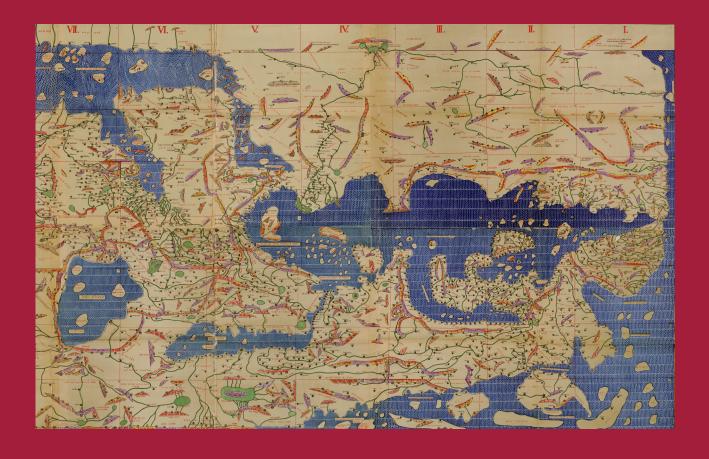
#### **RESSOURCENKULTUREN 16**

# EUROPEAN ISLANDS BETWEEN ISOLATED AND INTERCONNECTED LIFE WORLDS

INTERDISCIPLINARY LONG-TERM PERSPECTIVES



# Editors Laura Dierksmeier, Frerich Schön, Anna Kouremenos, Annika Condit & Valerie Palmowski



### RESSOURCENKULTUREN



# RessourcenKulturen Band 16

#### **Series Editors:**

Martin Bartelheim and Thomas Scholten

Laura Dierksmeier, Frerich Schön, Anna Kouremenos, Annika Condit & Valerie Palmowski (Eds.)

# EUROPEAN ISLANDS BETWEEN ISOLATED AND INTERCONNECTED LIFE WORLDS

Interdisciplinary Long-Term Perspectives



#### Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie, detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de abrufbar.

Herausgeber der Reihe: Martin Bartelheim und Thomas Scholten



Der Text dieses Werkes ist unter der Creative-Commons-Lizenz CC BY-NC-ND 3.0 DE (Namensnennung - Nicht kommerziell - Keine Bearbeitung 3.0 Deutschland) veröf-

fentlicht. Den Vertragstext der Lizenz finden Sie unter

https://creativecommons.org/licenses/by-nc-nd/3.0/de

Die Abbildungen sind von dieser Lizenz ausgenommen, hier liegt das Urheberrecht beim jeweiligen Rechteinhaber.

Die Online-Version dieser Publikation ist auf den Verlagswebseiten von Tübingen University Press frei verfügbar (open access).

http://hdl.handle.net/10900/121446

http://nbn-resolving.de/urn:nbn:de:bsz:21-dspace-1214460

http://dx.doi.org/10.15496/publikation-62813

 Auflage 2021 Tübingen University Press Universitätsbibliothek Tübingen Wilhelmstr. 32 72074 Tübingen tup@ub.uni-tuebingen.de www.tuebingen-university-press.de

ISBN (Hardcover): 978-3-947251-47-6 ISBN (PDF): 978-3-947251-48-3

Redaktion: Marion Etzel, Hannah Bohnenberger, Uwe Müller, Henrike Srzednicki, Monice Timm

Umschlaggestaltung: Henrike Srzednicki

Coverfoto: Detail of Map drawn by al-Idrisi in 1154 (Bildnachweis: image in the public domain) Layout: Büro für Design, Martin Emrich, Lemgo Satz und Bildnachbearbeitung: Henrike Srzednicki

Druck und Bindung: medialis Offsetdruck GmbH Unternehmensbereich Pro Business

Printed in Germany

## Contents

Maps of Islands Discussed in this Book	7
Acknowledgements	11
Information about the Editors	11
Beate Ratter Foreword	13
	10
Laura Dierksmeier Introduction. Interdisciplinary Perspectives on Island Studies	17
I. Approaches to Studying Islands and Archipelagoes	
Helen Dawson and Jonathan Pugh The Lure of Island Studies. A Cross-Disciplinary Conversation	33
Erica Angliker The Cycladic Archipelago beyond Geographical Definitions. Redefining Boundaries and Limits through Material Culture and Religion	53
II. Crisis Developments, Insular Responses, and Resource Adaptations	
David Hill	
Urban Relocation and Settlement Adaptation on Naxos from the Early to Middle Byzantine Periods	73
Kyle A. Jazwa Insular Architecture and Settlement Planning during a Crisis. The Case of Maa-Palaeokastro (Cyprus)	89
III. Movements of Island Knowledge and Practices	
Nevin Zeynep Yelçe and Ela Bozok	
Islands as Transit Posts in the News Networks of Early Sixteenth Century AD	113
Sergios Menelaou	
Insular, Marginal or Multiconnected? Maritime Interaction and Connectivity in the East Aegean Islands during the Early Bronze Age through Ceramic Evidence	131

IV. Distinguishing Island Identities through Material Culture	
Alexander J. Smith and Margalida Coll Sabater	
Disentangling the Late Talayotic. Understanding Island Identities through	
Funerary Practices on the Balearic Islands during the Late Iron Age	165
Francesca Bonzano	
The Maltese Islands between Isolation and Interconnections.	
An Architectural Perspective	185
V. Island Life from Emic and Etic Perspectives	
v. Island the from that and the rerspectives	
Dunja Brozović Rončević	
What Does it Mean to be an Islander in Croatia?	209
Hanna Nüllen	
Narratives of Insular Transformation in 8th Century CE Historio- and Hagiography	
from the British Isles	227
Katrin Dautel	
Of Worms and Birds. Approaches to the Island between Practice and the Imaginary	243
Anna Kouremenos	
Afterword. The Future of Island Studies	259
	_00

#### Sergios Menelaou

### **Insular, Marginal or Multiconnected?**

# Maritime Interaction and Connectivity in the East Aegean Islands during the Early Bronze Age through Ceramic Evidence

Keywords: east Aegean islands, connectivity, insularity, maritime interaction, pottery

'To understand the interaction between man and landscape in the Aegean Sea, we need to differentiate between the world of the 'islands', a world dominated by interaction and connectivity, and the world of the 'island', an imaginary world of separation and seclusion' (Constantakopoulou 2007, 254).

#### **Acknowledgements**

Part of the laboratory work presented here was carried out within the framework of my PhD thesis at the University of Sheffield, UK (2014–2018), which was funded by a three-year scholarship by the Faculty of Arts and Humanities of the same institution. For the collection of data and fieldwork on Samos generous funding was also received from the A.S. Onassis and the A.G. Leventis Foundations (2014-2015). Thanks are owed to Assoc. Prof. Ourania Kouka, as well as the German Archaeological Institute at Athens and the Ephorate of Samos and Ikaria (Ministry of Culture and Sports, Greece) for study and sampling permits of pottery from the Heraion of Samos. The main ideas presented in this paper were developed during the BORDER Postdoctoral Fellowship (Horizon 2020-OPPORTUNITY/0916/MSCA/0022) at the University of Cyprus (Archaeological Research Unit), co-funded by the European Regional Development Fund and the Republic of Cyprus through the Research and Innovation Foundation. The pottery drawings were prepared by Christina Kolb and Andreas Kontonis, and the photographs were taken by Chronis Papanikolopoulos. Many thanks are particularly expressed to the editors of this book.

#### Summary

The Aegean archipelago constitutes one of the most intriguing 'laboratories' of island archaeology in the Mediterranean, due to the unique geomorphological configuration among the various island groups, as well as their varied cultural and historical developments. In recent years, there has been renewed interest in the study of intra- and interisland connections and island/ continent interactions through the application of spatial and maritime network analysis, as well as artefact analysis and the reconstruction of technological (châine opératoire approach) and distributional patterns. To a certain degree, such an interdisciplinary focus was developed for the eastern Aegean and western Anatolian borderland, an area where maritime interaction and communication via the sea has occupied archaeological scholarship over the past two decades. Although only separated by narrow sea straits, the islands and the Anatolian mainland are often considered archaeologically through the lens of boundedness and separateness. These concepts interpret archaeological frontiers of insular versus mainland areas by post-colonialist models of core-periphery relationships, in which the islands are frequently considered to be passive. In this paper, developments and diachronic changes during the Early Bronze Age (EBA) in the ceramic repertoire of the east Aegean islands are discussed, emphasising mainly on evidence from Lemnos, Lesbos, Chios, and Samos, in relation to traditions from the central Aegean (Cyclades) and the adjacent Anatolian coastlands. Focusing on the seascape/coastscape perspective and the concept of the *peraia*, this research also explores what constitutes the distinct cultural identity of these island communities and how this is formed and transformed through time during the 3<sup>rd</sup> mill. BCE.

#### 1. Introduction and Theoretical Framework

Island Archaeology in the Mediterranean has received increasing attention over the last few decades (e.g. Cherry 1985; Patton 1996; Broodbank 2000; Cherry/Leppard 2014; Dawson 2016; Knapp 2018), with questions often being appropriated to the theoretical idiosyncrasies of each time. It is positive to say that the sub-discipline of island archaeology is generally now well-established in its own right, and this is particularly reflected in the establishment of international journals or special sections. These journals relate to the ancient and modern cultures of island communities, as well as methodological and theoretical advances in the study of island and coastal societies worldwide. Such attempts are firmly represented in the 'The Journal of Island and Coastal Archaeology' (since 2006), the 'Island Studies Journal' (since 2006), 'Shima: The International Journal of Research into Island Cultures' (since 2007), and the 'Journal of Marine and Island Cultures' (since 2012), to name a few. Despite their wide geographical, chronological, and thematic range, these academic journals are dedicated to the interdisciplinary study of islands for the sake of providing more comprehensive views of the natural, cultural, social, and other factors that might affect their often-complex historical trajectory. In addition to journals, interest in archaeological research of Mediterranean Islands is also expressed through recent international conferences such as 'ISLANDIA: Islands in

Dialogue'¹ and others with a narrower geographical focus, namely 'SASCAR: The Southeast Aegean/ Southwest Coastal Anatolian Region'² that emphasised on the southeast Aegean islands and their cultural interaction with the opposite Anatolian coast during the Early and Middle Bronze Age.

On the basis of their geographical demarcation as naturally-bordered areas and the premise that islands represent well-defined spaces, their study has formed a popular research topic or even a methodological exercise since the 1960s, becoming even more favoured during the 1970s and 1980s with the influential work by Evans (1973; 1977). Evans has set the focus on islands as representing 'laboratories of culture change', for it was thought that their assumed inherent isolation would facilitate an ideal context for observing and analysing how human 'cultures' develop. Presumably, not only would this allow archaeologists to observe the ways island communities adapt to a given environment with delimited resources, but it would also provide a secure context for determining the provenance of off-island materials/artefacts/ resources. This approach proved to be not only insufficient due to its ecologically-deterministic nature but also in the problematic use of the term 'culture' over the course of the development of archaeological theory, following the assumption that islands encompass a very specific way of living. Having its roots in the 19th cent. and following the culture-historical theoretical approach, the 'culture' concept was thought to entail a fixed set of material features and the trend of equating artefacts to people in a spatiotemporal relationship, either explained in the framework of a unilateral evolution or through diffusion (see Feuer 2016, 24-27; Heitz/Stapfer 2017, 14-16).

In addition to that, archaeologists working in the Mediterranean have increasingly expressed an interest in exploring the concept of insularity (e.g. Patton 1996; Rainbird 2007; Knapp 2007; 2008; Vogiatzakis et al. 2008). Insularity, with its multiple

<sup>1</sup> Organised in 2018 at the University of Turin (Italy) and published in 2021 (Albertazzi et al. 2021).

<sup>2</sup> Organised in 2016 by the Italian Archaeological School at Athens. The proceedings publication is forthcoming (eds. Marketou and Vitale).

connotations, has constituted a convenient theoretical framework for investigating islands as being static and passive areas with limited outlook. According to the Cambridge English Dictionary, it means 'the quality of only being interested in your own country or group and not being willing to accept different or foreign ideas'. This not only refers to a physical condition of a place surrounded by water, it rather also assumes its geographical isolation, in other words the state of being an island and the quality of being secluded as a result of living on islands. In this sense, the equation of insularity where isolation is understood as the complete separation from interactions of any sort or reversely as the conscious opening up to accept or reject elements beyond one's own experiences (Knapp 2007, 45 f.; 2008, 18). However, isolation depends on the degree of insularity, and these terms should not be used interchangeably, as it often depends on human-controlled factors such as technology and transport instead of just ecological/geographical/natural circumstances. As has been suggested by Doumas, the terms insularity and isolation, in the sense discussed above, are not appropriate to the Aegean island societies, as they represent offshore/continental islands, and insularity is translated into the geographical condition of living on an island setting (Sfenthourakis/Triantis 2017). This is semantically reflected in the meaning of the Greek terms νήσος (island), ναύς (boat) and νέω/νήχομαι (to swim/to float), suggesting the perception of early Aegean seafarers as moving through well-connected floating landmasses that were linked by the sea as the life-giving source (Doumas 2004, 216 f.). Insularity, then, is a social rather than a natural condition.

While viewing islands as laboratories for the study of change and social transformations, geo-cultural boundaries or even the transmission of materials, knowledge and people, when it comes to comprehending the processes of cultural development, the practicalities of being an islander, the levels of connectivity among islands or between islands and coastlands or even the factors that enabled such maritime connections (seafaring knowledge, navigational skills, etc.) were until recently left somehow unnoticed (see Tartaron 2018 for a review). During the 1990s, under the

influence of post-processual archaeology, previous notions have been reassessed in an attempt to highlight the role of human agency, such as the islanders, seafarers, elites or in simple terms, the different kinds of human agents being actively involved in what constitutes an island way of living (e.g. Broodbank 1993).

In recent years, more important attempts have been made to move away from aspects of colonisation and biogeography (for a definition of this theory, see MacArthur/Wilson 1967) in the study of island communities, arguing against a dualistic model of isolation versus dispersion and interaction or insularity versus connectivity, with methods including field survey projects, GIS-based spatial analysis and proximal view point analysis for the reconstruction of networks (e.g. Broodbank 2000; Knappett 2013). Such a shift towards acknowledging the importance of both insular and extra-insular factors in the construction of island identities is reflected in Broodbank's (2000; 2008; 2010) pivotal work on the central Aegean islands (the Cyclades cluster) during prehistory. Nonetheless, the eastern Mediterranean situation, when compared with the Pacific archipelagos, shows a completely different historical trajectory in the scales of colonisation, connectivity, insularity, and marginality (Dawson 2019). This is largely due to the degree of isolation and geographical proximity to the adjacent mainland, as well as their position on established maritime routes and desirable resources. Unlike the Pacific, the Mediterranean islands (with a particular emphasis on the Aegean) are not remote, they have less extreme ecological limitations, they exhibit a high diversity in terms of size and distance, and are in general within sight of adjacent coastlands (mainland Greece in the west and western Anatolian peninsula in the east) and nearby islands (Patton 1996, 7 f.).

