 568–76.



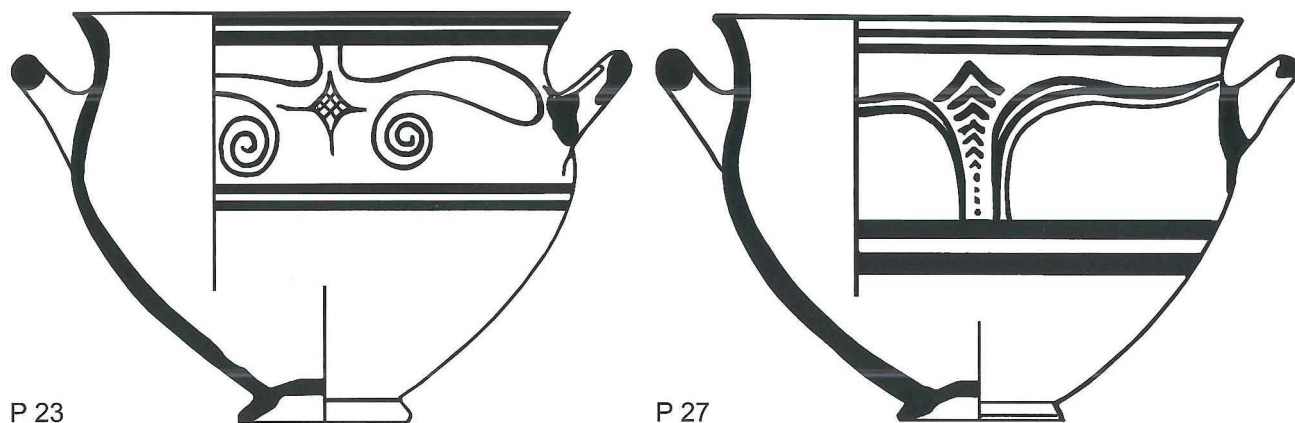


Fig. 2. Mycenaean III C:1b pottery from Sinda (after Furumark & Adelman 2003, pl. 11; courtesy of C. Adelman; reprinted with the permission of the Editorial Committee of the Swedish Institutes at Athens and Rome; modified by G. Vavouranakis).

riot kingdoms had been founded by Greek heroes, who came to Cyprus after the Trojan War.<sup>31</sup> The newcomers had followed the long-established maritime routes that people had been using throughout the course of the Late Bronze Age to facilitate contact between the Aegean and the lands of the eastern Mediterranean. Furthermore, the Aegean migration to Cyprus occurred at a time, when technological progress regarding ship construction and maintenance in combination with sophisticated navigation skills and advanced sailing experience had made seafaring a quite straightforward venture. Moreover, visiting Cyprus was further assisted by the favourable anchorage provided in many places along the island's coastline.<sup>32</sup>

According to the established archaeological narrative, the Aegean immigrants first landed at the coastal sites of Maa-*Palaiokastro*, about twenty-seven kilometres to the northwest of Palaepaphos,<sup>33</sup> and Pyla-*Kokkinokremos* near the Larnaca Bay.<sup>34</sup> Both sites were established at the end of the Late Cypriot IIC period, i.e. the final decades of the 13<sup>th</sup> century BC, the latter site most probably being slightly earlier. Pyla was abandoned soon after 1200 BC, whereas Maa survived until the mid of the 12<sup>th</sup> century BC. Maa and Pyla have been characterised as refuge settlements on the basis of their relatively brief duration and the fact that they had been founded in isolated areas with no previous occupation, at naturally protected sites that could

be easily fortified. Moreover, sandy beaches that could provide safe anchorage lay within the immediate vicinity of both sites. The Cypriot refuge sites are considered very similar to those identified in the Aegean during the same period.<sup>35</sup> That the people who established Pyla and Maa originated from the Aegean is substantiated by the multiple Aegean and/or Aegeanising elements identified in the archaeological record from these sites, e.g. architectural features such as Cyclopean masonry and halls with central hearths, bathrooms and clay bathtubs, weaponry, etc.<sup>36</sup> However, the most widely established class of archaeological material associated with the arrival of people from the Aegean is a locally produced type of pottery of purely Aegean style, a class widely known as Mycenaean III C:1b according to A. Furumark's classification (Fig. 2).<sup>37</sup> This is despite the fact that the diagnostic value of this class of pottery as an indicator of the Aegean

<sup>31</sup> Coldstream 1990, 47-8; Gjerstad 1944; Hadjiioannou 1971, 46-67; Iacovou 2009, 648-50; Spyridakis 1973.

<sup>32</sup> Berg 2007, 391-403; Mantzourani & Theodorou 1991; Sherratt & Sherratt 1991; Wachsmann 1998.

<sup>33</sup> Karageorghis & Demas 1988; Maier & Karageorghis 1984, 110-3.

<sup>34</sup> Karageorghis & Demas 1984.

<sup>35</sup> Karageorghis 2002, 81; Karageorghis & Morris 2001.

<sup>36</sup> Karageorghis 1991, 16-8, 30-5; Karageorghis 2001; Karageorghis 2002, 74-84.

<sup>37</sup> Furumark 1941a, 541-75; Furumark 1941b, 110-5.

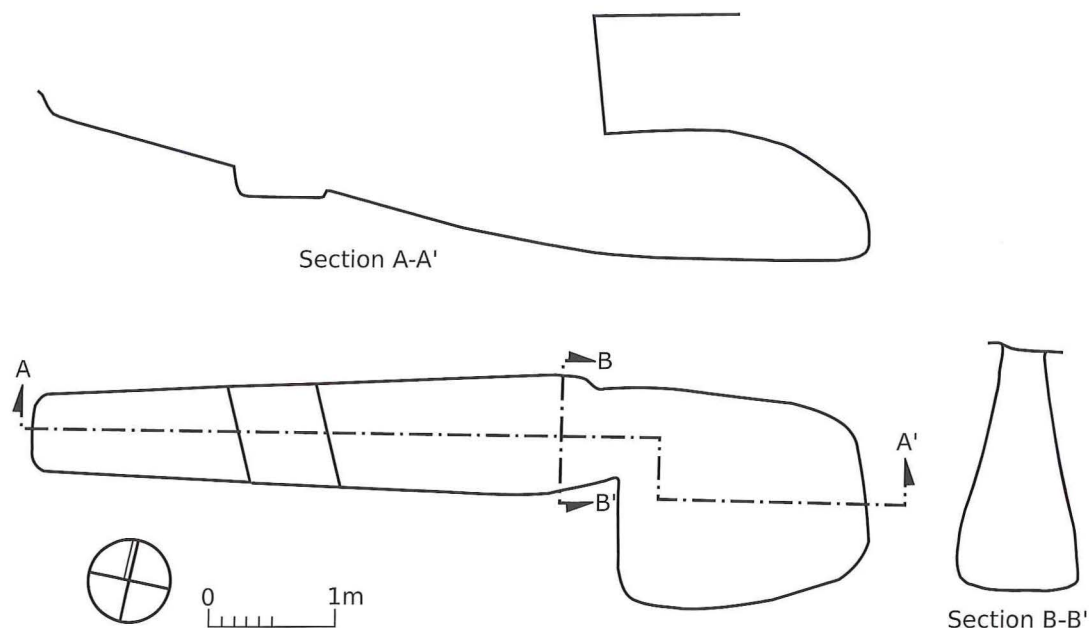


Fig. 3. Plan of Tomb 14 at Alaas-Gastria (after Karageorghis 1975, pl. XLVII; courtesy of the Director of Antiquities, Cyprus; modified and redrawn by G. Vavouranakis).

newcomers has been significantly undermined on the basis of stylistic inconsistencies and classification problems.<sup>38</sup>

In addition, the presence of local cultural elements at both Pyla and Maa has been explained as the material manifestation of the Aegeans' active interaction with the members of the local communities. While discussing the evidence from Pyla-Kokkinokremos, V. Karageorghis maintains:

"The fact that local types of pottery and other artefacts were also found need not be surprising, because there is no reason why the inhabitants should not have had dealings and exchanges with the neighbouring communities. They did not come as invaders, but as refugees looking for a place to settle after the collapse of the urban centres in the Aegean, and they chose to keep a low profile, not knowing the intentions of the local population. Another interesting element in the material that they used comprises torches for signalling, in order to communicate with other incoming people from the seashore."<sup>39</sup>

In order to illuminate the nature and extent of the Aegean migration to Cyprus, one needs to focus on the pre- and the post-migratory material culture of Cyprus. This is so, as, regardless of the

theoretical approach chosen, the available archaeological record has been proven too limited to allow an effective reconstruction of the 12<sup>th</sup> and 11<sup>th</sup> century BC historical development. A detailed survey of the evidence demonstrated that this is fragmentary and thus highly inconclusive, while many classes of it require further study and/or publication. The results of excavations at major sites such as Salamis and the Late Bronze-Early Iron Age settlement of Palaepaphos remain unpublished, and only preliminary reports are available.<sup>40</sup> Another characteristic example of the material's incompleteness are the Mycenaeanising chamber tombs with small, squareish chambers and long *dromoi* (Fig. 3) that appeared all over the island as early as Late Cypriot IIIB and remained in use during the earliest phase of the Cypro-Geometric period.<sup>41</sup> Although widely employed as one of the most important groups of evidence for the presence of Aegean settlers, no systematic analysis, whether typological, spatio-temporal or contextual, has so far appeared. The

<sup>38</sup> Kling 1984; 1989; 1991; 2000.

