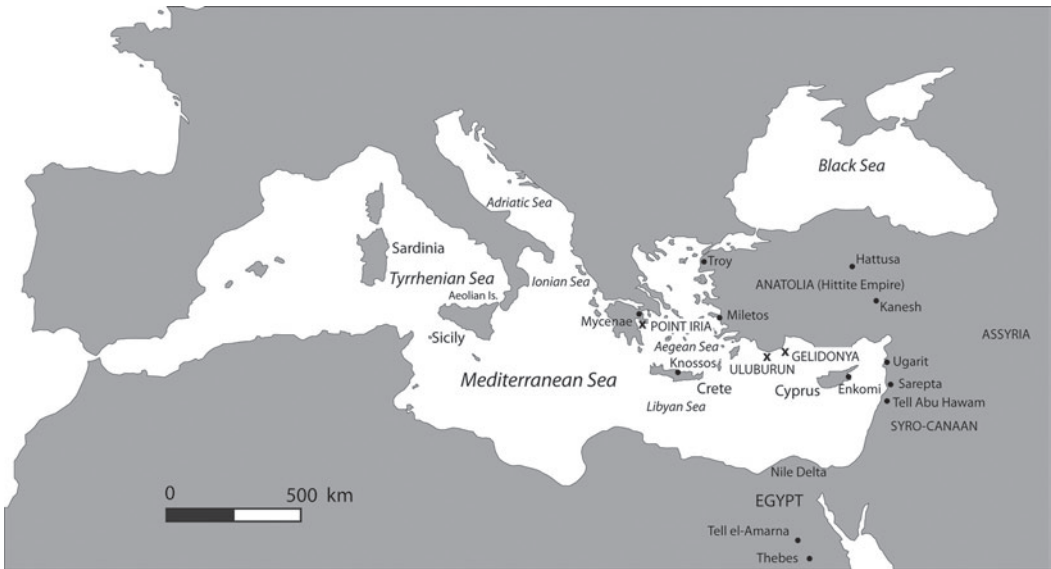


ONE

THE PROBLEM OF MYCENAEAN COASTAL WORLDS

The archaeological, textual, and iconographic evidence for the Late Bronze Age (LBA) eastern Mediterranean indicates that the Mycenaean of mainland Greece and the Aegean islands were a seafaring people and key participants in economic and political interactions with Egypt and the Near East, channeled through extensive maritime connections (Fig. 1.1; Table 1.1). The premise of this book is that despite an apparently rich record of engagement with the sea, and the keen interest scholars have shown in elucidating it, we remain surprisingly ignorant about many of its aspects. First, we know little about where Mycenaean anchorages and harbors were, or how they were used. Second, although much attention has been devoted to long-distance “international” connections with the states, empires, and emporia of the eastern Mediterranean, comparatively little consideration has been extended to networks of maritime relations operating at regional and (especially) local scales within the Mycenaean world. Third, we currently lack a systematic body of method and theory to allow us, on the one hand, to identify and reconstruct the coastal nodes and maritime routes that made up small- and medium-scale networks; and, on the other hand, to understand how they functioned within the broader social, political, and economic realities of their day.

This work offers a close examination of these lacunae, with three specific aims: (1) to present a more balanced picture of maritime interactions, emphasizing that small- and medium-scale connections are more representative of the activities of most Mycenaean coastal communities than long-distance voyaging; (2) to present a set of concepts and methods for identifying and interpreting evidence for coastal exploitation and maritime interaction; and (3) by means of case studies, to illustrate the practical applications of these ideas and to advocate for new directions in research on Mycenaean “coastal worlds.”



(a)



(b)

1.1 (a) Map of the Mediterranean; (b) detail of the Aegean region, showing the main regions and sites mentioned in the text.