Given the geomorphological idiosyncrasy of the Aegean basin and the wealth of material culture, this area has been considered a robust testing ground for investigating the relationship between insularity and connectivity and their changing nature in prehistory (see Molloy 2016), as well as the construction of maritime identities in the wider region (e.g. Nazou 2010 for Attica and the surrounding islands during the Final Neolithic

and EBA). Already in studies of the Neolithic period, pottery and obsidian were the main artefact categories used to identify connections and interactions between the different island groups, coastlands and mainlands (Quinn et al. 2010; Whitbread/Mari 2014). In terms of pottery, this is owed to its abundance in the archaeological record and the distinctive typologies formulated in the early to mid 20th cent. CE in an attempt to define chronological sequences and geo-cultural boundaries between Crete and the southern Aegean, the Cyclades and the central Aegean, the western side of the Aegean world covering mainland Greece, the northern part of mainland Greece with Thessaly and Macedonia, and to a lesser degree the eastern Aegean with the offshore islands and the western Anatolian littoral. Distinct groups have been further defined within each culture, corresponding to a different micro-region, on the basis of common archaeological traits, which have been traditionally used for the development of the tripartite chronological scheme in use in Aegean archaeology (see Kouka 2009 for a summary of older bibliography). This geo-political regionalism is further exemplified in the clustering between the northeast Aegean islands with coastal northwest Anatolia and the Dodecanese/southeast Aegean islands together with Chios and Samos with the southwest Anatolian coast (Berg 2019, 107). The examination of pottery, through an integrated methodology, serves as a proxy for the identification of connectivity and patterns of material or ideological exchange in the east Aegean, which comprised a busy seascape during the 3<sup>rd</sup> mill. BCE (Menelaou et al. 2016; Menelaou 2018).

A recurring theme in this paper is that the sea holds a vital role in connecting rather than being a barrier in the communication of distant or less distant areas, either among islands or between an island and the mainland. Although moving away from solely processual or post-processual approaches, the author maintains that the geographical delineation of islands provided by the coasts can offer an ideal framework for investigating how patterns of connectivity shift diachronically through the interdisciplinary study of ceramic materials. Relevant to this is also the seascape concept, which encompasses the intervisibility

between land and sea and socio-cultural understanding of coastal and marine landscapes (Hill et al. 2001; Rainbird 2007, 45). Equally significant for this discussion are theories on mobility and movement in our attempt to identify cultural interactions through provenancing material evidence, rather than constructing generalised, unilineal archaeological narratives.

#### Spatiotemporal Framework: The Aegean Archipelago(s) in the 3<sup>rd</sup> Millennium BCE

The Aegean archipelago, comprised of groups of islands closely scattered in the Aegean Sea, constitutes one of the most important geographical settings in Mediterranean Island Archaeology, and its study, together with research carried out in the western part of the Mediterranean Sea, has been stimulated by comparable work in the Pacific Ocean (Evans 1977). Framing today's eastern geographical limits between Greece and Turkey, it hosts hundreds of islands (fig. 1) and a number of clusters can be separated into: 1) the Argo-Saronic islands between Attica and the eastern Peloponnese, 2) the Cyclades located in the centre of the Aegean between the island of Crete and mainland Greece, 3) the Sporades along the east coast of mainland Greece and northeast of the island of Euboea, 4) the northeast Aegean islands stretching along the Anatolian (Turkish) coast and south of Thrace, and 5) the Dodecanese in the southeast Aegean off the Anatolian coast. To these, more or less, physical clusters are added the large islands of Crete and Euboea.

In modern terms, these island clusters are geographically-defined (Cyclades, Sporades) or grouped together for administrative purposes (northeast Aegean islands). Nonetheless, in some cases, this clustering corresponds to what represents in archaeological literature cultural groups. Of these regional groups, a special emphasis has been so far put on the prehistoric Cyclades from the very beginning of archaeological research due to the intensity in systematic research (surveys and excavations) and an early interest expressed by European travellers (for a review of individual sites and regional patterns, chronological synchronisms

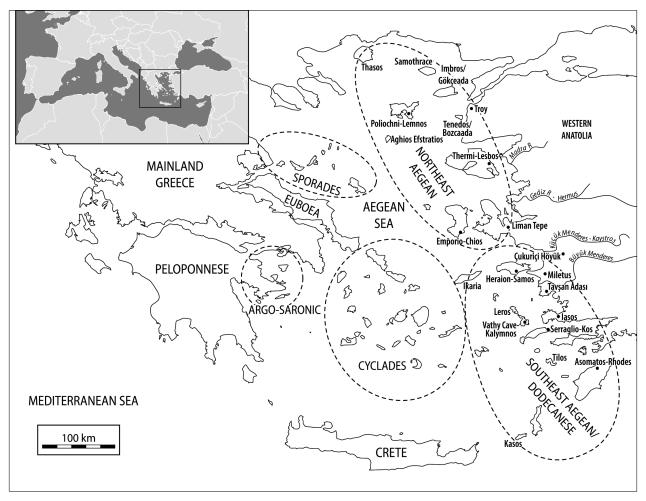


Fig. 1. Map showing the east Aegean islands and other areas mentioned in the text (prepared by Christina Kolb).

or artefact categories, see Davis 1992; Broodbank 2000; Alram-Stern 2004; Berg 2019). In contrast to that, the island clusters of the northeast Aegean and the Dodecanese have been to a large degree overlooked due to their marginal position at the eastern limits of the Modern Greek state (Davis 1992; Berg 2019). Thus, the islands stretching off the Anatolian/Asia Minor coast and their related archaeological narratives reflect modern political and ethnic constructions between Greece and Turkey; today's identities are largely formed within those politically-defined borders (e.g. Vaessen 2018). To that end, the east Aegean islands were still perceived as part of the Ottoman Empire in the early 20th cent. CE and they are geographicallyoriented towards the east. As Rutter has recently pointed out (Rutter 2013, 595), there is a 'need to become more familiar with the different culture zones that together make up the eastern margin

of the Aegean - namely, the sites and material culture of the western Anatolian mainland'. This view is reflective on the one hand of this region's significance, forming an interface between the Aegean basin and the Anatolian plateau or reversely the conception of a periphery made up by two distinct spheres, and on the other hand of the lacuna in archaeological scholarship regarding the study area in question, which has only received increased attention in the past two decades (e.g. Kouka 2002; 2013; 2014; 2016a; Şahoğlu 2005; 2008; 2011; Doumas/La Rosa 1997; Erkanal et al. 2008). Although an enormous amount of work has been undertaken in the form of systematic archaeological excavations and surface surveys since the early 20th cent. CE, the eastern Aegean/western Anatolian littoral, has been generally neglected, in contrast to the western, northern, and southern Aegean, where the material record has been intensively investigated. A possible explanation for this is the absence in this area of succeeding 'cultures' that are comparable to the palatial civilisations of Minoan Crete and Mycenaean mainland Greece. In the case of Minoan archaeology, the impressive material culture and cultural legacy resulting from more than a century of research had remarkable effects in responses of the 20<sup>th</sup> cent. CE. This hellenocentric 'obsession' of the early excavators, further envisioned in modern engagement with the Minoan past (*Cretomania*) is rather reflected in literature, the visual and performative arts, and other cultural media (Momigliano/Farnoux 2017; Momigliano 2020).

As was the case from the early conceptualisation of the 'emergence of civilisation' during the EBA by Colin Renfrew (1972), the Aegean has been an excellent research arena for the investigation of issues of connectivity and interaction. Renfrew in his study of the Aegean EBA adopted an economically and ecologically-driven approach which favoured an internal explanation for the transformations occurring during the course of the 3<sup>rd</sup> mill. BCE. According to this, the prehistoric Aegean archipelago exhibits a great geographical and cultural variability (different landscapes and seascapes). With the advent of post-processual archaeology, new approaches shifted towards the explanation of social change by focusing on human agents. Therefore, the study of material culture - especially pottery - has not only questioned the principle of linear causality but has also shifted away from solely diffusionist and evolutionary theories, mainly concerned with the reconstruction of typo-chronological sequences that are based on stylistic and morphological observations and typological-functional similarities between sites. There has instead been a turn towards the consideration of other factors (active role of materiality and practice, transformative power of innovations, complexity of movement) in order to explain the interrelation between technological processes, socio-economic change, and material/ideological transmissions (e.g. Knapp/ van Dommelen 2010; Maran/Stockhammer 2012; Stockhammer/Maran 2017). Nevertheless, ceramics have been valuable in understanding changes, at least at a technological level, within the framework of network theories and interaction between different sites and areas.

## 3. Island/Mainland Interaction in the East Aegean

Landscape and seascape, communication and isolation, island and mainland are inseparable dualities, but how meaningful is it to examine these concepts separately? From an archaeological point of view, the investigation of island-mainland interaction seems particularly intriguing in the east Aegean region. This is both due to its advantageous geography being located in close proximity to the Anatolian mainland to the east, the Cycladic islands to the west, and the rich stratigraphic sequences spanning since the Neolithic Period.

## 3.1. Maritime Colonisation and pre-EBA Aegean Connectivity

According to recent excavation data, traces of the earliest human presence on the east Aegean islands have been attributed to the Palaeolithic (Lesbos-Rodafnidia, Thasos-Tzines, Aghios Efstratios-Alonitsi, Lemnos-Ouriakos, Imbros) and the Mesolithic (Ikaria-Kerame, Fournoi, Chalki-Areta) when sea-level fluctuations have allowed easier crossings through narrow land bridges, greatly expanding our knowledge of their initial utilisation; perhaps some of the islands were even attached to the mainland (see table 1 for bibliographical references). Enriched data also from coastal western Anatolia, dated back to the Palaeolithic/Mesolithic (e.g. Karaburun Peninsula, Çilingiroğlu et al. 2016), sheds new light into early human dispersals and possible connections with the offshore islands. Aegean island colonisation, consisting of multiple phases from discovery and short-term exploitation visits to a more permanent human presence, has been a hotly debated subject for over three decades (e.g. Cherry 1985; Patton 1996; Broodbank 1999; Dawson 2011; Phoca-Cosmetatou 2011). Permanent settlements, in the sense of a long-term occupation and establishment of open-air settlements or seasonal utilisation of caves, on the east Aegean islands appeared from the Neolithic period (predominantly Late/Final phase, 6th to 5th mill. BCE) onwards (e.g. Poliochni-Lemnos; Ayio Gala Cave and Emporio-Chios; Kastro-Tigani and Seitani Cave-Samos;

Island	Site Name	Site Type	Period	Reference
Thasos	Tzines	Open-air	Upper Palaeolithic	Papadopoulos/ Malamidou 1997
Samothrace	MikroVouni	Open-air	Final Neolithic	Syrides et al. 2009
Imbros/Gökçeada	Salt-lake area	Open-air	Middle Palaeolithic- Mesolithic	Erdoğu 2016
Tenedos/Bozcaada	n/a	Cemetery	Early Bronze Age	Sevinç/Takaoğlu 2004
Lemnos	Ouriakos	Open-air	Late Palaeolithic	Efstratiou et al. 2013
Aghios Efstratios	Alonitsi	Open-air	Middle Palaeolithic	Sampson et al. 2018
Lesbos	Rodafnidia	Open-air	Lower-Middle Palaeolithic	Galanidou et al. 2016
Psara	Archontiki	Open-air	Late Neolithic	Archontidou-Argyri 2006
Chios	Ayio Gala	Cave	Early Neolithic	Hood 1981–1982
Samos	Kastro-Tigani	Open-air	Late Neolithic	Felsch 1988
Ikaria	Kerame 1	Open-air	Mesolithic	Sampson et al. 2012
Fournoi	n/a	Open-air?	Mesolithic?	Sampson 2018
Agathonisi	Kastraki	Open-air	Final Neolithic	Triantafyllidis 2015
Patmos	Several localities	Open-air	Late Neolithic	Sampson 1987
Arkoi	Tiganakia	Open-air	Late Neolithic	Vasileiadou/Liritzis 2018
Leipsoi	Kastro; Aghios Nikolaos	Open-air	Final Neolithic/EBA	Dreliosi-Irakleidou 2006
Leros	Partheni	Open-air	Late Neolithic	Sampson 1987
Kalymnos	Dhaskalio-Vathy, etc.	Cave	Late Neolithic	Benzi 2020
Kos	Aspri Petra, etc.	Cave	Middle Neolithic	Georgiadis 2012
Gyali	Kastro area	Open-air	Late/Final Neolithic	Sampson 1988
Nisyros	Several localities	Open-air	Neolithic	Filimonos-Tsopotou 2006
Syme	Several localities	Open-air	Late/Final Neolithic	Sampson 1987
Tilos	Charkadio	Cave	Late/Final Neolithic	Filimonos-Tsopotou 2006
Alimia	Kastro; Emporeio	Open-air	Final Neolithic	Sampson 2003
Chalki	Areta	Open-air	Mesolithic	Sampson et al. 2016
Rhodes	Aghios Geor- ghios-Kalythies	Cave	Late Neolithic	Sampson 1987
Saria	Kastello hill	Open-air	Late/Final Neolithic	Melas 1985
Karpathos	Several localities	Open-air	Late/Final Neolithic	Melas 1985
Kasos	Ellinokamara	Open-air	Late/Final Neolithic	Melas 1985
Astypalaia	Vathy, etc.	Open-air, cemetery	Late/Final Neolithic	Vlachopoulos 2017

 Table 1. Evidence for the earliest human presence on the east Aegean islands.

Vathy Bay Cave-Kalymnos; Aspri Petra Cave-Kos; Kalythies Cave-Rhodes). Inter-island and island/ mainland communication and interaction between the east Aegean islands and the opposite Anatolian landmass with its attractive coastlines presupposes seafaring knowledge and technological developments in maritime navigation, despite being separated only by a few kilometres and often at a high visibility (table 2). The region contrasts with the Cyclades as most of the islands are large, and the distances and sea crossings between them are far greater. Perhaps the island groupings in the northeast (Imbros, Samothrace, Lemnos, Aghios Efstratios) and the Dodecanese in the southeast are far more inter-connected and closely clustered than those in-between (Lesbos, Chios, Samos). The size of some of the east Aegean islands (Lesbos, Chios, Samos, Kos, Rhodes) and their separation from the nearest mainland may have been the main determinants of their early colonisation, but this is not always the case, as evidenced at the settlement of Thermi on Lesbos (Lambrianides/Spencer 1997). On Lesbos all of the evidence so far for permanent settlements is dated at the end of the 4th mill. BCE. Nonetheless, distance alone is not a sufficient explanation for the assumed isolation or openness of an island community. Isolation and interaction are therefore socially-contingent conditions and subject to change depending on factors that go beyond geographical parameters, such as natural obstacles, currents, winds and weather conditions affecting direct communication, socio-economic purposes, technologies of mobility, skills in navigation, and the perception of time by the seafarers (Doumas 2004, 220; Tartaron 2018).