<sup>39</sup> Karageorghis 2001, 3.

<sup>40</sup> Leriou 2005, 295-313.

<sup>41</sup> Karageorghis 2001b, 53-4; Karageorghis 2002, 117-8.



fact that the cemeteries featuring examples of these tombs, also included other types of tombs that are generally thought to have reflected local traditions,<sup>42</sup> renders the remedying this omission quite essential.

Therefore, instead of wondering what exactly happened during the period in question, one should continue with questions such as 'how foreign would the newcomers have felt while disembarking from their boats?' and 'how strange would they have seemed to the eyes of the natives?'<sup>43</sup> The quotation cited above is characteristic of the ineffectiveness of the culture-historical approach, as far as the identification of past cultural groups is concerned. Besides resulting in various classificatory inconsistencies and misunderstandings, the direct association between peoples and artefacts promotes hypotheses entailing population movement, while allowing no space for alternative interpretations such as various types of circulation, contact, interaction and exchange.<sup>44</sup> Thus, it fully disregards the concept of connectivity, i.e. the fundamental role played by mobility and interconnection in the generation of islanders' identities, a frequently used tool in recent discussions of the Cypriot Late Bronze Age.<sup>45</sup>

To replace culture-historical archaeology, social anthropologists and archaeologists have lately agreed that the only way to employ the static archaeological remains in pinpointing cultural identity, is by concentrating on how groups of people in the past actively employed material culture to stress their difference in regard to other groups. Thus, recent theoretical discussions concentrate on the symbolic use of material culture in the construction of boundaries and the subsequent emphasis on cultural differentiation. The latter may be viewed as the archaeological fingerprint of an heterogeneous population containing antagonistic elements. Cultural groups select certain elements of their material culture and employ them as *emblemic indicia* of their differentiation from other groups (boundaries). One may distinguish instances of active emphatic use from their passive behavioural counterparts in the archaeological record by identifying cases of strong differentiation from the norm. Thus the archaeological phenomena under examination

and their contexts should be approached through a diachronic perspective.<sup>46</sup>

The location of emphasised cultural boundaries may be viewed as suggestive of a strong group identity. Furthermore, the investigation of social developments such as migrations, colonisations and invasions entails the notion of antagonistic ethnic groups. Indeed, both the Hellenisation and the 'mercantile perspective' narratives entail the notion of a clearly defined cultural separation between the natives and the newcomers.<sup>47</sup> In contrast to other social collectivities, ethnic groups base their coherence on common descent and cultural differentiation.<sup>48</sup> Thus, one should expect to identify the material manifestation of ancestralising strategies which aimed at the establishment of links with the mythical ancestors. At this point, it should be stressed that such differentiating archaeological phenomena acquire ethnic significance only when set against the context of a discursively constructed ethnicity substantiated by means of literary evidence,<sup>49</sup> e.g. the foundation myths associated with the historical kingdoms of Cyprus. This is despite the later date, limited number and Greek origin of Cypriot myths, factors that seem to undermine their utilisation in identity construction.<sup>50</sup>

## The Aegeans in Cyprus

It has already been established that the presence of two distinctively different, antagonising groups of people, the Aegean migrants and the native Cypriots and, consequently, the dynamic expression of cultural differentiation are inherent in the archaeological narrative of the Aegean migration and the

<sup>42</sup> Iacovou 1989, 55–6.

<sup>43</sup> Leriou 2007, 568–9.

<sup>44</sup> Leriou 2007, 564–8; Leriou 2009, 2–3.

<sup>45</sup> Knapp 2008.

<sup>46</sup> Barth 1969; Banks 1996; Hall 1997, 111–42; Jones 1997; Knapp 2001; Leriou 2005, 102–7; Leriou 2007, 570–4; Malkin 2001, 7–19.

<sup>47</sup> Voskos & Knapp 2008, 661 and 677.

<sup>48</sup> Jones 1997, xiii.

<sup>49</sup> Hall 1997, 137–40; Malkin 1998; Malkin 2001.

<sup>50</sup> Gjerstad 1944; Karageorghis 2004; Leriou 2005, 17–20.

subsequent foundation of the Cypriot kingdoms by the newcomers. At this point, it should be stressed that, although the Aegean peoples who moved to Cyprus may not be viewed as an ethnically uniform group, they could be referred to as a cultural group on the basis of their quite homogenous material culture, which is generally viewed as distinctively non-Cypriot. Moreover, their relatively distant place of origin allows some space for differentiation, upon which the sharpness of the boundaries in the post-migratory material culture directly depends.<sup>51</sup>

A thorough examination of the Cypriot material culture in pursuit of instances of cultural differentiation that would signify active ethnic signalling (emblems) provides only a very limited number of such boundaries on either the vertical/diachronic or the horizontal/contextual level. This investigation includes a period of time after, as well as before, the advent of the Aegeans on the island, generally placed around 1200 BC, which corresponds to the beginning of the Late Cypriot IIIA period. Thus, its starting point are the final phases of the Late Cypriot IIC, while the finishing point is placed around 900 BC, i.e. the end of the Cypro-Geometric II and, also, the beginning of a new era defined by the island's dynamic involvement in international trade that provided new pathways for her cultural contact with the Aegean world.<sup>52</sup>

The horizontal examination demonstrates that there had been extremely few clear instances of ethnic differentiation during the course of the long Late Cypriot III – Cypro-Geometric II period. These were mostly associated with the Phoenician presence from the 11<sup>th</sup> century BC onwards.<sup>53</sup> Furthermore, the archaeological record includes evidence for social complexity of varying degrees. On the basis of the available information, however, no demonstration of social differentiation could possibly be associated with a process of conscious construction of ethnic boundaries. Moreover, the vertical examination demonstrates that the Cypriot material culture was characterised by greater continuity than so far suggested. As far as the instances of indisputable break and/or change are concerned, such as the establishment of new settlements and

cemeteries during the first half of the 11<sup>th</sup> century BC,<sup>54</sup> various alternative explanations that do not involve migration and movements of people may be offered as well: internal political and economic development, peer polity interaction and/or competition in regard to maritime activity in the eastern Mediterranean.<sup>55</sup>

The absence of consciously constructed boundaries suggests that neither the Aegeans nor the natives felt the need to stress their cultural differentiation.<sup>56</sup> Obviously, the sense of 'otherness' among the Aegeans and the Cypriots had been considerably dampened due to lack of an antagonistic atmosphere. The newcomers had not come in threateningly large numbers as conquerors and, thus, did not seem threatening to the natives. Neither had they come as impoverished refugees looking for a new homeland to replace the one they left behind. Moreover, they must have felt quite at home in Cyprus, whilst the Cypriots did not treat them as intrusive or alien.<sup>57</sup>

Such absence of antagonistic elements within the island's societies from the late 13<sup>th</sup> until the end of the 10<sup>th</sup> centuries BC should be considered in close relation to the 'hybridization' pervading the Late Cypriot III material culture. Inspired by postcolonial studies in social anthropology, the term is used by I. Vokos and A. B. Knapp to describe the mixture of Aegean, Levantine and Cypriot elements that characterises several groups of archaeological evidence, some of which were employed in the construction of the Hellenisation narrative as features of purely Aegean origin or inspiration, such as various types of Aegeanising ceramics currently classified in a wider group named 'White Painted Wheelmade III',<sup>58</sup> armoury and weaponry,<sup>59</sup> archi-

<sup>51</sup> Leriou 2007, 576.

<sup>52</sup> Coldstream 1999, 114–5; Karageorghis 2002, 143–9; Leriou 2005, 108–10.

<sup>53</sup> Leriou 2005, 313–4; Sherratt 2003.

<sup>54</sup> Iacovou 2008, 634–9; Karageorghis 2002, 117–40.

<sup>55</sup> Leriou 2007, 572–9.

<sup>56</sup> Leriou 2005, 295–6; Leriou 2007, 577–8.

<sup>57</sup> Leriou 2005, 317; Leriou 2007, 578; Sherratt 1992, 325.

<sup>58</sup> Kling 1991; Kling 2000, 291–2; Vokos & Knapp 2008, 668–70.

<sup>59</sup> Karageorghis 2002, 92; Vokos & Knapp 2008, 670.