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Table 1.1. Chronological framework for the Aegean Bronze Age

	Crete (Minoan)		Mainland (Helladic)		
	Pottery phase	Calendar dates	Pottery phase	Calendar dates	
Prepalatial	Early Minoan (EM) I	3100–2700	Early Helladic (EH) I	3100–2700	
	EM II	2700–2200	EH II	2700–2200	
	EM III	2200–2100	EH III	2200–2000	
	Middle Minoan (MM) IA	2100–1900	Middle Helladic (MH) I	2000–1850	
Protopalatial	MM IB	1900–1800			
	MM II	1800–1700	MH II	1850–1700	
Neopalatial	MM III	1700–1600	MH III	1700–1600	Shaft Grave Era
	Late Minoan (LM) IA	1600–1480	Late Helladic (LH) I	1600–1500	
	LM IB	1480–1425			
Final Palatial	LM II	1425–1390	LH IIA	1500–1440	Mycenaean
			LH IIB	1440–1390	
Postpalatial	LM IIIA1	1390–1370	LH IIIA1	1390–1370	
	LM IIIA2	1370–1300	LH IIIA2	1370–1300	
	LM IIIB	1300–1190	LH IIIB	1300–1190	
	LM IIIC	1190–1070	LH IIIC	1190–1070	
	Subminoan	1070–1000	Submycenaean	1070–1015	

AN ARCHAEOLOGICAL AND HISTORICAL PROBLEM

At the outset, it will be useful to define some of the terms and concepts fundamental to this study to banish, as much as possible, ambiguity from the arguments and to reveal the assumptions that underlie them. As each section unfolds, further concepts will be defined in a similar way.

To begin with a basic question, what is the overlap, if any, in the terms *ship* and *boat*? In practice, for maritime historians and archaeologists the difference resides simply in size and complexity (McGrail 2006: 60), and there is no clear boundary or threshold in these properties that marks the transition from one to the other. Alternative distinctions, such as open-seaworthiness or specific function, are no more than general rules of thumb that cannot be sustained if applied too rigorously. We know from countless ethnographic and historical examples in the South Pacific and elsewhere that small, simple vessels are used regularly for long, open-sea journeys, and similar boats made lengthy open-sea crossings as early as 40,000 years ago when the continent of Australia was first colonized. Therefore, while conceding the general pattern that small boats are used primarily for shorter-distance coast-hopping or navigation of rivers and inland waterways, larger ships may be used for those same purposes and small boats might venture on long journeys. Similarly, function must be demonstrated and not assumed, so associating a narrow set of functions with a particular hull

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type can be misleading or wrong. Care should be taken when using terms that embed function, such as *warship* or *trading vessel*, to allow for multifunctional or hybrid designs. In this study, the generic terms *vessel* and *craft*, which carry no implication of size, complexity, or function, will often be used in ambiguous cases or when a comment applies equally to ships and boats.

The coastal nodes of a Mycenaean maritime network might be characterized using such terms as *anchorage*, *harbor*, or *port*, which though sometimes used interchangeably, will have specific definitions for our analysis. An anchorage is any coastal location at which a vessel can be brought to a safe landing position, by any means including being pulled up onto a sandy shore, lying at anchor in shallow offshore waters, or being moored to a natural feature or an artificial construction such as a quay or jetty. There is no necessary implication in this term of the existence of durable, artificial constructions to accommodate vessels, or of a permanent settlement associated with these activities. Many anchorages, past and present, are used episodically, often tied seasonally to environmental conditions and agricultural calendars and providing temporary safe haven in times of danger at sea. The term *harbor* carries the stronger implication that certain coastal locations are earmarked for the role of accommodating maritime traffic. The morphological attributes of harbors range from entirely natural embayments with few or no artificial constructions to enhance their maritime functions, to fully artificial harbors fashioned by means of breakwaters, quays, and elaborate drainage and maintenance systems. Still, there is no requirement that a permanent settlement accompany a harbor, although the greater the maritime traffic or the number of artificial enhancements, the more likely that this will be the case. The connotation of the term *port*, finally, is of the existence of a “port town,” thus a permanent settlement with a primary function as a major node in a maritime network. The port town typically possesses more than the bare essentials to accommodate maritime traffic: there may be complex facilities for storage, recording, and exchange of commodities; processing of raw materials; transshipment to interior regions or further seaward destinations; and quartering of crews for short- or longer-term residence. These three terms are hierarchical in the sense that ports by definition incorporate the properties of harbors and anchorages, whereas harbors are also anchorages. It is important to retain clear distinctions because this relationship may not work in the other direction: by these definitions, anchorages may not be harbors and harbors may not be ports. These distinctions will be useful for determining the roles and facilities that were or were not present in a given case.