The first solid evidence for connectivity and successful navigation on established Aegean maritime networks is attested in the long-distance distribution of obsidian from Melos (southwest Cyclades) already since the Upper Palaeolithic period (Franchthi cave-Argolid; Laskaris et al. 2011). More evidence in favour of a continuous interaction through the obsidian distribution patterns are observed during the Late Pleistocene to Early Holocene transition, with Melian obsidian found in a number of Mesolithic and Early Neolithic sites as far as the east Aegean islands,

northwest (e.g. Coşkuntepe: Perlès et al. 2011, fig. 1) and southwest Anatolia. The latter (Bozburun Peninsula) has produced the earliest known evidence for the use of Melian obsidian in Anatolia (Atakuman et al. 2020). Furthermore, substantial quantities of obsidian found on Samos already since the 5th mill. BCE (Felsch 1988: 223–236, pls. 87-90), alongside other imported materials, supports the hypothesis that those islands acted as gateway hubs for communication and circulation of Aegean raw materials, peoples, and ideas with coastal western Anatolia. As such, Melian obsidian was likely transported via established communication arteries towards western and inner Anatolia (e.g. Çukuriçi Höyük: Horejs et al. 2015; Ulucak Höyük: Çevik/Erdoğu 2020), provided through natural river passages, already since the 7<sup>th</sup> mill. BCE. At the same time, this is suggestive of the advanced knowledge of watercraft technology and maritime voyage capacity, cognitive skills from these early seafarers, perhaps simply as a byproduct of incidental expeditions and exploitation of resources rather than intentional colonisation. Increasing evidence of continuing interactions and exchange networks in the region in question seems to develop further during the 5th and 4th mill. BCE (Final Neolithic/Chalcolithic/Late Neolithic II), with changes in settlement patterns, spatial organisation, pottery production and consumption, circulation of special-functioned artefacts (e.g. marble conical vessels), and other socio-cultural and technological advances (see relevant papers in Dietz et al. 2018; Horejs/Mehofer 2014).

## 3.2. 'Attractive Landscapes Ashore': The *Peraia* Concept

Although a direct analogy cannot be achieved between prehistory and historical times in terms of interaction and connectivity patterns, the *peraia* concept provides a framework for understanding the ancient perception of space between islands and their adjacent mainland (*fig. 2*). The *peraia*, a term becoming widely used in the 2<sup>nd</sup> cent. BCE (Lambrinoudakis 1997; Constantakopoulou 2007, 228–253; Knappett/Nikolakopoulou 2015, 27), basically refers to the mainland territories beyond the

Island	Distance (km) Patton 1996* Dawson 2011**		Surface Area (km²)	Target/Distance Ratio	Visibility
Lemnos	28	62	478	1.8	Medium
Samothrace	25	37	178	0.8	High
Thasos	7	7	380	9	High
Chios	11	11	842	10	High
Ikaria	18	47	256	8.6	Medium
Lesbos	12	12	1633	7.2	High
Psara	19	67	40	1.3	Medium
Samos	5	5	477	26	High
Alimia	19	40	7	4.5	Medium
Astypalaia	48	79	97	0.4	Medium
Chalki	10	47	28	3.8	Medium
Giali	10	18	9	3.5	Medium
Kalymnos	5	18	93	4.6	High
Karpathos	48	93	301	1	Medium
Kasos	48	140	69	1	Medium
Kos	5	5	290	16.2	High
Leros	5	32	53	4.6	Medium
Lipsoi	9	37	17	3.8	Medium
Nisyros	11	17	37	3.5	Medium
Patmos	9	48	34	3.8	Medium
Rhodes	15	19	1400	5.5	High
Saria	48	85	21	1	Medium
Syme	8	8	38	4	High

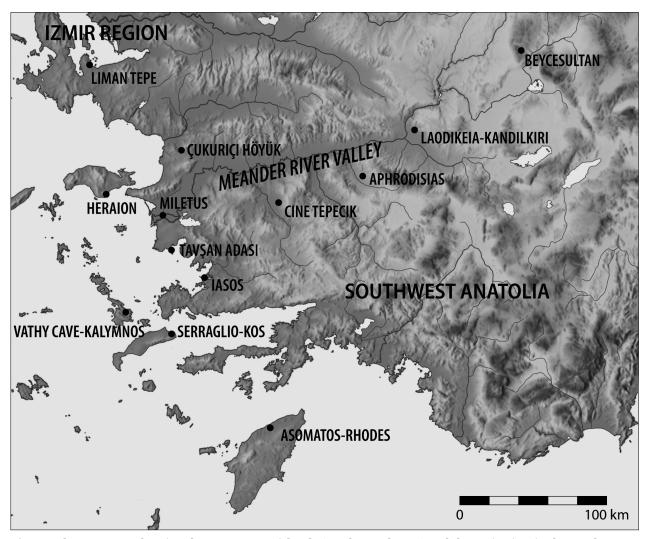
<sup>\*</sup>Defined as the longest single sea-crossing required reaching an island.

**Table 2.** Biogeographical features and parameters for island-mainland communication in selected east Aegean islands (adapted from Patton 1996, 46 f., tab. 3.2 and Dawson 2011, tab. 2.2).

limits of a certain area or the 'land opposite' the islandcity that controlled them in the Classical past, although occasionally exceeding the immediate area to the opposite continent and lying out of sight (Mytilene/Lesbos: possessions along the western and northern coasts of the Troad; Rhodes: possessions extended well beyond the coastal strip opposite the island; Ellis-Evans 2019, 177). In historical times, and as we know through literary sources, almost all of the island centres of the east Aegean

held a territory on their adjacent coast (Macedonia to the north and western Anatolia to the east), which functioned not only politically but was also used for economic reasons (subsistence) and facilitated a constant exchange and movement of people and products. This is important for the consideration of these island-states as 'hybrids' with both island and mainland cultural characteristics, in contrast to the 'genuine' island towns of the central Aegean.

<sup>\*\*</sup>Defined in relation to the nearest mainland.



**Fig. 2.** Close-up map showing the east Aegean islands (southeast cluster) and the main sites in the southwest Anatolian mainland (prepared by Christina Kolb).

As Doumas has noted, 'it is of crucial importance, therefore, to try and understand the relationship between an island and its peraia, in order to understand the island cultures of the Aegean' (Doumas 2004, 215). The peraia may have acted as the bridge for the early settlers of the nearby islands, and this is reflected in the material culture of the northeast and the Dodecanese Islands showing affinities with the western Anatolian littoral (Karpathos and Kasos in the southernmost extension of the Dodecanese show closer affinities with Crete), Thasos and Samothrace with the coast of eastern Macedonia and Thrace to the north, and the northern Sporades with Thessaly. Such peraiai are evidenced and persisted to varying degrees in time ranging from the Archaic to the Hellenistic periods on the islands of Thasos, Samothrace, Tenedos, Lesbos, Chios, Samos, and Rhodes (see

Funke 1999; Constantakopoulou 2007 for an account of literary sources of the *peraiai* in Asia Minor/western Anatolia).

For instance, the Samian *peraia* (ancient Anaia, today Kadıkalesi), often being the reason for conflict with Priene, at least during the Classical and Hellenistic periods (Shipley 1982, 59–80), was bounded to the north by the Küçük Menderes or Kaystros River south of İzmir, and to the south by the Büyük Menderes River in close proximity to Miletus. This must have constituted a vital area that linked various communication arteries also in prehistory. That connections between Samos and the opposite mainland were initiated by the former is hard to prove, although we should imagine a dynamic relationship between these areas that was diachronically redefined. Samos must have acted as a conduit for goods from Anatolia to the

wider Aegean (Menelaou 2018). *Peraiai* also existed on the islands and were controlled in a reverse way by the opposite mainland, and these can be treated as being functionally the same as island-cities (Constantakopoulou 2007, 228–231: Miletos controlling Leros, 253: Alexandreia Troas controlling Tenedos).

We should imagine that the east Aegean islands were always connected more with their adjacent mainland in western Anatolia rather than the central Aegean and this diachronic relationship, either reflected in material culture affinities in prehistory or in historical sources in later periods, was redefined and transformed depending on various parameters. The aforementioned concept of the *peraia* can be better approached for prehistoric interactions through the coastscape concept, as discussed by Tartaron (2018). This essentially refers to coastal zones defined by the shoreline and adjacent resources inhabited and exploited by the maritime communities. They are extremely important for our understanding of the aforementioned interactions, as coastscapes encompass also the waters utilised by these communities for economic and social purposes, as well as the visual and cognitive structuring of daily life for both islanders and mainlanders. Perhaps coastlands on specific islands and the nearby Anatolian mainland could form separate 'maritime small worlds' (Tartaron 2018, 73 f.), well exemplified in matching technological developments and stylistic influences (e.g. Lemnos and the Troad; Lesbos and the Madra River region; Chios and the Izmir region; Samos and the upper Meander region; the Dodecanese and the southwest Anatolian coastlands). This was likely facilitated through geographical proximity, intervisibility and ease of travel, which would diachronically allow habitual interaction, shared ideology, and strengthen social ties.

## 3.3. Reflecting Modern Sociopolitical Borders on Ancient Narratives

The region in question is traditionally separated in scholarship in northeast islands (Imbros, Thasos, Samothrace, Lemnos, Aghios Efstratios, Lesbos, Chios) and southeast islands (Samos and

the Dodecanese islands of Kalymnos, Kasos, Kos, Tilos, Leros, Rhodes, etc.), although the border between the two sub-clusters seems less meaningful in archaeological terms. However, it has been suggested that, despite their close proximity, a cultural dividing line existed between Chios and Samos during the Neolithic (Davis 1992, 743). For instance, Samos exhibits cultural similarities with islands both to its north and south (Kouka 2014; Kouka/Menelaou 2018). In terms of pottery similarities, the Heraion tradition is closely matched with the synchronous traditions in the northeast Aegean/northwest Anatolian littoral (typology, shape repertoire, surface treatment) during the Late Neolithic and until the mid-3<sup>rd</sup> mill. BCE, while in EBA III, it exhibits closer similarities with the southeast Aegean/southwest Anatolian region (see Section 3 for distribution of certain vessel types and technological characteristics).

The separation in scholarship of the east Aegean Islands from western Anatolia coastlands reflects modern political and ethnic constructions between Greece and Turkey (e.g. Feuer 2016; Vaessen 2018; Mangaloğlu-Votruba 2018). It is in this framework that the east Aegean islands should be examined during prehistory, where although geographically distant from the rest of the Helladic/Greek world, until the early 20th cent. and the political turmoil in Asia Minor, they were considered as part of the Ottoman Empire and thus culturally, socio-politically, and economically oriented towards the east. With the loss of their peraia after the political separation between Greece (Christian European) and Turkey (Muslim Oriental), culminating in the Greek/Turkish war of 1919–1922 and the population exchange of 1922-1923, the cultural character of the islands stretching along the Anatolian coast has also been dramatically reconfigured (Ellis-Evans 2019). The identification of ethnic family names and village toponyms representing their place of island origin provides a good case study for the movement or migration of people in multiple directions during the 20th cent. (Doumas 2004, tabs. 18.1–18.12). Similarly, Kopaka (2009) explores the polysemies of islands through a combination of literary evidence, place names and their etymologies, insular morphologies (size, shapes, relief, position), and resources to unravel the diachronic redefinitions of the various islandscapes. Unfortunately, this political break-up of what had once encompassed the islands and coastal Anatolia in a single territorial space, is also reflected in the archaeological practice between the two countries and the study of Greek Islands and Turkish Coastlands in almost total isolation from each other. However, this gap is nowadays bridged through important comparative studies and collaborative research between local archaeological authorities and the involvement of foreign schools from both countries (e.g. Erkanal et al. 2008; Sotirakopoulou 2008a; Day et al. 2009; Kouka 2013; Molloy 2016). Particularly the role of foreign archaeological schools and institutes since the early 20th cent. in serving national traditions and their position on where these islands belong has influenced greatly the subsequent theoretical developments in the archaeological practice of the east Aegean islands (Italian School of Archaeology at Athens with excavations mainly on the Dodecanese islands: Serraglio-Kos, Ialysos-Rhodes, Vathy Cave-Kalymnos, and Poliochni-Lemnos in the northeast, Bernabò Brea 1964, 1976; Benzi 1997; Doumas/La Rosa 1997; British School at Athens with excavations at Thermi-Lesbos and Emporio-Chios, Lamb 1936 and Hood 1981-1982 respectively; German Archaeological Institute at Athens with excavations on Samos, Milojčić 1961). They all share the perception of these islands as being marginal, well-exemplified in Dickinson's (1994, xvii) words: 'The north Aegean islands, and most of the Turkish coastal areas, are culturally separate and, although often demonstrably in contact with the Aegean cultures, have an essentially different history'. In the case of Lemnos, the Italian School aimed at establishing ethnic links between the Etruscans and the northern Aegean, while for EBA Lesbos the arguments favoured close affinities (pottery developments, town planning, metallurgy) and perhaps migrations of Anatolian people towards the west in the search for metal ores (Cultraro 2004a). Similar efforts were made in the early investigations of coastal western Anatolia with the aim to elucidate its Hellenicised prehistoric past (e.g. Iasos-Caria and Minoan/Mycenaean past; Momigliano 2012, 15). This brief account of two major, contrasting trends in archaeological scholarship, either in support of separateness

between the east Aegean islands and western Anatolia, in an effort to validate modern ideas, or emphasising their cultural coherence versus the rest of the Aegean world, is indeed characteristic of the marginalisation of this region both geographically and in terms of research.

