The Maritime Façades of the Cities of Coastal Asia Minor in the Early Roman Period

by

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DEDICATION

This dissertation is dedicated to my wife, Anna Mussinelli, for her never-ending support and encouragement over the past five and a half years. From thousands of miles apart or by my side, she has been an inspiration to me through the highs and the lows of this project, and she always will be, whatever our future together holds.

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ABSTRACT

This dissertation explores the experience of arriving in the port cities of Asia Minor and the Aegean islands from the Hellenistic through the Early Roman periods, describing the historical, environmental, and architectural backgrounds of these sites and offering an outline of the development of their maritime façades throughout this period. A selection of four of the most important sites of this region and period are studied: Ephesus, Pergamon, Smyrna, and Rhodes. Their site biographies are presented and analyzed, later supplemented by visual reconstructions of the experience of arrival, including static viewsheds of the landscapes and basic outlines of the major monuments, which offer rigor and novel support to the claims about the cities' façades and what would have been prominent or memorable to those arriving at the ports and harbors of Asia Minor. By comparing the façades of these cities with each other, and with their earlier forms, this dissertation provides a clearer understanding of the changes to the experience of maritime travelers, and how the memorable, identifiable features of the cities of Asia Minor developed in the context of the rise of Rome.

The results of this dissertation contribute to the ongoing dialogue about the sociopolitical aspects of communal and individual identity expression in the eastern Mediterranean amid the shifting power structures of this dynamic period. In the case of the cities of Asia Minor, the rise and growth of Rome had a notable political impact as their control passed to the Attalids of Pergamon and the island of Rhodes with the Treaty of Apamea in 188 BCE and then to Rome itself in 133 BCE at the bequest of Attalus III. The maritime façades of these communities could be

used to communicate ideological, political, social, and other messages to visitors approaching from the sea, and via these travelers to secondary audiences further afield, and ultimately to Rome itself. Through a regional study of architectural developments in major port towns along the coast during the 2nd century BCE – 2nd century CE I discuss the development of the maritime façades at these cities specifically by evaluating the visual impact of the built environment on the 'outsider' experience.

This dissertation expands upon the current scholarship on port towns of the eastern Mediterranean to include aspects of the maritime façade beyond the harbor side, and offers a thorough description of what was visible, contextualized with evidence from classical authors that demonstrates how these cities may have been perceived, where possible, and supplemented by selected virtual reconstructions that will highlight certain aspects of the development of these sites. It reveals patterns of, and exceptions to, trajectories of urbanization at coastal communities, in response to the rising influence of Rome and changes to the landscape brought about by natural processes such as sedimentation and the changing sea level of the Mediterranean.

Chapter 1 – Introduction

Inhabitants, rulers, and powerful decision makers have long manipulated the built environment to prioritize and present a certain experience to people visiting, living in, or passing through their spaces and territories, including to audiences based at sea.[1] In the Roman Imperial period we can see efforts to display messages outwardly towards these mobile audiences such as those by Trajan at the harbor at Portus, which are visible in the Torlonia Relief and in the spatial organization of the archaeological remains.[2] Before the Roman period, the Greeks used temples and sanctuaries as markers of territorial control, often locating them in places highly visible from the maritime approach to a city.[3] As the ancient Mediterranean world reached the end of the 1st millennium BCE, Rome expanded its influence, and the Greek cities of the eastern Mediterranean found themselves in a new socio-political context. The social, economic, and political circumstances of these cities were constantly changing, but this period of transition, in the Hellenistic and Early Roman periods, was unusually dramatic, as trade networks, political leadership, culture and religion were all in flux. These changes can be viewed in the material remains at these cities, clearly supported by textual evidence. The material evidence to which we have access to includes smaller materials and objects such as ceramics that can help us understand

[1] The development of the built environment as a symbol or as a form of display has a tremendous amount of scholarship, much of which will be referenced throughout this dissertation. For a maritime perspective, a recent example of this concept come from Savoy (2012), who develops this idea around the "water-oriented scenography" of the archetypical maritime city, Venice.

[2] Keay and Millett 2005, 304-05.

[3] This idea has been developed prominently by de Polignac (1995), and also a more recent turn by de Poglinac to consider maritime sanctuaries, specifically in (2015) and (2016).

long-distance trade networks and the development of local production centers, as well as evidence on a much larger scale in the form of the evolving built environments of these cities.

This dissertation will explore the experience of arriving in the port cities of Asia Minor and the Aegean islands from the Hellenistic through the Early Roman period, describing the historical, environmental, and architectural backgrounds of these sites and offering an outline of the development of their maritime façades throughout this period. A selection of site biographies will be supplemented by visual reconstructions of the experience of arrival, including static viewsheds of the landscapes and basic outlines of the major monuments, which will offer rigor and novel evidence to claims about these structures or aspects of the cities' façades that would have been prominent or memorable to those arriving at their ports and harbors. By comparing the façades of these cities with each other, and with their earlier forms, this dissertation will provide a clearer understanding of the changes to the experience of maritime travelers, and how the memorable, identifiable features of the cities of Asia Minor developed in response to the rise of Rome.

The results of this dissertation will contribute to the ongoing dialogue about the sociopolitical aspects of communal and individual identity expression in the eastern Mediterranean amid the shifting power structures of this dynamic period. The significance of the study of the Hellenistic period as a whole, and its extension into the early years of the Roman Imperial period, has recently been discussed by A. Chaniotis, who defines the period from the campaigns of Alexander in the East (334 – 324 BCE) until the reign of Hadrian (161 – 180 CE) as the "long Hellenistic Age".[4] In this period Chaniotis recognizes Greek unity in the period from the Panellenic alliance of Phillip and Alexander through the Panhellenic council of Hadrian and emphasizes:

[4] Chaniotis 2018, 3.

> The unifying factors in the 'long Hellenistic Age' that also distinguish it from the preceeding periods are the importance of monarchy; the strong imperialist drive that characterized the policies of both Hellenistic kings and the Roman senate; the close interdependence of political developments in the Balkans, Italy, the Black Sea region, Asia Minor, the Near East and Egypt; the increased mobility of populations in these areas; the spread of urban life and culture; advanced technology; and the gradual homogenization of language, culture, religion, and institutions.[5]

Many of the factors that Chaiotis highlights as novel developments throughout his "long Hellenistic Age" apply to the questions addressed in this study, such as increased mobility, urban life and culture, and strong imperialist governments. But rather than focus on the Hellenistic period as a whole, this study is focused on the transition from the Hellenistic into the Roman period. In the case of the cities of Asia Minor, the rise and growth of Rome had a notable political impact as their control passed to the Attalids of Pergamon and the island of Rhodes with the Treaty of Apamea in 188 BCE and then to Rome itself in 133 BCE at the bequest of Attalus III. The maritime façades of these communities were used to communicate ideological, political, social, and other messages to visitors approaching from the sea, and via these travelers to secondary audiences further afield, and ultimately to Rome itself. Through a regional study of architectural developments in major port towns along the coast during the 2nd century BCE – 2nd century CE I will discuss the development of the maritime façades at these cities specifically by evaluating the visual impact of the built environment on the 'outsider' experience.

Defining the Scope of the Dissertation

Asia Minor is a subdivision of the continent of Asia, stretching from the Euphrates river westward to the Aegean coast, including much of modern-day Turkey.[6] Throughout the long history of settlement in the region it often served as a bridge connecting East and West, both by

[5] Chaniotis 2018, 5.
[6] *New Pauly Online* (Asia Minor); *OCD* (Asia Minor); Marek 2016, 1, 7.

land and, more importantly in the context of this dissertation, by sea.[7] The history of Asia Minor has been studied and discussed by a wide variety of scholars, including recently by C. Marek, who emphasizes the connections that were made in the region and the diversity of cultures that inhabited and visited its lands.[8] In the Roman period, this region was divided into various provinces, and the boundaries and definitions of these provinces changed significantly over time (Figure 1, 2). Marek also writes that throughout the Roman Imperial period this region differed from much of the rest of the Empire partially due to the "vigorous proliferation of cities" throughout its boundaries, even while cities were certainly founded and developed elsewhere.[9] Although the islands, including Rhodes, are not within the geographical limits of Asia Minor as defined by the Early Imperial geographer Strabo they are included in this study because of their close geographical and historical connections with the Aegean region of Asia Minor, and their inclusion in the Roman province of Asia (Figure 3, 4).[10] The islands, including Rhodes and Cos, that would have had a direct visual relationship with the mainland would have played a significant role in the experience of perceiving the Roman Asia Minor as their maritime façades would have been part of the oveall journey through this region.

The time scale of this study will vary for each case study, as some examples will require a longer historical discussion to establish the context within which the cities in question developed preceeding the Early Roman period. In general this study is focused on the 2nd century BCE through the 2nd century CE, an important period that covers the end of the Hellenistic period and

[7] Marek 2016, 3-4.

[8] Marek 2016. Other more general studies that address historical periods relevant to this dissertation include Mitchell (1993), who focused on central Anatolia in the Roman period, and Magie (1950), who published a history of Asia Minor with a focus on the literary sources.

[9] Marek 2016, 4.

[10] The *New Pauly Online* and the *OCD* would appear to exclude the islands from their definitions of Asia Minor but Broughton (1938) includes Rhodes and the islands when discussing the economy of Asia and Dmitriev (2005), Magie (1950) and Mitchell (1993), who regularly include Rhodes in their analysis. Mommsen (1909, 325) confirms that "Rhodes too and the other small islands of the Aegean Sea belonged to this province."

the beginning of the Roman period, with significant changes taking place after the Roman defeat of Antiochos III and the subsequent Treaty of Apamea in 188 BCE, in which Rome agreed to split the territories of the Seleucid Empire in western Asia Minor between Pergamon and Rhodes.[11] Rome's role as the central power in the conflict with Antiochos and as the decision maker in the resulting terms of the treaty marks the beginning of a continuous period of increasing Roman influence in the region.[12] But even before this period "the Roman senate and Roman magistrates had stepped into the power vacuum left by the decline of the Anitgonid kingdom," and in the aftermath of the treaty they expanded this influence.[13] I. Morris and A. Knodell highlight, and perhaps somewhat exaggerate, some of the significant changes that the communities of the East would have experienced, at least as concerns the growth of Rome:

> From 200 BCE onward, the Hellenistic Greek cities were increasingly swamped by Roman military intervention. The political narrative is complicated and messy, but by the 160s it was clear that none of the Hellenistic kingdoms would be able to stop Rome on the battlefield. […]
>
> The last two centuries BCE were a time of military, political, economic, and demographic disaster for the Greek cities, but in cultural terms this was an age of renewed success. […] Meanwhile, Roman elites became active benefactors (yet at the same time oppressors) of cities in the Greek east, a trend that continued with Roman emperors in the following centuries.[14]

The role of benefactions in the East during the Late Hellenistic and Early Roman Imperial periods is more fully developed by A. Zuiderhoek, who suggests that the process of public benefactions in Asia Minor matureed in the 1st century CE.[15] Chaniotis comments that Greek cities depended on

[11] Polyb. *Hist.* 21.43.
[12] Chaniotis (2018, 148-49) highlights the beginning of this entanglement taking place aroud 220 BC, citing Polybius's mention of the beginning of an entanglement between Italy, Libya, Greece, and Asia at this time. Regarding the growth of Rome's power, Gruen (1984) has described Rome's growing influence and involvement in the Greek east as part of a more reactionary, rather than imperialistically motivated, approach.
[13] Chaniotis 2018, 173.
[14] Morris and Knodell 2015 358-59.
[15] Zuiderhoek 2009.

this form of investment and contribution from elites and aristocrats, with the process peaking in the Imperial period even though the phenomenon of eurgetism was already "clearly visible by the second century BC."[16] This process, where elite members of society, mainly locals, invested large sums of money in benefactions such as festivals and public monuments was one of the major modes of interaction between elites and their communities as the former vied with each other for prominence and social power while doing their perceived duty as wealthy members of the population. One of the most lasting remnants of this process is its effect on the built environment. Marek argues that the epigraphic record indicates that buildings were the "dominant goal of donations" but also that the good preservation of dedicatory inscriptions of these monuments has biased the discussion of the finances of the cities of Asia Minor to favor euergetism due to the underrepresentation of state funding.[17] This dissertation is not specifically focused on evaluating the relative investment of the state when compared to private benefactions, but rather on the experience of those arriving at these cities, and the changes to the cityscape throughout this period. Although Marek suggests that discussions of euergetism must take into accout the availability of the evidence, he also clearly outlines that "the wave of urbanization and the architectonic flourishing in the Hellenistic period" was followed by a boom in construction, and reconstruction, during the Roman Imperial period that "raised the construction industry of ancient Asia Minor to a new level – the highest in its history."[18]

The architectural development of the Hellenistic and Early Roman Imperial periods brought new opportunities for the communities and indivduals of the cities of Asia Minor and the surrounding islands to adapt their cityscapes by including new structures or patterns of urban

[16] Chaniotis 2018, 321.
[17] Marek 2016, 432-34.
[18] Marek 2016, 438.

design, should they so choose. Thus, the built environment articulates changes in Greek society, such as its evolving relationship with Rome. One important aspect of this environment was the image coastal cities presented to travelers arriving by sea. This is the subject of this dissertation.

Cities and "Signaling"

Scholars have studied urbanism, and the phenomenon of the city, since the origins of archaeology as a discipline.[19] My research does not attempt to answer questions of what defines a city or how we can quantify the spatial distribution of cities in a region or landscape, which are some of the more common inquiries that have dominated the field of urbanism within archaeology.[20] Of the many traditions of scholarship on urbanism, perhaps the most relevant to this study is the recognition that cities can be defined by an architectural core, populated with public structures and monuments, but that these structures and monuments also rely on the population and culture of a city to help provide meaning and to interpret these buildings.[21] The idea that cities can be defined by their public structures, that they were aspects of the built environment that could have been used as focal points for communal experience, identity, or power, has persisted in the scholarly discourse, however with different approaches on how to interpret these structures given their historical contexts.[22] In the second half of the 20th century the meaning of the skyscraper in modern towns, both in intent and reception, was much debated, but there was

[19] Yoffee and Terrenato (2015) outline the historical trajectory of these studies as they relate to archaeological research.

[20] Blanton (1976), in fact presents these two subjects. See, for instance, Childe (1950), Mumford (1961), and Kostof (1991) for defining a city, and Wright and Johnson (1975) and Johnson (1980) for spatial distributions of settlement.

[21] Historians and urban theorists have extensively discussed this topic, for instance Childe (1950), who argued for the importance of the physical structures and Mumford (1961) who responded that the "social core is more significant than any particular physical manifestation." (1961, 85). Kostof (1991) has more recently tried to find a balance between these two extremes.

[22] Lynch (1960) emphasized "legibility" of a city, and considered landmarks, paths, and nodes. Ledrut (1973) suggested that there was a greater variety in interpretation depending on the audience. Rapoport (1990) writes that various elements of the built environment can generate expected actions, based upon shared communication. Hiss (1990) explores the relationship between experience of the city and the countryside.

a consistent emphasis on the fact that the cultural context helped define how these skylines were perceived and interpreted, and for instance that the skylines of Medieval Italian would have had a different meaning because of the different context in which they evolved.[23]

Beyond individual elements of the built environment a city itself could also be considered a symbol imbued with meaning from a semiotic point of view, with that meaning changing from culture to culture and from viewer to viewer.[24] The concept of monumentality and semiotics of the built environment, including audience and signaling, can be adapted and applied to this study, to provide the methodological and theoretical framework to guide analysis as to how these urban communities of Asia Minor adapted to a changing Mediterranean. The theory of signaling has been developed and applied by scholars from many regions and historical contexts, and the general ideas form some of the main theoretical foundations for how architecture will be interpreted in this dissertation.[25] There are a variety of factors that could modify both the expression of a signal, and its reception.[26] These include the information (the signal), the materialization of the signal, the audience, and the ability of the signal maker to enact this signal.[27] In the case of architecture we have evidence from the material remains of the structures, which were rather permanent expressions of a signal, if we can consider them signals as this thesis intends to do. A classic case of architecture being used as a signal may be found in late-Antique fortifications from Anatolia

[23] Ford 1992; Domosh 1988; Gottmann 1966. See Gottmann (1966, 208) for the Medieval Italian skyline.
[24] Bogdanović 1975. See, for example, the differences in meaning of monumentality interpreted by scholars of the Andes (Janusek 2004l Moore 1996) and in Egypt (Richards 2010).
[25] On signaling in general see Quinn (2019) and Conolly (2017, 435-37). For examples of applications in other contexts see Neiman (1997) and Glatz and Plourde (2011). Wandsnider (2013, 2015) has developed this theory for case studies from Asia Minor, including when applying it to Aphrodisias (Wandsnider and Nelson 2015).
[26] Quinn 2019, 287-89.
[27] Among other factors. See Quinn (2019) for a more thorough description.

which were used by cities to establish a certain identity beyond just the functional purpose of defense.[28]

This dissertation takes the "city" as the unit of analysis, exploring how urban centers adapted to the changing economic, political, social, and religious context of the ancient Mediterranean world. Cities have been discussed by a wide variety of urban historians who have used ideas such as concentration, size, diversity, power, permanence and culture as to define a "city."[29] In the case of the cities of coastal Asia Minor, it is notable that they are all linked by the same potential sources of income, those being their harbor and potential favor from a central power, and it is the visual aspects to cities that will be discussed throughout this project, primarily their monuments and their more general form. Although it is architecture that will form the basic unit of analysis in this study, it is only from an examination of their relationship to the citizens of these communities, and their visitors, the human aspect, that we can derive meaning from these buildings. Cities are not just buildings, and not just people, but the combination of the two and it is people that give meaning to the architectural forms by selectively choosing which types of structures to put forth as the landmarks of their cities.[30]

We are fortunate in the study of Greek and Roman cities of Asia Minor that we are gifted a tremendous amount of context that helps us to read their architecture, from the physical remains to the artistic and written record, which has been studied for decades and from which a general framework about these societies can be formulated. These cities were aware of the dynamics of the networks and sociopolitical contexts that they were a part of and understood that their role in this

[28] Maranzana 2018, 45; Jacobs 2013, 19-110.
[29] Kostof 1991; Wirth 1938; Mumford 1938.
[30] Rapoport (1990, 1988) contends that monuments and landmarks can communicate "identity, status, wealth, power, and so on" (1990, 221) only if the viewer is able to view, perceive, associate, then interpret what they see.

network could be molded and defined by the perception of others. They were "self-conscious about their corporate identity and expended an extremely high proportion of their resources on public amenities and on buildings and other monuments that drew attention to the community as a whole."[31] The port cities along the ancient coast of Asia Minor are the exemplary form of the "City as Entrepot" of R. Osborne and A. Wallace-Hadrill, and they were dependent on the constant arrival of visitors, temporary residents, who were interested more in using the city as a node along a trade network, rather than as a permanent residence where they may have an opinion on some type of political policy.[32] This contextual reading of the architectural development of the coastal communities of Asia Minor is the goal of this project, to place the maritime façades of these cities into their historical context, and providing insight into the experiences of both the citizens of these communities but also the visitors and travelers arriving at their shores.

Audiences

The audience for the architecture, the façade, of the cities of Asia Minor were the crews and travelers of the ships approaching the ports and harbors. Whether these were elite visitors to these cities, merchants, or even just the daily fishermen of the cities themselves, this seaborne audience was viewing this urban façade and interpreting it. Once they received and interpreted something about the façade, whatever that may be, they could take that message with them and spread it through conversation or through more formal written documentation.

The experience of maritime travelers is perhaps difficult to access, as their material traces are often captured through select moments in time, such as through shipwrecks, rather than through their permanent residences or their organized centers. Similarly, much of the textual evidence we

[31] Osborne and Wallace-Hadrill 2013, 2-3.
[32] Osborne and Wallace-Hadrill 2013, 7.

have focuses on trade and the economy rather than the experiences of this mobile population, which would have likely been the audience for any form of architectural display along the waterfront. That is not to say that only sailors and people working on the sea traveled, and occasionally we do have access to the thoughts and experiences of other portions of the population through their written work. By looking at a selection of the ancient literary record, and drawing analogy from both similar contexts and time periods, we can begin to infer at least how a mobile population may have experienced their arrival at these ancient ports and how this space could have been intentionally manipulated to impart a particular message through their monuments.