The problem of locating the coastal nodes described by these terms arises from a set of interrelated factors that together engender low archaeological visibility. Unlike later commercial and military harbors of Greek and Roman

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times, evidence that the Mycenaeans built permanent harbor installations with features such as quays, breakwater structures, lighthouses, or even artificial harbors (Marriner and Morhange 2007) is decidedly lacking. It remains entirely possible that Mycenaean sailing ships, along with smaller boats powered by oars or paddles, were pulled onto sandy shores or anchored off the coast, as depicted in the somewhat earlier “Flotilla Fresco” in the West House at Akrotiri on the island of Thera (Morgan Brown 1978; Warren 1979), largely without the use of built harbor constructions that would leave archaeological traces.

An equally significant obstacle to identifying these locations is geomorphological change since the Bronze Age. Modern Aegean coastlines are poor indicators of their configuration in the Mycenaean era. Global sea-level rise affects the Aegean modestly, on the order of +3 to 5 meters since the Bronze Age (Lambeck 1995, 1996). Potentially more transformative are catastrophic tectonic events that cause coasts to lift up or subside. Greece lies in a zone of contact between two tectonic plates (the African and Eurasian) whose interaction shapes the Greek land mass and archipelago through deep fault systems, earthquakes, volcanism, and orogenesis. The consequences of tectonically induced uplift and subsidence can be notoriously localized; thus, there is no valid pan-Aegean model for the changes in form and *relative* sea level on a given segment of shoreline. Another group of anchorages, including river mouths, deltas, and lagoons/estuaries, has disappeared through sedimentation caused naturally and often accelerated by human activities. In view of the complexities of coastal change, any comprehensive study of Aegean Bronze Age coastlines requires integrated programs of coastal geomorphology and archaeology, with both terrestrial and underwater components. Specifically, the archaeological methodology espoused here closely integrates methods of detection (remote sensing, Geographic Information Systems, archaeological and geoarchaeological surface survey) with subsequent investigation (terrestrial and underwater geology, extensive and intensive survey, terrestrial and underwater excavation, ethnography and oral history). As we shall see, the results of such analyses tend not to be broadly valid beyond the immediate settings under study.

There is also a lack of clarity, and a strong bias, concerning the scale and nature of Mycenaean maritime interaction. Scholarly interest tends to focus on long-distance voyaging, involving the exchange of elite goods and raw materials of vital interest to the palaces, such as copper and tin. The image of Mycenaean trading fleets sailing around the eastern Mediterranean, putting in at major ports, is alluring but surely misleading. We are not certain that Mycenaean ships routinely sailed to Egypt, for example, rather than obtaining Egyptian goods at emporia like Ugarit on the Syrian coast, or from ships visiting Greece from the east. More importantly, such long-distance connections were dwarfed in quantity by dense networks of local and regional maritime connections among

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Mycenaean communities. The latter routes and relationships have received little attention, but they must have dominated the use of anchorages, large and small, on Aegean coasts.

There were many shades of activity in the spectrum between local and international interaction. Local and microregional maritime networks are best expressed by the concept of the “small world” (Broodbank 2000: 175–210), composed of communities bound together by intensive, habitual interactions due to geography, traditional kinship ties, or other factors. There may be a high level of interdependence and communities may come to think of themselves as forming a natural entity, defined by the dense web of connections that supports a combination of political, social, and economic relationships. Small worlds are nested within larger regional and interregional economic and sometimes political networks. Small worlds evolve and change over time, as I seek to demonstrate in a diachronic reconstruction of a Bronze Age small world in the Saronic Gulf (Chapter 7). The inhabitants of Kolonna on the island of Aigina dominated this small world of coastal settlements for nearly a millennium, until the expanding palace at Mycenae broke it apart, incorporating Saronic communities into broader Aegean networks. Within that millennium, however, it is possible to detect waxing and waning of the relationships of small coastal settlements with each other and with Aigina as the attention of Kolonna’s inhabitants shifted into and away from the Gulf.