## 4. Connectivity and Large-Scale Network Models

Archaeologists' general inability to directly observe and reconstruct human activities and connections has led to reliance on pattern recognition in material culture, the construction of comparative models, and the establishment of theoretical concepts exploring issues of connectivity, mobility, and interaction, their effect on social practices and identity boundaries (Knapp/van Dommelen 2010). This also relates to the permeability of borders, borderlands, and boundaries in the archaeological record, be it natural/physical, geographical, geopolitical, socio-cultural, as presumably opposed to modern nation-states. The main theoretical directions that research in the east Aegean connectivity models has drawn on include the following:

a) The intense connectivity, which translates as 'the various ways in which microregions cohere, both internally and also one with another' (Horden/Purcell 2000, 123), discerned through various archaeological remains (mainly pottery, architecture, and exotic imports) was greatly based on the detection of patterns in the archaeological record, which were taken to represent a cultural koine in the east Aegean and western Anatolian littoral (e.g. Kouka 2002, 299 f.; 2013, 2016a, 210, 218; Ünlüsoy 2016, 399; Horejs et al. 2018, 41). This concept follows evolutionary theories and favours the notion of homogeneity in the material expression of the geographical region in question. Shared features are identified in ceramic styles, construction techniques, circulated artefacts, being explained by a cultural uniformity beginning at least by the EBA I period and reflecting 'strong political and economic structures and social dynamics' (Kouka 2013, 576 f.). Similarly, Yilmaz (2013, 858), based on recent finds from Bozköy-Hanaytepe

- in the Troad, states that 'the coasts and islands of the Aegean Sea had a distinct and homogeneous culture in the Early Bronze Age. Sites in the Troad, as a part of Eastern Aegean, were clearly open to influences from this distinct material culture'. More recently, the region was further distinguished in the southeast Aegean-southwest coastal Anatolian region (SASCAR) and the northeast Aegean-northwest coastal Anatolian region (NANCAR) (Vitale/Morrison 2018, 43), between which, it is proposed here, Samos Island exhibits a central eastern Aegean contact zone.
- b) Reversely, the area encompassing the east Aegean is often researched under the influence of post-colonial approaches that seek to explain the offshore islands as peripheral and passive recipients of superior traditions in their relationship with the Anatolian mainland, in an east/west directed fashion. Related to this are the concepts of boundedness and separateness, where the sea is seen as a barrier in inter-island or island/mainland communications. These concepts interpret archaeological frontiers and boundaries following the world-systems model, based on an economically-driven perspective and terminology established in the 1970s (Rice 1998, 45-47). This core-periphery approach and the reconstruction of large-scale interactions during prehistory, as well as its deficiencies, have been critiqued for neglecting the role of individuals or even being inappropriately applied. Rather, this approach is commonly invoked by archaeologists to explain the long-term effects of interaction between complex societies and less developed neighbouring ones (see Kohl 2011, 79-82; Feuer 2016, 27-35). This is particularly prominent in the investigation of contacts and exchanges between insular and mainland sites. The eastern Aegean and western Anatolian Region constitutes a good case study for the identification of such core/periphery archaeological interpretations, where islands only a few kilometres away from the Anatolian mainland have been largely overlooked in their own right. However, the very nature of such zones enabled and promoted interregional interaction obvious in the adoption of
- material and ideological novelties (e.g. Şahoğlu 2005, 2011; Sotirakopoulou 2008a; Alram-Stern/Horejs 2018; Choleva 2018). Rather than focusing on concepts of isolation and marginality, Dawson's (2019) approach highlights the significance of the strategic location of certain Mediterranean islands along maritime routes, where islanders shift in and out of centrality in networks of interaction (optimal marginality), because of changes in their productivity and available resources.
- The development of systematic archaeology in the Aegean region in the last two decades has allowed a fresh understanding of ancient movement, shifting beyond established ideas that see culture as ethnically-inherent (for an up-to-date summary of theoretical concepts on movement in the Aegean, see Wallace 2018, 9-21). Mobility is another popular topic for explaining the appearance of common cultural traits, with specific examples also for the 3<sup>rd</sup> mill. BCE (Knapp/van Dommelen 2010; Knappett/Nikolakopoulou 2015; Knappett/ Kiriatzi 2016; Alram-Stern/Horejs 2018; Leidwanger/Knappett 2018). This is a diachronic feature of the east Aegean islands already since the Neolithic period (e.g. Reingruber 2018) and better observable in the circulation of technologies and ways-of-doing or actual ceramic products and their contents in the EBA (for Poliochni-Lemnos see Cultraro 2004a; 2004b; for Thermi-Lesbos see Spencer 1995; Lambrianides/Spencer 1997; Lambrianides 2007; for Heraion-Samos see Kouka/Menelaou 2018; Menelaou 2020; Menelaou/Day 2020). Moreover, similarities in the archaeological record of these sites with those in western Anatolia have often been interpreted as cultural affiliations or an 'unmistakable kinship' due to population migration towards the west (Blegen et al. 1950, 41; Yilmaz 2013, 862).

Despite being influenced by different theoretical trends, these aforementioned concepts share the use of large-scale, long-distance narratives for the reconstruction of interaction, exchange, and connectivity of the area in question (Şahoğlu 2005; Efe 2007; Kouka 2016a). Although extremely useful, this is not always achievable, as we tend to see routes of communication as regular and

systematic through a comparison with modern, well-controlled conditions that seek explanations for increased connectivity in economy-based theories and the detection of trade patterns in a regional and interregional scale (e.g. Rahmstorf 2015). Trade contacts with Anatolia, a resource-rich core, are considered to be one of the main causes for cultural change and increasing complexity in the EBA. This projection of the present in past connectivity runs the risk of often assuming directionality and scales, qualitative parameters that are not easily detectable. In other words, the visualisation of maritime networks can often omit the significance of distance and physical contact and whatever environmental and social factors these are affected by (Tartaron 2018, 62). What we are often able to recognise is rather the frequency of movement of things and people, as well as possible routes, through the scientific analysis of archaeological materials and suggestion of their provenance (Menelaou 2020; Menelaou/Day 2020). Attempts to visualise past interactions were efficiently made in the past two decades through the application of various network analysis models, especially applied in the Cyclades (e.g. Broodbank 2000, 136, fig. 39 for proximal point analysis; Knappett 2013; cost-surface model, Jarriel 2018) and western/ central Anatolia (Massa/Palmisano 2018), but such attempts are to-date largely missing from the east Aegean. Centrality analysis models have been applied to the examination of the central western Anatolia coastscape around modern-day Selçuk, which have indicated a gateway location and an important supra-regional centre of production and trade during antiquity at the zone between the Aegean and Anatolia (Knitter et al. 2013).

Aside from the deficiencies of our methodologies for the reconstruction of connectivity patterns, the detailed study of production, consumption, and distribution of certain artefacts across space and time may enable a better understanding of the social, economic, and political relationships between different places at the micro level. This is a symptom of working with often disproportionate materials in terms of quantity and state of preservation and the biased nature of the archaeological record. This can be achieved or at least approached in a more tangible way – in the case of pottery – with the combination of integrated

methodologies (traditional/archaeological and analytical/archaeometric) with a well-informed theoretical framework, which can further enable the characterisation of raw materials to trace the production sources (geological/geographical provenance) and spatial movement of artefacts. Moreover, the study of maritime interaction requires a multi-dimensional account of potentials and constraints that allowed or prevented past communications and the development of seafaring in the EBA Aegean with the man-power seagoing, longboat vessels first appearing since the Final Neolithic IV (ca. 3300 to 3000 BCE, see Papadatos/ Tomkins 2013 for discussion of their appearance in Crete and the Cyclades) and the introduction of the wind-powered (sail) vessels during the end of the 3<sup>rd</sup> mill. BCE (e.g. Knapp 2018 for a recent review; Broodbank 1993; 2010, 255 f.; Berg 2019, 42).

## 5. Pottery as a Proxy for Connectivity in the 3<sup>rd</sup> Mill. BCE East Aegean

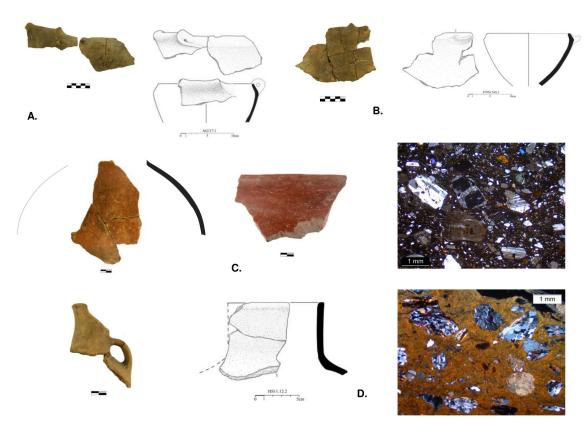
Pottery, perhaps the most abundant artefact category in archaeological excavations, is used as the main proxy for tracing past intercultural connections and interactions in the area of interest, through identification of diagnostic types. The following discussion presents diachronic ceramic developments from selected island centres of the East Aegean, but a particular focus is placed on the island of Samos. The project of EBA Heraion-Samos has successfully demonstrated that questions of ceramic production, consumption, and distribution can be meaningfully approached through the integration of different scales and levels of analytical enquiry (Menelaou 2018). This has been achieved following a chaîne opératoire approach and the combination of various levels of analysis from typology, phasing, and contextual study of the entire ceramic assemblages covering the 3<sup>rd</sup> mill. BCE. This body of evidence is integrated with a detailed fabric study through macroscopic analysis and thin section petrography. The following sections provide a brief overview of ceramic connections both at an inter-island and an island/mainland level, with reference to our understanding of locations of production. The secure identification of imports, at least in the case of pottery from Samos, was achieved through petrography and the examination of comparative material from neighbouring sites and regions, but for other sites mentioned in the text, the assessment was largely based on published shapes, wares, and macroscopic fabrics. Despite recent advances in provenance studies of pottery from the East Aegean (e.g. Menelaou 2020; Menelaou/Day 2020; Menelaou et al. 2016; Alram-Stern/Horejs 2018), a more comprehensive picture will be achieved from the development of similar projects in the region. Apart from pottery, other artefact categories are circulated from West to East during the EBA (see papers in Marthari et al. 2019).

# 5.1. Ceramic and Other Developments in the Early Bronze Age I Period (ca. 3000/2700 to 2650 BCE)

The material culture of EBA I in the eastern Aegean/western Anatolia displays continuity in terms of ceramic developments with the preceding Chalcolithic period, although various regional traditions exist, raising controversies in the relative chronology. This phase is often labelled 'Maritime Culture of Troy' or the beginning of the 'Northern and Eastern Aegean Culture' (Kouka 2002, 295-302) on the basis of an assumed cultural koine throughout the north and east Aegean. Unfortunately, no substantial evidence of EBA I exists in the Dodecanese islands, apart from some sparse pottery from Kos. During this period, evidence suggests a busy social environment with a densely inhabited landscape, as indicated by an increase in the number of settlements. The sites were located in diverse landscapes, such as in close proximity with riverbanks and water sources in general and large arable lands (Heraion-Samos, Liman Tepe), at the foothills of mountains, or on low coastal hills (Poliochni-Lemnos, Thermi-Lesbos, Troy). The increase of settlements can be explained by the change in the socio-economic structures during the EBA, when the subsistence economy was not only expanded beyond the household-based agricultural level, but was also marked by the establishment of olive and vine cultivation (Margaritis 2013). Significant developments are also noticed in craft technologies. This is evidenced in the more diverse exploitation

of materials – increase of exploited local resources for lithic and ceramic manufacture and exchange of raw materials and finished products (obsidian, marble figurines and vessels, metal artefacts, bone tubes, pestles) from broader sources - and the operation of more specialised communities of practice (potters, metalworkers, and other craftsmen), in addition to changes in town planning (e.g. Sotirakopoulou 2008a; 2008b, 71 f.; Fidan et al. 2015; Kouka 2016a; new settlement type named by Korfmann (1983, 222 f.) in Troy as the 'Anatolian Settlement Plan' and recently renamed by Gündoğan as 'Aegean Settlement Pattern', distinguishing settlement pattern differences between coastal western Anatolia/Aegean and inland western Anatolia). This radially-arranged settlement type with closely-spaced, long-room houses sharing common walls and being surrounded by stone-built enclosures replaced the previous structural layout of independent, free-standing domestic units. However, recent data show that this type of row house was not common only in western Anatolia in this particular period (Demircihüyük, Beycesultan, Bakla Tepe, Liman Tepe VI), but also in the nearby islands (Thermi I-III, Heraion 5-1) (Gündoğan 2020). Apart from the settlement organisation and diachronic use of successive architectural levels (Fidan et al. 2015, 67, fig. 2; Kouka 2002, 296, 304; 2016a, 206), changes also occur in the construction techniques used, especially of the communal buildings or special buildings with a political/economic significance, involving stronger stone foundations with a mudbrick superstructure, presumably suggesting a well-established land ownership and inheritance on a private and communal level (Kouka 2016b).

In terms of pottery, there is no common agreement regarding the distinction between Late Chalcolithic and EBA I traditions. To a certain degree, this is an effect of the lack or bad preservation of related Chalcolithic contexts at many sites, and in essence, the continuation of the shape repertoire into EBA I (*fig. 3A–B*). Regional differences do occur, as for instance is the case of the Kampos Group in the Cycladic late EBA I tradition (e.g. Day et al. 2012) or the various pottery styles in the Anatolian regions (Fidan et al. 2015, 68 f.), but the traditional consensus of the existence of specialised pottery manufacture during



A. Carinated bowl with perforated trumpet lug; B. Carinated bowl with horned lug; C. Red-slipped pithoid jars made in volcanic fabric; Collared jar made in sandy metamorphic fabric.

Fig. 3. Characteristic local and imported pottery of the EBA I period from the Heraion-Samos (own creation).

this period is not directly reflected. A good ceramic and chronological correlation is provided between the Kampos Group late EBA I/early EBA II with later Poliochni Blue-Lemnos on the presence of fruitstands/chalices. Liman Tepe has the first secure Cycladic imports during the Anatolian EBA I (LT VI:1), in the form of frying pans, dark-on-light pyxides, and urfirnis sauceboats, that are correlated with the Early Cycladic (EC) I/II early (Şahoğlu 2011). Poliochni-Lemnos is interpreted as a sea-oriented Anatolian-style community with major contacts with mainland Greece and the Cyclades, as suggested also by potential ceramic imports in the Blue Period (Cultraro 2004b, 27), while Thermi-Lesbos is characterised as an outpost of Anatolia with ceramic features extending from northwest Anatolia/Troad region and the Lydian ceramic zone of the Madra River Delta (Spencer 1995, 293, 295; Lambrianides/Spencer 1997, 83), but still with apparent Cycladic elements and imports (e.g. marble artefacts, metal artefacts during Towns I and II). Additional evidence for the

circulation of Aegeanising ceramic artefacts towards the east is found in the Troad region (Troy I; Bozköy-Hanaytepe), through the identification of urfirnis and the so-called east Aegean ware, presumably imported from mainland Greece or the Cyclades (Yilmaz 2013, 868 f.). In addition, the Scored ware at mid-late Troy I and II (Blegen et al. 1950, 39, 53 f., 222), and Halasarna on Kos (Georgiadis 2012, 24 f.). Troy, interchangeably described as a typical EBA Aegean, western Anatolian, or eastern Aegean settlement to denote its shared material culture with other key sites of this part of the Aegean World, further represents 'a culturally and ideologically uniform character' during the first half of the 3<sup>rd</sup> mill. BCE (Ünlüsoy 2016, 399). EBA I-II potential imports from the Cyclades or mainland Greece are also attested at Emporio VII-II-Chios (Obsidian Ware, Hood 1981, 168 f.).

The analytical evidence from the interdisciplinary project on Heraion-Samos provides a preliminary informative picture of ceramic movement from western Anatolia already in EBA I. According

to fabric parallels (Peloschek 2016, 192 f., fig. 2), perhaps a handful of ceramic vessels are imported from the gateway community of Çukuriçi Höyük during the Late Chalcolithic or EBA I. This is represented by a few jars in a sand-tempered metamorphic fabric (fig. 3D), perhaps circulated for their content, although this could be presumably supported with organic residue analysis. Petrographic analysis of these ceramic vessels suggests a non-local provenance, while functionally similar pots are made in other fabrics. Other distinctive ceramic classes of pithoid jars and wide-mouthed jars in a different fabric and surface treatment also derive from southwest Anatolia (perhaps the area between Miletus and the Bodrum peninsula) but their provenance will become clearer once more material is analysed from the aforementioned geographical area (fig. 3C; Menelaou 2020). More ceramic links are reflected in terms of style and vessel form, which point towards an overall 'eastern Aegean tradition'.