The clearest examples of viewing and interpreting a message of some kind are the ancient authors, often elite males, who have had their thoughts and opinions recorded in the texts that we have access to from the ancient world. But other hidden voices also played a role in this network. In reference to Medieval Asian communities these types of people are termed "Wise Practitioners" by Morillo and are essentially the merchants who traveled throughout a network, holding the key to understanding and navigating the different cultures and communities they encountered.[33] The merchants of the ancient world would have seen the urban façades and harbor facilities of each of the cities along the coast of the Mediterranean and would have possessed an understanding unique to their experience as to what these symbols meant and how to interpret them.

Throughout the period of interest of this study, and throughout history, cities evolve and need not be static artifacts, stuck with one particular set of monuments with one particular meaning.[34] D. Favro, who has written extensively about the image of the city in the context of Rome and central Italy, suggests that scholarship, using Kostof as her main example, has come to

[33] Morillo 2011, 6-9.
[34] On this topic in general see, for instance, Emberling et al. (2015).

accept that cities are not moments in time but that they evolve and "transcend history, constantly redefining themselves."[35] As more and more attention was being placed on cities and new approaches to studying them were being developed the focus of architectural historians has often been on vision, rather than other senses or aspects of the city, as the main experiential marker, including by MacDonald in his landmark volumes on Roman urbanization.[36] Many of these studies focus on elite perceptions of space, whether through text or by reconstructing the privileged position of an elite viewer during a procession or ceremony and she contends that "the next step is to expand the examination of daily and exception rituals to include nonelite input and reactions."[37] This study does not restrict itself to elite arrivals at the harbors, but rather attempts to view the city as a whole, as an artifact that people of many different social statuses would have come into contact with from a ship approaching the harbor, who could have interpreted different things from the façade with which they were presented. This study will look at the moment of impact and interpretation, to see what were the first signals, the first symbols of the city, to those arriving by sea, elite or non-elite, and to examine how these may have differed between these cities as the local communities chose to develop their coastlines.

All of these travelers and visitors, whether working regularly on a ship or traveling once in their lifetime would have experienced the same architectural features as they approached the harbors of the communities along the coastline of Asia Minor. How their experiences may have differed was determined by how often they experienced this moment of arrival and whether they could, and did, interpret any particular message from what they saw, heard, smelled, and felt. A

[35] Favro 1999, 365. The idea of a city changing over time and not just being a static artifact is hardly unique to Favro or to Rome.
[36] Favro 1999, 367-68; MacDonald 1986.
[37] Favro 1999, 368-69.

local fishman, for instance, may have put out to sea every day in the morning, and returned every evening, thus experiencing this approach regularly and likely would have had more intimate knowledge of the details of the architecture and the approach, even if he may not have been able to interpret specific messages in the architectural decoration and artistic depictions which may have been intended to convey a certain emotion or feeling in a local governor or other political elite. What may have been universal, however, in the perception and interpretation of these façades was the scale and type of structure, and how architecture may have occluded, or framed, other features in the city or landscape.

As these audiences, of whatever nature, arrived at these cities their first exposure to the city would have been the visual impact of the architectural features, and thus their first impressions would have been formed as they gazed upon the maritime façades of these cities and the backdrop of the natural landscape.

Ancient Interpretations

The concept of a city or community being defined in some way by its architectural components was not unfamiliar to the Greek and Roman authors of the ancient Mediterranean. When considering how the citizens and residents of the Classical Mediterranean may have perceived these monuments and how they may have altered the way people thought about the cities they were placed in, we can first look to Thucydides, writing in the 5th century BCE, who draws a distinction between Sparta and Athens in the number and grandeur of architectural monuments in the respective cities:

> For I suppose if Lacedaemon were to become desolate, and the temples and the foundations of the public buildings were left, that as time went on there would be a strong disposition with posterity to refuse to accept her fame as a true exponent of her power. And yet they occupy two-fifths of Peloponnese and lead the whole, not

> to speak of their numerous allies without. Still, as the city is neither built in a compact form nor adorned with magnificent temples and public edifices, but composed of villages after the old fashion of Hellas, there would be an impression of inadequacy. Whereas, if Athens were to suffer the same misfortune, I suppose that any inference from the appearance presented to the eye would make her power to have been twice as great as it is.[38]

He associates the visual appearance of the city, specifically in terms of its number and quality of public monuments, with the perceived power of the city, whether that relationship is truly reflective of the reality of the situation. And although he does mention "public edifices" in equal weight to temples, the only monuments that he specifically lists as a physical visual manifestation of the power of an urban center are the temples, rather than listing stoas, harbors, theaters, or other structures. That a Classical Greek author would have focused on temples as a category of structure that would define a city's status is not terribly surprising given the importance of sanctuaries for the identity of the polis.[39] The implication from Thucydides that Athens would be perceived as more powerful due to its compact form and public monuments and temples when compared to Sparta, which was more spread out, with fewer, or at least a lower density of, monuments speaks to this link between power and architecture. His claims that others may perceive the power of a city through observation physical monuments, even if this interpretation is incorrect, implies an intrinsic character of the built environment in the ancient Greek world, at least to those who could interpret that message.

Vitruvius, writing in the 1st century BCE, sets out his, perhaps highly opinionated, views on establishing a new city including the selection of a suitable site and the architectural details needed for constructing the walls and roads of a city but also where to site the major public structures.[40] In this even he makes a clear distinction between maritime and interior cities:

[38] Thuc. *Hist.* 1.10.2 (trans. J.M. Dent, 1910).
[39] Pedley 2006; de Polignac 1995.
[40] Vitr. *De arch.* 1.7.

> If the city is on the sea, we should choose ground close to the harbour as the place where the forum is to be built; but if inland, in the middle of the town.[41]

And on the topic of visual connections between monuments and the cityscape, suggests that the temples should be placed "on the very highest point commanding a view of the greater part of the city."[42] He later describes viewing Halicarnassus, including stating that the stucco on the walls was "[...] so highly polished that they seem to be glistening as glass."[43] He continues to describe the city as a whole, likening its form to that of a theater when viewed from the sea:

> The place had a curvature like that of the seats in a theatre. On the lowest tier, along the harbour, was built the forum. About half-way up the curving slope, at the point where the curved cross-aisle is in a theatre, a broad wide street was laid out, in the middle of which was built the Mausoleum, a work so remarkable that it is classed among the Seven Wonders of the World. At the top of the hill, in the centre, is the fane of Mars, containing a colossal acrolithic statue by the famous hand of Leochares.[44]

And a few lines later:

> Corresponding to the fane of Venus and the spring described above, which are on the right, we have on the extreme left the royal palace which king Mausolus built there in accordance with a plan all his own. To the right it commands a view of the forum, the harbour, and the entire line of fortifications, while just below it, to the left, there is a concealed harbour, hidden under the walls in such a way that nobody could see or know what was going on in it.[45]

Vitruvius also describes that temples should face the west but if this is not possible then the view towards passers-by should be prioritized:

> But if the nature of the site is such as to forbid this, then the principle of determining the quarter should be changed, so that the widest possible view of the city may be had from the sanctuaries of the gods. Furthermore, temples that are to be built beside rivers, as in Egypt on both sides of the Nile, ought, as it seems, to face the river banks. Similarly, houses of the gods on the sides of public roads should be

[41] Vitr. *De arch.* 1.7.1 (trans. M.H. Morgan, 1914).
[42] Vitr. *De arch.* 1.7.1 (trans. M.H. Morgan, 1914).
[43] Vitr. *De arch.* 2.8.10 (trans. M.H. Morgan, 1914).
[44] Vitr. *De arch.* 2.8.11 (trans. M.H. Morgan, 1914).
[45] Vitr. *De arch.* 2.8.13 (trans. M.H. Morgan, 1914).

> arranged so that the passers-by can have a view of them and pay their devotions face to face.[46]

After Vitruvius' description of Halicarnassus, Strabo, writing in the Early Imperial period, describes Cos as "the most beautifully settled of all, and is most pleasing to behold as one sails from the high sea to its shore."[47] In these descriptions we can infer that there was an awareness in the ancient authors of the value of a city presenting a certain façade out to visitors approaching by sea.

Pausanias, writing in the 2nd century CE, begins his *Description of Greece* with the following passage:

> On the Greek mainland facing the Cyclades Islands and the Aegean Sea the Sunium promontory stands out from the Attic land. When you have rounded the promontory you see a harbor and a temple to Athena of Sunium on the peak of the promontory.[48]

He could have chosen to begin his work with anything at all but he chose a description of a maritime approach to Attica, describing the visual aspects of the arrival at Sunium, to capture the attention of his audience and to set the tone for the rest of his geography. When describing Ionia Pausanias goes on to write that the sanctuaries, even those burned by the Persians were wondrous to view, specifically those at Ephesus, Branchidae, Claros, Samos, and Phocaea.[49] Later he mentions that the sanctuaries at Erythrae and Priene are also delightful.[50] He continues, writing about some of the natural wonders of Ionia and also presenting the baths of Lebedus, Teos (at Cape Macria), and Klazomenai.[51] He specifically says that some of the baths of Teos were "[...] in the clefts of the rock, filled by the tide, others made to display wealth," indicating that these structures could serve

[46] Vitr. *De arch.* 4.5.1 (trans. M.H. Morgan, 1914).
[47] Strab. *Geog.* 14.2.19 (trans. H.L. Jones, 1924).
[48] Paus. *Description of Greece* 1.1.1 (trans. W.H.S. Jones and H.A. Ormerod, 1918).
[49] Paus. *Description of Greece* 7.5.4.
[50] Paus. *Description of Greece* 7.5.5.
[51] Paus. *Description of Greece* 7.5.10-11.

a signaling function as well as a practical function.[52] While his specific motive for describing these specific monuments and visible aspets of the built environment may not be entirely evident, I would argue that he is appealing to his audience with memorable experiences and notable vistas that they could relate to and understand.

The 1st and 2nd centuries CE were also home to the sophists that were a part of the Second Sophistic, including authors like Aelius Aristides and Dio Chrysostom, as described by Philostratus in *Lives of the Sophists*. These authors were part of a community of educated Greeks trained in rhetoric and who regularly gave public declamations or speeches on other topics, and in both style and subject matter often clung closely to the Classical past of the Greek world.[53] When discussing the way that authors of the Second Sophistic describe Alexandria, which in their opinion was as striking upon approach as many of the cities of Asia Minor, M.B. Trapp also points out the relative scarcity of literary descriptions of the city and claims a bias in the literary record towards the cities of Greece and Asia Minor.[54] This bias may be unsurprising as the movement itself was most prominent in Greece and Asia Minor and the everpresent desire of those involved to cling to the Classical past. In an influential paper about Romanization in the East from 1994 G. Woolf argues that in the Early Roman Empire the Greek East continued to speak Greek and that the Hellenistic past was still highly valued, similar to the linguistic patterns that emerge from the sophists of the Second Sophistic.[55] Even while the language and traditional values may have remained, he emphasizes that the Greek East adopted many aspects of Roman material culture, including aspects of the built environment: "The entire physical appearance of Romano-Greek cities was transformed, as new kinds of buildings were built with new techniques and new materials to serve

[52] Paus. *Description of Greece* 7.5.11.
[53] *New Pauly Online* (Second Sophistic); Bowie 1970.
[54] Trapp 2017, 124-30.
[55] Woolf 1994.

new ends."[56] He goes on to build upon the analysis of F. Yegül, who writes that many elements of Early Imperial architecture would not have had connotations of Roman or Greek to those who were using them, to reemphasize that that architecture may not have had the same signals of cultural affiliation to Greeks as language did during the Second Sophistic.[57] That the authors and sophists of the 1st and 2nd centuries CE lauded the Greek tradition and history of the East does not mean that the built environment was static and rooted in the same Classical past. Authors, such as Aelius Aristides, who were active in Asia Minor and will play a major role in this dissertation via their descriptions of these cities were part of an intellectual movement that would have held the past versions of these cities in high regard, and this can be seen through their descriptions of cityscapes, notably of Smyrna and Rhodes.

In many cases, from the Classical period through the Second Sophistic, the cities of the ancient Mediterranean were described as to the beauty of their maritime façades, and individual monuments, often temples, were listed. These structures played a significant role in how these ancient authors conceived of the cities themselves, their boundaries, and the value of the city or settlement itself. It is clear that ancient authors from many different periods valued vistas greatly in their thoughts about cities, from how to build one or how they describe them. The view outward of a temple or the dominance of a building along the coastline were key concepts in urban design and description. As the Mediterranean saw the seas become more and more peaceful, trending towards a "connecting" nature so too did ancient urban planners, architects, philosophers, and the inhabitants of their cities. Rather than distance themselves from this intensity of activity that takes place at the harbor and throughout the Mediterranean, Hellenistic and Roman cities pivoted to focus on this boundary in a more welcoming and all-encompassing way.

[56] Woolf 1994, 127-28.
[57] Woolf 1994, 126-27, 140 n. 51; Yegül 1991.

Maritime Façades

The concept of a curated maritime approach to a city is not uncommon in modern examples, even though analogy with the ancient world may not be a perfect match. Taking Venice, Genoa, Constantinople, or even New York City as examples of cities which cultivated and presented a notably attractive façade to maritime viewers it is easy to see that this is a pattern that has persisted until today. D. Savoy has described the urban scenography of Venice and how the maritime approach was carefully constructed to elicit certain emotions in visitors arriving at the city.[58] He writes that the city would have first been recognized by its bell towers, notably San Marco, which were used as navigational landmarks, similar to lighthouses, but which also would have been the first architectural features recognizable to visitors to the city as they scanned the open waters of the maritime approach for features by which they could gain their bearings.[59]

All visitors to Venice prior to the 19th century would have arrived overwater, although this is not true for every such example. It is not uncommon for coastal communities to choose to emphasize a maritime façade, putting their best-face, as it were, towards the sea. In the case of Genoa, T. Martyn suggests that although there is a beautiful vista of the city from the top of one of the many churches, "[...] it is seen to most advantage, by traversing the harbour in a boat, or a quarter of a league out at sea."[60] In the first edition of the John Murray handbook on travel through Northern Italy, F. Palgrave quotes Rose as saying that although some cities, such as Naples and Constantinople, lose their charm upon landing and entering the city, Genoa is able to maintain its beauty even in its interior, although they insist on the point that "[…] Genoa is most impressive in

[58] Savoy 2012.
[59] Savoy 2012, 32-56.
[60] Martyn 1791, 44.

its general exterior, and is best seen from the sea."[61] Rose then continues by describing the city like a theater, with residences among the flowers and natural environment of the hillside making a beautiful façade for the visitor viewing it from the sea.[62]

Moving across the Mediterranean closer to Asia Minor it is not uncommon to find reference to the beauty of Istanbul when approached from the water. H.J. Van Lennep describes the entrance into the harbor as "one of the most gorgeous sights in the world."[63] And E. Veryard even mimics Vitruvius' description of Halircarnassus by referring to the buildings of Constantinople as forming an amphitheater:

> The Haven or Port is one of the largest and surest in Christendom, being encompass'd by *Galata* and *Constantinople* in the form of an Amphitheatre, which gives a very pleasant prospect to such as view them from the Water.[64]

The concept of city as theater, or amphitheater, is not a new concept in the 18th century as concerns Istanbul, nor was it new in 19th century, in relation to Genoa, as this concept was long applied to ancient cities, including by ancient authors like Vitruvius on Halicarnassus or Diodorus when discussing Rhodes.[65] The persistence of describing a city as a theater when viewed from the sea shows that this is something recognizable and even something desirable, as these cities are lauded for their beauty by the people writing about them, in the ancient world or in the early modern period. Whether these façades were intentionally constructed in either case may be difficult to prove but the fact remains that the traveler, trader, or visitor would have viewed and experienced the arrival at these locations and seen this façade as they approached the city. In order to appreciate

[61] Palgrave 1842, 94.
[62] Palgrave 1842, 94.
[63] Van Lennep 1870, 21.
[64] Veryard 1701, 341. For Vitruvius on Halicarnassus: *De arch.* 2.8.10.
[65] Rhodes, was described as a theater by Diodorus Siculus (*Bibl.* 19.45.3, 20.83.2). This concept in relation to Rhodes is further developed by Kondis (1954) and more recently by Filimonos-Tsopotou and Patsiada (2018). And for Vitruvius on Halicarnassus: *De arch.* 2.8.10.

this vista in the same manner as Rose did would have required a similar set of aesthetic values and ability to read the landscape to interpret the structures and their integration into the landscape as both city and with the property of beauty, but the number of cases where authors write about this concept would seem to indicate that many people had this ability and these values, even if it is not a universal experience. These modern authors, of course, continue to describe the cities in more detail, including offering descriptions of the paths and sites of the urban core once they have disembarked from their ships, but this moment of impact, of grandeur, when first presented with a view of the architecture of the city was worth recording and sharing with others. Not all cities had this effect and often these authors did not describe inland cities the same way, rather moving immediately to a tour of the notable sites and monuments within the fabric of the city. We can see that this moment of arrival was both notable and worthy of recounting.

In "Aquatecture: Architecture and Water," A. Wylson writes that "Greek and Roman ports were closely associated with public areas and were lined with significant public buildings."[66] He goes on to suggest that in the colonnades and porticoes connecting port to agora at Miletus or the maritime frescoes from the Bay of Naples, as well as the monuments such as the Pharos of Alexandria or the Colossus at Rhodes there was a focus on providing landmarks for maritime visitors and for siting important monuments by the harbor. "The harbour space provided both the quayside functions and the civic importance for a gateway to the city."[67]

If we take Caesarea Maritima, in modern day Israel, as an example of a harbor in the eastern Mediterranean completely constructed in the Early Imperial period and look to Josephus for a

[66] Wylson 1986, 6.
[67] Wylson 1986, 6.

description it is notable how many words he uses to describe the harbor and the structures, statues and monuments that adorn it when compared to describing the rest of the city:

> His notice was attracted by a town on the coast, called Strato's Tower, which, though then dilapidated, was, from its advantageous situation, suited for the exercise of his liberality. This he entirely rebuilt with white stone, and adorned with the most magnificent palaces, displaying here, as nowhere else, the innate grandeur of his character. For the whole sea-board from Dora to Joppa, midway between which the city lies, was without a harbour, so that vessels bound for Egypt along the coast of Phoenicia had to ride at anchor in the open when menaced by the south-west wind; for even a moderate breeze from this quarter dashes the waves to such a height against the cliffs, that their reflux spreads a wild commotion far out to sea. However, by dint of expenditure and enterprise, the king triumphed over nature and constructed a harbour larger than the Piraeus, including other deep roadsteads within its recesses.
>
> Notwithstanding the totally recalcitrant nature of the site, he grappled with the difficulties so successfully, that the solidity of his masonry defied the sea, while its beauty was such as if no obstacle had existed. Having determined upon the comparative size of the harbour as we have stated, he had blocks of stone let down into twenty fathoms of water, most of them measuring fifty feet in length by nine in depth and ten in breadth, some being even larger. Upon the submarine foundation thus laid he constructed above the surface a mole two hundred feet broad; of which one hundred were built out to break the surge, whence this portion was called the breakwater, while the remainder supported a stone wall encircling the harbour. From this wall arose, at intervals, massive towers, the loftiest and most magnificent of which was called Drusion after the step-son of Caesar.
>
> Numerous inlets in the wall provided landing-places for mariners putting in to harbour, while the whole circular terrace fronting these channels served as a broad promenade for disembarking passengers. The entrance to the port faced northwards, because in these latitudes the north wind is the most favourable of all. At the harbour-mouth stood colossal statues, three on either side, resting on columns; the columns on the left of vessels entering port were supported by a massive tower, those on the right by two upright blocks of stone clamped together, whose height exceeded that of the tower on the opposite side. Abutting on the harbour were houses, also of white stone, and upon it converged the streets of the town, laid at equal distances apart. On an eminence facing the harbour-mouth stood Caesar's temple, remarkable for its beauty and grand proportions; it contained a colossal statue of the emperor, not inferior to the Olympian Zeus, which served for its model, and another of Rome, rivalling that of Hera at Argos. The city Herod dedicated to the province, the harbour to navigators in these waters, to Caesar the glory of this new foundation, to which he accordingly gave the name of Caesarea.