Moving beyond the local context, regional-scale networks within the Mycenaean world are typically measured by the distribution of imported artifacts. Often, it is possible to trace the movements of durable commodities through stylistic analysis (e.g., of painted pottery) or through archaeometric analyses that isolate physico-chemical “fingerprints” by which an artifact’s place of origin can be identified. The connections thus recognized between centers and regions may be direct or indirect, and may involve the movement of goods and ideas without the implication of strong political ties or asymmetrical power relationships. For example, during the Mycenaean period the northern Corinthia exhibits clear affinities to the Argolid in material culture classes including architecture and pottery, but virtually all of the painted fineware that emulates Argive types was made locally (Morgan 1999: 349–61). In spite of a long scholarly tradition that Mycenae dominated the entire Corinthia politically, inspired in part by the Homeric catalogue of ships, there is little evidence to support this claim (Pullen and Tartaron 2007; Tartaron 2010). Nevertheless, the growth of Mycenaean states did involve expansion into adjacent territories by economic, political, and, most likely, military means. This diachronic process has been fleshed out from excavation, survey, and mortuary data for the palatial centers at Pylos (Bennet 1999; Bennet and Shelmerdine 2001) and Mycenae (Cherry and Davis 2001; Tartaron 2010; Voutsaki 1995, 1998, 1999; Wright 2004).

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DEFINING MYCENAEAN COASTAL WORLDS

A central concept of this book is the “Mycenaean coastal world.” The term *Mycenaean* itself is in need of deconstruction, since it is variously used to describe a chronological period (the Late Bronze Age or Late Helladic [LH] period, c. 1600–1050) occurring in a geographical area (the central and southern Greek mainland and some Aegean islands) with fuzzy and shifting boundaries, a widespread style in material culture (architecture, iconography, pottery forms, etc.) that is said to achieve a kind of *koiné* in the high palatial period of LH IIIA2–early LH IIIB (roughly, 1370–1250), a complex sociopolitical system based on the palaces and recorded using a syllabic script (Linear B) that represents an archaic form of the Greek language, and sometimes even an ethnicity, a particularly problematic construct for a prehistoric world. Each of these senses of the term has provoked debate. Quite apart from the challenge of fixing chronometric dates based on radiocarbon determinations or synchronisms with Egyptian and other calendars, it is not altogether obvious when the Aegean became Mycenaean or when it ceased to be so. For instance, do we mark the end of the Mycenaean world with the collapse of the palaces circa 1200 BC, or do we recognize that Mycenaean people and their material culture traditions persisted for more than a century afterward, even experiencing a kind of revival in LH IIIC Middle (Thomatos 2006)? In fact, the picture is variable: sharp endings at some centers and in some regions; long twilights elsewhere.

A similar lack of sharp boundaries attends the geographical extent of the Mycenaean world, and here the issue is sometimes framed as a search for the “limits” or “boundaries” of the Mycenaean culture area, as manifest in attenuation of material or material culture traits (Kilian 1990). A good example is the attempt to define a series of zones and boundaries in Thessaly marking incremental cultural distance from the Mycenaean world (Feuer 1983, 1994). As coarse tools, these can be useful, though drawing boundaries can be a misleading exercise, for the obvious reason that the spatial pattern of participation in Mycenaean culture is far more complex than a set of map polygons within which uniform cultural engagement is implied (Galaty and Parkinson 2007: 8–9; Tartaron 2004: 165–67). Ongoing discoveries in the Bay of Volos area are pressing the question of whether coastal Thessaly was “Mycenaeanized” or fully Mycenaean (i.e., having no fundamental cultural differences from Mycenaean centers in the Argolid, for example), the latter having been claimed recently by Vasiliki Adrimi-Sismani (2007).