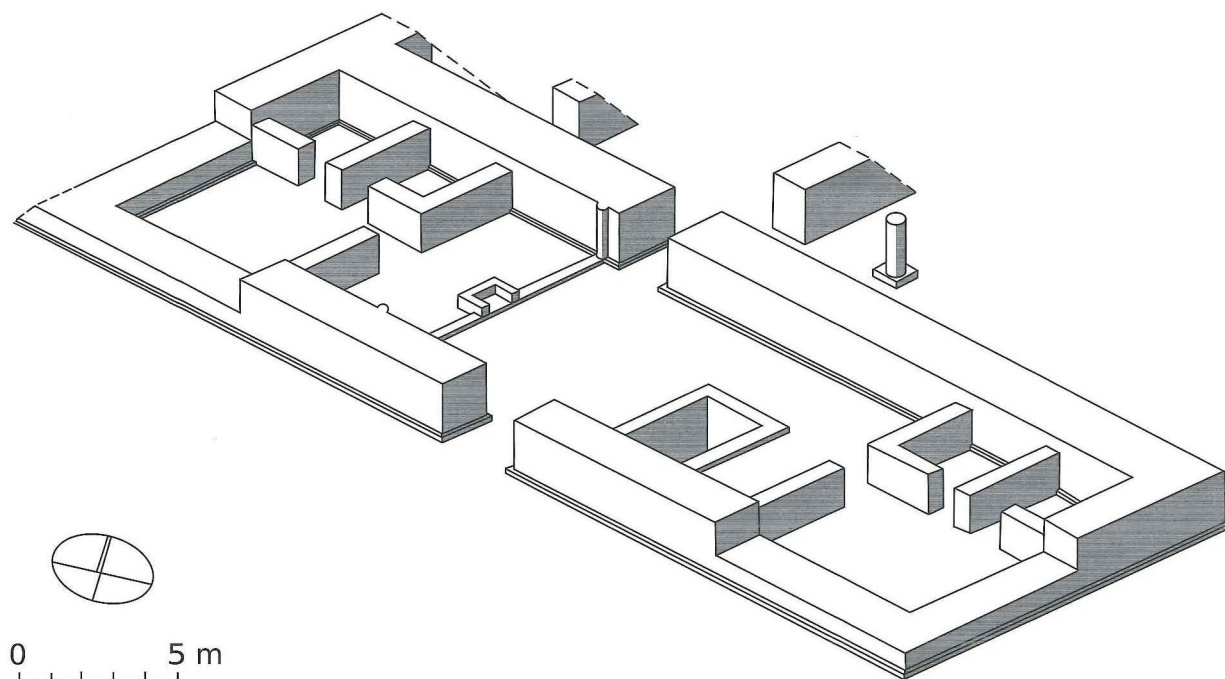


Fig. 4. Isometric drawing of south wing of Building II at Alassa-Paliotaverna (after Hadjisavvas & Hadjisavvas 1997, 144 fig. 1; courtesy of S. Hadjisavvas and redrawn by G. Vavouranakis).

tectural elements (Fig. 4),<sup>60</sup> etc. Hybridization, usually apparent in contact situations originating from colonisation movements, is essentially the result of the “interactive process resulting from the cultural entanglements that occur between intrusive groups and local inhabitants. This process is based on the reciprocity of interchangeable features that result in equal alteration of both intrusive and indigenous social groups.”<sup>61</sup>

Cyprus then saw a period of cultural reciprocation, which was the result of the lack of competitiveness between the Cypriots and the Aegeans and, consequently initiated an intensive ‘conversation,’ namely a series of socio-cultural interactions and negotiations. This process led to the production of the material culture of the 12<sup>th</sup> century BC, described as ‘hybrid’ by Voskos and Knapp,<sup>62</sup> as well as to the establishment of a novel, collective identity. The latter may be substantiated archaeologically through the remarkable uniformity observed in the Cypriot material culture during the 11<sup>th</sup> and 10<sup>th</sup> centuries BC.

In the light of the above discussion, it is impossible to maintain the association of the socio-politi-

cal developments that are thought to have occurred during this period, namely the establishment of the Cypriot kingdoms, with a massive influx of an alien group of people determined to maintain the cultural distinctiveness by means of material culture. Consequently, the hypothesis that the 12<sup>th</sup> century immigrants were followed by a second, definitely more extensive influx of Aegean people, which occurred during the first half of the 11<sup>th</sup> century BC (Late Cypriot IIIB)<sup>63</sup> is seriously undermined. The arrival of Aegeans at the island during the Late Cypriot IIIB period should be viewed as a continuation of the 12<sup>th</sup> century movement.

In a recent article, M. Iacovou<sup>64</sup> has attempted to cast some light on the processes associated with the arrival of Aegean peoples during the 12<sup>th</sup> and 11<sup>th</sup> centuries BC through a macrohistoric approach;

<sup>60</sup> Karageorghis 2002, 87–91; Voskos & Knapp 2008, 665–8.

<sup>61</sup> Voskos & Knapp 2008, 661.

<sup>62</sup> Voskos & Knapp 2008, 664–73.

<sup>63</sup> Iacovou 1999, 7–14; Iacovou 2003; Karageorghis 1997, 272–85; Karageorghis 1998, 56–60; Karageorghis 2002, 115–41.

<sup>64</sup> Iacovou 2008.

based primarily on literary and linguistic evidence, she proposed that the Greek-named *basileis* of the Cypro-Archaic and Classical periods were descendants of the Aegean migrants, aware of their particular origin and eager to maintain their identity many centuries after their ancestors' establishment on the island. The homogeneity that characterises the Late Cypriot IIIB and Cypro-Geometric material culture is thought to substantiate a peaceful, non-antagonistic situation, within which the newcomers, having accepted the existing politico-economic system, co-existed with the natives.

However, the Aegeans, or rather the Greeks, as Iacovou prefers to call them, while merging with the native population into a uniform social group, managed to retain certain elements associated with their non-Cypriot origin and connection to the families of Mycenaean *basileis*, who settled the island at the end of the Late Bronze Age. This is primarily substantiated by "the introduction, insular confinement and incredibly long endurance of the Arcado-Cypriot, the only historic Greek language the preserved much of the Mycenaean-Greek language."<sup>65</sup> Moreover, Iacovou's thesis is further supported by the fact that Cyprus has yielded some of the earliest inscriptions bearing the Greek names, though written in the Cypriot syllabary, of Cypriot *basileis*, i.e. the powerful state leaders of the Cypro-Archaic and Classical periods.<sup>66</sup>

Iacovou's conclusions are based on a relatively limited amount of inscriptional evidence of much later chronology, the earliest ones dating from the 7<sup>th</sup> century. However, although she does not seem to take into consideration the amalgamated nature of the 12<sup>th</sup> century archaeological record, as well as the total absence of active ethnic signalling in the post-migratory levels of the Cypriot material culture before the advent of the Phoenicians<sup>67</sup>, Iacovou does acknowledge the island-wide homogeneity of the Late Cypriot III and Cypro-Geometric material culture and attributes it to the non-offensive character of the Aegean presence.<sup>68</sup> Moreover and despite the fact that her assumption that "the royal authority had been claimed by descendants of Mycenaean *basileis*"<sup>69</sup> during the Cypro-Archaic period cannot be effectively substantiated by means of the available archaeologi-

cal evidence, the direct association of the Greek names of some of the 7<sup>th</sup> and 6<sup>th</sup> century *basileis* of Cyprus with the 12<sup>th</sup> century Aegean migrants that Iacovou proposes, may be viewed as the manifestation of an ancestralising strategy aiming at enhancing the Cypriots' memories of their old, particularly close association with the Aegean world. This observation implies that some of the elements associated with the distinctive identity of the Aegean migrants' descendants were utilised as such in the construction of a common Early Iron Age Cypriot identity. This was, of course, the result of a gradual process which occurred over time, within a cultural environment, which, under the light of the above, should be considered as consisting of amalgamated constituents, rather than hybrid.

The demonstration of the Cypriots' conscious attachment to the Aegean world, as part of a process aiming at bolstering common memory, was most probably generated by the presence of an antagonising factor. This should be identified with the Phoenicians, whose influence on the political and cultural status quo of the island had increased considerably after the establishment of the Tyrian colony at Kition. Indeed, the earliest identifiable cultural boundaries in the Cypriot archaeological record date from that period, as the non-Phoenicians, regardless of their origin, must have experienced the need to manifest their unity against the constantly growing Phoenician 'other'.

This unity is amply illustrated by the emblematic use of Cypro-syllabic script, the descendant of the still undeciphered LBA Cypro-Minoan script, which becomes visible again around the end of the 8<sup>th</sup> century BC, after a gap of about three centuries or more: the syllabic script was being used to write both Greek and Eteocypriot but definitely not Phoenician. The Phoenician script, on the other hand, was employed for writing exclusively Phoenician. Sherratt<sup>70</sup> believes that the increase in the

<sup>65</sup> Iacovou 2008, 650.

<sup>66</sup> Iacovou 2008, 645–8.