> The rest of the buildings—amphitheatre, theatre, public places—were constructed in a style worthy of the name which the city bore. He further instituted quinquennial games, likewise named after Caesar, and inaugurated them himself, in the hundred and ninety-second Olympiad, offering prizes of the highest value; at these games not the victors only, but also those who obtained second and third places, participated in the royal bounty.[68]

When Herod constructed this port city in the last decades of the 1st century BCE he was focused on sending a message to Rome through the dedication of temples and statues, and by naming the city itself after Caesar. The description that Josephus provides is dominated by structures that were along the harbor, and the rest of the features of the city are left as secondary considerations without anywhere near as much fanfare, although they too were located in highly visible locations along the coastline.[69] The maritime façade along the harbor clearly took the prime place in what was significant to him, and what was significant to relate in his description in his text, perhaps an indication of what was most memorable or most significant about the site.

This dissertation will apply the ideas of Wylson and the other topics discussed in this introduction to a selection of port cities from the ancient world in the Hellenistic and Early Roman periods, a moment when cities across the Mediterranean were developing and expanding their maritime façades in a monumental way. The maritime façades of the ancient world included not just the harborworks and the structures that lined the harbor but the entire summation of the cityscape as viewed from the sea, including the natural topography within which the cities were located. That these façades could be viewed by a traveler at sea, and perhaps were crafted intentionally to be viewed by such an audience is what makes them "maritime" as opposed to the terrestrial façade that would have been experienced by those approaching by land.

[68] Joseph *BJ* 408-415 (trans. H. St. J. Thackeray, 1927).
[69] Holum et al. 1999, 8

The Study of Ports and Harbors of the Ancient World

Ports and harbors of the ancient world have been the subject of intermittent scholarship, with the first modern attempt to catalogue and describe the plethora of ancient harbors being undertaken by K. Lehmann-Hartleben in 1923.[70] Sixty years later, D. Blackman wrote a two article series on the ancient harbors of the Mediterranean, pointing out patterns in their development and observations about their siting and form, while also discussing the history of scholarship and noting the lack of comprehensive updates since Lehmann-Hartleben's work:

> The first, and so far the only, large-scale survey of ancient harbours by Karl Lehmann-Hartleben was a monumental piece of work and remains an important reference book. It was, however, largely a compilation based on literary evidence rather than personal observation, and it does assume too easily an even and universal advance in methods of harbour construction.[71]

Blackman also points out that research had in fact taken place on individual sites, or groups of sites, since the 19th century, while also identifying some serious gaps in archaeological studies of ancient harbors even at the time of his article, such as the fact that the harbors of Miletus, Ephesus, and Cnidus had "been defined but hardly excavated."[72] That is not so say that there was no research being done on ports, or even on the Mediterranean as a whole throughout this period. In the mid-century F. Braudel published his massively influential book on the Mediterannean, bringing the concept of the longue durée from the Annales School of history to the forefront of discussion.[73] His approach highlighted the importance of the sea, but also other aspects of a changing world that may go unnoticed by individuals but have a profound effect on the long-term human experience.

[70] Lehman-Hartleben 1923.
[71] Blackman 1982b, 86. Blackman's "Part 1" (1982b) focuses on literary and pictoral evidence, offering a summary of scholarship, and a discussion of the earliest harbors. In "Part 2" (1982a), he discusses many of the Greek and Roman case studies and discusses the development of harbors throughout the Classical period, including technological developments like concrete that could set underwater, which allowed for new and novel port shapes and facilitated their siting in new locations.
[72] Blackman 1982b, 85-90.
[73] Braudel 1949.

More recently, the ports and harbor cities of the ancient Mediterranean have been the focus of renewed attention, notably with a number of prominent projects and studies dedicated to ancient ports, port towns, maritime networks, and the maritime world emerging since the publication of P. Horden and N. Purcell's seminal 2000 study "The Corrupting Sea."[74] Horden and Purcell explored the duality of a fragmented series of micro-regions that were nevertheless connected as part of the broader Mediterranean network, in which the role of maritime connections was fundamental. Their work is as broad and ambitious as it has been influential and subsequent scholarship has taken a strong interest in this idea of connectivity and network approaches. Some of the most developed and comprehensive adaptations of these ideas address the pre-Classical world, with both C. Broodbank and T. Tartaron publishing monographs in 2013 that focus on the early maritime networks that emerged in the Mediterranean.[75] At the same time as these ideas were developed a growing desire to engage with networks and connectivity emerged in the scholarship of the later Greek and Roman periods. In *A manifesto for the study of ancient Mediterranean maritime networks* J. Leidwanger et al. argue that the field holds great unlocked potential, emphasizing "interaction—maritime interaction in particular—as a crucial social activity in the formation of communities and cultures."[76] They contend that a network approach focused on connectivity can help scholars who wish to address questions of culture, communication, and exchange – from trade to ideas, and also that it can help to identify the emergence of new technologies, religious movements, trade connections, and resilience in systems even when faced with changing aspects of the socio-political context. For instance, regarding the Hellenistic to Roman transition they ask:

> When, however, basic technologies of seaborne connectivity remained essentially unchanged—as, for example, seems to be the case from the Hellenistic into the Roman world—should we expect some degree of resilience (or simply inertia from

[74] Horden and Purcell 2000.
[75] Broodbank 2013; Tartaron 2013.
[76] Leidwanger et al. 2014.

> the considerable 'sunk costs' of maritime investment) of maritime networks, even in the face of shifting supply and demand, evolving socio-political institutions and changing political and military authorities?[77]

They do not attempt to answer this question, nor many of the others that they pose, in this manifesto, but they do attempt to introduce a new way of thinking about Mediterranean history, or at least to expand on the ideas that Horden and Purcell presented. Leidwanger and C. Knappett state their goals even more clearly in the first chapter of their edited volume on the same themes from 2018:

> By bringing both theoretical approaches and analytical methods from network science to patterns of maritime communication, resource procurement, and exchange, we seek to understand the evolving structure and nature of socioeconomic connectivity that guided Mediterranean interaction manifested in the material and historical records.[78]

In this introduction they argue that "[…] certain forms of interaction may only be practical with built all-season harbors that (if well attended) represent long-lived installations and landscape features," an idea that forms one of the central concepts of this dissertation, which addresses communication, performance, and signaling through the built environment at ancient harbors.[79]

At the same time that Horden and Purcell's ideas were being developed and expanded upon by this group of scholars, other ambitious projects attempting to examine the dense harbor networks from the ancient world, throughout the Mediterranean and beyond, were being planned and undertaken (Figure 5). The European Research Council funded *Portus Limen: Rome's Mediterranean Ports* project ran from 2014-2019 and brought together 32 ports of varying scales dating to the first three centuries CE from across the Mediterranean in a comparative context, with a focus on geophysical and geoarchaeological exploration. On a slightly broader scale the *Harbours from the Roman Period to the Middle Ages* project ran from 2012-2015 and was

[77] Leidwanger et al. 2014.
[78] Leidwanger and Knappett 2018, 15.
[79] Leidwanger and Knappett 2018, 6.

supported by the German Research Foundation. This project addressed harbors within and beyond the Mediterranean and brought together fifteen independent research projects. These projects indicate a growing interest in ports and harbors, and the existence of a large international scholarly community engaged in the kinds of issues addressed in this dissertation.

The study of the built environment of coastal Asia Minor has also seen much recent attention, including its role as a container of meaning and as a powerful element in spatial and visual the identity of the cities in the region. This includes a nascent discourse forming among scholars of the harbor cities of Asia Minor (Figure 6). For example, in the 2014 edited volume *Harbors and Harbor Cities in the eastern Mediterranean from Antiquity to the Byzantine Period*, a few articles address various themes of urbanization in Asia Minor, and two papers are directly relevant to the themes of my project. F. Pirson argues that in ancient port cities individual monuments were constructed to respect the maritime viewscape both to be seen from and to facilitate views out over the sea, indicating the dynamic relationship between urban populations in these centers and their environments.[80] In this article he laments, as Blackman did in 1982, the lack of significant developments in the broad study of harbors and ports from the Ancient world since Lehman-Hartleben's 1923 study, but points out there is hope for the future in the form of the new projects, including those that have been outlined above.[81] He briefly addresses the evidence from a number of case studies, including some that are approached in this project and concludes that the perspective of these cities towards the sea can be examined at multiple levels, from the streets and urban planning, through movement and visibility, as well as the orientation of individual structures, all of which indicated that they were intentionally presented towards the

[80] Pirson 2014a.
[81] Pirson 2014a, 620-22.

sea.[82] Pirson then suggests that future research may help identify the shaping of a maritime identity through urban planning, adding that this type of study could contribute to the broader discourse of 'Mediterranean Studies', a challenge taken up in this dissertation through a more thorough presentation of the evidence, supported by visual analysis.

Another article from the same 2014 volume, by C. Bouras, evaluates the changes in harbor form and fabric between the Hellenistic and Early Roman periods; however, Bouras concludes that the only harbors that show remodeling through this period are Rhodes, Cos, and Thasos.[83] She writes of these three cities, "they are also cities whose harbours play an important role in their ostentation and their image. Other harbours do not show remodelling to the same extent."[84] Her work, however, was limited to only a few dispersed harbors, and did not convincingly account for the various other elements that comprised an urban façade when viewed from the sea including the landscape perspective and other elements of the cityscape beyond the harbor quaysides. Her evaluation was specifically about the harbor facilities, such as shipsheds, moles, and maritime fortifications, and, as Pirson has already shown in the same volume, there are other aspects of the urban façade which are outward looking and expressive, and which are evident in other sites.

Marek comments that the harbor facilities of the cities of Asia Minor have been "little-investigaed" in his 2016 book on the history of the region, but this is beginning to change even beyond the projects outlined above and the chapter by Bouras.[85] Perhaps the most relevant project, which was published in 2020 as a monograph titled *Hafenstädte im östlichen Mittelmeerraum vom Hellenismus bis in die römische Kaiserzeit: Städtebau, Funktion und Wahrnehmung*, comes from

[82] Pirson 2014a, 643.
[83] Bouras 2014.
[84] Bouras 2014, 679.
[85] Marek 2016, 445.

S. Feuser, who has worked with Pirson on the studies of Pergamon and Elaia and who took up the challenge from Pirson's 2014 article and uses some of the network and connectivity theories advocated in Leidwanger et al.'s manifesto in his study of harbors across the eastern Mediterranean.[86] He uses five case studies - Miletus, Alexandria, Ephesus, Caesarea Maritima, and Leptis Magna - to assess the development of harbors as dynamic nodes of the eastern Mediterranean, not focusing solely on the longue durée but rather on the visible affects of changing technologies and political and social relationships on these spaces. At the same time, he considers questions regarding the relationship of harbor spaces with the urban forms and fabrics of the cities to which they belong. By focusing on specifically on harbor structures, the people living and moving about the harbors, and the architecture and decorative elements of these spaces, he provides a comprehensive and detailed picture of how these spaces were organized and how they can inform us about urban planning, function, and perception in the past. This focus on the harbor itself is expanded somewhat in the fifth chapter, on the "Aesthetics and perception of the harbor and urban littoral," where he discusses the changing experience for those in the harbor basins themselves. He argues that harbors were staged as plazas and that they included porticoes, temples, honorific monuments, and monumental gateways that would have dominated the experience of travelers in the harbor, rather than structures associated with the functional aspects related to the working of the harbor.[87] He comments only briefly on the development of staged views such as those from the palace at Halicarnassus or an elite residence above the theater at Ephesus to state that they indicate that the view towards the harbor must have been an aesthetically desirable vista.[88] The evidence of honorary monuments by the harbor quaysides as well as temples that fronted onto

[86] Feuser 2020.
[87] Feuser 2020, 326.
[88] Feuser 2020, 327-38.

the harbor in these cities leads him to argue for harbors as important locations in the city for remembrance and ritual activity, and as lived spaces that would have hosted processions and festivals.[89] Finally he discusses artistic depictions of harbors, from wall paintings to sculptures to evidence from coins, with most of the evidence coming primarily from the Italian peninsula, and concludes that the natural environment plays little role in the depictions and rather it is the port architecture that takes primacy.[90] His arguments about the aesthetics and perception of ports are well supported by evidence but there is room to expand upon his work.

First of all, Feuser has selected five of the most significant harbors of the eastern Mediterranean for his study, all large, prominent port towns that would have played significant roles in the networks of maritime travel and trade. But these sites are spread across multiple regions and would have been sited within diverse landscapes and urban traditions. This dissertation is focused on a single coastline in a single region, in the hope of commenting on the experience of passing through these specific spaces and comparing the messages that the maritime façades of these cities imparted with a specific focus on the development of relations between these cities and the growth of Rome (Figure 7). Additionally, most of Feuser's focus is on the harbor structures and the buildings that line the harbor, thus leading to many of his conclusions about the experience of being in the harbor and his analysis of the importance of the built environment over the natural landscape. But I wish to explore the perception of the city upon approach, rather than from already being within the harbor's embrace. I believe that the topography of many of these sites allowed more structures to be visually prominent to the travelers arriving at these cities than just the architecture surrounding the harbor; for instance, the structures that Feuser cites as having desirable views out over the harbors may have also been visible from a ship at sea long before it

[89] Feuser 2020, 328-33.
[90] Feuser 2020, 333-40.

entered the harbor basin itself. This dissertation will take a step back from the harbor as "plaza" and attempt to describe the maritime façades of these cities from a distance, taking into consideration the landmarks and monuments that may have been visible from afar, even if not particularly near the harbor or part of its functional space.

In a much different approach than the studies by Bouras and Feuser that focus on the built environment of the harbor itself, an interesting project has recently been undertaken by G. Ryan, who focused on the experience of passing through a city in order to examine how the cities and cityscapes of Asia Minor related to Roman governmental authority, with a focus on the *adventus* of government officials.[91] He showed how elites cooperated to modify their cities to present certain monuments and experiences to visiting government representatives, and even to the emperor himself. Much of the evidence that he presents is historical, analyzing the written records surrounding these elite visits and decoding the intentions behind certain constructions and architectural developments within these cities. His main focus is on the adventus, or the arrival of government officials at the cities, and the ceremonies that would have been associated with these visits, events which would have been accompanied by great pomp and circumstance as the cities tried to curry favor with these officials, and thus with Rome itself. "These [visits] followed a broadly standardized pattern: as a governor approached the city gates, he passed between lines of citizens assembled by social group and rank."[92] The fact that these visits began outside the city, rather than at the monumental core, whether that be the agora, the central temple, or other such structure, emphasizes the importance assigned to cultivating a first-impression or a feeling about the city at the point of arrival.

[91] Ryan 2016, 2018. An earlier University of Michigan dissertation by S.L. Tuck (1997) addresses the specific case of harbor monuments as representation of Roman power and authority from primarily an art historical perspective.
[92] Ryan 2016, 174.

One of Ryan's main case studies is that of Perge, along the southern coast of modern day Turkey in Pamphylia, and he analyses the motives behind the construction of the Hellensitic Gate and the monumental avenue that runs from this gate through the center of the city. He describes the visit of the legate of Lycia-Pamphylia as beginning "at the harbor, whence a group of local notables escorted him to the south city gate. After entering the tunnel-like gate, his first view of the city was dominated by Plancia's arch and its statues of the imperial family."[93] The visit then continued with a well curated sequence of monuments and statues which would have communicated in a non-verbal way the power and fidelity of the local elites towards Rome, and thus impressed upon the visitors who could understand this message that this was a city worthy of attention and imperial favor.

What is most interesting in relation to this dissertation project is the idea that the visit started at the harbor, with the elites being led from there to the city gate, which is where Ryan begins his analysis of the urban armature. In the current study this idea of impact and communication via architecture is taken a step further and that moment of first recognition of the city from the sea, and what can be seen at that moment is what will be explored. The terrestrial approaches to these cities may have presented a different type of façade to travelers approaching by land among the many routes and roads that developed throughout antiquity, including the development of an organized road system in the Early Roman period (Figure 8). One could imagine that a similar pattern of monument building took place in highly visible approaches to these cities, facing towards the sea or towards the roads and paths approaching the city from the interior. For some cities the terrestrial approach may have displayed the wonders of the city in a similar way as the maritime façades of the coastal communities did to those arriving by sea, see Aelius Aristides

[93] Ryan 2016, 178.

on Pergamon for example, but the focus of this study is on the maritime experience and thus will engage with the maritime view of these cities.[94]

This dissertation expands upon the current scholarship on port towns of the eastern Mediterranean to include aspects of the maritime façade beyond the harbor side, and offers a thorough description of what was visible, contextualized with evidence from classical authors that demonstrates how these cities may have been perceived, where possible, and supplemented by selected virtual reconstructions that will highlight certain aspects of the development of these sites. It will reveal patterns of, or exceptions to, trajectories of urbanization at coastal communities, in response to the rising influence of Rome and changes to the landscape brought about by natural processes such as sedimentation and the changing sea level of the Mediterranean (Figure 9).

The rest of the dissertation is structured as follows:

Chapters 2-5 are the major case studies, which present the historical context and the archaeological evidence for the development and maturation of a maritime façade for the cities of Ephesus, Pergamon, Smyrna, and Rhodes (Figure 7). The natural and built environments these sites are discussed along with the history of research. Relevant descriptions of the cities by ancient authors are included to offer perspective on what we at least some ancient people thought about the façades of these cities and the features they deemed significant.

Chapter 6 presents a series of models of the cities, with brief discussions of the various modeling strategies, and an analysis of what we can learn from them, together with the site biographies presented in chapters 2-5.

[94] Aristid. *Or.* 23.13

Chapter 7, “Conclusions,” offers the summation of the project and the major outcomes of this research. Future directions of research are briefly discussed.

Chapter 2 - Ephesus: "The Largest Emporium in Asia this Side of the Taurus"

Ephesus is an ancient settlement on the Aegean coast of modern Turkey, in İzmir Province, approximately 60 km south of İzmir near the town of Selçuk. When founded it was located on the southern edge of a large bay, allowing access to the central Aegean to the west and was framed by large hills to its east and south (Figure 10). Although now approximately 8 km from the coastline it was prominent in the ancient world as a port city, as the shoreline once reached far to the east before the sedimentation of the Cayster River, now known as the Küçük Menderes[95], gradually pushed the coast further and further west throughout the Greek and Roman eras, which had a significant impact on the urban development of the site.[96] The Cayster catchment area is "partly built up of easily erodible rocks such as highly weathered mica schists and gneisses as well as marlstones" which certainly contributed to the rapid sedimentation of the harbors of Ephesus.[97] One of the earliest publications on archaeological research at the site, by J.T. Wood in 1877, even refers to the relationship between the site and shore when introducing the city before acknowledging the negative effect the siltation of the port itself may have had on the city.[98]

[95] Meaning the Small Menderes. The Large Menderes passes to the south of the Mykale mountain range, past the sites of Priene and Miletus.
[96] This physical process has long been known, including from a description by Strabo (*Geog.* 14.1.24), and recently has been the focus of intense research over the past few decades by the Austrian Archaeological Institute and their colleagues. Publications that focus primarily on the simentation and landscape changes include: Stock et al. (2019, 2016, 2014, 2013), Brückner (2019, 2005), and Kraft et al. (2011, 2007, 2005, 2000).
[97] Brückner 2005, 12.
[98] Wood 1877, 4, 10.

Despite this intense landscape change W.M. Ramsay imagined the beauty of the past, and began a 1901 article on the city of Ephesus with the claim that "No city ever had a more picturesque approach, or a more beautiful situation, than ancient Ephesus."[99] With this phrase, Ramsay focused on the approach to the city rather than the experience of being within the city, standing in the agora, or entering one of its temples. This comment, although qualitative and perhaps an exaggeration, speaks to the perceived significance of the approach to this important ancient site. This chapter will provide information about the physical location and topographical context of the site as well as its developmental history, with a focus on the Hellenistic through Early Imperial periods. The structures discussed will include, at times, important monuments throughout the city but the focus will be on buildings and features that would have been visible during Ramsay's "picturesque approach" and in the various harbor areas of the site.