This discourse begs the question, of course, of whether there *can be* a list of material and cultural traits by which to include or exclude a settlement or region as Mycenaean, and what measure of “drift” from such a trait list is tolerable for inclusion. This approach assumes the existence of a “core area” comprising the Peloponnese and central Greece, which shared most aspects of material culture

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and practice: pottery forms and decoration; domestic, military, sacred, and mortuary architecture; and common practices reflected in agropastoral economies, ritual practice, and burial customs. By implication, those living outside the core area were not Mycenaean, though some will have been “Mycenaeanized” by contact or colonization.

The point of view taken in this book is that while it is possible, and at times even useful, to identify a core area in which aspects of Mycenaean material culture and practice were broadly shared, such a zone was neither monolithic in cultural or geographic terms, nor static over time. If the standard is the material culture of the palaces, or that of a specific region such as the Argolid, then places “between and beyond” participated to varying degrees over time subject to local conditions such as accessibility and social organization (Tartaron 2010). The trouble with normative representations of the Mycenaean world based on trait lists and stylistic attributes is that they give a false impression of uniformity within the core area by suppressing the local and regional variability on which an illuminating and culturally rich narrative of interaction might be based. Those studying frontier areas in Thessaly or distant pockets of Mycenaean coastal presence elsewhere have challenged the sharp Mycenaean/non-Mycenaean cultural dichotomy, but just as important is the realization that a comparable dynamic of accommodation, resistance, and negotiation – to borrow the words of Andrew and Susan Sherratt (1998: 330), “an organic process of cultural encounter and dialectic” – was occurring in the heartland of the Peloponnese and central Greece.

The notion of “coastal worlds” is rendered in the plural to emphasize two closely related points. First, at any given coastal location, diachronic change is inevitable. With the passage of time, any coastal area may experience geomorphic or topographic change, foundations and destructions, reorientation of relationships and connections, and many other transformations. Therefore, Bronze Age coastal history is a complex narrative, not merely a series of fixed points on a map or a normative characterization that masks changes over centuries or millennia. Thus, for any coastal area that we study, we must deploy diverse perspectives and analytical tools and we must find a way to represent its dynamism.

Second, the term signals my alignment with certain postmodern ideas about landscape, particularly the notion that a multiplicity of culturally constructed landscapes constitutes the experiences of different sets of actors at any given place and time (Anscheutz et al. 2001; Ashmore and Knapp 1999). Properly conceived, this perspective does not ignore the realities of the physical world in which people live, or the role of environment in shaping human societies, but in an important way it allows us to address the varied perceptions, ideas, and cultural notions that allowed coastal dwellers to construct a comprehensible world. For instance, Mycenaean sailors had a need to compose a multifaceted

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maritime world of coastscapes, islandscapes, and seascapes in order to interact with the natural forces of sea and sky, and with the people and places they encountered en route – indeed, to survive. Apart from practical knowledge of ship technology, navigation, and environmental conditions such as currents and winds, ship captains needed to carry a mental map of landmarks, seamarks, and safe anchorages along a series of potential routes. This information was constituted in a symbolic world of named features, places, and meteorological forces; that is, a “habitus” (Bourdieu 1990) of maritime knowledge passed from one generation of seafarers to the next. In the characters and places of Homer’s post-Bronze Age *Odyssey*, both realistic and fantastical, we may discern traces of a seafarer’s phenomenology. At all times, the sea inspired ambivalence, with its paradoxical roles as giver of bounty (fish, exotic objects and ideas) and taker of lives.