<sup>67</sup> Leriou 2005, 295–315.

<sup>68</sup> Iacovou 2008, 631–3, 639–0, 650–1.

<sup>69</sup> Iacovou 2008, 651.

<sup>70</sup> Sherratt 2003: 234–6.



visibility of the syllabic script was deliberate and meant to act as a counterpart to the numerous instances of more permanently and publicly visible forms of Phoenician inscriptions.

## Aegean and Cypriot seafaring during the Late Bronze Age

The above does not imply that the Aegean element was employed in a purely instrumental manner in the construction of the Cypro-Archaic identity. What triggered the involvement of the distant 12<sup>th</sup> century past in the processes associated with identity formation during the 7<sup>th</sup> and 6<sup>th</sup> centuries BC must have been a pre-existing link of significant strength between Cyprus and the Aegean world. This should most probably be identified with the increased connectivity between Cyprus and the Aegean, which is evident in the Late Bronze Age societies of Cyprus (pre-migratory levels), as well as the absence of cultural differentiation in the earliest post-migratory levels. The advance degree of connectivity hinged upon the island's involvement in a complex web of contact with the Aegean, which had been established much earlier than the beginning of the 12<sup>th</sup> century BC, that is to say well before the initiation of the migration process. It was this involvement that lead M. Artzy and S. Sherratt to associate the Sea Peoples with a culturally distinctive group of merchants that were antagonising the eastern Mediterranean city-states.<sup>71</sup>

The formulation of this special bond between the Cypriots and the Aegeans, which essentially constitutes the key to comprehending ethnic identity generation in Early Iron Age Cyprus, dates from as early as the 17<sup>th</sup> century BC: this is when the earliest Aegean imports, initially from Crete and later from other Aegean areas as well, appeared in Cypriot contexts. The early phases of the Late Bronze Age witnessed the gradual intensification of Aegeo-Cypriot contact and the multiplication of the communication routes between Cypriot and Aegean lands, as a result of technological advancement in ship construction and progress in navigation techniques. Development was further facilitated by the establishment of large settlements such

as Enkomi, Kition, Hala Sultan Tekke, Maroni and Palaepaphos along the island's coasts during the final stages of the Middle Bronze and the beginning of the succeeding Late Bronze Age. The significant growth of these settlements into economically flourishing urban centres in the early phases of Late Bronze Age is to be viewed as a result of the intensification of industry and contact with the Aegean, the Levant and Egypt.<sup>72</sup>

Interconnection between the Aegean and Cyprus, mainly of commercial character, became much more frequent during the 14<sup>th</sup> and 13<sup>th</sup> centuries BC. This is shown by the remarkably large numbers of imported Mycenaean and Minoan ceramics excavated at settlements and cemeteries throughout the island. Fine wheel-made pottery from the Aegean seems to have been particularly appreciated by the Cypriots. Painted Mycenaean pots, mainly craters and amphorae, with elaborate pictorial decoration, were regarded as particularly prestigious objects and most probably employed as status symbols by the competing Late Cypriot IIC elites. The Cypriots, on the other hand, were exporting copper and most probably perishables such as timber, wine, perfume, oil and grain to the Aegean, while only limited amounts of fine Cypriot pottery have been identified within the geographical limits of the Aegean world.<sup>73</sup>

It has already been mentioned that these contacts were included in a wider network of maritime interrelation between the eastern Mediterranean regions, which had been established from as early as the beginning of the second millennium BC. After five centuries this had expanded to include the Aegean and its western periphery. Disentangling and understanding the complicated web of connections, associations and interdependencies among the Late Bronze Age populations of the eastern Mediterranean is by no means a simple task.

<sup>71</sup> Artzy 1997; Artzy 1998; Sherratt 1994b; Sherratt 1998.

<sup>72</sup> Cadogan 1993: 92-3; Catling 1997; Karageorghis 1990; Karageorghis 1997: 239-43; Karageorghis 2002: 11-25; Peltenburg 1990: 16-20.

<sup>73</sup> Cadogan 1991; Cadogan 1993, 93-5; Karageorghis 1997, 244-6, 249-59; Karageorghis 2002, 42-7; Sherratt 1994b, 35-8; Steel 1998.



Nevertheless, Cyprus' strategic position as well as the active role of both Aegean and Cypriot seafaring merchants has been established beyond doubt.<sup>74</sup> Consequently, one may assume that the Aegean peoples had grown quite familiar with Cyprus and her population. Moreover, while travelling towards Egypt or the Levant, the Aegean ships were repeatedly making stops at the island's ports. In a similar way, Cypriots must have visited the Aegean lands regularly. Further interaction between Cypriots and Aegeans must have taken place at the various Levantine and Egyptian ports and also aboard the numerous ships criss-crossing the Mediterranean, following established routes associated with memories and experiences.

A particularly strong connection between the Aegeans and the Cypriots may be substantiated through the incised Cypro-Minoan marks that are found on Aegean pottery of various types dating from the 14<sup>th</sup> and 13<sup>th</sup> centuries BC. Incision occurred after the firing process had been completed. Aegean pots bearing incised Cypro-Minoan marks have been located at various sites all over the eastern Mediterranean and the Aegean. These marks are generally regarded as indisputable evidence of the Cypriots' particularly active participation in the systematic trading activity between the Aegean and Cyprus during the Late Cypriot II period.<sup>75</sup>

As Late Bronze Age material exchange most probably took place "within a setting which inevitably also included the practices, ideas and aspirations of people,"<sup>76</sup> the Cypriots and the Aegeans must already have reached a high level of familiarity by the beginning of the Late Bronze Age, which increased significantly during the course of the 14<sup>th</sup> and 13<sup>th</sup> centuries BC. The presence of small numbers of Aegean itinerant craftsmen, such as builders, potters, metalworkers, ivory-carvers, goldsmiths, etc, among the Late Cypriot II population would have also contributed towards the establishment of a closer connection. The presence of such people is highly probable and may be attested primarily through the strongly Aegean elements that may be observed in the Late Cypriot II material culture.<sup>77</sup>

It was the multifaceted, long-lasting connection between the Cypriots and the Aegeans, the

forging of which during the second half of the 2<sup>nd</sup> millennium BC was outlined above, that led the turbulence-struck migrant groups looking for a new homeland to set sail for the island of Cyprus. Moreover, as they were primarily interested in finding a place that could provide them with the means for a peaceful better life, Cyprus, with its still thriving economy and cosmopolitan culture, appeared ideal. This is so as, despite the evidence for significant upheaval and/or break attested at almost all sites in the final stages of Late Cypriot IIC and throughout Late Cypriot IIIA, the Cypriot 12<sup>th</sup> century BC was characterized by significant economic sophistication and prosperity, the intensification of industrial activity, and most probably the progressive establishment of political centralization. Moreover, the close commercial and thus cultural links of Cyprus with the southern Levantine coast, Syria, Cilicia, Egypt and the Aegean and also the western Mediterranean were fully maintained.<sup>78</sup> Against this background of prosperity and cosmopolitanism, the newcomers' primary goal must have been their smooth integration with the local population. Besides the close Cypro-Aegean interrelation, it was precisely the cosmopolitan character of Late Cypriot IIIA societies, in other words their significantly low level of insularity, which allowed native Cypriots to effortlessly welcome and incorporate the Aegean groups.

<sup>74</sup> Catling 1997; Karageorghis 1995; Knapp 1985; Vagnetti & Lo Schiavo 1989; Sherratt 1999; Vagnetti 1999; see also various papers in the proceedings of relatively recent conferences focusing on issues of maritime activity, mainly in regard to trade and exchange, in the Aegean and the eastern Mediterranean, such as Christou 1997; Cline & Harris-Cline 1998; Cline 1995; Karageorghis & Michaelides 1995; Laffineur & Basch 1991; Laffineur & Greco 2005; Swiny *et al.* 1997; Zerner *et al.* 1993.

<sup>75</sup> Hirschfeld 1996; Karageorghis 1998, 36-8.

<sup>76</sup> Sherratt 1999, 168-9.

<sup>77</sup> Cadogan 1993, 93-5; Karageorghis 1990, 30-5; Karageorghis 2002, 45, 47-54; Tatton-Brown 1997, 39-40, 59.

<sup>78</sup> Karageorghis 1990, 35-46; Sherratt 1992, 326-8; Karageorghis 1997, 255-77; Tatton-Brown 1997, 40; Karageorghis 1998, 39-56; Vagnetti 1999; Sherratt 2003, 44-51; Karageorghis 2002, 71-113.



## Seascape and identity at the end of the Late Bronze Age

The advanced level of familiarisation between the Aegeans and the Cypriots during the 14<sup>th</sup> and 13<sup>th</sup> centuries BC seems to have constituted the primary reason for their peaceful, 'boundary-less' co-existence on the island of Cyprus during the succeeding periods. Consequently, the cultural homogeneity that may be observed in Cyprus after the significant socio-economic changes that occurred in the eastern Mediterranean during the course of the 12<sup>th</sup> century BC supports further the remarkably low level of insularity that characterised Cypriot societies during the Late Bronze Age. Obviously, sea was viewed as a unifying rather than a dividing medium. Advanced navigation skills and shipping technology enabled the Aegeans, the Cypriots and the other eastern Mediterranean peoples to exploit the countless communication routes embedded in the seascapes surrounding them.