In addition to its port Ephesus was famous in antiquity for its Temple of Artemis, and Wood's goal in his early excavations was to, in fact, find the temple, which had been misidentified by earlier scholars such as E. Falkener (Figure 11). Wood was successful at identifying the location of the temple and continued to excavate other areas of the site, and produced an archaeological plan of the city that is generally accurate in the location of the features he indicated (Figure 12).[100] Since 1895 the excavation permit has been held by an Austrian team, initially led by O. Benndorf and from 1898 by the Austrian Archaeological Institute (ÖAI) of which Benndorf was the first director.[101] Benndorf was pointedly critical of Wood's work, calling his plans almost worthless and describes his book as being written in the spirit of a sporting achievement, as opposed to a

[99] Ramsay 1901, 167.

[100] This greatly improved on earlier depictions of the city, such as the plan by Falkener or an early 18th century sketch of the city and the Cayster valley by J.P. Tournefort shows a perspective from the coast, looking up the valley towards the site (Figure 13).

[101] Marek 2016, 28; Scherrer 1995a, 38; Benndorf 1898a, 53-57; Wood 1877, vii. Marek (2016, 33-34) briefly summarizes the history of the Austrian excavations at Ephesus.

proper archaeological study.[102] Regardless of what came before, this new attention from the ÖAI in the late 19th century has lasted until today as the excavations, and the more general program of research at the site, has continued under Austrian guidance for over 100 years.[103]

There is evidence of settlement in the general area from the Chalcolithic period (5th-4th millennia BCE) throughout antiquity, and a brief review of this earlier history will set the stage for the developments of the Hellenistic to Roman transition by describing the most significant topographical features of the site beginning with the Archaic period (8th century - 480 BCE).[104] "Cultic activity in the Artemision can be traced back to the end of the 11th century BC" and settlement has been identified on Ayasoluk, the hill neighboring the temple.[105] An account by Athenaeus from the 3rd century CE, tells a foundation story of the city and includes reference to a "sacred harbor," perhaps indicating a relationship between the port itself and the Sanctuary of Artemis, located at the foot of Ayasoluk although Wood admits he is not aware of an ancient source linking a port with the temple.[106] Although Lehmann-Hartleben acknowledges the earlier settlement around Ayasoluk he suggests that the community there had no more than local significance until at least the Lydian period, with the rise of Sardis.[107]

Throughout its existence Ephesus held an important strategic position along the coast, easily defended, with a large hinterland, and at the crossroads of major trading routes which led to it featuring prominently in the goals and aspirations of the various political entities that competed

[102] Benndorf 1898a, 57-58.
[103] For a history of research at the site see *New Pauly Online* (Ephesus) and Scherrer, P. (1995a).
[104] Scherrer (2007) discusses the earliest evidence for settlement in the vicinity of the site as well as the overall development through late antiquity. Kerschner (2017) provides details of the settlement at Ephesus from 1000 - 670 BCE. Lehmann-Hartleben (1923, 17-18) comments on the generally on significance of the site and the sanctuary from the earliest periods "before the first Greek settlers came."
[105] Kerschner 2017, 490, 493.
[106] Ath. *The Deipnosophists*, 8.62; Wood 1877, 22.
[107] Lehmann-Hartleben 1923, 17-18, 22-23.

for primacy in Asia Minor throughout the period of this study.[108] Although it obtained much of its wealth from its harbor and the trade of goods passing through its facilities, it was also an exporter of foodstuffs, ceramic, and stone and the prominence of the Sanctuary of Artemis throughout antiquity allowed it to participate in the economy as a banking center.[109] Artemis, with the Artemision as proxy, was also a significant landowner in the region, and in the Early Imperial period Augustus "guaranteed the boundaries of some land owned by Artemis well to the east in Ephesian territory."[110] This guarantee is confirmed in two inscriptions, one of which was found five hours' walk away on the slopes of Mt Mesogis.[111] Boundary stones were also erected around her territory, mostly in the late 1st or early 2nd centuries CE under Domitian and Trajan.[112] Even with these other sources of wealth the city's main advantage was its advantageous position as the greatest entrepot in the eastern Aegean throughout the Hellenistic and Early Roman periods according to ancient authors.[113] Its port, and the connections that it provided is what made Ephesus "[…] the gate by which the West visited the East: the East looked out through it over the sea toward the West."[114]

The Temple of Artemis (the Artemision), sited at the base of the Ayasuluk hill, was a grand structure during the Archaic and Classical periods, but the associated settlement from these periods is relatively less well defined than is the case with the city's most intense periods of architectural development, during the Hellenistic and Roman periods. This period of expansion begins when the Hellenistic warlord Lysimachus, founded a new settlement on the slopes of two hills, named

[108] Ladstätter 2019, 191-92.
[109] Zabrana 2020, 159; Ladstätter 2019, 191-92; Raja 2012, 58-59; Levick 2004, 185.
[110] Rigsby 1996, 391-92.
[111] *IvE* 3501, 3502; Rigsby 1996, 392 n. 26.
[112] *IvE* 3506-3513.
[113] Strabo Geog. 14.1.24; Dio Cass. Roman Hist. 51.20.6; Aristid. Or 23.24.
[114] Ramsay 1901, 167.

Bülbüldağ and Panayırdağ, about 2 km south of the Artemision in the early 3rd century BCE. Marek emphasizes that the *synoikism* that took place along with the foundation of this new settlement was part of a broader pattern of consolidation in the Hellenistic period, that helped to reduce unrest through a reformation of legal and political systems, but also in the case of Ephesus to improve communication, transportation, and military infrastructure.[115] This new settlement was surrounded by a 9.25 km long fortification wall which ran along the ridge of Bülbüldağ hill to the west, around much of Panayırdağ, and included the harbor, enclosing an area of 304.4 ha (with a buildable area of 183.0 ha) where much of the later development of the city took place.[116] Lysimachus's city went through multiple periods of intense architectural development, notably under the rule of the Attalid kings of Pergamon in the 2nd century BCE, and then in the Early Roman Imperial period after it became the leading city of the Roman province of Asia. In addition to its political importance to Roman administration Strabo, describing Ephesus in the early 1st century CE, states that "the city, because of its advantageous situation in other respects, grows daily, and is the largest emporium in Asia this side the Taurus."[117] Cassius Dio, writing approximately two hundred years later, in the early 3rd century CE, comments that by the early Augustan period the city had become the most important in Asia.[118]

Understanding the growth of the population at Ephesus can help us to understand the productive capacity of the city and its ability to support itself from its territory or rely on imports of goods and foodstuffs, in addition to being able to identify trends over time of expansion or

[115] Marek 2016, 194-95.
[116] Ladstätter 2019, 195-96. Past measurements of the wall have varied quite greatly. Keil (1912, 183-84) reports a length of around 12 km, while Groh (2006, 61) suggests 8.55 km long - although he admits that this includes some reconstruction and best guesses, and Marek (2016, 194) writes "about nine kilometers long". Here, I side with the most recent figures reported by the site director.
[117] Strabo *Geog.* 14.1.24 (trans. H.L. Jones, 1924).
[118] Dio Cass. *Roman Hist.* 51.20.6

decline even though they are often only estimates rather than definitive figures.[119] A recent study by F. Kirbihler attempts to define these earlier phases of the city and beginning in the 5th century BCE he suggests that tax records, based generally on agricultural output, can be used as a proxy for population, although he admits this is rejected by some scholars, and calculates a total population of 20,000-30,000, similar to Miletus, in this period but smaller than many other cities.[120] In the 4th century BCE Ephesus gained prominence as a financial center as well as benefitting from increased trade, but there is little indication of how this may have affected population or territory.[121] When Lysimachus founded his new settlement, perhaps in response to increased flooding in the area around the Artemision, he also attempted to force some of the residents of nearby Lebedos and Colophon to move to the new city, and although specific figures are elusive, the number of citizens may have been over 10,000-15,000.[122] Throughout the 2nd and early 1st centuries BCE Ephesus began to grow as it gained the favor of the growing influential power of Rome and its territory may have expanded to the east, while new immigrants arrive from Italy and Delos.[123] Further attention from the Romans in the Early Imperial period led to the rapid growth of the city and its territory, becoming the largest city in Ionia or Lycia, according to Philostratus writing in the early 3rd century CE, as it even outgrew the land it was founded on and extended into the sea.[124] As the city expanded so too did its territory, being consistently expanded from the Classical through Imperial periods until it reached perhaps 1,200-1,300 km^2, reaching well up the Cayster River valley.[125]

[119] Kirbihler 2009, 301-3.
[120] Kirbihler 2009, 304-7.
[121] Kirbihler 2009, 307-8.
[122] Kirbihler 2009, 308-10.
[123] Kirbihler 2009, 310-11.
[124] Philostr. *VA,* 8.7.8; Kirbihler 2009, 311-12.
[125] Kirbihler (2009, 313-17) offers a discussion of the potential expansions of territory however he acknowledges that the evidence is not as definitive as for some other cities.

Quoted figures of the population of Ephesus at its peak in the 2nd and 3rd centuries CE have varied significantly depending on which estimation method is being used, but it likely would have been one of the largest communities in the Roman Empire, behind the outliers like Rome, Antioch, and Alexandria but likely larger than any other city in Roman Asia.[126] An early estimate by J. Beloch in 1886 uses an estimate of the walled area of the city of 405ha and figures of population density from Alexandria to reach a population of 225,000, which he claims confirms relative comparisons with other cities of Asia, such as Pergamon and Miletus made in literary sources.[127] The relative size of the city appears to be supported by an inscription published by J. Keil in 1930 which describes a benefaction of Aurelius Varenus that fed a number of citizens of the city, χειλίους τεσσαράκοντα, but does not mention whether this was the entire resident population.[128] T.R.S. Broughton translated this to mean 40,000, justifying the general range of Beloch's estimate, and even while acknowledging that "any general estimate therefore will have a very large margin of error, and perhaps is foolish to attempt" he suggests a population of 400,000.[129] R. Duncan-Jones has argued that population estimates based on urban area do not "provide firm or precise information" and argues that epigraphic evidence may prove more useful, specifically citing the Aurelius Varenus inscription and the 40,000 figure again to suggest a total population of at least 180,000.[130] P.D. Warden and R.S. Bagnall, however, more recently insist that 40,000 is a mistranslation of χειλίους τεσσαράκοντα, and should instead be read "1,040

[126] White 1995, 41-43.
[127] Beloch 1886, 230-31.
[128] *IvE* 951; Keil 1930, 57-58.
[129] Broughton 1938, 813-15.
[130] See Duncan-Jones (1974, 261-62) for discussion of urban area vs epigraphic evidence. The estimate for Ephesus is given in p 260-261 n. 4.

citizens" which they argue is more realistic and matches expectations for benefactions of the time, although they do not put forth their own overall population estimate.[131]

More recently S. Groh, in a publication of the ÖAI, returns to an approach estimating from the urban area of the city, however he builds up his figures from much smaller units within the city and arrives at 25,000 residents within the walled area of the city, which he justifies by comparison with the capacity of the theater (~30,000), and then adds "the extended urban area" to reach 30,000-70,000 total population in the 2nd century CE, although with the caveat that these any estimates are "purely speculative."[132] Billows also uses an estimate of the capacity of the theater in his calculations, although he suggests that the maximum capacity of the theater was only 24,000 and without further explanation concludes that this number gives "an indication of the large population of Late Hellenistic and Roman Ephesos, presumably well over 100,000."[133] Groh's estimates were at least based on his recent work defining the urban grid of the site as part of the Ephesus team, but his figures are not the final word from the excavators (Figure 20). Kirbihler, in his recent presentation of the overall development of the population and territory of the site, uses estimates of the size and number of subdivisions, called *chiliastye*, of the tribes of Ephesus, to reach a figure of 45,000-50,000 citizens which he then supplements with estimates of women, children, slaves, and foreigners to reach an estimate of 200,000 - 250,000 population in the mid-2nd century CE.[134]

That these population estimates almost uniformly refer to the 2nd century CE is a testament to the amount of evidence available from that period, both in terms the built environment as well

[131] Warden and Bagnall 1988. The text in question is χειλίους τεσσαράκοντα, which they argue would more commonly read τετρακισμύριοι if it was intended to be 40,000.
[132] Groh 2006, 112-13. Groh, like Beloch (1886, 230-231), uses a comparison with Miletus and Alexandria to put his estimate in context however both the area and population differ from the figures that Beloch provides 120 years earlier. Hofbauer et al. (2017b, 506) and Hofbauer et al. (2017c, 527) estimate a capacity in the theater of only ~20,000.
[133] Billows 2005, 205.
[134] Kirbihler 2009, 319-21.

as epigraphic evidence. Although the figures presented range from as few as 30,000 to as high as 400,000 the trend in many of the discussions is the large relative size of the city compared to its contemporaries in the region, confirming the ancient sources, as well as the rapid growth of the settlement throughout the Early Roman Imperial period when compared to other cities.[135]

The city was prominent because of its important sanctuary of Artemis and its emergence as one of the most important trading ports in the eastern Mediterranean, both of which encouraged this large population to form and it regularly drew the direct attention of the Roman emperors. One such notable case was when Hadrian intervened to support two ship captains, Lucius Erastos and Philokyrios, in their attempts to enter the membership of the boule of Ephesos.[136] Erastos and Philokyrios had accompanied Hadrian on two maritime journeys, one from Ephesus to Rhodes in the autumn of 124 CE, and then again in spring of 129 CE from Eleusis to Ephesus.[137] These two captains were likely freedmen, rather than members of the local elite, and it is unlikely that they would have personally transported the emperor, but were rather more likely to have been part of his entourage as part of the larger flotilla that would have carried other individuals and goods while the emperor traveled on a more ostentatious military vessel, and thus their presence demonstrates the wide variety of social classes that would have at some point approached and viewed the city's façade.[138]

Although the literary accounts and population estimates describe a large and important city, warranting imperial intervention in issues like membership in the boule, in the first centuries of Roman rule, we need not rely on their testimony alone, as the archaeological record demonstrates that the city was expanding and investing in architectural and infrastructural improvements over

[135] Kirbihler (2009, 323-28) offers a general summary.
[136] *IvE* 1487, 1488; Kalinowsky 2002, 119, 142; Drew-Bear and Richard 1994; Chowen 1954, 123-24.
[137] Drew-Bear and Richard 1994, 744.
[138] Drew-Bear and Richard 1994, 747-51.

much of the 2nd century BCE to 2nd century CE. Architectural projects in the Early Roman period covered all parts of the city, including expansion in the west in the State Agora, but also along the coast, an intensity of development that "included the stadium, the gymnasium, various developments in the harbour region and the theatre, all of which were important developments to the regional identity of the city."[139] The significance of the city in the region, its intense architectural development through the period of interest of this study, and the large amount of evidence that well over 100 years of archaeological research has produced allows for a thorough analysis of how the experience of arrival at the city by sea may have changed from the Early Hellenistic through the High Imperial periods.

The Temple of Artemis

The main question which drives this study of ancient cities is how architectural features were used as, or became, icons of their cities and communities as seen from the sea. One the grandest of all monuments in the ancient classical world was the Temple of Artemis at Ephesus (Figure 14).[140] Antipater of Sidon, often credited with one of the earliest and most well known descriptions of the Seven Wonders of the Ancient World, wrote in the mid-2nd century BCE:

> I have set eyes on the wall of lofty Babylon on which is a road for chariots, and the statue of Zeus by the Alpheus, and the hanging gardens, and the Colossus of the Sun, and the huge labour of the high pyramids, and the vast tomb of Mausolus; but when I saw the house of Artemis that mounted to the clouds, those other marvels lost their brilliancy, and I said, 'Lo, apart from Olympus, the Sun never looked on aught so grand.'[141]

[139] Raja 2012, 75.
[140] In addition to Antipater, discussed below, see: Plin. *HN,* 36.21.
[141] Antip. Sid. *Greek Anthology* 9.58 (trans. W.R. Paton, 1916).

The temple that Antipater was referring to as incomparable in the 2nd century BCE had gone through significant changes since its early foundation.[142] As noted earlier, early settlement in the area around Ephesus was focused on the north and east of the Hellenistic and Roman center, in the plain and on the hills beyond in prehistoric periods, as well as on the north slopes of Panayırdağ, and in the Archaic period development focused in the coastal zone around the site of the sanctuary of Artemis, specifically on Ayasuluk hill.[143]

There is additional evidence of Archaic settlement on the western slopes of Panayırdağ in the area of the later Tetragonos-Agora, and the site of the main urban center in the Hellenistic and Roman periods. Although the extent of this settlement has not been established, we can be confident that it was not part of the urban center located near Ayasuluk throughout Archaic and Classical periods of settlement at Ephesos.[144]

While the organization of the earliest settlement remains unknown, during the Archaic period the development of the Sanctuary of Artemis is better understood, especially the construction of a large stone temple.[145] The stylobate measured ~112 x 57 m, built in marble which would have surpassed other similarly huge construction projects taking place in the region, in Didyma and Samos.[146] This enormous temple rested right on the shoreline, with the settlement likely extending into the plain to the east and south behind the temple, and thus it would have served as a clear marker in the landscape, to those approaching by sea. It was located just west of

[142] Kerschner 2017, 490; Scherrer 2007, 325.
[143] Kerschner 2017, 488; Steskal 2014, 329-31; Bammer and Muss 1996, 7-8.
[144] Kerschner 2017, 488.
[145] Kerschner (2017, 487) for discussion of the lack of evidence for Archaic city planning. This is in contrast to Bammer and Muss (1996, 7), who argue for an orthogonal grid while outlining the developments of the temple.
[146] Kerschner and Prochaska 2011, 108; Ohnesorg 2007, 131; Bammer and Muss 1996, 45-48. For the measurement of the ground plan of the temple Bammer and Muss offer 103 x 60 m, however it is not clear what that measurement is referring to as they mention only "Seine Grundrißmaße betragen 60 X 103 m" and it is hard to imagine how some dimensions could be greater than and others smaller than the stylobate.

the much taller Ayasoluk hill, but would have presented its façade westward, overlooking the swampy sea and all travelers approaching.[147] Even in its earliest phases the temple would have served as an attraction to be viewed from afar and which would have attracted ships to its "sacred harbor," perhaps in the immediate vicinity of the temple itself on the southwestern edge of the Ayasuluk hill.[148] Wood, writing in 1877 after his discovery of the sanctuary, dismisses the idea of a significant port in this area, based on no clear physical relationship between port and temple in the ancient sources, although he does concede that there was likely "an ornamental basin or small port in front of the Temple."[149] However, already by 1905 Benndorf argues that the sanctuary, facing west towards arriving travelers, would have been the site of the "sacred harbor" mentioned in the literature.[150] The consensus in more recent research is that, even though no link can be made with the "sacred harbor" there was a harbor near to the foot of Ayasoluk and the temple.[151] This version of the temple, however, burned down in 356 BCE, purportedly due to arson at the hands of Herostratus.[152]

The version of the Artemision that would have stood throughout the Hellenistic and Early Imperial periods was erected in the Late Classical period on the same site as the earlier phases of the sanctuary and with the same orientation to the west. Pliny writes that it took 120 years to build and was a work by all of Asia and offers a detailed description of its size and the number of columns it required.[153] An account offered by Strabo states that when Alexander the Great offered

[147] Ohnesorg 2007, 130; Bammer and Muss 1996, 24.
[148] Kerschner 2017, 490-91; Steskal 2014, 329-30; Trell 2013, 79-82; Benndorf 1905, 53 n 2. There was likely a harbor in the vicinity of the temple but there is no evidence that this itself is the "sacred harbor" according to Steskal (2014, 330 n. 7).
[149] Wood 1877, 22.
[150] Benndorf 1905, 23.
[151] Steskal 2014, 329-30 (see p. 330 n. 7 for a discussion of the sources); Zabehlicky 1995, 202.
[152] Strabo *Geog*. 14.1.22; *New Pauly Online* (Herostratus); Trell 2013, 83.
[153] Plin. *HN*, 36.21.

to pay for the reconstruction during a visit to the city on the condition that they credit him in the form of a dedicatory inscription the Ephesians rejected this, preferring to pay for it themselves with the excuse that a god such as Alexander should not pay for a temple to another deity.[154] Some scholars have suggested that their motivation may have laid in a desired to maintain their independence as confirmed by their rejection of Athenian architectural forms in favor of local traditional practices, although it is unclear whether this independence motive could be speaking for all of Asia, as Pliny writes, or just for Ephesus.[155] Regardless of whether they were speaking on behalf of Asia or solely for themselves, this was a huge sacrifice, as the reconstruction of the temple had used a tremendous amount of resources and brought a great amount of debt to the city.[156] It should also be noted that by the time of Antipater, writing to describe this version of the temple in the Hellenistic period, sometime in the mid 2nd century BCE after the Treaty of Apamea, the coastline would have already advanced well west of the temple, a progression that recent studies have shown began during the Classical period.[157]

The Late Classical temple was constructed above its predecessor and adopted the same basic design, with some columns resting directly above those of the Archaic phase.[158] It was constructed 2.76 m above the Archaic phase and with a high platform, attributed to the rising sea level in the 4th century BCE.[159] Geoarchaeological coring shows that this area was subject to regular flooding, which may have continued even after the coastline advanced and would have been a constant concern in the area.[160] This high platform, combined with the impressive height of

[154] Strabo *Geog*. 14.1.22.
[155] Bammer and Muss 1996, 7-8, 54-55; Trell 2013, 83.
[156] Ladstätter 2016, 236.
[157] Stock et al. 2019, 2013; Delile et al. 2015; Bruckner et al. 2005.
[158] Kerschner 2017, 123; Ohnesorg 2007, 132.
[159] Kerschner 2017, 123; Bammer and Muss 1996, 55; Bammer 1972, 6.
[160] Kraft et al. 2011, 36; 2007, 129.

the temple itself, would have been enormous and would have justified Antipater of Sidon's description of it reaching up to the clouds. The temple would have stood 32 m high and its footprint would have been even larger than the Archaic construction, covering 72 x 125 m on the ground.[161] However, this impressive monument would have not had the longevity as a harbor landmark that it could have, as in this period the landscape began to undergo the significant changes that would forever change how the maritime world interacted with the city, and with the Artemision itself.