These diverse theoretical strands come together in the concept of the “coastscape” (Pullen and Tartaron 2007), inspired by a postmodern interpretation of landscape and serving as the main analytical and interpretive lens for maritime coastal activity at the local scale. The coastscape takes its place among the constellation of specialized rubrics derived from landscape archaeology and applied to the maritime context, including “islandscapes” (Broodbank 2000: 168–76; Frieman 2008; Rainbird 2007) and “seascapes” (Cooney 2003). From the land-based perspective of a modern, urbanized world of paved roads and mechanized vehicles, coasts are often seen as peripheral, linear and narrow, and liminal or transitional. In a coastscape perspective, however, coasts have a certain centrality as meeting places between the sea and the interior. They are nodes of connectivity and integrative spaces, and as such they were historically privileged locations while at the same time exposed to dangers from both land and sea. This exposure contributed to complex historical sequences. In short, coastal spaces were hotspots in the Bronze Age that witnessed the interactions of everyday life, but also provided the setting for pivotal events and for the exchange of ideas that stimulated profound change. It is possible, therefore, to write an alternative narrative in which coastlines are central settings for economic and social history.

A final, yet crucial, point is that coastal worlds are not merely the linear feature of the coastline or the anchorages and settlements that might be found there. They also encompass offshore waters with their opportunities and dangers, the full visual field (i.e., viewshed) of a coastal location, the arteries connecting the coast to the interior and its resources and people, and the dense network of local maritime connections that constitute the coastal world. In the Mycenaean palatial period, a coastal settlement could access the productive capacity of the interior hinterland, while at the same time functioning as a node oriented primarily to the sea and the Mycenaean maritime economy.

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ORGANIZATION OF THE BOOK

The book consists of eight chapters. In Chapter 2, “Mycenaeans and the Sea,” after a brief summary of the cultural and historical background of the Mycenaean period, I examine the geographical and chronological patterns of Mycenaean maritime activity in the Mediterranean, and then outline the relevant categories of evidence, with comments on each. Chapter 3, “Ships and Boats of the Aegean Bronze Age,” outlines the salient features that are known or can be inferred about Bronze Age seacraft, using a range of physical, iconographic, textual, and ethnographic evidence. An attempt is made to trace the evolution of different hull types and to assess their performance characteristics, including the smaller boats that should have been the workhorses of local-scale maritime connectivity. In Chapter 4, “The Maritime Environment of the Aegean Sea,” I analyze the full range of environmental phenomena, from global to local, that combined to generate the conditions of seafaring and coastal habitats. Further, I discuss the practices of navigation in the Aegean and the formation and perpetuation of maritime communities and their specialized knowledge. Chapter 5, “Coasts and Harbors of the Bronze Age Aegean: Characteristics, Discovery, and Reconstruction,” outlines the environmental processes of coastal evolution over the last 6,000 years in the Mediterranean, and their impact on Aegean coastlines. I emphasize the need for programs of paleocoastal reconstruction at the local scale and present the elements of a rational field methodology for recovering Aegean Bronze Age anchorages. The aim of Chapter 6, “Concepts for Mycenaean Coastal Worlds,” is to provide a theoretical framework for a multiscale model of Mycenaean maritime interaction. This model consists of four distinct but nested maritime interaction spheres: the coastscape, the small world, the regional/intracultural maritime interaction sphere, and the inter-regional/intercultural maritime interaction sphere. Social network analysis is advocated as a means to understand connectivity at these different scales. Chapter 7, “Coastscapes and Small Worlds of the Aegean Bronze Age: Case Studies,” puts these concepts and methods to work in one detailed (the Saronic Gulf) and two less detailed (Miletos/Latmian Gulf, Dimini/Bay of Volos) case studies. In each example, paleocoastal reconstruction was a key element in reconstituting the physical setting of coastscapes that were embedded to varying degrees over time in small-world networks. Archaeological evidence is used to track the waxing and waning of these small worlds and to measure their participation in larger-scale connectivity. The concluding Chapter 8 revisits the main themes – theoretical, methodological, and applied – and attempts to summarize my position on how Mycenaean coastal worlds can be both reconstituted and rethought.

The central goal of this book is to advocate for a reorientation of our intellectual energies away from international-scale maritime relations, toward the