# 5.2. Ceramic and Other Developments in the Early Bronze Age II Period (ca. 2700/2650 to 2300 BCE)

The EBA II Period is the longest phase of the 3<sup>rd</sup> mill. BCE and can be roughly distinguished into an early and a late phase. EBA II early, corresponding to Keros/Syros culture or EC IIA in the Cyclades, has been aptly described by Renfrew (Renfrew 1972, 451) as encompassing an 'International Spirit', being characterised by important social, economic, and technical advances. The distinctive character of EBA II can be well-attested in the cultural transformations, already established in the preceding phase, and can be summarised as follows (Broodbank 2000, 279–283; Kouka 2002, 11 f., 295–302; 2009, 141; 2016a; Şahoğlu 2005; Fidan et al. 2015, 70–74):

- a) The rise of well-organised societies and more complex specialised industries (e.g. metallurgical industries of tin bronze, obsidian, textile manufacture);
- b) The development of central, supra-regional, and early urban sites and growth of many major settlements between 3.5 and 6.0ha (e.g. Heraion-Samos, Liman Tepe);

- c) The expansion of close interconnections and wide-ranging communication within the framework of long-distance, canoe-based exchange networks;
- d) The evolution of larger, fortified settlements with communal works and monumental architecture;
- e) The development of ranked or stratified communities (status differentiation, differential access to natural resources, uneven distribution of prestige goods);
- f) The emergence of administration and standardised systems of measuring and weighing;
- g) Developments in crafts such as metallurgy (silver production) and pottery manufacture.

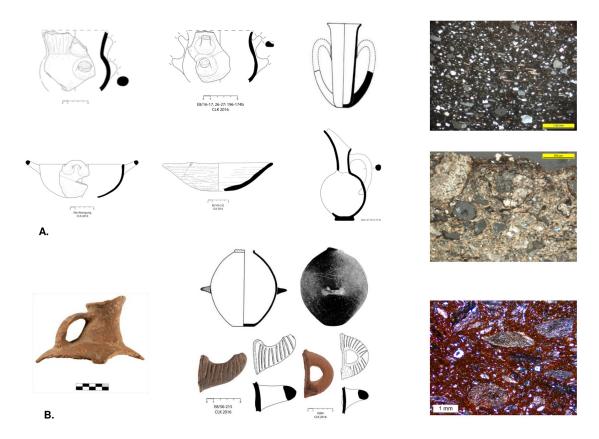
The aforementioned developments have been seen as evidence for the emergence of social, political, and economic complexity during this phase, attributed either to theories that favour a self-determined internal process or resulting from the multi-factor interplay between societal systems, advantageous places, and external stimuli. For instance, Broodbank (2000, 247) has long proposed the importance of Aegean maritime activity in the Cyclades and the participation of trade networks, controlled by specialised island centres and individuals, such as navigators and traders/ merchants, while Nakou (2007) has emphasised the role of metals and their socio-cultural impact in long-distance trade and their use as status items by the elite. Such elite-controlled communication routes are suggested to have been stretching along the Upper Meander valley (Oğuzhanoğlu 2019). Moreover, Kouka (2002, 305) has pointed out the involvement of metalworkers of Thermi, Poliochni, and Liman Tepe in trade (Kouka 2013, 570; 2016a, 218), as Cycladic imports/exotica occur in these workshops in multiple phases of use. Such cultural dialectics are reflected in architecture and the construction of the so-called storage facilities or communal buildings with a specialised function and other buildings with an administrative role and political/economic significance, found at Poliochni Blue-Yellow (Bouleuterion/Communal Hall, Granary/Communal Storage, Megaron 317; Kouka 2002, 50, 75, 93, 116, 308; 2016b, 132 f.), Thermi I-IIIB and Thermi V (Buildings A and Θ respectively; Kouka 2002, 167 f., 179, 194, 237; Lambrianides 2007), Heraion I-III (Grossbau, *Zyklopischer Bau*; Milojčić 1961, 27; Kouka 2002, 287, 290), Troy II (Megaron IIA), Liman Tepe II (Kouka 2009, 147; 2013, 571 f.), and EBA II Küllüoba (Complex I–II; Efe 2007, 49 f., figs. 4, 6).

This period has been defined on the basis of a number of artefact categories found around the Aegean and follows theoretical assumptions that favour the circulation of certain ceramic wares/ types. Although relatively rare, the more common among the Cycladic pottery finds in the northeast Aegean and western Anatolia are frying pans, pyxides, urfirnis sauceboats, dark-on-light painted ware, transport collared jars with slashed handles, and beaked jugs (Sotirakopoulou 2008a, 541; 2008b, 74 f.; Şahoğlu 2011; Day/Wilson 2016; Menelaou/ Day 2020). The Cycladic sphere acquired a significant role during Poliochni Green and Red (Bernabò Brea 1964, 409, pl. CXXX:g) and imports from the Keros/Syros culture are also found in Thermi III (Cultraro 2004b; Lamb 1936, 177 f., 208, fig. 51, marble vessels), Emporio V-IV (Hood 1981-1982, 402, fig. 182, pl. 73, no. 1233, 417, pl. 78:a4), the Halasarna region on south-central Kos (possible sauceboats, Georgiadis 2012, 88 f., 128 Kt. 62-63, fig. 4), late Troy I (Blegen et al. 1950, 53–55), Liman Tepe VI–V (Day et al. 2009, 341 f.), and recent finds also as far as at Laodikeia/Kandilkırı (Oğuzhanoğlu 2019, fig. 6). In Thermi IV–V, corresponding to the end of the EBA II period, there observed a technological change in the ceramic production (class C), originally explained as the outcome of shifting spheres of interaction from the Anatolian mainland to Macedonia and the Aegean (Lambrianides/ Spencer 1997, 85 f.; one sauceboat: Lamb 1936, 91, fig. 32.521).

The later part of EBA II (ca. 2500–2000 BCE) has received ample attention in archaeological scholarship as reaching the zenith of cultural interactions and exchange. Various names have been given to describe the introduction and distribution of a set of new drinking and serving ceramic vessels (tankard, bell-shaped cup, short-necked cup, depas amphikypellon, shallow bowl and plate, cut-away and lentoid beak-spouted jug) and other technological advances (e.g. potter's wheel). These features are found in a wide geographical area on both sides of the Aegean Sea – extending from southeastern Anatolia via central and western Anatolia littoral, and spread from there to the east Aegean islands

(Lemnos, Chios, Samos) towards the Cyclades, and the eastern margins of mainland Greece – the 'Lefkandi I/Kastri Group' in Helladic/Cycladic terms (Rutter 1979, 1–8; Renfrew 1972, 180–183, 533 f.) or the 'Anatolian Trade Network' Period in western Anatolian terms (Şahoğlu 2005). Apart from Şahoğlu's sea-route based cultural scheme, an opposite counterpart inland trade route, connecting Cilicia with the north Aegean, has been proposed to exist in the same period, known as the 'Great Caravan Route' (Efe 2007, fig. 18).

These drinking and serving shapes (fig. 4) have been characterised as Anatolianising when found outside Anatolia, for they have been taken to represent imitations of Anatolian prototypes and the broad impact of the 'other/foreigner', at least largely in the central and west Aegean. This term also implies the supremacy of the mainland as opposed to the inferiority of islands in the west of the Anatolian core. The vital geographical position of the east Aegean islands and their participation in long-established communication arteries – better observable in ceramic links between Lemnos and the Troad, between Chios and the Izmir region, between Samos and the upper Meander region – suggests a dynamic relationship between these areas. In the light of new analytical work at Heraion-Samos, this so-called intrusive, large-scale ceramic phenomenon seems to be, inconsistent in terms of its introduction and distribution, as well as associations of context, chronology, and possibly also use, and the appearance of these novel shapes and technologies could be both the outcome of indigenous appropriation of foreign styles and the movement of serving/drinking/transport vessels from various off-island sources circulated through varied exchange mechanisms (Menelaou 2018; Menelaou/Day 2020, 59 f.). The diffusion of such ceramic innovations is then linked to the adoption of the potter's wheel, which requires a systematic learning and practice process and the knowledge transfer through motor and cognitive skills from the potter to the apprentice (Choleva 2018). Although representing only minimal quantities within the local Heraion-Samos assemblage, it is noteworthy that the imports correspond to a large number of non-local fabrics with a known or suspected geological provenance or fabrics where the origin of production have yet to be determined



A. Anatolian/Anatolianising drinking and serving ceramic vessels made in non-local petrographic fabrics; B. Cycladic shapes (beaked jugs and collared transport jars with incised handles) made in non-local petrographic fabrics with provenance on various central Aegean islands.

Fig. 4. Characteristic local and imported pottery of the EBA II period from the Heraion-Samos (own creation).

(ca. 25% of the analysed thin sections). We observe a continuing connection possibly with Miletus and further Anatolian fabric parallels such as the calcite-tempered and mica-rich fabrics that correspond with drinking vessels (tankards and bell-shaped cups). Potential imports of drinking and serving vessels from Liman Tepe and Aphrodisias have also been typologically and macroscopically³ identified, and these data clearly demonstrate consumption choices involving a similar range of vessels across different Anatolian sites. At the same time, we see central Aegean ceramics reaching Samos from many Cycladic islands in the form of storage and drinking vessels, perhaps related

to the consumption of the transported liquid contents (Menelaou/Day 2020). Compared to EBA I, there is indeed an increased connectivity visible through the appearance of ceramic drinking sets and transport vessels, translated in the circulation of a larger range of shapes and the identification of a number of central Aegean and western Anatolian production centres.

## 5.3. Ceramic and Other Developments in the Early Bronze Age III Period (ca. 2300 to 2000 BCE)

The cultural features outlined above become more intense in EBA IIIA, with common developments appearing over a large area from inland western Anatolia towards the Aegean coastline and beyond. All the developments brought about within this newly-established relation between distant regions, are decreased with the advent of EBA IIIB (ca. 2200–2000/1950 BCE; also known as

<sup>3</sup> Observations were made through visits at the Izmir Archaeological Museum and the Aphrodisias Museum in the framework of a post-doctoral fellowship at Koç University, Research Center for Anatolian Civilizations (Istanbul, Turkey). I would also like to thank Prof. V. Şahoğlu (Ankara University) and Assist. Prof. U. Oğuzhanoğlu (Pamukkale University) for their hospitality during my visits in Urla and Denizli respectively.

Transitional Period to the MBA), which sees the end of prosperity marking EBA II late (2500–2300 BCE) and EBA IIIA (ca. 2300–2200 BCE) in the eastern Aegean/western Anatolia.

This period is characterised by important transformations in the cultural and political system of western Anatolia, which, on the basis of architectural and ceramic evidence, continues to be more oriented towards the Aegean than central Anatolia (Fidan et al. 2015, 74–76). During the late EBA III, a series of destructions and abandonments are noted, possibly showing evidence of a short occupation gap or significant re-organisations in some sites of western Anatolia (e.g. Troy III-IV, Liman Tepe, Beycesultan, Aphrodisias, Tavşan Adası, Tarsus). Similar abandonments and gaps are noted at Poliochni Yellow-Brown and Emporio (Kouka 2002, 99) and mainland Greece (Alram-Stern 2004, 522-534). Major changes are also evidenced in the decline of the once strong urban centres and the abandonment of their monumental administrative buildings, such as Liman Tepe IV and Heraion III/IV (Zyklopischer Bau), in EBA IIIB, presumably affected by the contraction of the 'Anatolian Trade Network' (Şahoğlu 2005, 354; Kouka 2013, 573-577) and general displacement of trading networks, as well as due to climate changes (4.2ka BP climatic event) that further led to changes in the social relations (Massa/Şahoğlu 2015, 72; Rahmstorf 2015, 149).

Regarding ceramic developments, there seems to be an abrupt change in EBA III at many Aegean and Anatolian sites. More particularly, the shape repertoire is greatly enriched with new types (fig. 5), technological changes are observed in various stages of the manufacturing procedure such as the use of finer clays or more careful processing by the potters, occasionally a shift towards more calcareous clays that give the final product a light-coloured fabric, achievement of higher temperatures and better controlled firing strategies (Kouka/Menelaou 2018, 131–133, fig. 5). All these are usually interpreted as the result of a more specialised and standardised ceramic production. Strong ceramic links are observed in the appearance of regional types, such as red-slipped/ burnished shallow bowls, bowls with S-shaped rim, wheel-made plates, one-handled pedestal

'strainers', neck-handled ovoid jugs with trumpet mouth, strap-handled or handleless cups with a metallic-looking appearance, collared jars with horizontal handles, and crown lids (Kronendeckel). These types are circulated on Samos and the Dodecanese islands (Vathy Cave-Kalymnos, Serraglio-Kos, Asomatos-Rhodes), as well as the southwest Anatolian coast, especially along the Meander River valley (Aphrodisias Phase 4, Cine Tepecik, Miletus IIc-III, Beycesultan XIIa-XI, Iasos, Tavşan Adası Phase 2, Laodikeia-Kandilkırı), and occasionally at Troy III-IV and Poliochni Yellow (for references on parallels see Menelaou 2018; Kouka/Menelaou 2018). EBA IIIB dark-onlight pattern-painted ware (shallow bowls, askoi, collar-necked jars) is another interaction marker of the Dodecanese islands (Kalymnos: Benzi 1997, 390–393, pls. 3d–e, 4a–b; Rhodes: Marketou 1990, 42 f.) with the Cyclades (Phylakopi II-i-Melos) and Kolonna F-Aegina (Gauss/Smetana 2007, 454 f., figs. 8:1928–1929, 11:19/28/3, 13:4–7,8–10) in the western Aegean, with recent finds also from Samos (Milojčić 1961, pls. 23:1, 48:27–28; Menelaou 2018) expanding our previous idea of pottery circulation in the end of the 3rd mill. BCE.

More connections with the Cyclades are also observed with the circulation of Cycladic/Cycladicising shapes, such as incised spherical or truncated conical pyxides and askoi/duck vases (Sotirakopoulou 2008a, 548 f.; 2008b, 88 f.). Again, these shapes find very close parallels in the Dodecanese. The identification of imports on Samos from various central Aegean islands, some of which imply the continuation in contacts from the EBA II period, further supports the claim that communications between east and west were facilitated and expanded through the incentive of Cycladic seafarers in the context of resource exploitation and trade (Sotirakopoulou 2008b, 69). Nevertheless, this does not exclude the active role of equivalent seafarers from the east Aegean islands or western Anatolian littoral, given the dissemination of the potter's wheel and Anatolianising pottery during EBA II late.

The appearance and spread of novel, continuing, or even hybridised ceramic developments seems to relate to the preceding changes occurred as part of the intensification of contacts between



A. Southeast Aegean/Southwest Anatolian ceramic forms and related petrographic fabric; B. Cycladic ceramic forms and related petrographic fabric.

Fig. 5. Characteristic local and imported pottery of the EBA IIII period from the Heraion-Samos (own creation).

the Aegean and western Anatolia. Shifts in connectivity patterns of EBA III and the intense geographical distribution of mostly drinking and serving vessels suggest the establishment of a strong regional network of interactions, which enabled the spread of common practices and knowledge transfer, perhaps in the context of new consumption behaviours, identity negotiation, and social display. These morphological and technological changes (innovations in pyrotechnology, finishing techniques and decoration modes, forming techniques and the increase in use of the potter's wheel) and regional similarities document the transfer of technological knowledge through a face-to-face interaction that could only be disseminated by the mobility of potters (e.g. Choleva 2018). However, despite certain changes in the operational sequence of the production of these shapes, they are locally-made on Samos and perhaps also at other neighbouring sites mentioned above, but their overall visual and technological similarities reflect the recognition of a discrete socio-cultural identity.