Landscape Changes and a New Harbor

The siltation of the Cayster River and the resulting advance of the shoreline was a constant problem that the Ephesians were forced to battle with over the later life of the city, and included massive investment in dredging operations (Figure 23, 24, 25, 26, 27, 28, 29, 30).[162] This put a further burden on the city's development as in the 4th century BCE, and the Early Hellenistic period was defined by debt, war, and a struggle to maintain the supply to the city.[163] S. Ladstätter has discussed the development and struggles of the city throughout the Hellenistic period in two recent articles.[164]

However, from the Archaic through the Classical periods the Artemision lay on the coastline, serving as a beacon, a landmark of Ephesus, perhaps not dissimilar to the somewhat fanciful reconstruction by Falkener in 1862 (Figure 15).[165] During the 4th century BCE the city was still focused around the Ayasoluk hill and the Artemision, with some evidence of minor

[161] Bammer and Muss 1996, 55. Although Bammer (1972) estimates ~65 x 125 m for the terrace dimensions based on Pliny's description (Plin. *HN*, 36.21) which states "universo templo longitudo est ccccxxv pedum, latitudo ccxxv, columnae cxxvii a singulis regibus factae lx pedum altitudine, ex iis xxxvi caelatae, una a Scopa."
[162] Kraft et al. 2011, 32.
[163] Ladstätter 2019, 194; 2016, 236.
[164] Ladstätter 2019, 2016.
[165] Falkener would also publish a reconstructed view from the theater ovelooking the later Roman harbor basin (Figure 16).

settlement stretching along the coast to the south and reaching onto Panayırdağ hill, however this quickly changed as the siltation of the Cayster River caused significant changes to the city (Figure 25, 29, 30).[166]

In the late 4th century BCE the port just north of the Artemision, which may have been the "sacred harbor" although there is no evidence supporting that identification other than the location, fell out of use due to inaccessibility and the focus shifted to the natural bay near to Panayırdağ hill, nearby the later Roman stadium, known as the Koressos harbor (Figure 23, 29).[167] This harbor may have already been in use throughout earlier periods, although the extent to which this can be proven archaeologically is unclear.[168] One of the few textual descriptions, by Xenophon describing an episode from the Peloponnesian War, does not provide much detail other than the possibility to disembark from a ship there:

> And now, on the seventeenth day after his raid, Thrasyllus sailed to Ephesus; and having disembarked the hoplites at the foot of Mount Coressus, and the cavalry, peltasts, marines, and all the rest near the marsh on the opposite side of the city, he led forward the two divisions at daybreak.[169]

It seems as if most discussions of this particular harbor are similarly focused on its military context, for instance construction may have already taken place on Panayırdağ of a garrison "in order to control the nearby port or ports and to overlook the hinterland and the bay of Ephesus."[170] There is little that can be said about harbor facilities or duration of use without further archaeological evidence, but we know that this port was eventually cut off by siltation in the 1st century BCE.[171]

[166] Ladstätter 2016, 237; Stock et al. 2016, 991.
[167] Ladstätter 2016, 237; Steskal 2014, 331; Scherrer 2007, 327-28.
[168] Ladstätter 2016, 237; Steskal 2014, 331; Scherrer 2007, 327-28.
[169] Xen. *Hell.* 1.2.7 (trans. C.L. Brownson, 1921).
[170] Ladstätter 2016, 237.
[171] Steskal 2014, 331.

The late 4th century BCE history of Ephesus was politically dominated by the struggle for power after the death of Alexander in 323 BCE.[172] In 301 BCE Lysimachus, who had invaded Asia from Thrace during the Fourth war of the Diadochi, was able to defeat Antigonus at the Battle of Ipsus with the help of Seleucus and thus gained control of western Asia Minor, including Ephesus.[173] A few years later, in 294 BCE, Lysimachus founded a new city, Arsinoeia, in the name of his wife, two kilometers south of the Artemesion on the slopes of the Panayırdağ and Bülbüldağ hills, surrounding an Archaic mooring spot that would become the Hellenistic and Roman harbor.[174] At the foundation of Arsinoeia this anchorage was solely a natural bay although this was soon to change with the tremendous construction efforts in the subsequent periods (Figure 24, 31).[175]

Early Hellenistic Ephesus

At the time of the new foundation under Lysimachus the harbor bay which it surrounded was naturally formed and still filled primarily with seawater, rather than riverine water from the Cayster.[176] Throughout the entire Hellenistic period there was no built harbor, and the city made use instead of the natural bay, even as it began to silt up more and more quickly.[177] There may have been a channel in the sediment floor during the 3rd century BCE, but it is not clear whether this would have been an intentional action or natural occurrence.[178] Little can be discerned from archaeological evidence of any infrastructural improvements or architectural development of the

[172] Ladstätter 2019, 194.
[173] *New Pauly Online* (Lysimachus).
[174] Ladstätter 2019, 195; Steskal 2014, 331.
[175] Ladstätter 2019, 195; 2016, 256.
[176] Steskal 2014, 332.
[177] Ladstätter 2019, 197; 2016, 256.
[178] The presence of a channel in this period is only attested in Steskal (2014, 333), and attributed to R. Urz, without citation, however other more recent publications by Steskal and Urz (Stock et al. 2016, 991) make no mention of a channel during this period when describing human intervention in the area.

harbor area throughout the 3rd century BCE, but we know from literary sources that it had gained *navalia* by the beginning of the 2nd century BCE.[179]

Our understanding of the city from this period is similarly limited apart from a few select structures although that is not due to a lack of recent research attempting to better understand the development around the Bülbüldağ and Panayırdağ hills. There has been an intense focus on the area in, and approaching, the harbor of this new settlement at Ephesus by the OAI team.[180] When discussing the architectural development of the new Hellenistic city, Ephesus-Arisnoeia, Ladstätter comments that the Late Hellenistic and Roman port area had been in use likely since the Archaic period in some form or another but that in the Early Hellenistic version it was surrounded by a defensive city wall "visible from afar."[181] This defensive wall, constructed by Lysimachus and not dissimilar to the wall that he constructed at Smyrna, is still well-preserved and an impressive landmark when traveling through the modern landscape, but unfortunately one of the only pieces of evidence we have of 3rd century BCE architecture at Ephesus. The wall would have crested both of the hills and would have enclosed the harbor, which would have been a priority for ensuring the trade and transport connections of the city, but the exact locations of the city gates in the harbor area from this period are uncertain.[182] The wall varied in thickness but averaged approximately 3 m thick and would have stood approximately 6.5 m high along the bulk of its course.[183] Of the towers identified by Keil in 1912 all had the same ground plan, rectangular

[179] Livy *Hist. of Rome,* 37.10-11; Strabo *Geog.* 14.1.24. Strabo was writing much later but likely used a source from the 2nd century BCE (Rankov 2013, 33). Ladstätter (2019, 197; 2016, 256) mentions twice that literary evidence suggests harbor facilities and a separate military harbor, however there is no archaeological evidence for a clear set of harbor facilities.
[180] Ladstätter 2019, 2016; Stock et al. 2019, 2013; Steskal 2013.
[181] Ladstätter 2019, 197.
[182] Ladstätter 2016, 240-44; Groh 2006, 61-65. Baier (2017, 124) suggests that a gate on the eastern edge of the later Arkadiane street made date to the Hellenistic period and might have been "one of the main entrances to the city."
[183] Keil 1912, 193-94. Benndorf (1898b, 247) comments on an average thickness of 3 m anywhere except the wall that connected the "Saint Paul's Prison" tower and the tower along the harbor canal, which would have been 3.6 m thick.

with a single chamber, except for two significant ones, one on the western edge of the city, to be discussed below, which had four chambers, and one along Bülbüldağ which had three.[184]

The city wall was a culmination of a type that spread throughout coastal Asia Minor in the Early Hellenistic period, which attempted to control a large amount of territory within a "great circuit."[185] Its characterization by A. McNicoll as a "great circuit" only highlights the importance of the relationship between it and the harbor as it extended an unnecessary distance to include relatively little terrain but to completely enclose the harbor area of the new city.[186] Beyond the obvious military motivations for constructing a defensive wall around this new settlement, a city wall in this period was often used by rulers as a means of private representation and as a symbol of modern urban culture.[187] In this case Lysimachus was not just fortifying his city but also offering a highly visible monument to the new foundation and one which may have represented his leadership and power, as well as the security that he provided to the city's new inhabitants.

Ramsay's discussion of the "picturesque approach" to the city places the viewer on a ship sailing from the west towards the city and describes the city walls as the first visible element of the city, as "the battlements and towers stand out sharp and prominent from the top of the long ridge of Mount Coressos above the city."[188] The walls would have certainly framed the city within and would have reached as far westwards as a spur of Bülbüldağ (the modern name of Ramsay's

[184] Keil 1912, 193-94.
[185] Groh 2006, 61-65; McNicoll 1972, 788.
[186] Ladstätter 2019, 196-97.
[187] Müth et al. 2016, 149.
[188] Ramsay 1901, 168. Throughout his article Ramsay discusses the two hills as Pion and Coressos, clearly stating that Pion is the northern hill which was home to the stadium and the theater and that Coressos stretched out to west (170-72). This matches Falkener's (1862) description of the site, including the plot he shares in Plate 1. Wood (1877, 1-2, "Plan of Ephesus") however, identifies the northern hill as Coressus, and the hill stretching westward as Prion. More recent publications that use similar terminology have cleared up this ambiguity and label Panayırdağ, the northern hill, as "Pion" and Bülbüldağ, the hill stretching west, as "Preon" (for example Kraft et al. 2000, fig 15). Regardless of Ramsay's naming conventions, the hill which he is referring to in this passage is securely Bülbüldağ.

Mount Coressos), a 73 m tall hill with two separate points, which is now called Kaleburun Tepe.[189] Benndorf, writing a few years before Ramsay, happens to describe the two peaks of this hill as "malerische" or "picturesque," which is notable as the hill is the most western extent of the city, reaching towards approaching vessels arriving from the sea in the west.[190] The exact course of the wall across this hill is not easily visible, now shrouded by dense vegetation, but a map from Benndorf provides a general view of the wall surrounding the two "picturesque" points, before descending to meet the seashore, labeled as "harbor canal, once sea" (Figure 21).[191]

At this point by the seaside there was a square tower in the original course of the fortifications under Lysimachus, 14.6 m per side.[192] No gate has been identified here, even though it would be a logical place for one as the only potential terrestrial entrance to the city from the west, although excavations around the tower in 1912 were limited due to the high groundwater and muddy conditions.[193] At some point the tower was removed and a road passed over a portion of it, with wheel ruts visible in the foundation blocks, and Keil suggests that this would have been the road that carried goods from an outer port, called Panormus (to be discussed later) to the center of the city.[194] As far as the lack of a city gate here, Keil also proposes that a gate along this road might have restricted the passage of ships along the canal, which likely would have needed to be towed by horses or mules from the seashore to the Roman port.[195] Unfortunately the dating of the

[189] The elevation of this hill has been reported inconsistently in the literature over the years. Benndorf (1899, 21-22; 1898b, 246-47) describes it as having two points, one 45 m high to the west, and another one 95 m high in the east. Groh (2006, 62) writes that the western point is 45 m above sea level but lists the "highest point" as 55 m above sea level. The most recent reported measurement, and the one I accept based on my own investigation of topographical imagery of the area, is reported by Stock et al. (2013, 61) as 73 m.
[190] Benndorf 1898b, 246.
[191] Benndorf (1899, 19-20, fig. 3). Groh (2006, 62) mentions that the hill is now too overgrown to even identify whether some features of Benndorf's map are inside or outside of the wall and his plan of the walls follows the general course provided by Benndorf without significant additions or adaptations.
[192] Groh 2006, 61-62; Keil 1912, 185-88.
[193] Keil 1912, 185-88.
[194] Keil 1912, 189-90.
[195] Keil 1912, 187-88 n. 3.

destruction of this seaside tower is not clear, nor is the timing of the use of this space as a road, which, if known may offer some insight into the changing form of the harbors throughout later periods.

The city wall would have run from the seaside tower approximately straight south, rising up the northern slope of Kaleburun Tepe to its highest point where a prominent tower was sited, which is commonly referred to as "St. Paul's Prison."[196] This tower was a square, 14.6 m to a side, internally divided into four equal spaces, and would have been visible from the entire lower city of Ephesus throughout its history.[197] Depending on the approach a vessel would have made to the city, whether hugging the southern shore of the bay more tightly or venturing slightly further north, "St Paul's Prison" and the city walls would have been the sole indication of architectural development of the city for much of the approach, until the ship rounded Kaleburun Tepe, when the magnificence of the city would have been revealed.

Another feature of Kaleburun Tepe, referred to as the "Hermaion" in an inscription on the south wall of St Paul's Tower, may have been even more visible to travelers arriving at the city, having been sited on the west of the hill, at the absolute furthest western extent of the city.[198] The inscription, which Benndorf first presented in 1898, describes the city's arrangements to build the wall on Kaleburun Tepe, including the use of the quarries on the hill, and it mentions building the wall towards τὸ Ἕρμαιον, but provides no further detail as to what the Hermaion might be.[199] Benndorf's accompanying plan of this portion of the city, recorded by Heberdey and Hoefert, places a label near a small outcropping on the west of the hill, but otherwise no physical evidence

[196] Groh 2006, 62; Ramsay 1901, 168; Benndorf 1898b, 247.
[197] Groh 2006, 62; Benndorf 1898b, 249.
[198] *IvE* 3; Benndorf 1899, 25-30; 1898b, 250-52.
[199] *IvE* 3; Benndorf 1898b, 250-52. The relevant portion of the inscription reads: "[…] καὶ ἐὰν τεῖχος δέμομεν ἀπὸ τοῦ πύργου τοῦ Ἀστυάγου πάγου τὸ κατὰ τὸ Ἕρμαιον καὶ ἀνακάμπτωμεν ἄνω, […]" (from *IvE* 3).

of this feature has been found.[200] Groh has interpreted the Hermaion as "likely a temple," but admits that it is known only from the epigraphic evidence and has not been identified on the ground, so its mere existence is somewhat speculative.[201] Groh also mentions, in the same passage, that the term "hermaion" may also refer to open land that can be used as a resting place, sacred even without a temple.[202] The translation in *IvE* specifically clarifies that the Hermaion was a hill of Hermes, an identification also accepted by Ramsay, rather than a built structure such as a temple, so Groh's contention that it may be open land without a temple appears more likely.[203] And in some contexts a "hermaion" can also be a cairn of stones that has collected around a herm from travelers throwing them at such a boundary marker.[204] Ancient authors appear to use the term regularly to refer to a landform, rather than a structure, such as Polybius describing the Siege of Aspis and the arrival of Roman ships at a headland called "the Hermaion," Pausanias mentioning "the Hermaion" as the site of a boundary between Messenia and Megalopolis where there is a herm, and a bit more ambiguously Homer relating Eumaeus' response to Telemachus at the end of Odyssey book 16 where he describes seeing a fast ship approaching while he was above the city, "where the hill of Hermes is."[205]

It would appear more likely, given the lack of physical evidence of a temple on the western face of Kaleburun Tepe, that the term used in the inscription and later in Benndorf's map was referring to the lower peak of the hill as this sacred open area associated with Hermes, perhaps the site of a cairn. This would match the use herms elsewhere as boundary markers, and even more

[200] Benndorf 1899, 19-20, fig. 3; Groh 2006, 65.
[201] Groh 2006, 65. Although Groh (2006, 62 n. 40) also indicated that the "temple" in this location may be solely a tower as part of the circuit of the city wall.
[202] Groh 2006, 65 n. 51.
[203] *IvE* 3; Ramsay 1901, 168.
[204] *New Pauly Online* (Hermes).
[205] Polyb. *Hist.* 1.29; Paus. *Description of Greece*, 8.34.6; Hom. *Od.* 16.465-74 (trans. A.T. Murray, 1919).

contextually relevant would match with ancient author's use of the term "Hermaion" in reference to a landform by a harbor or anchorage. If indeed a landform reaching out towards approaching ships its appearance would have been augmented by the tower, St Pauls Prison, placed in a commanding position, highly visually prominent to people arriving at the city from the west by land or by sea.

This relationship between the built environment and the approach to the city's harbor in this period, was not found solely in the city walls and towers but could also be seen through a temple for which there is actually physical evidence, the so-called Felsspalttempel, positioned to look out over, or be looked at from, the harbor.[206] The Felsspalttempel, a prostyle temple ~15x22 m, was sited on the northern edge of the new harbor to the south and west of the advancing coastline.[207] Although none of the architecture is preserved, only the footprint of the structure, Ladstätter suggests that it was the symbol of the new city, and sited to look out over the new harbor, visible as a landmark to approaching ships (Figure 22).[208] The temple itself was likely in use from the first half of the 3rd century BCE through the late 2nd century BCE, and may have served as a navigational landmark, in addition to its ideological function, due to it being "an exposed landmark visible from far away at sea" according to Ladstätter.[209] Thus, this temple may have been "a symbol of the newly founded harbor city"[210] in a similar way, although admittedly on a much smaller scale, as the Artemision was the grand symbol of the Archaic and Classical city center. During this refoundation of the city, this temple may have performed some of the old functions of the Artemision, namely that of landmark and icon specifically to sailors and travelers.

[206] Ladstätter 2019, 198.
[207] Ladstätter 2016, 257; Groh 2006, 65.
[208] Ladstätter 2016, 257.
[209] Ladstätter 2019, 198.
[210] Ladstätter 2019, 201.