Furthermore, the considerations outlined above illustrate the significant role played by the factors of insularity and connectivity in the construction of the islanders' identities. This is particularly so, as maintaining the notion of otherness appears to have had been rather unimportant against the background of the multifaceted interconnection between the regions of the eastern Mediterranean during the Late Bronze Age. The active part taken by both Cypriot and Aegean societies in this 'international' scheme, contributed towards the disappearance of a people's need to emphatically stress their ethnic differentiation, in other words their peculiarity as far as their common descent, place of origin and material culture was concerned. Another example of the central position occupied by seascapes in identity formulation during the Late Bronze Age in the eastern Mediterranean is offered

by the numerous problems associated with the identification of the Ulu Burun shipwreck's 'nationality'.<sup>79</sup>

However, an issue that remains to be investigated is the position of the sea within the process of identity generation in regard to coastal, yet non-insular societies; in other words, societies exposed to maritime connection while resting on a substratum of mainland interrelation. The Philistine settlements at various sites along the Syro-Palestinian coast<sup>80</sup> as well as the Ionian migration to western Asia Minor<sup>81</sup> constitute excellent case studies for such an investigation. This is particularly so, as both these movements are generally thought to have occurred at about the same time as the Aegean migration to Cyprus, as a result of the same upheaval that disturbed the eastern Mediterranean at the beginning of the 12<sup>th</sup> century BC. Furthermore, they involve the Aegeans and their migratory movements after the destruction of the Mycenaean palaces. By investigating the pre- as well as the post-migratory material culture of these regions in a manner analogous to that utilised in the case Cyprus, one may illuminate further the character and extent of these movements, while exploring the sea's role in the construction and maintenance of identities. Furthermore, such a study will contribute towards the better understanding of the complicated issue of cultural differentiation and ethnicity in the eastern Mediterranean during the Late Bronze Age.

<sup>79</sup> Cline 1994, 100-5; Karageorghis 2002, 30-4; Pulak 1998.

<sup>80</sup> Dothan 2000; Dothan & Dothan 1992; Vanschoonwinkel 1999; Waschmann 2000.

<sup>81</sup> Snodgrass 2000, 373-8.

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# An epilogue: histories from the sea<sup>\*</sup>

Kostas Kotsakis

*"...places do not have locations but histories."*

Tim Ingold

*"...to travel to the edge is to find oneself at the heart"*

Joseph Conrad, *Heart of Darkness*

From Homer to Braudel the sea holds a prominent place in western imagination and thought. As a physical reality, she is a dominant, powerful place. As a lived experience, she is intimidating, yet an entirely inviting place of human agency. Covered by a fine mesh of varied and passing journeys the sea creates multiple places, which, to borrow a phrase that Tim Ingold used in another context, are "bound together by the itineraries of their inhabitants ... as nodes in a matrix of movement."<sup>1</sup> Dense courses carefully plotted, destinations repeatedly set out for, and, most of all, experiences deeply embedded make up the 'map' of the momentary tracks of the sea. Why Aegean archaeology, and in particular Prehistory, has neglected for so long this significant place of human agency is indeed surprising.

Research has overlooked its potential, in favour of related economic aspects, such as commerce and trade in later Prehistory, or the time-honored concept of Minoan 'thalassocracy.'<sup>2</sup> Strangely in a sense, Aegean Prehistory chose to bypass its most distinctive element, the sea and the lives of people existing there. Only the broader change in perceptions of material culture since the mid 1980s, incorporating the less archaeologically tangible but equally central and important dimension of human agency tipped the balance from material systems and resources to what we would describe as a phenomenology of human existence in the Aegean.

In the last decade or so a shift towards the sea as a self-contained research object is steadily closing the gap.<sup>3</sup> The call of this volume, followed by the outstanding contributions presented, is for reading the maps and tracks left by people of the prehistoric Aegean. This, however, as I am going to argue, is no easy task. Not only is the theme multi-sided,

every contributor also has a different reading of this map and its contents. For Ammerman the map is about transitions in productive lifestyles, while for Catapoti about moving bodies. Theodoropoulou traces resource exploitation, and Vavouranakis reinstates social life, in particular in the domain of funerary activity. Younger, on the other hand, constructs a map of Aegean views and gazes, and Berg attempts to read cognitive maps in iconography. Haysom and Petrakis explore further the trails of marine iconographic representations, which for Haysom, are not particularly prominent, while for Petrakis, juxtaposing iconography to textual evidence, they are considered adequate to support historical conclusions in a wider chronological range. Finally, Antoniadou and Leriou explore borderlines of the Aegean and eastern Mediterranean, either through imports in their contextual dimensions or through identity construction and the interplay of insularity and connectivity. This amazing variability represents the main difficulty for summing up this volume concisely.

<sup>\*</sup> I wish to thank Dr G. Vavouranakis and Prof. E. Hallager for their kind invitation to participate in this volume. I sincerely thank them also for being so wonderfully patient.

<sup>1</sup> Ingold 2000, 219.

<sup>2</sup> In harmony with the general trends in archaeological orthodoxy of the 1970s and 1980s, economic interpretations of material culture were perceived as more materially tangible, more systemic, therefore, preferable. Some of these economic readings of Bronze Age Aegean Prehistory have been critically discussed since that time, e.g. Knapp 1993b. See also, Catapoti, this volume.

<sup>3</sup> Broodbank 2000; Broodbank 2006; Cherry 1981; Cherry 1990.



## South seen from the North

Some of these readings are closely connected to the particularities of later Prehistory, and focus exclusively on the southern Aegean. This recurring persistence reflects the commonly accepted opinion that the South in the Bronze Age was the seat of social complexity, of spectacular change in settlement organization and elaboration in material culture, communication and contacts, all developments which put the North in a kind of cultural border,<sup>4</sup> away from the dramatic changes which shaped the Bronze Age world. In this respect, it is the result of concepts embedded in the history of research, rather than a neutral description of historical reality. It may be argued, however, that the northern end of the Aegean has always acted as a buffer zone between the maritime South and the Northern hinterland, especially in various instances, like the debated Mycenaean presence<sup>5</sup> or the wave of colonization from the Greek city-states in later times.<sup>6</sup> These are instances where the North had an active role, clearly recognizable. It might, therefore, be productive to think of the Aegean in terms of a more or less unified entity, crisscrossing political, economic, cultural or ethnic differences, an idea put forward some years ago by historians.<sup>7</sup> Practices, contacts and movements could act as integration processes forming this entity, not necessarily in an extensive, planned network, as usually imagined by archaeology. Small-scale daily events, involving mutual movement of people and contact would have enough impact to leave an archaeological footprint.<sup>8</sup> In this unified entity of practices, the differences in complexity or social organization acquire a different meaning, much less rigid than in a formal analysis. Complexity, for example, can be present in various forms of social mediation, like e.g. in ceremonies and collective events, and not exclusively in the particular way political power is distributed within the social structure. Briefly, the absence of recognizable archaeological forms of social complexity, e.g. palaces or monumental architecture, does not signify an absence of complexity in general, but only perhaps a different kind of complexity. The presence of Mycenaean pottery in central Macedonia, indicates how the adoption of

these exotic items was negotiated by the social context, as it was closely dependant on its integration

<sup>4</sup> For a discussion of northern Aegean in this light, see Andreou 2010, 643; Kotsakis 2008a, 232.

<sup>5</sup> Andreou 2003; Andreou *et al.* 2001; Kotsakis & Andreou 1999.

<sup>6</sup> Gosden 2004, 3; Hurst & Owen 2005; Owen 2005.

<sup>7</sup> Asdrahas (1985) describes the Aegean of the Ottoman period as a "far-flung city."

<sup>8</sup> In the late 1960s I used to spend summer holidays in the islands of northern Chalkidiki, an outstandingly beautiful and pristine place at that time. Clustered within this complex of small islands, bays and coves little temporary wooden raised platforms (*dragasiés*, see similar example in Theocharis 1973, fig. 138) accommodated families from the neighboring villages for the summer. Access to from the nearby villages of Panagia and Agios Nikolaos was only by boat from the sea, or by donkey or mule following paths and tracks too narrow and steep for motor vehicles. The land of Sithonia was at that time predominantly agricultural, with much livestock higher up the nearby mountains, busting with productive life. No electricity reached these parts.