## 6. Concluding Remarks: East Aegean Island Borderlands or Gateway Interaction Zones?

As well-defined physical spaces, islands, and in this case, the east Aegean archipelago, provide useful units in the study of connectivity both with other islands and adjacent mainland under the lens of the coastscape concept. In contrast with other archipelagos outside the Mediterranean, the boundaries between insular and non-insular areas in the east Aegean are blurred, and perhaps sometimes these island communities are only spatially disconnected from the nearby mainland. This is reflected in modern archaeological scholarship, where the whole region is interchangeably termed as eastern Aegean or Aegean/Anatolian coast, under the influence of modern narratives. In fact, they are culturally and socio-economically connected in prehistory as a result of advances in technologies of mobility and the advent of sailing and maritime communication, and thus increase in the islands' exposure to various kinds of influences. Nevertheless, the scales and modes of connectivity might have been experienced differently and transformed over different periods of time for different islands. This paper investigated how this is reflected in pottery through a micro-scale approach with emphasis on Samos Island. The diachronic analysis of total ceramic assemblages as markers of interaction has proven to be a very effective approach, particularly when combined with the examination of comparative data in the identification of imports. The current evidence from Samos and other east Aegean islands suggests a busy seascape and shifting maritime activity, with changing intensities and interaction spheres from the EBA I to the EBA III, where these islands are often thought of as intermediaries in communications with the western Aegean and Anatolia. However, recent data on both the islands and the Anatolian coastlands suggest that human presence and dispersed contacts with other regions are attested as early as the late Pleistocene-early Holocene, strongly indicated by the circulation of Melian obsidian. Following a ceramic perspective, it is hereby argued that maritime identity in the east Aegean region was constantly transformed to meet social circumstances, where the offshore islands have always been in contact with the Anatolian littoral and held a strong visual meaning as part of the everyday field of view and cognitive horizon for the opposite mainland since at least the establishment of more permanent settlements during the Neolithic period and the westward diffusion of the Neolithisation process (Horejs et al. 2015). It should be imagined that the common experiences created through such a bilateral relationship in the sense of a coherent world, established through social memory and knowledge of existing geographical routes, must have formed a communal identity (see Tartaron 2018, 74), that was dramatically transformed with the political separation of Greece (islands) and Turkey (coasts) after 1923. It is, therefore, important to keep in mind that due to their exposure to various kinds of influences and their crucial location in established communication arteries between east and west (Agouridis 1997; Papageorgiou 2002), the islands tend to have multiple spatial, cultural, and temporal dimensions in the context of economic activities or social negotiation and other

circumstances. As such, they are described here as gateway hubs of interaction and exchange. Rather than understanding east Aegean islands as entities bounded as a consequence of their environmental properties or as frontiers and borders abiding to changes, they should be examined as contact zones being constantly inter-connected and transformed, where the sea acts as a unifying medium. Whatever the motives were, east Aegean seafarers were actively engaged with other island and continental communities through mobility and the exchange of products, technologies, and ideas. Perhaps those in charge of these communications, often termed the 'elites', were simply the navigators, the ones in direct communication with equivalent seafarers in the west (Cyclades) or even encompassing other human agents for various purposes (e.g. merchants, traders and metalworkers, craftspeople). Whether these Aegean-Anatolian interactions, at least in the EBA II, were initiated and maintained by Cycladic seafarers requires further research.

Finally, this review suggests that simple concepts of connectedness and separateness do not provide sufficient theoretical frameworks for understanding the micro-scale histories of islands, as there is a tendency to study islands as comparable units, often ignoring existing diversities and variations between one another and to downgrade islands to a standing under that of continents. With the ever-increasing data, our current hypotheses regarding the movement of materials and people will change in the following years with methodologically more holistic projects. This paper has, hopefully, demonstrated the geographical and historical significance of the east Aegean islands and that connectivity is not an immutable geographical state, despite the impact of modern narratives and artificial sense of marginality in the region.

#### Sergios Menelaou

University of Cyprus
Department of History and Archaeology
Archaeological Research Unit
20537 CY – 1678 Nicosia, Cyprus
menelaou.sergios@ucy.ac.cy

#### **Bibliography**

- Agouridis 1997: C. Agouridis, Sea Routes and Navigation in the Third Millennium BC Aegean. Oxford Journal of Archaeology 16.1, 1997, 1–24.
- Albertazzi et al. 2021: G. Albertazzi/G. Mutti/A. Saggio. Islands in Dialogue (Islandia). Proceedings of the First International Postgraduate Conference in the Prehistory and Protohistory of the Mediterranean Islands (Rome 2021).
- Alram-Stern 2004: E. Alram-Stern, Die Ägäische Frühzeit, 2. Serie, Forschungsbericht 1975–2003, Band 2: Die Frühbronzezeit in Griechenland mit Ausnahme von Kreta. Veröffentlichungen der Mykenischen Kommission 21 (Vienna 2004).
- Alram-Stern/Horejs 2018: E. Alram-Stern/B. Horejs, Pottery Technologies in the Aegean and Anatolia during the 3<sup>rd</sup> Millennium BC. An Introduction. In: E. Alram-Stern/B. Horejs (eds.), Pottery Technologies and Sociocultural Connections between the Aegean and Anatolia during the 3<sup>rd</sup> Millennium BC. Oriental and European Archaeology 10 (Vienna 2018) 9–21.
- *Archontidou-Argyri 2006*: A. Archontidou-Argyri, Psara. In: A.G. Vlachopoulos (ed.), Archaeology. Aegean Islands (Athens 2006) 136–137.
- Atakuman et al. 2020: C. Atakuman/B. Erdoğu/H.C. Gemici/İ. Baykara/M. Karakoç/P. Biagi/E. Starnini/D. Guilbeau/N. Yücel/D. Turan/M. Dirican, Before the Neolithic in the Aegean. The Pleistocene and the Early Holocene record of Bozburun– Southwest Turkey. The Journal of Island and Coastal Archaeology, 2020, 1–33.
- Benzi 1997: M. Benzi, The Late EBA Finds from Vathy Cave (Kalymnos) and their Links with the NE Aegean. In: C.G. Doumas/V. La Rosa (eds.), Η Πολιόχνη και η Πρώιμη Εποχή του Χαλκού στο Βόρειο Αιγαίο, Διεθνές Συνέδριο, Αθήνα 22–25 Απριλίου 1996. Scuola Archaeologica Italiana di Atene, University of Athens (Athens 1997) 383–394.
- *Benzi 2020*: M. Benzi, An Island in Prehistory. Neolithic and Bronze Ages Finds from Kalymnos Dodecanese (Athens 2020).
- Berg 2019: I. Berg, The Cycladic and Aegean Islands in Prehistory (New York 2019).
- Bernabò Brea 1964: L. Bernabò Brea, Poliochni. Città preistorica nell'isola di Lemnos, I. Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente 1 (Rome 1964).
- Bernabò Brea 1976: L. Bernabò Brea, Poliochni. Città preistorica nell'isola di Lemnos, II. Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente 3 (Rome 1976).
- Blegen et al. 1950: C. W. Blegen/J. L. Caskey/M. Rawson/J. Sperling, Troy I. Introduction. The First and Second Settlements (Princeton 1950).
- *Broodbank 1993*: C. Broodbank, Ulysses without Sails. Trade, Distance, Knowledge and Power in the Early Cyclades. World Archaeology 24.3, 1993, 315–331.
- Broodbank 1999: C. Broodbank, Colonization and Configuration in the Insular Neolithic of the Aegean. In: P. Halstead (ed.), Neolithic Society in Greece. Sheffield Studies in Aegean Archaeology 2 (Oxford 1999), 15–41.
- Broodbank 2000: C. Broodbank, An Island Archaeology of the Early Cyclades (Cambridge 2000).
- *Broodbank 2008*: C. Broodbank, The Early Bronze Age in the Cyclades. In: C. W. Shelmerdine (ed.), The Cambridge Companion to the Aegean Bronze Age (Cambridge 2008) 47–68.
- Broodbank 2010: C. Broodbank, 'Ships a-sail from over the rim of the sea'. Voyaging, Sailing and the Making of Mediterranean Societies c. 3500–800 BC. In: A. J. Anderson/J. H. Barrett/K. V. Boyle (eds.), The Global Origins and Development of Seafaring. McDonald Institute Monographs (Cambridge 2010) 249–264.

- *Çevik/Erdoğu 2020*: Ö. Çevik/B. Erdoğu, Absolute Chronology of Cultural Continuity, Change and Break in Western Anatolia between 6850–5460 cal. BC. The Ulucak Höyük Case. Mediterranean Archaeology and Archaeometry 20.1, 2020, 77–92.
- Cherry 1985: J. F. Cherry, Islands out of the Stream. Isolation and Interaction in Early Mediterranean Insular Prehistory. In: A. B. Knapp/T. Stech (eds.), Prehistoric Production and Exchange. The Aegean and Eastern Mediterranean. UCLA Institute of Archaeology Monograph 25 (Los Angeles 1985) 12–29.
- Cherry/Leppard 2014: J. F.Cherry/T. P. Leppard, A Little History of Mediterranean Island Prehistory. In: A.B. Knapp/P. van Dommelen (eds.), The Cambridge Prehistory of the Bronze and Iron Age Mediterranean (Cambridge 2014) 10–24.
- Choleva 2018: M. Choleva, Craft Behaviours during a Period of Transformations. The Introduction and Adoption of the Potter's Wheel in Central Greece during Early Bronze Age. In: I. Caloi/C. Langohr (eds.), Technology in Crisis. Technological Changes in Ceramic Production during Periods of Trouble (Louvain 2018) 45–74.
- *Çilingiroğlu et al. 2016*: Ç. Çilingiroğlu/B. Dinçer/A. Uhri/C. Gürbıyık/İ. Baykara, New Palaeolithic and Mesolithic Sites in the Eastern Aegean. The Karaburun Archaeological Survey Project. Antiquity 90.353, 2016, 1–6.
- Constantakopoulou 2007: C. Constantakopoulou, The Dance of the Islands. Insularity, Networks, the Athenian Empire and the Aegean World (Oxford 2007).
- *Cultraro 2004a*: M. Cultraro, Islands Out of Time. Richness and Diversity of Prehistoric Studies on the Northern Aegean. Bulletin de Correspondance Hellénique 46, 2004, 279–290.
- *Cultraro 2004b*: M. Cultraro, Island Isolation and Cultural Interaction in the EBA Northern Aegean. A Case Study from Poliochni (Lemnos). Mediterranean Archaeology and Archaeometry 4.1, 2004, 19–34.
- *Davis 1992*: J.L. Davis, Review of Prehistory I. The Islands of the Aegean. American Journal of Archaeology 96.4, 1992, 699–756.
- Dawson 2011: H. Dawson, Island Colonisation: Settling the Neolithic Question. In: N. Phoca-Cosmetatou (ed.), The First Mediterranean Islanders. Initial Occupation and Survival Strategies (Oxford 2011) 31–53.
- Dawson 2016: H. Dawson, 'Brave New Worlds'. Islands, Place-Making and Connectivity in the Bronze Age Mediterranean. In: B. P. C. Molloy (ed.), Of Odysseys and Oddities. Scales and Modes of Interaction between Prehistoric Aegean Societies and their Neighbours (Oxford 2016) 323–341.
- *Dawson 2019*: H. Dawson, As Good as It Gets? Optimal' Marginality in the Longue Durée of the Mediterranean Islands. Journal of Eastern Mediterranean Archaeology & Heritage Studies 7.4, 2019, 451–465.
- Day/Wilson 2016: P. M. Day/D. Wilson, Dawn of the Amphora. The Emergence of Maritime Transport Jars in the Early Bronze Age Aegean. In: S. Demesticha/A. B. Knapp (eds.), Maritime Transport Containers in the Bronze-Iron Age Aegean and Eastern Mediterranean (Uppsala 2016) 17–37.
- Day et al. 2009: P. M. Day/C. G. Doumas/H. Erkanal/V. Kilikoglou/O. Kouka/M. Relaki/V. Şahoğlu, New Light on the 'Kastri Group'. A Petrographic and Chemical Investigation of Ceramics from Liman Tepe and Bakla Tepe. Arkeometri Sonuçları Toplantısı 24, 2009, 335–347.
- Day et al. 2012: P. M. Day/A. Hein/L. Joyner/V. Kilikoglou/E. Kiriatzi/A. Tsolakidou/D. E. Wilson, Appendix A. Petrographic and Chemical Analysis of the Pottery. In: C. Davaras/P.P. Betancourt (eds.), The Hagia Photia Cemetery II. The pottery. Prehistory Monographs 34 (Philadelphia 2012) 115–146.
- Dickinson 1994: O. Dickinson, The Aegean Bronze Age (Cambridge 1994).
- *Dietz et al. 2018*: S. Dietz/F. Mavridis/Z. Tankosic/T. Takaoğlu, Communities in Transition. The Circum-Aegean Area during the 5<sup>th</sup> and 4<sup>th</sup> Millennia BC (Oxford 2018).