By the end of the 2nd century BCE, however, the temple appears to have fallen out of use, eventually to be demolished and perhaps replaced by a Roman sanctuary during a restructuring of the port in the Early Imperial period.[211]

The city may have also had an acropolis but its location is as yet unidentified, although one priority for its siting had it existed, according to Ladstätter, likely would have been to ensure a visual connection between harbor, city, and the surrounding area thus making it too a visually prominent aspect of the landscape.[212] There is a small hill to the northwest of Panayırdağ which is sometimes referred to as the "Ionian Acropolis" that may have been able to provide a location with visual connections between the harbor, city, and surrounding area, and that will be discussed further below in the context of the Roman structures found there, but there is no supporting evidence for its identification as an early acropolis. Wood comments that a large area at the highest point of Bülbüldağ had been cleared and leveled, which he supposes would have been the location of a military garrison, but once again this is inferred from the topographical context rather than any particular structural evidence.[213] During the 3rd century BCE there is also some uncertainty as to whether there was a theater in the location of the later monumental structure, with some suggestion that there may be evidence for a phase from this period in the form of material from a terracing fill[214], however, the first clear evidence of construction of the theater complex does not come until the second quarter of the 2nd century BCE.[215] Unfortunately the evidence for the acropolis and the theater at this point are only speculative and based on our inferences of how the

[211] Ladstätter 2016, 260; Groh 2006, 65-66.
[212] Ladstätter 2019, 198; 2016, 247.
[213] Wood 1877, 7.
[214] Scherrer 2007, 333; Groh 2006, 70; ÖAI 2003, 309.
[215] Hofbauer et al. 2017a, 7; 2017b, 479-80; 2017c, 513-14. Ladstätter (2016, 247) also comments that the theater was not constructed during this period, while still leaving room for construction of some kind taking place on the site.

city may have been formed throughout this period. With the maritime bay arriving at the foot of Panayırdağ a theater situated on its lower slopes in the location of the later monumental structure would have been even more imposing as travelers anchored their ships below it, with a similar looming presence of an acropolis if it were to have been sited on the smaller hill near the Felsspalttempel as suggested by Ladstätter.[216] If the acropolis was instead sited on the top of Bülbüldağ, at the location of Wood's garrison, then it may have been more highly visible from afar, if somewhat less imposing on the ships in the harbor below due to the increased distance.

The major other features of the 3rd century BCE city that we have evidence for include a gate underneath what was later the north side of the Tetragonos Agora, a Hellenistic sea wall running East/West along the foot of Bülbüldağ, and the Agora, however these may not have been monumental nor visible or striking in appearance to those arriving at the harbor.[217] We have little evidence for other monuments of the city from the 3rd century BCE, perhaps because this was a period of political instability and little development took place, and so our understanding of the form of the city in this period is limited to the monuments presented above.[218] Our understanding changes in the 2nd century BCE and onward however, with the building programs of the Attalids and the Romans which made Ephesus "a truly Mediterranean city."[219]

Antiochus III, Pergamon, and the Rise of Roman Influence at Ephesus

Around the turn of the 2nd century BCE Ephesus was under the control of Egypt and the Ptolemies, but Antiochos III of the Seleucid Empire recognized its strategic significance as he set out to regain territory from the Ptolemies as part of the Fifth Syrian War:

[216] Ladstätter 2019, 198.
[217] Scherrer 2007, 333.
[218] Ladstätter 2019, 204; 2016, 247.
[219] Ladstätter 2019, 204.

> King Antiochus was very desirous of possessing Ephesus, owing to its extremely convenient position; for it appeared to occupy the position of an Acropolis for expeditions by land and sea against Ionia and the cities of the Hellespont, and to be always a most convenient base of operations for the kings of Asia against Europe....[220]

To accomplish this he took his naval force across the southern Anatolian coast and passed through Rhodian territory before arriving at, and successfully recapturing Ephesus and eliminating Ptolemaic presence from the coast of Asia Minor.[221] While he was conducting this maritime sortie his ally, Philip V of Macedon, had threatened Pergamon, and together Rhodes and Pergamon petitioned their powerful ally in the west for help, beginning a period of rapid increase in Roman influence in Asia Minor.[222] Rome came to the aid of her allies and defeated Philip V at Cynoscephalae in 197 BCE while Antiochus III made peace with the Ptolemies, ending the Fifth Syrian War but putting Rome and the Seleucid Empire into indirect tension.[223] Despite attempts at negotiation, some of which took place in Ephesus, Antiochus III still had a desire to expand into mainland Greece and Rome held onto her claims to parts of Asia Minor, which led to direct conflict in 192 BCE as part of the Roman – Seleucid War.[224]

Antiochus III attempted to invade mainland Greece but after a number of defeats retreated to Asia Minor, specifically to Ephesus, the port to the Mediterranean for his Empire.[225] The city was able to accommodate him and his troops due to the fortifications and, at the time, ample harbor space consisting which Ladstätter claims consisted of a military harbor on the northern side of the natural basin which could house 100 ships, opposite an undeveloped commercial harbor on the

[220] Polyb. *Hist.* 18.41 (trans. E.S. Schuckburgh, 1889).
[221] Ladstätter 2019, 203; Grainger 2010, 267-68.
[222] Chaniotis 2018, 164-66; Marek 2016, 221; Grainger 2010, 252-54.
[223] Chaniotis 2018, 167-68; Eckstein 2008, 306-08.
[224] Eckstein 2008, 315, 319-21.
[225] Chaniotis 2018, 171-72; Marek 2016, 222; Eckstein 2008, 329.

southern edge of the basin, which ran from the city center along the foot of Bülbüldağ.[226] The evidence for this is not so clear though, as Livy does not mention these facilities specifically nor is there archaeological evidence of two basins or two separate harbors.[227] By this point the entrance to the harbor had begun to close due to continued siltation from the Cayster River, thus Rome and her allies considered whether to block its entrance, which would have only required sinking a couple of ships, but decided that this would not be effective as a form of siege because of the productive hinterland of the city.[228]

As the maritime conflict moved to Ionia and the general vicinity of Ephesus, including a rousing victory by Rome near Samos, the Roman land army was crossing into Asia Minor and took up camp near Pergamon.[229] In late 190-early 189 BCE Rome and her allies, including Pergamon led by Eumenes II of the Attalid dynasty, defeated Antiochus III in a land battle at Magnesia-ad-Sipylum, bringing an end to the conflict and leading to another defining moment in the history of urban development at Ephesus.[230] With the Treaty of Apamea in 188 BCE Antiochus III agreed to withdraw from his territories in western Asia Minor, which were then split between Rome's allies with Ephesus being one of the cities that specifically passed to the control of Eumenes II and the Pergamon Empire.[231] At this time Rome withdrew completely from the region, leaving her allies to control the territory and increase their strength, and thus exerting influence only indirectly over the region, which may have influenced the later developments in many of the

[226] Ladstätter 2016, 261.
[227] Livy *Hist. of Rome,* 36.41-42, 37.14-15.
[228] Livy *Hist. of Rome,* 37.14; Ladstätter 2016, 262; Steskal 2014, 334. Steskal suggests it may have taken only one ship to block the entrance, citing Scherrer (2007, 349), who indeed writes one ship while citing Livy. However, Livy writes: "[...] se in animo habuisse tota classe Ephesum petere et onerarias ducere multa saburra gravatas, atque eas in faucibus portus supprimere [...]" using the plural.
[229] Eckstein 2008, 330.
[230] Eckstein 2008, 330; Magie 1950, 108-09.
[231] Livy *Hist. of Rome* 38.38-39; Ladstätter 2019, 203; Chaniotis 2018, 172-73; Eckstein 2008, 333; Magie 1950, 108-09.

cities as the communities and political leaders wished to engage with Rome and to show their power.[232] The Attalids did so by developing Ephesus into a booming metropolis throughout the 2nd century BCE, investing in harbor improvements, monuments, and civic spaces throughout the city.[233]

Ephesus under Attalid Rule

After the Roman - Seleucid War Ephesus was under control of the Attalid kings of Pergamon, at the time led by the same Eumenes II who had assisted Rome in driving back Antiochus III from Asia Minor. At this time Pergamon was a growing empire and possessing such an important, well positioned, port such as the one at Ephesus "[...] served Pergamum's needs in terms of defense, communication, and trade; the city's westward-facing position, open to the Aegean, Greece, and Rome, facilitated Attalid self-positioning."[234] Eumenes II consistently tried to curry the favor of other Greek states with large donations and building projects, including a stoa on the slopes of the Athenian acropolis, while developing Pergamon itself into a cultural center with his sponsorship of many structures, such as the Great Altar and the library.[235] Although he also caused conflict with the cities of Greece and Asia by speaking to the senate in Rome against the growing power of Perseus, of the Seleucid Empire, which notably upset Rhodes who sent their own emissaries to Rome to argue against Eumenes II.[236] Ultimately much of the Third Macedonian War took place on Greek soil in mainland Greece, rather than in Asia Minor, before Rome's defeat of Perseus at the Battle of Pydna in 168 BCE.[237]

[232] Mitchell 1993, 29-30.
[233] Ladstätter 2019, 204; 2016, 262-55.
[234] Ladstätter 2019, 203.
[235] Habicht 1990, 562-54; *New Pauly Online* (Eumenes II Soter Sone of Attalus I, King of Pergamon).
[236] Livy *Hist. of Rome,* 42.11-14; Burton 2017, 56-77.
[237] For a thorough treatment of the war see Burton (2017).

Despite the conflict between Eumenes II and Macedon, which raised the ire of the other cities of Greece and Asia, Ephesus also may have benefited the largesse from Pergamon in the form of the development and monumentalization of the theater which took place in this period, potentially on the site of an earlier structure, for which there is little evidence.[238] The skene was constructed in approximately 170 BCE and would have been a two story structure, made of a variety of limestone, with marble used for some door lintels, while the seats of the cavea would have been marble clad, and the theater would become one of the largest in Asia Minor.[239] The large terrace also dates to this period, providing the general support for the later larger phases of the structure.[240] Its position on the lower western slope of Panayırdağ, with a direct axis over the most direct route from the sea along the coast of Bülbüldağ, would have created a looming presence over the natural harbor basin of the Early Hellenistic period, offering a visual connection between harbor, travelers, sailors, and the newly monumentalized entertainment structure. Although the siting of the theater may have been taken advantage of a natural depression in the hillside and its location selected sometime in the 3rd century BCE it was not until the construction efforts in the period of Eumenes II's rule that the theater began to take its monumental form, prominent and visible from a distance.

The theater may not have loomed over the natural bay for long, however, as the advancing shoreline was becoming a more and more urgent issue as it encroached upon the harbor. Throughout the Classical and Early Hellenistic periods, the approach to the city and its harbor would have become more restricted, eventually following the channel which the Romans had discussed blocking by sinking ships, while in northern portion of the bay islands and dunes were

[238] Ladstätter 2019, 204; Hofbauer et al. 2017c, 513-16; Groh 2006, 70.
[239] Hofbauer et al. 2017b, 482-83; 2017c, 514-15.
[240] Hofbauer et al. 2017b, 479-80.

beginning to form, disrupting the effective use of the port.[241] Thus, Eumenes II's brother and successor, Attalus II Philadelphus attempted to mitigate the siltation via the Cayster by constructing a massive mole to the north of the bay, as related to us by Strabo:

> The city has an arsenal and a harbour. The entrance of the harbour was made narrow, by order of the king Attalus Philadelphus, who, together with the persons that constructed it, was disappointed at the result. The harbour was formerly shallow, on account of the embankment of earth accumulated by the Caÿster; but the king, supposing that there would be deep water for the entrance of large vessels of burden, if a mole were thrown up before the mouth of the river, which was very wide, gave orders for the construction of a mole ; but the contrary effect took place, for the mud, being confined within the harbour, made the whole of it shallow to the mouth. Before the construction of the mole, the flow and ebb of the sea cleared the mud away entirely, by forcing it outwards.[242]

Attalus and his engineers mistakenly identified the entrance to the harbor as the issue and by further narrowing the space created "an ideal quiescent 'settling tank' and thus a massive increase in the deposition of fine silt and clay" (Figure 26).[243] With the tides no longer flushing the sediment from the natural bay the shoreline continued to advance, which led to greater intervention being necessary later, during Roman rule, but which also provided more land for the expansion of the city to the west.

This restriction of the approach to the city during the mid-2nd century BCE also would have limited the visual experience of sailors and travelers as they approached the city. The most likely approach of larger trading ships, following the general counter-clockwise nature of the major trading networks, would have been from the south, passing along the coast before turning right into the channel to approach the city. However, if approaching from the west, a traveler would have had full view of the expanse of the cityscape, including the Artemision, for a much longer

[241] Ladstätter 2016, 262.
[242] Strabo *Geog.* 14.1.24 (trans. G. Bell, 1903).
[243] Steskal 2014, 333-34; Scherrer 2007, 349; Kraft et al. 2000, 189.

distance, perhaps from as far as Notion, the next large settlement along the coastline. Although the dredging effort was able to maintain access to the Hellenistic and Roman period harbor it could not stop the advance of the surrounding shoreline, thus altering the approach to the city and the experience of arrival.

When approaching by sea during this period the theater and other structures on the slopes of Panayırdağ hill would have been in the background of a viewer's panorama, and notably Pliny writes that the city was built up on the hill, without mentioning Bülbüldağ or any of the other topographical features of the settlement.[244] In addition to the theater, a structure, domestic but of an administrative nature, was built during the reign of Attalus II, which would have strengthened the visual axis from arrival to harbor to theater, and now to the new structure which lay above.[245] This structure went through numerous revisions throughout subsequent periods of the city but in its early form it was a large peristyle house, which sat upon an artificial terrace which lifted it 6 m above the street downslope to its west.[246] Its elevated position, and grand nature has led to it being linked with the Pergamene administration of Ephesus during this period and could have been home to a prominent official, perhaps a strategos, who answered to Pergamon.[247]

The orientation of the house does not follow the Hellenistic street grid of the city, rather it matches the orientation of the much later Roman monumentalized street leading from the harbor toward the theater, the Arkadiane, which along with significant later renovations and clear use

[244] Pliny *HN*, 5.31; Baier (2017, 122) uses Pliny's passage to argue that "the urban landscape of Ephesos - when approached by sea - was essentially characterized by the buildings rising around the theatre." While I am sympathetic to the argument Pliny does not state this, but merely states that the city "Attollitur Monte Pione, adluitur Caystro, [...]", that it "Is raised up on Panayırdağ, washed by the Cayster [...]" which does draw attention to Panayırdağ, but does not offer the emphasis that the urban landscape was necessarily defined by these structures.
[245] Baier 2017, 124; Ladstätter 2016, 261-62.
[246] Baier 2017, 124; Groh 2006, 70.
[247] Baier 2017, 124; Ladstätter 2016, 262.

through the Roman period has led to occasional acceptance of a Roman Imperial date for the structure.[248] However, its orientation does not only match that of the Arkadiane, but also that of a gate at the eastern end of the street, which C. Baier suggests dates to the mid-2nd century on the evidence of a relief found nearby showing battles between Gauls and Greeks, perhaps representing Attalid ideology but which has also been dated based on other decorative motifs to the 1st or 2nd century CE.[249] Dating this structure based on orientation and alignment alone would be rather tenuous, but a recent project to explore this quarter of the city, led by Baier, has examined the architectural decoration, including the "syntax, iconography and style of the *exedra* ornaments," and places the initial phases of construction in the mid-2nd century BCE due to many similarities with other structures including the Great Altar at Pergamon.[250] Along with the building activity taking place at the theater, Baier thus proves that this quarter of the city was developed together as part of "a large, coherent urban development programme."[251]

The urban development of the new Hellenistic settlement of Ephesus was not constrained to Panayırdağ and the other areas already mentioned, even if these were by far the most visually prominent from a maritime approach. The agora was developed and took the general form that persisted throughout the rest of the ancient life of the city, taking advantage of some of the low lying terrain close to the natural bay.[252] However, how this important space in the town related to the harbor, both visually but also via the street system is as yet unknown due to the lack of

[248] Groh (2006, 70) goes as far as suggesting that this line of sight to the Roman Imperial harbor speaks against a construction in the Hellenistic period. Thür (2002, 264), however, has also argued for an even earlier phase. The Arkadiane was developed in the late 4th through early 5th centuries CE (see, for instance, Marek 2016, 439).
[249] Baier 2017, 131 n. 28. For dating in the 1st or 2nd century CE see Feuser (2020, 131) and Zabehlicky (1999, 481).
[250] Baier 2017, 123. A full discussion can be found in Baier (2013, 31-33), including the link with the Great Altar. Note 38 on p 33 mentions that a ceramic assemblage excavated in 2012 would appear to confirm this date upon first inspection but they were awaiting the final report. This ceramic assemblage is not mentioned in Baier's 2017 publication.
[251] Baier 2017, 124.
[252] Groh 2006, 67; Scherrer and Trinkl 2006, 15-19.

information from this important period of the development of the city.[253] There is much more that is left to be learned about the pre-Roman phases of the city, including the shape of the main settlement near the commercial harbor on the southern side of the natural bay, at the foot of Bülbüldağ, which has unfortunately not been given much attention in past research projects so that the topography of the settlement in this area remains relatively unknown.[254] This region may be full of warehouses, stores, and shipsheds although the nature of these structures is generally unclear or at least does not provide an indication of how it may have impacted a maritime vista.[255]

The slopes of Panayırdağ certainly saw a tremendous amount of development under the Attalids, as did much of the rest of the city, which would have altered the scenographic backdrop for those arriving at the city as the built environment would have become more and more visible as these structures were erected. This new façade would have defined the city to these travelers and sailors, with a focus on the slopes of Panayırdağ, leading up from the harbor facilities and whatever may have been visible of the agora and other low-lying structures, to the theater, and ultimately the peristyle house:

> Accordingly, we may assume that the area around the theatre was developed into a prestigious city quarter during the first half of the 2nd century BC. Henceforth, its monumental appearance characterized the cityscape of Ephesos. To the beholder entering the city via the harbour, the peristyle house above the theatre was the main visual target at the highest point of the city.[256]

Despite the questions about precise alignments and dating of some of these construction events it is clear that the experience of arrival, not just from the harbor into the city but even before that, as

[253] Scherrer and Trinkl 2006, 56.
[254] Scherrer 2007, 334; Scherrer and Trinkl 2006, 56.
[255] Groh 2006, 67.
[256] Baier 2017, 124.

sailors and travelers approached the city, would have included a very different visual experience than in the Archaic, Classical periods, or even the first years of the Hellenistic period.