Anchored at the main bay of Vourvourou, a small fleet of fishing boats lingered away the whole summer. The fishermen sold their daily catch to the families that were spending the summer in *dragasiés*, and lived in their small open-decked, brightly colored boats. Not more than 6 meters in length, these boats had a large triangular sail rigged on a short mast (lateen, see McGrail 2004) and a small, noisy one-cylinder diesel engine, that would hardly produce, I now reckon, 2–3 hp. Harpoons for octopuses and other fishing equipment were placed along the side of the boat, together with oars, the main means of propulsion for short distances and manoeuvres. All in all, each boat was a perfect self-contained unit for these solitary men.

I became interested in this small group of unusual people, who in their own ways stood apart from the locals. They did not seem to care much for talking, but one of them was more approachable. He said that they were coming from the Dodecanese, where they set sail to the northern Aegean, every spring. They would stay up in the North until the 26<sup>th</sup> of October (St. Demetrius day) and then they would sail back where they came from, a round trip of not less than 600 nautical miles in a straight line. In all probability, these sailors were the last survivors of a long tradition of migrant fishermen, who would travel up and down the Aegean following the seasonal schools of fish.

Their stay in Chalkidiki was very much dependent on the local market for their catch. Indeed, before any centralized system of collection and distribution, means of refrigeration or access to the big markets of the towns, fishermen had to live an existence far more marginal than we normally think. The proposed integration of the Aegean in Prehistory could very well have happened on a similar scale.



in the local complexities.<sup>9</sup> The re-contextualization of cultural forms is a widely recognized aspect of contact zones.<sup>10</sup>

If complexity in this sense is incalculable between groups it might be better to return to a cultural view of the phenomenon of contact,<sup>11</sup> defining, of course, cultures as lived experiences rather than as collections of standardized material manifestations. There we can find usable differences in cultural expressions. On the other hand, we have long ago abandoned the effort to submit all cultural expressions to the overarching regularities of systems and structures that lead inevitably to dependency theories, such as core-periphery models.<sup>12</sup> The problem is that all these models rest on recognizing essential differences between two groups, imbued with strong qualitative significance and marked asymmetries. This, I suggest, is a condition not easily met in a compelling way. If that is the case, research in the southern Aegean is left with no other alternative than to incorporate unconditionally the complexities and social trajectories of its regional components.

One could also maintain that a similar logic applies equally in the time dimension. There is arguably a long process of building up social complexities from the Neolithic onwards, in which structures of governance are constructed in tandem with material culture. This is far from the simplistic perceptions of an undifferentiated social realm where social asymmetry is largely absent.<sup>13</sup> Kuijt and Morris reviewing all archaeological evidence from southern Levant make a persuasive argument for the co-existence of egalitarian and hierarchical social relations active in Neolithic communities, even in the Pre-Pottery Neolithic.<sup>14</sup> Likewise, the much later Greek Neolithic communities present ample evidence for structures of social power and asymmetries formed around the house, the household, the occupation of space and the ceremonial context.<sup>15</sup> Again, southern Aegean Bronze Age research has to incorporate within its field of vision the whole time range, from which complexities stem.

These particular characteristics of later Prehistory in the Aegean notwithstanding, certain themes addressed by several contributors touch upon con-

cepts with wider significance and are worthy of further discussion. They are important aspects of the human cognition of the seascape, of embedding human experience of this particular practice in wider worldviews, and I, therefore, maintain that they represent possible directions for future seascape studies. These include liminality, movement and embodiment.

## Liminality

Sea is intimately connected to liminality. Liminality, a concept introduced by Van Gennep in 1909 as one stage of the rites of passage, was expanded in the work of Victor Turner to describe a state of human interrelatedness. Turner's understanding of the term is thus significantly broader: "...rites de passage are not confined to culturally defined life-crisis but may accompany any change from one state to another, as when a whole tribe goes to war, or when it attests to the passage from scarcity to plenty by performing a first-fruits or a harvest festival."<sup>16</sup> For Turner liminality always presents a transitional stage, where "the subject is structur-

<sup>9</sup> Andreou 2003, 192-3. It is worth noting that the inequality in power and complexity between the two contacting groups in this case is immaterial, see Marshall & Maas 1997, 275.

<sup>10</sup> Kotsakis 2008b, 62-3.

<sup>11</sup> And not social, see Geertz 1973, 143-6.

<sup>12</sup> Bintliff 1997; for a critique of core-periphery models in northern Aegean see Andreou 2003.

<sup>13</sup> An extensive literature exists on the subject of early complexity, see e.g. Knapp 1993a; Kuijt 2000.

<sup>14</sup> Kuijt & Goring-Morris 2002, 422: "A number of recent ethnographic and archaeological studies have clearly demonstrated that most forms of governance in small-scale agricultural or horticultural communities combine hierarchical and egalitarian dimensions. Recognizing the coexistence of egalitarian and hierarchical relations diverts researchers from placing cultural labels on societies and simultaneously facilitates the development of realistic and comprehensive models of cultural dynamics, including the possible pathways to power and authority in Neolithic communities." In a different sense, a similar comment is made by the anthropologist Victor Turner (1969, 130) for preliterate societies.

<sup>15</sup> Halstead 1999; Kotsakis 1999a; Kotsakis 2008a; Pappa *et al.* 2004.

<sup>16</sup> Turner 1967, 94-5; Turner 1969.



ally, if not physically, ‘invisible’<sup>17</sup> and holds an ambiguous social status.<sup>18</sup> Their position of ambiguity, outside social normality, makes liminal individuals polluting and dangerous, in Mary Douglas’s sense, to the rest of the group.<sup>19</sup> What is more, during the liminal state, subjects not only become totally, physically or symbolically, separated from the others but “tend to develop among themselves an intense comradeship and egalitarianism,” while distinctions of rank and status are homogenized. This homogenization of social categories is what Turner has called “*communitas*,” a central theme of his analysis of pilgrimage, during which pilgrims coming from different roles and statuses are shaped into an unstructured, homogenous community.<sup>20</sup> In this sense, the pilgrimage holds a privileged position in Turner’s thought, as it represents a movement through a liminal zone, towards a center, i.e. the place of worship, the shrine or the ritual place.<sup>21</sup>

This concept of pilgrimage has been seriously contested since the 1980s.<sup>22</sup> I am not particularly interested in the idea of pilgrimage as such and in the structure – *communitas* dialectic that it entails, as being too functionalist and structuralist.<sup>23</sup> It brings forth, however, a useful dimension that has particular relevance to archaeology, namely the spatial component of human agency. Pilgrimage creates places, it is not simply a state in which individuals find themselves. It follows that a place can be, given the proper circumstances, equally liminal and equally dangerous as individuals.

Liminality has been introduced to archaeology in the specific field of the archaeology of death and mortuary practices,<sup>24</sup> but the concept is equally significant in shaping worldviews and the cognitive conditions of human existence.<sup>25</sup> That liminality can be relevant to life on the sea, to the journey through the sea, to the seascape in general is, I suppose, obvious. Despite criticism, the metaphor of pilgrimage for the sea voyage is still strong: there is always an element of danger in travelling through the sea, of separation, of breaking with normality of daily domestic life, of *communitas* among the crew and fellow seamen, and there is always a center, the destination of the journey. Herman Melville’s *Moby Dick* can be compared with Joseph Conrad’s *Heart of Darkness*. The liminal Captain Ahab, so clearly

outside any social and human normality, has one thing in common with Marlow in *Heart of Darkness*: they are both seamen, trapped *between and betwixt*.<sup>26</sup> the former in *Pequod*, the latter in the “dark continent.”

If any of this is plausible, some interesting inferences, related to a number of themes raised in the present volume, can follow. If indeed, the sea was perceived as a place of liminality, then the potential hostility of the medium to human life could not be the only parameter for shaping the Bronze Age attitudes towards the sea and voyaging. Although we have no direct means of knowing these attitudes, an indication is given by the observation that Early Minoan I and Early Minoan II cemeteries were lo-

<sup>17</sup> Turner 1967, 95.

<sup>18</sup> “Liminal entities are neither here nor there; they are betwixt and between...” (Turner 1969, 95).

<sup>19</sup> Douglas 1999 [1966].

<sup>20</sup> Turner 1969, 96.

<sup>21</sup> Turner 1973; Turner & Turner 1978.

<sup>22</sup> The critique is primarily directed towards the *communitas* concept, which is considered, quite rightly, too essentialist. The idea of an anti-structural role of liminality that allegedly is in a position to power social reproduction is clearly related to the broader trends in the anthropology of the time it was conceived. The decontextualized understanding of *communitas* as a universal, uncontested phenomenon should be understood along the same lines. For the contemporary critique on the understanding and role of pilgrimage and *communitas* see Coleman 2002; Eade & Sallnow 1991; Sallnow 1981.

<sup>23</sup> Sallnow 1981, 163.

<sup>24</sup> E.g. Bloch & Parry 1982; Parker Pearson 1982, 22.

<sup>25</sup> E.g. Olwig (2005) discusses the relation of liminality with seasonality as two modalities in conceptualizing the landscape. Similarly, the conceptualization of the seascape was always strongly related to seasonality, much more so in the past than in modern times. See also *supra* note 8.