- Doumas 2004: C. Doumas, Aegean Islands and Islanders. In: J. F. Cherry/C. Scarre/S. Shennan (eds.), Explaining Social Change. Studies in Honour of Colin Renfrew. McDonald Institute Monograph Series (Cambridge 2004) 215–226.
- Doumas/La Rosa 1997: C. G. Doumas/V. La Rosa (eds.), Η Πολιόχνη και η Πρώιμη Εποχή του Χαλκού στο Βόρειο Αιγαίο, Διεθνές Συνέδριο, Αθήνα 22–25 Απριλίου 1996 (Athens 1997).
- *Dreliosi-Irakleidou 2006*: A. Dreliosi-Irakleidou. Patmos, Leipsoi. In: A. G. Vlachopoulos (ed.), Archaeology. Aegean Islands (Athens 2006) 332–333.
- *Efe* 2007: T. Efe, The Theories of the 'Great Caravan Route' between Cilicia and Troy. The Early Bronze Age III Period in Inland Western Anatolia. Anatolian Studies 57, 2007, 47–64.
- *Efstratiou et al. 2013*: N. Efstratiou/P. Biagi/P. Karkanas/E. Starnini, Discovery of a Late Palaeolithic Site at Ouriakos (Island of Limnos, Greece) in the north-eastern Aegean Sea. Antiquity Project Gallery 87, 2013, 335.
- *Ellis-Evans 2019*: A. Ellis-Evans, The Kingdom of Priam. Lesbos and the Troad between Anatolia and the Aegean (Oxford 2019).
- *Erdoğu 2016*: B. Erdoğu, The Neolithic Landscape and Settlement of the Island of Gökçeada (Imbros, Turkey). In: M. Ghilardi (ed.), Géoarchéologie des îles de Méditerranée (Paris 2016) 89–94.
- Erkanal et al. 2008: H. Erkanal/H. Hauptmann/V. Şahoğlu/R. Tuncel (eds.), The Aegean in the Neolithic, Chalcolithic and the Early Bronze Age. Proceedings of the International Symposium, October 13<sup>th</sup>–19<sup>th</sup> 1997, Urla İzmir (Turkey). Ankara University, Research Center for Maritime Archaeology (Anküsam) Publication 1 (Ankara 2008).
- Evans 1973: J.D. Evans, Islands as Laboratories for the Study of Culture Process. In: A. C. Renfrew (ed.), The Exploration of Culture Change. Models in Prehistory (London 1973) 517–520.
- *Evans 1977*: J. D. Evans, Island Archaeology in the Mediterranean. Problems and Opportunities. World Archaeology 9, 1977, 12–26.
- Felsch 1988: R. C. S. Felsch, Das KastroTigani. Die spatneolithische und chalkolithische Siedlung. Samos II (Bonn 1988).
- Feuer 2016: B. Feuer, Boundaries, Borders and Frontiers in Archaeology. A Study of Spatial Relationships (North Carolina 2016).
- *Fidanet al. 2015*: E. Fidan/D. Sari/M. Türkteki, An Overview of the Western Anatolian Early Bronze Age. European Journal of Archaeology 18.1, 2015, 60–89.
- *Filimonos-Tsopotou 2006*: M. Filimonos-Tsopotou, Nisyros, Τήλος. In: A. G. Vlachopoulos (ed.), Archaeology. Aegean Islands (Athens 2006) 354–357.
- Funke 1999: P. Funke, Peraia: Einige Überlegungen zum Festland besitz griechischer Inselstaaten. In: V. Gabrielsen/P. Bilde/T. Engberg-Pedersen/L. Hannestad/J. Zahle (eds.), Hellenistic Rhodes. Politics, Culture, and Society (Aarhus 1999) 55–75.
- Galanidou et al. 2016: N. Galanidou/C. Athanassas/J. Cole/G. Iliopoulos/A. Katerinopoulos/A. Magganas/J. McNabb, The Acheulean Site at Rodafnidia, Lisvori, on Lesbos, Greece. 2010–2012. In: K. Harvati/M. Roksandic (eds.), Paleoanthropology of the Balkans and Anatolia. Human Evolution and its Context (Dordrecht 2016) 119–138.
- Gauss/Smetana 2007: W. Gauss/R. Smetana, Early and Middle Bronze Age Stratigraphy and Pottery from Aegina Kolonna. In: M. Bietak/E. Czerny (eds.), The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC. Volume III (Vienna 2007) 451–472.
- *Georgiadis 2012*: M. Georgiadis, Kos in the Neolithic and Early Bronze Age. The Halasarna finds and the Aegean Settlement Pattern. Prehistory Monographs 38 (Philadelphia 2012).

- Gündoğan 2020: Ü. Gündoğan, The 'Aegean Settlement Pattern' in Coastal Western Anatolia from the Neolithic Age to the End of the 3<sup>rd</sup> Millennium BC. Türkiye Bilimler Akademisi Arkeoloji Dergisi, TÜBA-AR 27, 29–43.
- Heitz/Stapfer 2017: C. Heitz/R. Stapfer, Mobility and Pottery Production, What for? Introductory Remarks. In: C. Heitz/R. Stapfer (eds.), Mobility and Pottery Production. Archaeological and Anthropological Perspectives (Leiden 2017) 11–38.
- Hill et al. 2001: M. Hill/J. Briggs/P. Minto/D. Bagnall/K. Foley/A. Williams, Guide to Best Practice in Seascape Assessment (Dublin 2001).
- *Hood 1981–1982*: S. Hood, Excavations in Chios 1938–1955. Prehistoric Emporio and Ayio Gala, Volume I–II. The British School of Archaeology at Athens, Supplements 15–16 (Oxford 1981–1982).
- *Horden/Purcell 2000*: P. Horden/N. Purcell, The Corrupting Sea. A Study of Mediterranean History (Oxford 2000).
- Horejs/Mehofer 2014: B. Horejs/M. Mehofer (eds), Western Anatolia before Troy. Proto-Urbanisation in the 4<sup>th</sup> Millennium BC? Proceedings of the International Symposium held at the Kunsthistorisches Museum Wien, Vienna, Austria, 21–24 November, 2012. Oriental and European Archaeology 1 (Vienna 2014).
- *Horejs et al. 2015*: B. Horejs/B. Milic/F. Ostmann/U. Thanheiser/B. Weninger/A. Galik, The Aegean in the Early 7<sup>th</sup> Millennium BC. Maritime Networks and Colonization. Journal of World Prehistory 28, 2015, 289–330.
- Horejs et al. 2018: B. Horejs/S.Japp/H. Mommsen, Early Bronze Age Pottery Workshops Around Pergamon. A Model for Pottery Production in the 3<sup>rd</sup> Millennium BC, In: E. Alram-Stern/B. Horejs (eds.), Pottery Technologies and Sociocultural Connections between the Aegean and Anatolia during the 3<sup>rd</sup> Millennium BC. Oriental and European Archaeology 10 (Vienna 2018) 25–61.
- *Jarriel 2018*: K. Jarriel, Across the Surface of the Sea. Maritime Interaction in the Cycladic Early Bronze Age. Journal of Mediterranean Archaeology 31.1, 2018, 52–76.
- *Knapp 2007*: A. B. Knapp, Insularity and Island Identity in the Prehistoric Mediterranean. In: S. Antoniadou/A. Pace (eds.), Mediterranean Crossroads (Athens 2007) 37–62.
- *Knapp 2008*: A. B. Knapp, Prehistoric and Protohistoric Cyprus. Identity, Insularity and Connectivity (Oxford 2008).
- *Knapp 2018*: A. B. Knapp, Seafaring and Seafarers in the Bronze Age Eastern Mediterranean (Leiden 2018).
- Knapp/van Dommelen 2010: A. B. Knapp/P. van Dommelen, Material Connections. Mobility, Materiality and Mediterranean Identities. In: P. van Dommelen/A.B. Knapp (eds.), Material Connections in the Ancient Mediterranean. Mobility, Materiality and Identity (London 2010) 1–18.
- *Knappett 2013*: C. Knappett, Introduction. Why networks? In: C. Knappett (ed.), Network Analysis in Archaeology. New Approaches to Regional Interaction (Oxford 2013) 3–15.
- *Knappett/Kiriatzi 2016*: C. Knappett/E. Kiriatzi, Technological Mobilities. Perspectives from the Eastern Mediterranean An Introduction. In: E. Kiriatzi/C. Knappett (eds.), Human Mobility and Technological Transfer in the Prehistoric Mediterranean (Cambridge 2016) 1–17.
- *Knappett/Nikolakopoulou 2015*: C. Knappett/I. Nikolakopoulou, Inside Out? Materiality and Connectivity in the Aegean Archipelago. In: A.B. Knapp/P. van Dommelen (eds.), The Cambridge Prehistory of the Bronze and Iron Age Mediterranean (Cambridge 2015) 25–39.
- Knitter et al. 2013: D. Knitter/H. Blum/B. Horejs/O. Nakoinz/M. Meyer, Integrated Centrality Analysis. A Diachronic Comparison of Selected Western Anatolian Location. Quaternary International 312, 2013, 45–56.

- Kohl 2011: P. L. Kohl, World-Systems and Modelling Macro-Historical Processes in Later Prehistory. An Examination of Old and a Search for New Perspectives. In: T. Wilkinson/S. Sherratt/J. Bennet (eds.), Interweaving Worlds. Systemic Interactions in Eurasia, 7<sup>th</sup> to 1<sup>st</sup> Millennia BC (Oxford 2011) 77–86.
- *Kopaka 2009*: K. Kopaka, What is An Island? Concepts, Meanings and Polysemies of Insular Topoi in Greek Sources. European Journal of Archaeology 11.2–3, 2009, 179–197.
- Korfmann 1983: M. Korfmann, Demircihüyük. Die Ergebnisse der Ausgrabungen 1975–1978. Architektur, Stratigraphie und Befunde (Mainz am Rhein 1983).
- *Kouka 2002*: O. Kouka, Siedlungorganisation in der Nord- und Ostägäiswährend der Frühbronzezeit (3. Jt. v.Chr.). Internationale Archäologie 58 (Rahden/Westf. 2002).
- Kouka 2009: O. Kouka, Third Millennium BC Aegean Chronology. Old and New Data from the Perspective of the Third Millennium AD. In: S. W. Manning/M. J. Bruce (eds.), Tree-Rings, Kings, and Old World Archaeology and Environment. Papers Presented in Honor of Peter Ian Kuniholm (Oxford 2009) 133–149.
- Kouka 2013: O. Kouka, 'Minding the Gap'. Against the Gaps. The Early Bronze Age and the Transition to the Middle Bronze Age in the Northern and Eastern Aegean/Western Anatolia. American Journal of Archaeology 117.4, 2013, 569–580.
- Kouka 2014: O. Kouka, Past Stories-Modern Narratives. Cultural Dialogues between East Aegean Islands and Western Anatolian Mainland in the Fourth Millennium BC. In: B. Horejs/M. Mehofer (eds.), Western Anatolia before Troy. Proto-Urbanisation in the 4<sup>th</sup> Millennium BC? Proceedings of the International Symposium held at the Kunsthistorisches Museum Wien, Vienna, Austria, 21–24 November, 2012. Oriental and European Archaeology 1 (Vienna 2014) 43–63.
- Kouka 2016a: O. Kouka, The Built Environment and Cultural Connectivity in the Aegean Early Bronze Age. In: B.P.C. Molloy (ed.), Of Odysseys and Oddities. Scales and Modes of Interaction between Prehistoric Aegean Societies and their Neighbours (Oxford 2016) 203–222.
- Kouka 2016b: O. Kouka, The Embodiment of Land Ownership in the Aegean Early Bronze Age. In: M. Mina/S. Triantaphyllou/Y. Papadatos (eds.), Embodied Identities in the Prehistoric Eastern Mediterranean. Convergence of Theory and Practice (Oxford 2016) 129–135.
- Kouka/Menelaou 2018: O. Kouka/S. Menelaou, Settlement and Society in the Early Bronze Age Heraion. Exploring Stratigraphy, Architecture and Ceramic Innovation after Mid-3<sup>rd</sup> Millennium BC. In: E. Alram-Stern/B. Horejs (eds.), Pottery Technologies and Sociocultural Connections between the Aegean and Anatolia during the 3<sup>rd</sup> Millennium BC. Oriental and European Archaeology 10 (Vienna 2018) 119–142.
- Lamb 1936: W. Lamb, Excavations at Thermi in Lesbos (Cambridge 1936).
- Lambrianides 2007: K. Lambrianides, The Emergence of Complexity in the Madra River Delta. The Example of the EBA Site of Thermi on Lesbos. In: K. Lambrianides/N. Spencer (eds.), The Madra River Delta. Regional Studies of the Aegean Coast of Turkey. The British Institute at Ankara Monograph 35 (Ankara 2007) 67–78.
- Lambrianides/Spencer 1997: K. Lambrianides/N. Spencer, Unpublished Material from the Deutsches Archäologisches Institut and the British School at Athens and Its Contribution to a Better Understanding of the Early Bronze Age Settlement Pattern on Lesbos. The Annual of the British School at Athens 92, 1997, 73–107.
- Lambrinoudakis 1997: V.K. Lambrinoudakis, Βορειοανατολικό Αιγαίο: Νησιά και Περαία. In: C. G. Doumas/V. La Rosa (eds.), Η Πολιόχνη και η Πρώιμη Εποχή του Χαλκού στο Βόρειο Αιγαίο, Διεθνές Συνέδριο, Αθήνα 22–25 Απριλίου 1996 (Athens 1997) 666–677.
- Laskaris et al. 2011: N. Laskaris/A. Sampson/F. Mavridis/I. Liritzis, Late Pleistocene/Early Holocene Seafaring in the Aegean. New Obsidian Hydration Dates with the SIMS-SS Method. Journal of Archaeological Science 38, 2011, 2475–2479.

- Leidwanger/Knappett 2018: J. Leidwanger/C. Knappett, Maritime Networks, Connectivity, and Mobility in the Ancient Mediterranean. In: J. Leidwanger/C. Knappett (eds.), Maritime Networks in the Ancient Mediterranean World (New York 2018)1–21.
- MacArthur/Wilson 1967: R.H. MacArthur/E.O. Wilson, Theory of Island Biogeography (Princeton 1967).
- Mangaloğlu-Votruba 2018: S. Mangaloğlu-Votruba, Conquering the Past, Claiming the Future. Historical and Archaeological Narratives in Western Anatolia. In: S. Gimatzidis/M. Pieniążek/S. Mangaloğlu-Votruba (eds.), Archaeology Across Frontiers and Borderlands. Fragmentation and Connectivity in the North Aegean and the Central Balkans from the Bronze Age to the Iron Age. Oriental and European Archaeology 9 (Vienna 2018) 55–69.
- *Maran/Stockhammer 2012*: J. Maran/P.W. Stockhammer (eds.), Materiality and Social Practice. Transformative Capacities of Intercultural Encounters (Oxford 2012).
- *Margaritis 2013*: E. Margaritis, Distinguishing Exploitation, Domestication, Cultivation and Production. The Olive in the Third Millennium Aegean. Antiquity 87, 2013, 746–757.
- *Marketou 1990*: T. Marketou, Asomatos and Seraglio. Early Bronze Age Production and Interconnections. Hydra 7, 1990, 40-48.
- Massa/Şahoğlu 2015: M. Massa/V. Şahoğlu, The 4.2ka BP Climatic Event in West and Central Anatolia. Combining Palaeoclimatic Proxies and Archaeological Data. In: H. Meller/H. Wolfgang Arz/R. Jung/R. Risch (eds.), 2200 BC A Climatic Breakdown as a Cause for the Collapse of the Old World? 7th Archaeological Conference of Central Germany, October 23–26, 2014 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte 12 (Halle 2015) 61–78.
- Massa/Palmisano 2018: M.Massa/A. Palmisano, Change and Continuity in the Long-distance Exchange Networks between Western/Central Anatolia, Northern Levant and Northern Mesopotamia, ca. 3200–1600 BCE. Journal of Anthropological Archaeology 40, 2018, 65–87.
- *Melas 1985*: E.M. Melas, The Islands of Karpathos, Saros and Kasos in the Neolithic and Bronze Age. Studies in Mediterranean Archaeology 68 (Göteborg 1985).
- Menelaou 2018: S. Menelaou, A Diachronic Study of the Early Bronze Age Pottery from Heraion on Samos, Greece: An Integrated Approach (Unpublished PhD-Thesis University of Sheffield 2018), <a href="http://etheses.whiterose.ac.uk/id/eprint/21398">http://etheses.whiterose.ac.uk/id/eprint/21398</a>> (last access 04.05.2020).
- Menelaou 2020: S. Menelaou, Beyond Networks and Macro-Scale Analysis. Unravelling Micro-Histories of Pottery at Early Bronze Age Samos, Greece through an Integrated Approach. In: I. Miloglav (ed.), Proceedings from the 6<sup>th</sup> International Scientific Conference Methodology and Archaeometry, Zagreb, 6–7 December 2018, Faculty of Humanities and Social Sciences, University of Zagreb, FF-Open Press, 57–69. DOI: https://doi.org/10.17234/METARH.2019.4
- *Menelaou/Day 2020*: S. Menelaou/P.M. Day, Between East and West. Amorgian Pottery in Early Bronze Age Heraion (Samos). Oxford Journal of Archaeology 39.1, 2020, 41–66.
- Menelaou et al. 2016: S. Menelaou/O. Kouka/P. M. Day, Pottery Production and Exchange at the Heraion, Samos during the Late Third Millennium BC. First Steps in the Study of Technology and Provenance. Journal of Archaeological Science, Reports 7, 2016, 480–488.
- *Milojčić 1961*: V. Milojčić, Die prähistorische Siedlung unter dem Heraion. Grabung 1953 und 1955 (Bonn 1961).
- *Momigliano 2012*: N. Momigliano (ed.), Bronze Age Carian Iasos. Structures and Finds from the Area of the Roman Agora (c. 3000–1500 BC) (Rome 2012).
- *Momigliano 2020*: N. Momigliano, In Search of the Labyrinth. The Cultural Legacy of Minoan Crete (London 2020).