Although the Early Hellensitic period, especially the development of the city under Attalid control, brought major changes to how Ephesus could have been recognized by sea, it was a rather short period which ended with the death of Attalus III in 133 BCE.[257] After a reign that lasted only five years he bequeathed the entire kingdom, except for Pergamon itself, to Rome.[258] Rome, however, was not entirely prepared to step into the power vacuum and it took some time, three years after Attalus III's death, before a consul could even arrive in the new province.[259] There has been some debate as to precisely when Asia became a part of the Roman Empire, whether immediately after this gift or later during the Mithridatic Wars, but regardless of the specific date it is clear that after this gift Rome continued to epand its hegemony and influence throughout Asia Minor.[260]

Roman Asia and Roman Ephesus

The first years of the immediate period after Attalus III's gift of the territory of Asia to Rome were defined by military struggle as Aristonicus claimed to be the rightful heir to the Pergamene kingdom and fought back against the Romans until his ultimate defeat in 130-129 BCE.[261] Ephesus played a prominent role in Aristonicus's defeat, independently defeating him with their own fleet in 132 or 131, ending for good his naval power and allowing the Roman troops to defeat him on land.[262] After Rome secured control of the region they established the province

[257] Sherwin-White 1977, 66-67.
[258] Kosmetatou 2005, 165-66; Sherwin-White 1977, 66-67; Hansen 1971, 147-49; Magie 1950, 3.
[259] Sherwin-White 1977, 68.
[260] Marek 2016, 251.
[261] Marek 2016, 252; Dmitriev 2005, 7; Kosmetatou 2005, 165-66; Rigsby 1979, 46-47; Sherwin-White 1977, 67-68; Hansen 1971, 153-58; Magie 1950, 152-53.
[262] Marek 2016, 253; Rigsby 1979, 47; Sherwin-White 1977, 68; Magie 1950, 151-53.

of Asia, although the exact date of its establishment is not entirely clear and may have taken until 126 BCE, with Ephesus taking a more prominent role as a favored site of the governers, perhaps partially as a reward for its service, although there were certainly other practical motivations, such as its strategic economic position, as other previous rulers had recognized.[263] The natural conditions of Ephesus, lying along the sea but also near two of the most important inland trade routes up the Cayster and Meander valleys, certainly made a convincing case for it to be the location of a provincial seat.[264]

One of the first actions that the Roman consul Aquillius undertook was to improve the road network that would connect Ephesus to the rest of the province, indicating the importance of the city in the trade and communication networks of the region including those originating far to the east.[265] Around the same time an east-west street running near the Tetragonos Agora was widened from 5 m to 8 m, which could indicate increased traffic and perhaps more intensive development in the port area to the west, although this area has not been sufficiently explored to support or refute this suggestion.[266]

In the Early Republican period at Ephesus, namely the end of the 2nd century and early 1st century BCE, it is not clear that Rome had an active role in the region beyond imposing taxes on the communities under its control and the development of this regional road system.[267] We know

[263] Marek 2016, 253-55; Freeman 2007; Dmitriev 2005, 7-8; Rigsby 1979, 47; Hansen 1971, 160-61; Magie 1950, 153-58.
[264] Magie 1950, 74-75.
[265] Marek (2016, 254) writes that this was just the beginning of infrastructure renewal under the Romans that would last for centuries, and that the milestones in the province were measured from either Ephesus or Pergamon. Mitchell (1999, 18-20) and Haussoullier (1899) discuss the various inscriptions that indicate Aquillius's involvement in the expansion of the road network, these include: *CIL* III 479, 7177, 7183, 7184, 7205, 14199, 14201, 14202 and others in a catalogue by French (1988): 266, 279, 295, and an unpublished one from Sağılk, and, finally, one described in French (1991, 53-54).
[266] Groh 2006, 73. Groh has labeled this street "Street 15." Scherrer (2007, 334) writes that the area to the west, at the foot of Bülbüldağ, is completely unexplored.
[267] Freeman 2007; Magie 1950, 33, 159-73.

almost nothing of the early provincial governors, or their actions, and it appears that there was little to no Roman military presence in the entire region for over 40 years.[268] Beyond taxation and some immigration, "there was little impact of Roman rule in Asia Minor during the early years after the Roman annexation."[269] Although the death of Attalus III may have marked the end of the Hellenistic period at Ephesus, and in the broader region in one sense, "a continuity up to the Augustan period can be assumed from a cultural-historical point of view."[270] This does not imply that architectural development was absent from this period, but we do not have much evidence, and if we are able to assume a continuity in a cultural-historical point of view perhaps any construction taking place would have looked similar to the work already in progress under the Attalids.

This pattern appears to hold true in the archaeological record of Ephesus as well. Of the few changes that we can attribute to this phase of the city there are two which match the emphasis of Aquillius to secure the transport network: the widening of a road near to the Tetragonos Agora mentioned above, which perhaps underscores the significance of the harbor and further developments in the western portion of the city, and the construction of the Magnesian Gate on the south-east corner of the city. [271] The Magnesian Gate has recently been redated to approximately 100 BCE and would have been the entrance in the far south-east of the city, connecting with the roads that had been recently refurbished and serving a defensive role while controlling access.[272] Although it may have been intended to serve these roles in the early 1st

[268] Freeman 2007; Sherwin-White 1977, 69; Magie 1950, 173.
[269] Raja 2012, 56.
[270] Groh 2006, 54 n. 17.
[271] Groh 2006, 73; Sokolicek 2020, 110-11.
[272] Sokolicek 2020, 110-11, 118.

century BCE the Ephesians left their defenses wide open as they welcomed a new warlord, the Pontic King Mithridates.

Mithridatic Wars

The Kingdom of Pontus emerged in Cappadocia in Eastern Anatolia and grew in power throughout the 3rd and 2nd centuries BCE under the Mithridatic kings.[273] In the late 2nd century Mithridates VI assumed the throne and began an aggressive campaign of expansion, both via diplomatic and military means, coming into conflict with Rome, but ultimately succeeding in gaining control of mcuh of Asia Minor, the Greek islands, and the Greek mainland during of the First Mithridatic War in 89-85 BCE.[274]

Ephesus played a significant role in this conflict. Mithridates VI was received in the city near the outbreak of the First Mithridatic War as a liberator, as he had been in many of the other cities in the region, as the residents of Ephesus perhaps felt burdened by the economic conditions that had emerged under the Romans and was excited at the idea of reclaiming their wealth. Thus the Ephesians celebrated by toppling Roman statues throughout the city.[275] While in Ephesus Mithridates expanded the area of the rights to sanctuary at the Temple of Artemis by launching an arrow from the roof of the Temple and declaring anything within the distance to where it landed, which he estimated to be more than a stadium, to be included in its refuge, thus endearing himself to the priests.[276] He then arranged for an incident, the so-called Asiatic (or Ephesian) Vespers, where he called for the people throughout the province to attack and kill all of the Romans or

[273] A history of the growth of Pontus can be found in Magie (1950, 177-98).
[274] The causes of this conflict are less important to the arguments here and include Roman siding against Pontus in local conflicts, as well as Mithridates VI's own expansionist motivations. Some general summaries of the background and conflict can be found: *New Pauly Online* (Mithridatic Wars), Sherwin-White (1977, 70-75) and Magie (1950, 199-220).
[275] App. *Mith.,* 3.21; Magie 1950, 215-16.
[276] Strabo *Geog.* 14.1.23; Magie 1950, 216.

people of Italian birth, including women and children, an event which resulted in the death of tens of thousands and enraged Rome.[277] Appian recounts that even the sanctuary provided at the Temple of Ephesus was not respected:

> The Ephesians tore fugitives, who had taken refuge in the temple of Artemis, from the very images of the goddess and slew them.[278]

This incident bound the nearby cities of Asia to Mithridates against Rome, after which Mithridates turned his attention first to Rhodes and then to mainland Greece.[279]

While Mithridates' expansion in Asia and Greece was underway, Rome's leaders had an internal conflict about who would lead their troops against the Pontic army, which resulted in Sulla entering Rome with his legions and gaining command of the campaign in the East.[280] After arriving in Greece Sulla captured Athens and set out to meet the Pontic army, winning decisive battles at Chaeronea and Orchomenus in Boeotia.[281] During the conflict in Greece, Mithridates had taken up residence in Pergamon, and discontent began to rise among the cities of Asia Minor, as his rule did not seem to be much better than that of the Romans.[282] This discontent led to Mithridates sending Zenobius to Chios in an attempt to quell the discontent through harsh means, which did not go unnoticed by the other cities of the region.[283] When Zenobius went onward to Ephesus, the Ephesians, fearing a similar fate, forced him to leave his troops outside the city. When he then called an assembly, they put him to death and threw their lot back in with the Romans, erecting a white marble inscription stating their loyalty to Rome and explaining how they were

[277] App. *Mith*., 4.22-23; *New Pauly Online* (Mithridatic Wars); Chaniotis 2018, 210-11; Marek 2016, 274; Magie 1950, 216-217.
[278] App. *Mith*., 4.23 (trans. H. White, 1899).
[279] Marek 2016, 276-77; Magie 1950, 219-20.
[280] Plut. *Sull.* 7-10; Magie 1950, 219. This saga certainly warrants more attention, but it is better told as part of a history of Rome, rather than this dissertation.
[281] *New Pauly Online* (Mithridatic Wars); Magie 1950, 220-21.
[282] Marek 2016, 276-77; Magie 1950, 222-23.
[283] Chaniotis 2018, 213; Magie 1950, 224.

forced by terror and surprise to accept Mithridates into their city, which may indeed be a bit of revisionist history in an attempt to regain the favor of Rome.[284]

The Roman army, led by Sulla, defeated Mithridates and made peace but without the harshest of penalties, because Sulla was distracted by events in Rome.[285] The Ephesian attempt to curry favor of Rome, however, was unsuccessful, as Appian relates that the Ephesians were especially severely punished for their treatment of Romans and their offerings to Mithridates after accepting him into their city.[286] Throughout his discussion of the First Mithridatic War and its immediate aftermath, D. Magie makes reference to cities offering monuments and honors to Mithridates VI and later to Sulla, however Ephesus is never included as an example of this kind of action.[287] In the following decades Mithridates VI and Rome engaged in two other conflicts; however these were focused more in Pontus itself and did not directly involve Ephesus, although it was used as a Roman base of operations by Lucullus at the outset of the Third Mithridatic War.[288] Ultimately, after some lackluster successes by Lucullus, it was Pompey who routed Mithridates from Anatolia once and for all, placing coastal Asia securely under Roman control for the centuries to follow.[289]

Prior to taking command from Lucullus Pompey sought to free the eastern Mediterranean from the threat of piracy, under which it had suffered since the end of Seleucid control, but which had become a growing nuisance from the outset of the conflict with Mithridates, as they had his support.[290] By 67 BCE their activities had begun to disrupt the corn supply from the east, which

[284] *IvE 8*; Sherk 1984, 74 n. 61; Magie 1950, 224-25.
[285] App. *Mith*., 8.53-58.
[286] App. *Mith*., 9.61-63; Marek 2016, 277-78; Magie 1950, 236-37.
[287] See Magie (1950, 223) for monuments and honors to Mithridates at Pergamon and Miletus, and (238) for statues being erected in honor of Sulla at cities which he favored, and specifically Halicarnassus.
[288] Chaniotis 2018, 215-16; Marek 2016, 281-87. Magie (1950, 321-64) discussed the details of the final conflict, including Lucullus and Ephesus.
[289] Chaniotis 2018, 219-21; Magie 1950, 351-356.
[290] Chaniotis 2018, 216-19; Seager 2002, 43-44; Knibbe and Alzinger 1980, 753-54; Magie 1950, 298-304.

Rome relied on to feed its citizens, so urgent steps were needed, and ultimately the task came to Pompey.[291] He succeeded in driving the pirates back from the central Mediterranean to Cilicia, where he called upon the assistance of all of Asia Minor, including Lucullus, and ultimately he defeated them, freeing the seas from their threat and securing the important long distance trade routes, all in about three months' time.[292]

The story of Pompey's successful campaign against the pirates relates to the architectural development of Ephesus through a monument referred to as the Round Monument, which was built on the southwest slope of Panayırdağ, in a prominent position high above the coastline.[293] This monument would have risen approximately 12 m high on a square base ~2 m high and ~8 m to a side, and been composed of two circular stories, ~6 m in diameter, the lower a solid core surrounded by Doric half columns and the upper open with free-standing Ionic columns, topped by an attic and a stepped pyramid crowned by a statue or feature of some sort.[294] G. Niemann and R. Heberdey do not believe it could have been used as a tomb, or for other cultic or assembly functions due to its lack of a burial chamber or usable interior space and suggest that it instead serves as a victory monument.[295] Its prominent location and towering form, would have allowed it to serve as a landmark to those arriving by sea, standing tall over the town below.[296] Groh points

[291] Chaniotis 2018, 216-19; Seager 2002, 44-47; Magie 1950, 298. The general guide to the corn supply is Rickman (1980).
[292] Chaniotis 2018, 216-19; Seager 2002, 47; Magie 1950, 299-300.
[293] Groh 2006, 88; Cormack 2004, 225-26; Berns 1996, 196; Knibbe and Alzinger 1980, 813-14; Alzinger 1974, 37-40; Niemann and Heberdey 1906. Niemann and Heberdey (1906, 143) suggest about 100 m above the sea level, while Groh (2006, 88) states 75 m above sea level and Cormack (2004, 225), Berns (1996, 196), and Kader (1995, 215) state ~70 m above the Kuretenstraße.
[294] Niemann and Heberdey 1906, 143-45.
[295] Niemann and Heberdey 1906, 162. Cormack (2004, 225-26) does include it in a catalogue of "Memorial buildings: no evidence for burial, perhaps tomb" but offers no support for her interpretation of the monument as a tomb. Berns (1996, 196) mentions that it was a monument but offers no interpretation of use.
[296] Niemann and Heberdey (1906, 162) write: "Eine nicht zu verachtende Stütze findet diese Auffassung in dem Standorte des Bauwerkes auf der Bergeshöhe, von wo aus es die Stadtniederung beherrschte und dem zur See Ankommenden wie ein Wahrzeichen schon aus der Ferne sichtbar war."

out that its position would have made it visible not just from the sea, but also from both the lower Tetragonos Agora and the upper State Agora, so perhaps it could have played a connecting role in the landscape.[297]

What it would have been honoring is not clear from the architectural and decorative remains unfortunately, but Niemann and Heberdey use construction techniques and stylistic parallels to date it to the second half of the 2nd century BCE and, speculatively, identify it as a *tropaion* erected in honor of the Ephesian naval victory over Aristonicus in 133/132 BCE.[298] Although they acknowledge no specific ties to this event other than their dating of the structure they do highlight that given the position of the monument it would have notably been in full silhouette when viewed from the sea, which they use to support this naval connection.[299] This link with the maritime world and a view from the sea is accepted in a more recent analysis by W. Alzinger although he offers a closer inspection of the decorative motifs and redates the monument to the mid-1st century BCE as he suggests that it may have honored Pompey's defeat of the pirates in 67 BCE.[300] Although Pompey relied on the assistance and support of the communities of Asia Minor to defeat the pirates it was not, given the roles the Ephesian navy played in both events, as clear a victory for Ephesus itself as the 2nd century victory at Kyme, but the dating does appear to align more closely with this, or another event in the mid-1st century BCE.

Although the Round Monument is occasionally listed in analyses of burials from Asia Minor, and may very likely have been a centotaph, the major analyses that have focused on this

[297] Groh 2006, 88.

[298] Niemann and Heberdey 1906, 156-65. Their dating specifically focuses on close connections with the Dionysus Temple in Pergamon dated hesitantly to the mid-2nd century BCE under Eumenes II, however in their analysis they comment that the date of the temple in Pergamon is unclear and that the round building "obviously represents a more advanced stage of development and is therefore also a little later" (161). Overall, this attempt at dating does not inspire the most confidence.

[299] Niemann and Heberdey 1906, 165.

[300] Knibbe and Alzinger 1980, 813-14; Alzinger 1974, 37-40. Alzinger's analysis is confirmed by Rumscheid (1994, 165-69) who concludes the decoration supports a date of around, or just after, the middle of the 1st century BCE.

monument alone agree that it was a monument to a naval victory and that it was erected during a period for which we otherwise have little evidence of architectural development.[301] A more recent interpretation, that the monument was a *heroon* and was the focus of "institutionalized worship of a mythological or historical figure of great importance for Ephesos" has been presented by Baier, if we accept that its orientation parallel to the *via sacra* indicates that it had a role in processions and the city's sacred identity.[302] The base of the monument may have been square, and oriented to the *via sacra,* but the monument itself is circular in form and would have presented a similar view regardless of the precise orientation of the base and without the feature that would have topped the superstructure it is not possible to identify a more specific "face" of the monument. I find the monument's location and form to be more convincing of an intention to make a long-distance visual impact, or even serving as a visual marker to connect the upper and lower regions of the city, rather than the orientation of its base indicating a role in a specific procession or ceremony. Additionally, the dating of the monument to either of two periods that had significant victories worthy of commemorating in architectural form would appear to match more closely with historical considerations than a new construction in these periods to honor a mythological or historical figure. Whatever the intent of the monument or its role in local processions, it would have been a significant and prominent part of the landscape as one approached the harbor throughout the earliest years of Roman control of Ephesus.[303]

[301] Kader (1995, 215-16) comments that there are no parallels for this structure, so it is something new in memorial architecture, whatever it is memorializing.
[302] Baier 2017, 128-29.
[303] Baier (2017, 129) acknowledges that the monument's prominent location indicates that it is significant in the course of making his argument about the orientation and the *heroon* interpretation.

Although other architectural developments must have taken place during the period of the Mithridatic Wars we have very little indication of this, especially compared to what was to come under the rule of Roman Empire.

Ephesus after Mithridates

Following the Mithridatic Wars the Roman Republic entered the period of the triumvirates, with conflicts between political and military leaders for three decades. The conflicts of the first Triumvirate never directly moved to Asia, which was generally under the control of Pompey and his agents.[304] Metellus Scipio, an ally of Pompey's, controlled the region from his seat in Pergamon, extracting more and more taxes and levies, and even attempting to seize the funds held at the sanctuary of Artemis at Ephesus, before being called back to Greece by Pompey with the rising threat of Caesar's advance.[305] Later, Caesar pursued Pompey south along the coast of Asia Minor, stopping at Ephesus, where he saved the treasury at the sanctuary from an ally of Pompey's, this time, Ampius Balbus.[306] These anecdotes are, however, related to us by Caesar himself and may have been intended to curry favor with the Ephesians, as his actions indirectly saved the treasury at the sanctuary. That being said, a monument was erected to Caesar in Ephesus by the regional population in 48 BCE, as related to us via a dedicatory inscription.[307]

During the second Triumvirate Asia was under the control of Mark Antony who established the seat of his command at Ephesus, where he was honored as an incarnation of Dionysus and where he again enlarged the area for which Sanctuary of Artemis would provide asylum.[308] This enlarged power of the sanctuary was unable to protect Arsinoe IV, a member of the Ptolemaic

[304] Marek 2016, 297-98; Magie 1950, 401-03.
[305] Caes. *B*, 3.33; Marek 2016, 298; Magie 1950, 403-04.
[306] Caes. *B*, 3.105; Marek 2016, 298; Magie 1950, 404-05.
[307] *IvE* 251; Magie 1950, 407, 1261 n. 9.
[308] Magie 1950, 427-29.

dynasty, and both sister and rival of Cleopatra VII, from being executed at the hands of Mark Antony in 41 BCE while seeking refuge at the temple.[309] H. Thür argues that osteological evidence supports an identification of a body buried in an octagonal tomb dating between 50-20 BCE as matching the age, gender, and physical characteristics expected of Arsinoe IV, and architectural parallels between the tomb and the pharos of Alexandria create an ideological link between Arsinoe and her homeland, and thus dates the octagonal structure to 41 BCE, however this specific identification is not universally accepted.[310] The exact identification and dating of this tomb is less important to this study, but it is worth noting as one of the few pieces of architecture which may date to the Late Republic. The final months in Ephesus for Mark Antony were spent with Cleopatra as they prepared for their final struggle with Octavian, bringing together his legions alongside a large fleet which would ultimately be defeated at Actium.[311]

In all the entire early period of Roman control, from the bequest of Attalus III to the end of the Roman Republic, we have relatively little evidence of architectural development at Ephesus. This lack of building activity is referred to by Knibbe & Alzinger as remarkable and sparse, but they acknowledge that this is also likely due to the intense boom in construction in the Roman period obscuring, or even destroying, much of the evidence of potential earlier construction events.[312] They also dismiss the suggestion that a fire in the city, set by Sulla in 84 BCE according to ancient authors, may have contributed to this dearth of construction evidence due to a lack of archaeological data supporting this fire or its effect on the architectural development of the city.[313]

[309] Joseph *AJ*, 15.4.1; Thür 1995a, 180-81; Magie 1950, 429.
[310] Steskal 2013, 5; Thür 1995a, 181-83; 1990. Most of the criticism that has been levelled at Thür has taken place in mass-market periodicals and the blogsphere, not peer-reviewed sources. Some of these criticisms have included that the age of the individual buried is too young to be Arsinoe, so this identification should be discounted, others that the identification based on reconstructed physical characteristics is completely unreliable, considering that Arsinoe's heritage is not secure, the measurements of the skull, now lost, were taken in the 1920s.
[311] Marek 2016, 304; Magie 1950, 439.
[312] Knibbe and Alzinger 1980, 759, 811.
[313] Knibbe and Alzinger 1980, 759, 813.

The "remarkably" few structures from this period may include the octagonal tomb discussed above, as well as another tomb, the Monument of C. Memmius, which both date either to the Late Republic or the Augustan period.[314] However neither of those, located on the Kuretenstraße between the two hills, would have been a key component of the visual landscape of Ephesus when approached from the sea in the way that the "Round Monument" perched high on the sloped of Panayırdağ would have. The evidence for further building activity is so scant that L.M. White, in a chapter describing the urban development of Ephesus, only lists four buildings as being constructed or renovated during the "Late Republican (133-31 BCE)" period, however of these two have been definitively redated to later periods, one is in the early Augustan period, and one is the aforementioned Monument of C. Memmius.[315] Overall the picture of development in this period is that a few individual structures were built, or may have been built, such as the octagonal tomb, but we do not have evidence for major building projects beyond the "Round Monument" that may have changed the image of the city to those arriving by sea. One limitation is certainly the lack of archaeological investigation that has taken place on the northern slopes of Bülbüldağ hill, to the west of the core of the city, which may have contained further residential zones and infrastructure in support of activities at the port. Sadly not much is known from this region, so describing what it may have looked like beyond general urban sprawl is impossible.[316] However, this apparent gap in construction events, whether due to instability after the Mithridatic

[314] On the Memmius monument: Steskal (2013, 8) and Outschar (1990), with discussion of the date in Outschar (1990, 84-85).