<sup>26</sup> “It is from such a position, I intend on arguing, that Marlow narrates (and Conrad writes) *Heart of Darkness*. Marlow “followed the sea;” he was a man with “no birthplace, no home, no school, no fixed social or domestic ties;” indeed, as a seaman, if he can be said to have a home, it *exists somewhere between ports*. His voyages have led to experiences he can, at times, scarcely put into words. In telling his tale to his fellow sailors, Marlow attempts to bridge the “psychological abyss between cultures;” his narration – “Marlow’s inconclusiveness, his evasions, his arabesque meditations on his feelings and ideas” – attests to the difficulty of such an undertaking” (Solinger 2008, 61 my emphasis).



cated in coastal settings of northern Crete.<sup>27</sup> Burial of the dead, a typically liminal transition, signifies indeed the liminality of this part of the seascape. However, I see no reason why this liminality was restricted to the coast only. The whole of the open sea, where equally liminal and dangerous actions took place continuously, should be its privileged and recognized field.

If that were the case, attitudes towards everything related to the sea, sailors, boats, marine creatures and above all their representations would have been influenced accordingly. Younger (this volume) succinctly describes the politics of the gaze to argue the passivity of viewing for the West House miniature frieze. Equally, the liminal position of the seascape would create a particular gaze in every aspect of its iconography. Some of the marked absences of the themes of the Aegean art can be explained as the outcome of this gaze.<sup>28</sup> For reasons explained above, the symbolic manipulation of liminality must have been a major concern in these societies, but also a technique of political hegemony and governability. The location of relevant iconography within the centres of social power is, in this sense, revealing.

Lastly, under this perspective, the presence or the distribution of marine iconography in the Aegean Bronze Age need not be related necessarily to the scale or the fluctuations of marine activity in any direct way. It may simply represent an expression of the symbolic control of the particular field of liminality, the scale of control giving the precise iconographic characteristics that we observe. We could thus understand why a depiction of an octopus or a shell can have a place in the e.g. Palace of Pylos, without having to figure out any special meaning to each particular animal.<sup>29</sup> They need not have one; they are all indexes of the liminal, potentially dangerous, socially and physically uncontrollable seascape. In the worldviews related to seascapes, liminality must have had a prominent place, worth investigating further and deeper.

## Movement

The Aegean as a unified place in the Bronze Age would not be possible without maritime mobil-

ity from a much earlier period.<sup>30</sup> The presence of obsidian in various mainland and island sites since the Mesolithic is an undeniable proxy.<sup>31</sup> Sea traffic from the southern Aegean in the Bronze Age had demonstrably reached Samothrace by the 18<sup>th</sup> century BC, as Minoan finds of Middle Minoan II-III were excavated there. The fact that Samothrace in the Bronze Age is described as “marginal”<sup>32</sup> does not make much difference. Marginality, we have already seen, is a manifestation of liminality, and in this sense ‘marginal’ and ‘central’ places are part of the same world. They are all places, and places, as Tim Ingold remarks, “exist not in space but as nodes in a matrix of movement.”<sup>33</sup> Arguably, movement can be seen as an aspect of mobility, a mere manifestation of a broader social property. In reality, however, they are two different things. Mobility is more like a strategy that involves definable social categorizations; warriors, entrepreneurs, sailors, traders, craftspeople. It is multiscalar, as it develops in various parallel scales, short, medium or long in a non-linear pattern.<sup>34</sup> Movement on the other hand, is about how humans relate to their environments and how they engage with it through their linear routes. It is also about perceptions of center and margin, local and global – or ‘international.’ Movement is much more than a technical problem, although the technicalities of seaborne transportation are clearly important and have been discussed in detail, even experimentally re-enacted.<sup>35</sup> We have relatively less knowledge about the experiential part of the equation, the meanings that the people form in moving through seascapes.

<sup>27</sup> Vavouranakis, this volume.

<sup>28</sup> Younger, this volume.

<sup>29</sup> Arguing for the meaning of iconography can be a frustrating exercise. For example, the bull can be a land-centered symbol but it is also related to Poseidon, hence to the sea. The ambiguity of iconicity is part of its power, see Tilley 1991.

<sup>30</sup> Ammerman, this volume; Kotsakis 2008b, 56–61; Sampson 2008.

<sup>31</sup> Kilikoglou *et al.* 1997; Perlès & Galanidou 2003.

<sup>32</sup> Davis *et al.* 2001, 84.

<sup>33</sup> Ingold 2000, 219.

<sup>34</sup> Bevan & Conolly 2006.

<sup>35</sup> E.g. Agouridis 1997; Broodbank 2000, 91–117; Broodbank 2006; Katzev 1990; McGrail 2004; Tzalas 1995.



That seascapes are imbued with meaning is so well presented in this volume that I need not develop it once more here.<sup>36</sup> What I will do is give some hints on how these meanings are particularly connected to seafaring and way finding, i.e. grounded on a specific and localized practice, obviously historically situated; in other words, how these meaning are contextualized. Despite the obvious difficulties, the closer understanding of seafaring and way finding practices brings us closer to, in Geertz's terms, the "thick description" of a singular sea culture.<sup>37</sup> Only this time it will be a sea culture inhabited by humans and not simply a passive background of abstract economic activities as in conventional discussions about seascapes.<sup>38</sup>

There is no doubt that navigating and way finding in general requires knowledge. Berg (this volume) mentions the ability of mariners to perceive the sea as a three-dimensional experience. Broodbank has already summarized the physical and opportunities of seafaring in the Cyclades, including distances between islands, winds and currents, performance of seacraft or logistics of travelling by sea<sup>39</sup> and Agouridis has discussed navigation in the Aegean in relation to the location of landmarks and seamarks. He is not alone in believing that these landmarks would have assembled the 'mental maps' used in pilotage,<sup>40</sup> and undoubtedly such aspects were certainly part of the cognitive universe of Aegean seafarers. However, knowledge alone is not enough, if knowledge is conceived as a set of representations, which are distributed among individuals independently of their experiential place in the world.<sup>41</sup> David Turnbull, discussing Micronesian mariners and their admirable navigation skills, argues compellingly that this knowledge is generated in a field of practices, which are firmly embedded in the cultural context.<sup>42</sup> The Marshall maps used in Micronesia for navigating are a good example: they cannot be 'read' even by the rest of the crew. Only the person who made the map has the key to decipher the information included in it.<sup>43</sup> Apart from general knowledge, therefore, navigating is largely a question of experience and memory of actions performed, and for this reason it is essentially temporally – structured.<sup>44</sup>

Gibson, who was the first to point out that the

perception of the environment is related to time, has introduced the concept of the "path of observation"<sup>45</sup> to describe the succession of *vistas* that appear as the navigator moves and change in the correct sequence and time. It is *vistas* and transitions, flows through time, which are memorized, rather than stored images of location-specific seascapes. But it is very important that these flows are related to various aspects of the environment,<sup>46</sup> as described in detail by Lewis for the Pacific navigators; the sun and the stars, but also the wind and its changes, the swell, the shape and wavelength of waves, the currents, together with other details,

<sup>36</sup> See Catapoti; Vavouranakis, this volume.

<sup>37</sup> Geertz 1973.

<sup>38</sup> I find very revealing that the discussion on shipwrecks, as a rule, is limited to questions of maritime technology, ship construction and trade, aspects which could be described, with a considerable dose of irony, as the concerns of a modern ship-owner. Still, going through the relevant literature, very few things have been said on the actual people who made the crew, their ways of living in the closed capsule of their boat. See comments by Kotsakis 1999b; Kotsakis in Phelps *et al.* 1999, 254.

<sup>39</sup> Broodbank 2000, 91–106.

<sup>40</sup> Agouridis 1997, 15–18; Gell 1985, 278.

<sup>41</sup> Ingold 2000, 225.

<sup>42</sup> Turnbull 1991; Turnbull 1993; Gell (1985) explores in detail the *etak* system which is used in Micronesia for navigation.

<sup>43</sup> Winkler 1901, 495: "The interpretation of the chart is, for the reasons stated, always difficult, if one has not the maker of the chart himself as explainer; another, even an entirely competent navigator, can not under any circumstances read the deliverances of a chart which he himself has not made."

<sup>44</sup> Heft 1996, 128.

<sup>45</sup> Gibson 1986 [1979], 43. Memory maps are known in other cultures as well, e.g. the *lukasa boards*, which are described as mnemonic devices, see Meece 2006, 10, figs 12–3; Reece 1977.