- *Momigliano/Farnoux 2017*: N. Momigliano/A. Farnoux, Cretomania.Modern Desires for the Minoan Past, British School at Athens Modern Greek and Byzantine Studies (London 2017).
- Molloy 2016: B.P.C. Molloy, Introduction. Thinking of Scales and Modes of Interaction in Prehistory. In: B.P.C. Molloy (ed.), Of Odysseys and Oddities. Scales and Modes of Interaction between Prehistoric Aegean Societies and their Neighbours (Oxford 2016) 1–23.
- Nakou 2007: G. Nakou, Absent Presences. Metal Vessels in the Aegean at the End of the Third Millennium. In: P. Day/R. Doonan (eds.), Metallurgy in the Early Bronze Age Aegean (Oxford 2007) 224–244.
- Nazou 2010: M. Nazou, Grey Areas in Past Maritime Identity? The Case of Final Neolithic–Early Bronze Age Attica (Greece) and the Surrounding Islands. Shima: The International Journal of Research into Island Cultures 4.1, 2010, 3–15.
- Oğuzhanoğlu 2019: U. Oğuzhanoğlu, Büyük Menderes'ten Denize Uzanan Yollar. Güneybatı Anadolu Erken Tunç Çağı Bağlamında Yeni Gözlemler. In: V. Şahoğlu/M. Ševketoğlu/Y.H. Erbil (eds.), Connecting Cultures. Trade and Interconnections in the Ancient Near East from the Beginning until the End of the Roman Period. International Archaeological Symposium, 23<sup>rd</sup>-25<sup>th</sup> November 2016, Nicosia, Cyprus (Ankara 2019) 101–114.
- Papadatos/Tomkins 2013: Y. Papadatos/P. Tomkins, Trading, the Longboat and Cultural Interaction in the Aegean during the Late Fourth Millennium BCE. The View from Kephala Petras, East Crete. American Journal of Archaeology 117.3, 2013, 353–381.
- Papadopoulos/Malamidou 1997: S. Papadopoulos/D. Malamidou, Limenaria, A Neolithic and Early Bronze Age Settlement at Thasos. In: H. Erkanal/H. Hauptmann/V. Şahoğlu/R. Tuncel (eds.), The Aegean in the Neolithic, Chalcolithic and the Early Bronze Age. Proceedings of the International Symposium, October 13<sup>th</sup>–19<sup>th</sup> 1997, Urla İzmir (Turkey). Ankara University, Research Center for Maritime Archaeology (Anküsam) Publication 1 (Ankara 2008) 427–445.
- Papageorgiou 2002: D.K. Papageorgiou, Θαλάσσιοι Δρόμοι στο Προϊστορικό Αιγαίο κατά τη Νεολιθική και την Πρώιμη Εποχή του Χαλκού (Unpublished PhD-Thesis University of Athens 2002).
- *Patton 1996*: M. Patton, Islands in Time. Island Sociogeography and Mediterranean Prehistory (London 1996).
- Peloschek 2016: L. Peloschek, Verarbeitungsprozesse von Tonrohstoffen im prähistorischen und frühkaiserzeitlichen Ephesos. In: K. Piesker (ed.), Wirtschaft als Machtbasis, Beiträge zur Rekonstruktion vormoderner Wirtschaftssysteme in Anatolien. Byzas 22, 2016, 187–205.
- Perlès et al. 2011: C. Perlès/ T. Takaoğlu/B. Gratuze, Melian Obsidian in NW Turkey. Evidence for Early Neolithic Trade. Journal of Field Archaeology 36.1, 2011, 42–49.
- *Phoca-Cosmetatou 2011*: N. Phoca-Cosmetatou (ed.), The First Mediterranean Islanders: Initial Occupation and Survival Strategies (Oxford 2011).
- *Quinn et al. 2010*: P. Quinn/P. Day/V. Kilikoglou/E. Faber/S. Katsarou-Tzeveleki/A. Sampson, Keeping an Eye on your Pots. The Provenance of Neolithic Ceramics from the Cave of the Cyclops, Youra, Greece. Journal of Archaeological Science 37, 2010, 1042–1052.
- Rahmstorf 2015: L. Rahmstorf, The Aegean before and after c. 2200 between Europe and Asia. Trade as a Prime Mover of Cultural Change. In: H. Meller/H. Wolfgang Arz/R. Jung/R. Risch (eds.), 2200 BC A Climatic Breakdown as a Cause for the Collapse of the Old World? 7th Archaeological Conference of Central Germany, October 23–26, 2014 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte 12 (Halle 2015) 149–180.
- Rainbird 2007: P. Rainbird, The Archaeology of Islands (Cambridge 2007).
- *Reingruber 2018*: A. Reingruber, Geographical Mobility and Social Motility in the Aegean before and after 6600 BC. Praehistorische Zeitschrift 93.1, 2018, 1–24.

- *Renfrew 1972*: C. Renfrew, The Emergence of Civilization. The Cyclades and the Aegean in the Third Millennium BC (London 1972).
- *Rice 1998*: P. M. Rice, Contexts of Contact and Change. Peripheries, Frontiers, and Boundaries. In: J. G. Cusick (ed.), Studies in Culture Contact. Interaction, Culture Change, and Archaeology. Center for Archaeological Investigations, Occasional Paper 25 (Carbondale 1998) 44–66.
- Rutter 1979: J. B. Rutter, Ceramic Change in the Aegean Early Bronze Age. The Kastri Group, Lefkandi I and Lerna IV. A Theory Concerning the Origin of EH III Ceramics. UCLA Institute of Archaeology, Occasional Paper 5 (Los Angeles 1979).
- Rutter 2013: J.B. Rutter, 'Minding the Gap'. From Filling Archaeological Gaps to Accounting for Cultural Breaks. A 2013 Perspective on A Continuing Story. American Journal of Archaeology 117.4, 2013, 593–597.
- *Şahoğlu 2005*: V. Şahoğlu, The Anatolian Trade Network and the Izmir Region during the Early Bronze Age. Oxford Journal of Archaeology 24, 2005, 339–361.
- *Şahoğlu 2008*: V. Şahoğlu, Crossing Borders. The Izmir Region as a Bridge between the East and the West during the Early Bronze Age. In: C. Gillis/B. Sjöberg (eds.), Crossing Borders: Trade and Production in Premonetary Greece. Proceedings of the 7th, 8th and 9th International Workshops Athens 1997–1999 (Sweden 2008) 153–173.
- *Şahoğlu 2011*: V. Şahoğlu, Trade and Interconnections between Anatolia and the Cyclades during the 3<sup>rd</sup> Millennium BC. In: V. Şahoğlu/P. Sotirakopoulou (eds.), Across the Cyclades and Western Anatolia during the 3<sup>rd</sup> Millennium BC (Istanbul 2011) 172–177.
- Sampson 1987: A. Sampson, Η Νεολιθική περίοδος στα Δωδεκάνησα (Athens 1987).
- Sampson 1988: A. Sampson, Periodic and Seasonal Usage of Two Neolithic Caves in Rhodes. In: S. Dietz/I. Papachristodoulou (eds.), Archaeology in the Dodecanese (Copenhagen 1988) 11–26.
- Sampson 2003: A. Sampson, Η Νεολιθική περίοδος στα Δωδεκάνησα (Athens 2003).
- *Sampson 2018*: A. Sampson, The Mesolithic Hunter-Gatherers in the Southeastern Mediterranean and their Contribution in the Neolithisation of the Aegean. Archaeology and Culture 1, 2018, 11–36.
- Sampson et al. 2012: A. Sampson/M. Kaczanowska/J. K. Kozłowski, Mesolithic Occupations and Environments on the Island of Ikaria, Aegean, Greece (Krakow 2012).
- Sampson et al. 2018: A. Sampson/E. Kabouroglou/M. Kaczanowska/J. K. Kozlowski, Presence of Neanderthals on the Island of Agios Efstratios and Probable Networks of Contacts in the Northeastern Aegean during the Early Middle Palaeolithic. Annals of Archaeology 1, 2018, 39–56.
- Sevinç/Takaoğlu 2004: N. Sevinç/T. Takaoğlu, The Early Bronze Age on Tenedos/Bozcaada. Studia Troica 14, 2004, 135–140.
- Sfenthourakis/Triantis 2017: S. Sfenthourakis/K. A. Triantis, The Aegean Archipelago: A Natural Laboratory of Evolution, Ecology and Civilisations. Journal of Biological Research-Thessaloniki 24.4, 2017, 1–13, DOI: https://doi.org/10.1186/s40709-017-0061-3.
- Shipley 1982: D. G. J. Shipley, A History of Samos from the Revolt of 440 BC to the Peace of Apameia(Unpublished PhD-Thesis University of Oxford 1982).
- Sotirakopoulou 2008a: P.I. Sotirakopoulou, The Cyclades, the East Aegean Islands and the Western Asia Minor. Their Relations in the Aegean Late Neolithic and Early Bronze Age. In: H. Erkanal/H. Hauptmann/V. Şahoğlu/R. Tuncel (eds.), The Aegean in the Neolithic, Chalcolithic and the Early Bronze Age. Proceedings of the International Symposium, October 13<sup>th</sup>–19<sup>th</sup> 1997, Urla İzmir (Turkey) (Ankara 2008) 533–557.

- Sotirakopoulou 2008b: P. Sotirakopoulou, The Cyclades and the Transit Trade in the Aegean during the 3<sup>rd</sup> Millennium BC. In: C. Gillis/B. Sjöberg (eds.), Crossing Borders. Trade and Production in Premonetary Greece. Proceedings of the 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> International Workshops Athens 1997–1999 (Sweden 2008) 69–151.
- *Spencer 1995*: N. Spencer, Early Lesbos between East and West. A 'Grey Area' of Aegean Archaeology. The Annual of the British School at Athens 90, 1995, 269–306.
- Stockhammer/Maran 2017: P. W. Stockhammer/J. Maran (eds.), Appropriating Innovations: Entangled Knowledge in Eurasia 5000–1500 BCE (Oxford 2017).
- Syrides et al. 2009: G. Syrides/K. Vouvalidis/K. Albanakis/P. Tsourlos/D. Matsas, Palaeogeographical Evolution and Sea Level Changes during Holocene in the Prehistoric Settlement of Mikro Vouni (Samothrace Island, Greece). Zeitschrift für Geomorphologie Supplementary Issues 53, 2009, 39–54.
- Tartaron 2018: T. F. Tartaron, Geography Matters: Defining Maritime Small Worlds of the Aegean Bronze Age. In: J. Leidwanger/C. Knappett (eds.), Maritime Networks in the Ancient Mediterranean World (New York 2018) 61–92.
- *Triantafyllidis 2015*: P. Triantafyllidis, Archaeological Researches on Milesian Agathonisi in the Dodecanese, Greece. In: E. Lafli/S. Pataci (eds.), Recent Studies on the Archaeology of Anatolia (Oxford 2015) 95–104.
- *Ünlüsoy 2016*: S. Ünlüsoy, Troy and the Aegean during the Third Millennium BC. In: E. Pernicka/S. Ünlüsoy/S.W.E. Blum (eds.), Early Bronze Age Troy. Chronology, Cultural Development, and Interregional Contacts. Studia Troica Monographien 8 (Tübingen 2016) 397–405.
- Vaessen 2018: R. Vaessen, Working in the Margins. Some Reflections on Past, Present and Future Research in Western Anatolia. In: S. Gimatzidis/M. Pieniążek/S. Mangaloğlu–Votruba (eds.), Archaeology Across Frontiers and Borderlands. Fragmentation and Connectivity in the North Aegean and the Central Balkans from the Bronze Age to the Iron Age. Oriental and European Archaeology 9 (Vienna 2018) 71–92.
- Vasileiadou/Liritzis 2018: M. Vasileiadou/I. Liritzis, The Historical Ages in the South-Eastern Aegean (800–200 BC). A Review. Studia Antiqua et Archaeologica 24, 2018, 5–30.
- Vitale/Morrison 2018: S. Vitale/J. E. Morrison, The Final Neolithic and Early Bronze Age Pottery from the Site of the Asklupis in the Northeast Koan Region. Annuario della Scuola Archaeologica di Atene e delle Missioni Italiane in Oriente 95, 2018, 39–64.
- Vlachopoulos 2017: Α. Vlachopoulos, Αρχαιολογικές έρευνες πεδίου στο Βαθύ Αστυπάλαιας. Δωδώνη (Ιστορία-Αρχαιολογία) τ. ΜΓ'-ΜΔ' (2014–2015) 371–411.
- Vogiatzakis et al. 2008: I. N. Vogiatzakis/G.Pungetti/A.M. Mannion (eds.), Mediterranean Island Landscapes. Natural and Cultural Approaches (Dordrecht 2008).
- *Wallace 2018*: S. Wallace, Travellers in Time. Imagining Movement in the Ancient Aegean World (London 2018).
- Whitbread/Mari 2014: I. Whitbread/A. Mari, Provenance and Proximity. A Technological Analysis of Late and Final Neolithic Ceramics from Euripides Cave, Salamis, Greece. Journal of Archaeological Science 41, 2014, 79–88.
- Yilmaz 2013: D. Yilmaz, A New Early Bronze Age in the Eastern Aegean. Surveys at Bozköy-Hanaytepe in the Troad. The Journal of Academic Social Science Studies 6.5, 2013, 857–888.

#### **RESSOURCENKULTUREN 16**

## EUROPEAN ISLANDS BETWEEN ISOLATED AND INTERCONNECTED LIFE WORLDS

Island studies have seen an upswing in recent years. Whereas in the past, research was largely oriented at external perspectives and perceptions, at present we witness an increasing interest in viewpoints internal to the island societies examined (with an 'inside-out' approach). This volume contributes to such efforts with transdisciplinary and methodological reflections from the fields of archaeology, ethnology, geography, history, philology, and literary studies. Focused on the interplay between geographic isolation and commercial as well as cultural connection, the studies here assembled investigate the role of the knowledge, resources, and practices of islanders in processes of crisis management, identity formation and transformation.