<sup>46</sup> Ingold (2000, 239) describes this very clearly: "Our argument to the contrary, is that mastery consists in knowing what the environment looks like from all practically available *paths* of view, that what the traveller remembers are *vistas* and transitions rather than location-specific images, and that keeping track is a matter of regenerating the flow of perspective structure over time." (author's emphasis). Gell (1985, 278) disagrees that a collection of "partial views" is enough for navigation. Gell's "mental maps" must have a set of coordinates, which he describes as non-indexical. In Gell's approach, however, time is completely immaterial, and navigating is a predominantly mental calculation (*contra* Ingold 2000, 239).



such as birds, clouds, colour of the sea, even phosphorescence are clues that these navigators systematically took notice of.<sup>47</sup> These meticulous observations in combination with the vistas appearing in the correct memorized pattern verify the accuracy of the dead reckoning all through to landfall. Of course navigating in the Aegean is nowhere as demanding as dead reckoning in the vast expanses of the Pacific, but the cautionary remarks made by Broodbank about the scale of navigation in relation to travelling time should be borne in mind when the two areas are compared.<sup>48</sup> Still, since no systematic documentation of the traditional way finding and navigation in the Aegean exists to this time, these suggestions cannot be entirely validated in that particular Bronze Age seascape.

Nevertheless, one thing can probably be said. In a sense, the perception of the environment in seafaring is, compared to terrestrial way finding, a more conscious and skilled practice: angles, directions, time, velocity are crucial considerations, while terrestrial way finding is based, as we have seen, on landmarks or suitable vistas of the landscape unfolding in time. The actual movement on land is often regulated by the landscape itself, by the *affordances* of the environment.<sup>49</sup> In the sea you have to draw your course in relation to the perceived elements of the environment, and so the seafarer has to apply a constant simulation of the actual changing environment. To a great extent this is the result of the human vulnerability in the sea environment, but also the result of the possibility for isotropic, unrestricted movement. This movement, however, can only be achieved with the help of human-made equipment, the boat. Seafaring, therefore, is a *mediated* practice, in the Vygotskian sense of the term.<sup>50</sup>

This specific practice mediated by material culture gives the embedded experiences of mariners their unique position in the social context. Navigation, as discussed by Hutchins, is a collective practice, not so much in the sense of collaborative actions taking place on the ship, but more as a process of a distributed cognition.<sup>51</sup> Mariners acquired thus the special skills and knowledge that were necessary to maintain a seaborne community, and constructed their special identity through participation.<sup>52</sup> Archaeology, instead of eclipsing the actual indi-

viduals that took part in this community of practice behind macro phenomena such as trade, ought to explore in more detail the forms and expressions of these embedded experiences, presented through the mediation of the Aegean material culture. The papers in this volume are significant steps towards this direction.

## Embodiment

There is no movement on earth and sea without moving bodies. And there can be no embedded experiences of the environment without a body experiencing it. The turn to an embodied past is connected to this reality and it is closely related to broader shifts in social theory. The last two decades have seen a proliferation of relevant approaches deployed in archaeology, from the body as a metaphor for society, to the body as a means for symbolic communication and a surface of semiosis.<sup>53</sup> With the shift to bodies we are stepping directly into 'phenomenology,' but the wider significance lies to the challenge of the clear separation of the activity of the mind from that of the body in the world, a separation, which has been steadily attributed to a Cartesian dualism ever since Merleau-Ponty's *Phenomenology of Perception*.<sup>54</sup>

However, my aim here is not to discuss further the general philosophical framework for understanding the corporal aspects of human subjectivity. Contrary to Cartesian ontology, the phenomenological body is rather considered here as the

<sup>47</sup> Lewis 1994.

<sup>48</sup> Broodbank 2000, 105. Those thinking that the Aegean is a 'frog pond,' because distances between islands are not after all so great, have, apparently, never been in a small craft, in the middle of the Aegean, with low visibility and gale force winds blowing. In these conditions a few miles are just as dangerous and disorienting as any stretch of open sea.

<sup>49</sup> Heft 1989, 3–4 for a discussion of Gibson's concept of affordances in way finding. See also Llobera *et al.* 2011, 844, for their similar concept of *cost surface*.

<sup>50</sup> Knappett 2005, 54.

<sup>51</sup> Hutchins 1995; Hutchins 1996, 59–60.

<sup>52</sup> Wenger 1998, 4–5.

<sup>53</sup> Catapoti, this volume, Joyce 2005.

<sup>54</sup> Merleau-Ponty 1962 [1945]; Farnell & Varela 2008.



subject's presence in the world, not simply an instrument used by the subject.<sup>55</sup> If we accept this as consequential, the presence of the bodies cannot be anything else but active, especially in the dire conditions of seafaring through seascapes. As said before, seafaring is a mediated practice in which not only skills but also a specially constructed material culture is vital. Accordingly, bodies in seascapes are involved in concrete and conscious *practices*, in a well defined and socially situated embodied agency.

The argument concerning seafaring bodies as enmeshed in socially situated practices is twofold: on the one hand it underwrites the performativity of the body itself (*pace* Butler<sup>56</sup>), the habitual manoeuvres, gestures, postures and ways of life.<sup>57</sup> They all have recognizable importance, visible in the iconographic manifestations of the corporal body, among other things, as discussed variously in this volume. On the other hand, the situated practice places the body firmly within a specific social and historical context.<sup>58</sup> This should be kept in mind when a transhistorical role is assumed for bodies, conceiving them as being regulated by timeless universals of human cognition and representation.<sup>59</sup> In recent archaeological discussion of embodiment, a historically decontextualized understanding of the body becomes a real risk. However, as indicated in several points in this chapter, the embodied agency retains always a close contact with socially situated practices, in many different ways. In fact, they are inseparable from them. Bodies, after all, are the products of history, one way or another.

The three main aspects of human cognition and practice briefly touched here in relation to seascapes are clearly intrinsically interconnected. Movement is the creator of liminality and define the particular qualities of embodiment. Sailors are transcultural, they move across cultural frontiers and boundaries. For this reason, seascapes, as indicated by the

different contributions to this volume, hold a distinctive place in the social imaginary and memory. Seafaring societies could very well incorporate seamlessly sailors and their seascape mentalities, but for societies deeply embedded in a terrestrial habitus, a strong resistance to the fluidity introduced by seascapes would be equally conceivable. The liminality of the sea could only be connected to the special conditions of embodiment, to the special embodied characteristics of sailors and to the dangers posed to the established perceived order by their destabilizing and threatening fluidity. Some of the profound maritime dangers may equally refer to the untameable natural element as to the sailors themselves. For introverted societies the reshuffling of boundaries and order could represent a real ideological threat that had to be resisted and contained with the appropriate techniques of power.<sup>60</sup> This might be useful to remember when attempting to interpret the Aegean cultural manifestations, such as iconic representations.

<sup>55</sup> Ingold 1994, 332. This understanding is based, of course, on Martin Heidegger's fundamental concept of "ek-sistence," according to which to exist is to be out in the world, not enclosed in a Cartesian *cogito* (Heidegger 2003 [1947], 178–79, and n. xvi).

<sup>56</sup> Butler 1993.

<sup>57</sup> E.g. the Point Iria Wreck, where the evidence for the material culture apparently related to the crew's life on board is given only passing remark, as opposed to a thorough discussion of trade and international relations, see Phelps *et al.* 1999, 43–58.

<sup>58</sup> Meskell 1999, 37: "Bodies cannot be considered as a-historical or non-cultural."

<sup>59</sup> Csordas 1994, 9–12; see also Heft 1989, for a discussion of transcultural bodies in relation to the affordances of the environment.

<sup>60</sup> Foucault 2010.

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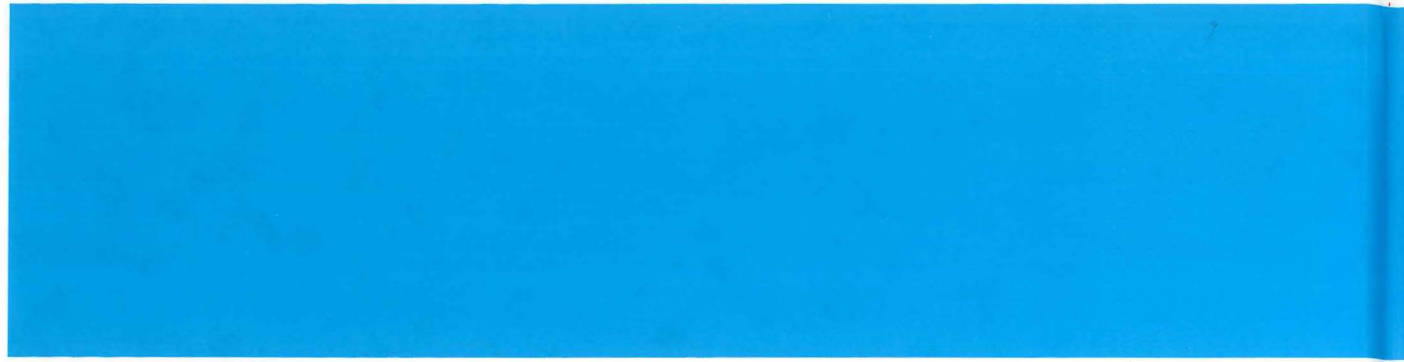












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