[315] White 1995, 52. The list includes the Bouleuterion, Tomb of Luke, Temple of Divus Julius and Dea Roma, and the Monument of Memmius. For the dating of the Bouleuterion see Aurenhammer et al. (2011, 116-17), for the Tomb of Luke to the 2nd century CE see Pülz (2010, 97-98), for the Temple of Divus Julius and Dea Roma see Scherrer (1995b, 4) in the same volume as White, and Dio Cass. *Roman Hist.* 51.20.6, and the Memmius monument has already been discussed. White bases the list off of Rogers (1991, 128-135), however there are some issues with this list. For instance, Rogers dates the Tomb of Luke to "1st C. BC" (129), citing Heberdey (1912), however Heberdey only describes the monument without offering a date other than to say it could not have belonged to Luke.

[316] Scherrer 2007, 334.

Wars or the imposition of heavy taxes by the new rulers, quickly closed, as increased attention from Rome brought many changes to architectural development at Ephesus, as it did to many aspects of society across the Mediterranean, in the Roman Imperial period.

The Leading City of Asia

After defeating Mark Antony and Cleopatra at Actium in 31 BCE Octavian travelled to Asia Minor, spending time in Samos but also visiting Ephesus, before pursuing Mark Antony and Cleopatra to Alexandria where he ended the conflict and consolidated power of the Roman Empire.[317] With this victory he returned to Samos and went about reorganizing the administration of the province of Asia, including recognizing Ephesus's status as the most important city in the province of Asia, the first point of arrival for each new proconsul, the highest ranking Roman official in the province, and the place where the proconsul would winter between his trips both south and north as part of his *conventus* circuit.[318] Ephesus, and its residents and administrators, benefitted from its convenient location, accessible to the sea and important inland trade routes. It also had room to grow, thanks to the large area enclosed by Lysimachus within the fortifications.[319] Its enhanced status encouraged growth both in population and in civic structures and monuments throughout the Early Imperial period.

One of the first of these monuments from this period was the Temple of Divus Julius and Dea Roma, which Octavian allowed the Ephesians to build in 29 BCE.[320] This type of ruler worship had a long history in Hellenistic cities in the east, although it was frowned upon by Rome,

[317] Marek 2016, 305; Magie 1950, 440.
[318] Ryan 2016, 394 n. 141; Marek 2016, 368-69; Raja 2012, 57-58; Knibbe and Alzinger 1980, 757; Magie 1950, 440; *New Pauly Online* (Ephesus).
[319] Knibbe and Alzinger 1980, 759.
[320] Dio Cass. *Roman Hist.* 51.20.6; Scherrer 2007, 334-35; 2006; 1995b, 4; Price 1984, 254; Knibbe and Alzinger, 1980, 815-16; Magie 1950, 447.

which may have convinced Octavian to insist upon the inclusion of Dea Roma, rather than simply worshipping him alone.[321] The precise identification of this structure is not clear however Scherrer believes that it is "a small temple with a peristasis of 6 by 10 columns" in the area of the "State Agora" between the two hills that framed the settlement.[322]

The State Agora is included as part of Groh's Regio II a region defined by its location at a higher general elevation than the rest of the city and the monuments and structures that would have surrounded the harbor, but also by its use, with the spaces included generally serving residential or administrative functions.[323] This area was populated with monuments throughout the Early Imperial period, but these monuments, including the Temple of Divus Julius and Dea Roma, would not have been visible upon approach from the sea, as they would have been removed physically from the harbor and in general would have been occluded by the natural landscape, so their treatment may be limited here. It is, however, important to note the intensity and types of buildings that were constructed in this region of the city, which help to provide the broader context of development at Ephesus alongside the other structures from the areas closer to the harbor which will receive more attention in this study. U. Kenzler argues that there is a distinct trend in the Augustan era construction in the State Agora that followed Roman ideals, breaking from Greek and Hellenistic tradition to place new sacred buildings associated with the Emperor through his support, the support of his allies and agents, or even directly dedicated to him in prominent locations in this square.[324] This important conceptual shift, to an emphasis on a closed agora or forum which contained the most important ritual architecture of the city, rather than them

[321] Knibbe and Alzinger 1980, 758, 816; Magie 1950, 446-48. See also Chaniotis (2005) for a discussion of Hellenistic ruler cults, and specifically p. 443 for a discussion of the worship of Augustus.
[322] Scherrer 1995b, 4.
[323] Groh 2006, 79-80.
[324] Kenzler 2006.

appearing in more prominent locations at boundaries, often facing outward, would have a significant impact on the construction around the harbor, and thus the experience of arrival as well.

In the Early Augustan period there was also an intensity of construction activity in the lower-lying area around the Hellenistic harbor basin, including a monumental gate constructed in the southeast corner of the Tetragonos Agora, the Gate of Mazaeus and Mithridates.[325] We know that this gate was built in 4 BCE or 3 BCE thanks to its inscription, and although it may have been functionally similar to gates of earlier periods its ornamental decoration was more typically Roman.[326] This arched gateway may not have been highly visible from the sea, but shows some attention to monumentalizing this quarter of the city and a redevelopment of the Tetragonos Agora itself which would result in a square ~150 m a side and cover approximately nine insulae.[327] This restructuring of the agora went hand in hand with a renovation of the street system including the paving of the roads under Augustus[328]

There was also highly visible development in the western edge of the city in the early 1st century CE, by C. Sextilius Pollio and his family, who dedicated an aqueduct leading from the southeast into the city called the Aqua Toressitica.[329] The State Agora was also awarded large civic monuments, with the Pollio family building a basilica which would dominate this quarter of the city, and the Prytaneion which held the sacred flame of Hestia, both dated to the Augustan period.[330] Alzinger associates architectural features discovered beneath the High Imperial Bouleuterion with an earlier Hellenistic phase of the building which must have existed due to

[325] Knibbe and Alzinger 1980, 816.
[326] *IvE* 3006; Knibbe and Alzinger 1980, 816; Alzinger 1974 n. 15.
[327] Scherrer and Trinkl 2006, 19.
[328] Groh 2006, 78; Alzinger 1974, 24, 148.
[329] Knibbe and Alzinger 1980, 816-17.
[330] Knibbe and Alzinger 1980, 817-18. The basilica has been recently been examined by Hesberg (2002) and Halfmann (2001, 21-33). For the most recent analysis of the Prytaneion see: Steskal (2010) and for the dating of the monument (77-84).

traditions in Greek urban architecture and is supported by an inscription which Alzinger has dated to the 1st century BCE, but is not clearly associated with the High Imperial structure and thus Bier suggests it may belong to an as-yet identified Augustan Bouleuterion.[331] Although an earlier structure, whether from the Hellenistic era or the Augustan period must have existed in the city and the features beneath the later Bouleuterion are of the expected date, there is no indication that they were a part of a Bouleuterion and the reconstruction of one on this spot in an earlier period remains speculative at best.[332] Even with the State Agora and other areas to the east being monumentalized throughout the Augustan period these changes were less visible from a westward approach to the city by sea, as were some of the other monuments constructed following local traditions throughout this period.

Architectural development under Augustus did not ignore the most important monument of the city, the Artemision, where epigraphic evidence dated to 6/5 BCE tells us of building projects in the sanctuary's territory on the roads and canals, as well as the erection of an enclosure wall around the temple and the Augusteum, which must have been built before this period.[333] W. Jobst has noted that the inscriptions mentioning the Augusteum were not discovered *in-situ* and that it is most likely that the Augusteum is located in the area of the State Agora; however the common interpretation is that the description of the wall as surrounding the Artemision and Augusteum implies a location in the area of the Artemision which is supported by the discovery of statue fragments relating to the imperial cult. The precise location of this structure is not known,

[331] *IvE* 740B; Bier 2011, 47; Alzinger 1988, 21-29 (for the inscription see p. 23).

[332] Bier 2011, 47-48. Aurenhammer et al. (2011, 117) date the earliest phases of the Bouleuterion which we have evidence for to the late 1st/early 2nd century CE. Raja (2012, 67-68) discusses the redating of the earliest archaeological evidence for the Bouleuterion but cites a date in the early 1st century BCE due to an epigraphic analysis by Knibbe and Büyükkolancı (1989) of an inscription from the basilica, however overlooks the work by Bier and Aurenhammer, et al. that point to a much later date for the earliest secure evidence.

[333] Zabrana 2020, 161-62; Scherrer 1990; Jobst 1980; Wood 1877, 132, 152-153. Inscriptions related to the Augusteum include: *IvE* 1522-1524.

but L. Zabrana suggests that it was likely located near the later Odeion southwest of the Artemision.[334] The association of the Augusteum with the Artemision would also make ideological sense as an attempt to link the new ruling class with the religious traditions of the community. In any event, the form of this structure is generally unknown and was unlikely to have had a dramatic presence on the façade of the city.

On the upper slopes of Bülbüldag, ~96 m above sea level, another round building, of similar scale to the possible naval victory monument from the mid-1st century BCE was discovered and investigated in the mid 1950s.[335] The structure would have been approximately 9.7 m in diameter in the outer dimension, and its core has been preserved up to ~3 m in height on a base with a 11 x 12 m footprint.[336] Unlike to the Round Monument on Panayırdağ, this building contains a burial chamber with evidence for four sarcophagi, and objects found in this chamber, mainly terracotta lamps and a coin, date it to the beginning of the 1st century CE.[337] C. Berns describes this monument as presenting a striking form thanks to being covered in marble slabs, perhaps attempting to compete via its location with the other unique tombs that were present in the city, including the octagon and the Tomb of Memmius.[338] Groh points out that this structure and the Round Monument on Panayırdağ were constructed opposite each other at the narrowest point between the two hills, which also places them as close as possible to the Kuretenstrasse running between the upper and lower portions of the city.[339] Given its location on the eastern curve of Bülbüldag, this tomb would have been highly visible from the State Agora, monumentalized in the

[334] Zabrana 2020, 161-64, 168; Scherrer 1990, 87; Price 1984, 254; Wood 1877, 152-54. See Jobst (1980) for the State Agora location.
[335] Groh 2006, 96-97; Berns 1996, 196-97; Miltner 1956-58, 50-53. Cormack (2004, 219-226) does not include this tomb in her catalogue of burial or memorial structures at Ephesus. Berns (1996, 196) states that it is ~110 m above the Tetragonos Agora, but Groh has surveyed the city more recently so I have used his measurements here.
[336] Groh 2006, 96-97; Berns 1996, 196-97; Miltner 1956-58, 50.
[337] Berns 1996, 196-97; Miltner 1956-58, 50-51.
[338] Berns 1996, 32, 49, 141.
[339] Groh 2006, 96-97.

same general period, but would have been occluded from the approach to the city by the hillside itself, although likely visible from within the Roman port basin. Another round building perched isolated on a hillside can be found even further east along Bülbüldag, 98.5 m above sea level, however this monument, which would have been in visual dialogue with the State Agora and the road to Magnesia, was certainly not a part of the harbor landscape.[340]

Groh points out that all three of these round structures are located near the main water conduits of the city and thus may be landmarks denoting the limit of development in the city, similar to the way that the tombs and monuments along the Kuretenstrasse mark the limit between an older sacred necropolis portion of the city and the secular area that grew up around it.[341] Although we do not have a date for the third building, the difference in dating between the other two structures, mid-1st century BCE for the Round Monument on Panayırdağ and early 1st century CE for the monument on Bülbüldag, and the differences in function, one potentially a victory monument the other a tomb, would not seem to suggest that they were directly related or planned together in order to act as this boundary-markers in addition to other functions. In fact, the monument on Panayırdağ's location in between the two main zones of the city, and highly visible from both would appear to make a connection rather than separate. And as Berns points out, the marble cladding and unique form of the tomb on Bülbüldag may indicate a form of competitive display through burial architecture, which follows a pattern from the other tombs we have evidence for from this period.[342]

There is another structure, called either the Hellenistic Round Monument or simply the Monopteros, which has not yet been discussed but is relevant due to its similarities to the round

[340] Groh 2006, 96-97. Groh does not give any further information nor references for this structure and it is not listed in Cormack (2004).
[341] Groh 2006, 97.
[342] Berns 1996, 32, 49, 141.

buildings just presented as well as its location at the lower end of the Kuretenstrasse just outside the Gate of Mazaeus and Mithridates.[343] It appears to have been constructed against an Archaic tomb at the intersection of the Kuretenstrasse and the Theater street, and consisted of a round base ~7.45 m in diameter, and would have consisted of a six-columned Monopteros topped by a water feature, with a rounded staircase extending further to the south.[344] Unfortunately no building elements have been discovered that can help with further identification but Jobst has suggested that given its size and location in the midst of other memorial monuments that it was likely a heroon, and Berns links its size and form to that of the Round Monument on Bülbüldag.[345] Although further identification is not possible with the given remains I see no reason to challenge this interpretation, given the similarity of other structures in the city from this period. It has been dated, primarily by construction techniques and architectural ornamentation, to the second half of 1st century BCE, which would appear to fit within the architectural traditions of round monuments that were constructed on the slopes of the hills and the other unique tombs lining the Kuretenstrasse.[346] This monument would have been highly visible within this city, being located at this important crossroads, but its sister monuments on the hillsides would have made a much larger impact on travelers from afar.

Throughout the Augustan period of the city Ephesus began to take a form recognizable in the later remains of the city, as the State Agora was monumentalized and many of the lavish individual monuments began to adorn the streets and intersections of the city, often continuing earlier traditions but also confirming these traditions in the Roman period. It is worth noting that

[343] Berns 1996, 193; Jobst 1983, 184-98; Heberdey 1907, 70-72.
[344] Berns 1996, 193; Jobst 1983, 186-90.
[345] Berns 1996, 40, 193; Jobst 1983, 197-98.
[346] Knibbe and Alzinger (1980, 812) state that it was "securely erected in the Hellenistic period" however the Berns (1996, 40, 193) and Jobst (1983, 196-98) suggest that this is not so clear, with Berns suggesting an Augustan date.

many of these developments took place at higher elevations, either on the slopes of the hills surrounding the settlement or in the upper plateau, where the State Agora can be found. The geoarchaeological and architectural research around the harbor basin does not provide much indication of a specific change throughout this particular period, although the overall trend of siltation would likely have continued, which will become clearer from events later in the 1st century CE. Many of the urban planning decisions made under Augustus set the groundwork for the following centuries, as future development would take advantage of the framework established during this period of transition.

These early periods of direct Roman rule and administration of Ephesus had a profound effect on the fabric of the city and ultimately its outward appearance. F. Heuber writes about the expansion of housing from 2-story buildings to much taller 3-story structures and more, and describes an expansion up the hillsides of the surrounding hills which he claims would not have been possible before.[347] His research is focused on the square at the western edge of the Kuretenstrasse, framed by the Gate of Mazaeus and Mithridates and the Monopteros which he describes as being intentionally designed with "the Roman principle of spatial order" as a primary concern and that the building façades achieved "a harmonious interaction by maintaining common, visually effective height references."[348] He argues that the architectural features of this square of the city functioned together as part of a common program within a system of spatial order, while at the same time extraordinary developments were taking place just a few hundred meters away, filling new land that was reclaimed in the area of the former Hellenistic harbor basin (Figure 32, 33). This space would have been filled with a variety of public structures that would have been visible from afar, creating a façade or skyline that would have been a mix of structures when

[347] Hueber 1997, 257-59.
[348] Hueber 1997, 267-69.

approaching the city, after the harbor was moved further west, both to protect it from siltation but also to give the city more room to expand.[349]

Much of the mid-1st century CE was likely spent rebuilding and repairing structures that had been damaged in an earthquake which rocked the city in 23 CE.[350] At the theater, for instance, the Hellenistic form of the theater remained in use at least up until the Augustan period, and then from that point through the majority of the Julio-Claudian period there is very little evidence for significant changes or building improvements.[351] This would change in the middle of the 1st century CE, however, as the theater began to undergo "a profound transformation during the Flavian era."[352] The major visible change was the construction of a three-story tall stage building, which would have replaced the Hellenistic proskenion, which, with the help of an inscription, we can date securely to 85 CE, around the same time as many of the important developments in and around the harbor basin.[353] Soon after, the north side of the koilon was renovated to extend further west, work completed in 92 CE, providing more seating and also resulting in 60 m long analenmmata.[354] This northern wing would have extended out from the slope of the hillside and been the largest façade of the structure, "approximately 35 m high when measuring from the base of the terrace to the surface of the portico," slightly taller than the height of the Artemision and at a higher elevation.[355] The extension southern side was completed sometime in the early 2nd century CE under Trajan, sponsored by Titus Flavius Montanus, with its own 60 m long analemmata, and brought the total seating capacity to approximately 20,000.[356] The theater's seating was topped

[349] Hueber 1997, 259-60.
[350] Scherrer 2001, 73.
[351] Hofbauer et al. 2017c, 525-26.
[352] Hofbauer et al. 2017c, 526. A detailed discussion of the architectural development in the Roman Imperial period can be found in Hofbauer et al. 2017b, 483-512.
[353] *IvE* 2034; Hofbauer et al. 2017b, 487-88; 2017c, 526.
[354] *IvE* 2035; Hofbauer et al. 2017b, 491-97; 2017c, 526-27.
[355] Hofbauer et al. 2017b, 496-97.
[356] *IvE* 2061, 2062; Hofbauer et al. 2017b, 497-500; Hofbauer et al. 2017c, 527.

with a portico which rose from 2.5 m above the upper diazoma wall, although the precise dating of this feature is unclear, and it may have its foundations in the Augustan period or earlier 1st century CE. Although there were other significant changes throughout the 2nd century to the functional aspects of the building, its external form was rather static throughout this period.[357] The diameter of the building would have stretched 150 m with a central three story tall stage building which measured approximately 42 m wide framed by the large cavea behind it, topped with the elaborate portico.[358] This monumental structure would have provided spectators within its seats a view of a magnificent stage building and beyond a westward view along the slopes of Bülbüldag with the harbor and its approach approximately in the central axis of the vista. This would have been mirrored in the experience of those arriving at the port, who would have travelled down the harbor canal to reach the port facilities with the monumental form of the theater, rising over 35 m and presenting a 150 m wide façade to the viewer.

Developments in the Roman Imperial Harbor

The focus of attention by the citizens and new immigrants to Ephesus during the Early Imperial period was on elaborating Ephesus with many of the necessary structures typical of a city of the period, such as the basilica, bouleuterion, and prytaneion, and many of the more local elites were focused on funerary or trophy monuments and infrastructural improvements such as the aqueduct, and there is little evidence for changes to the harbor. Throughout the Hellenistic period the large open bay that abutted Panayırdağ had been slowly filling up, which resulted, as discussed above, in the attempt by Attalus II Philadelphus to stem this process with the creation of a mole

[357] Hofbauer et al. 2017b, 503-05; 2017c, 527-29.
[358] Hofbauer et al. 2017b, 506.

north of the harbor channel.[359] Unfortunately his attempt was unsuccessful, and the bay continued to silt up resulting in more drastic action being necessary by the later years of the 1st century BCE (Figure 26, 27, 28, 29). Geoarchaeological coring has shown that by Late Roman Republican period the Hellenistic basin had been filled by "thin prodelta sands" and "black anoxic marine-brackish muds" drastically reducing the navigable depth of the basin from depths as great as 25-30 meters from before the Classical settlement.[360] In the 1st century CE the Hellenistic basin was infilled and levelled, presumably for the structures that were constructed there in the Imperial period, and the construction of a new harbor to maintain its trade and transport network (Figure 32).[361]

Tacitus relates to us that the proconsul Barea Soranus opened "the port of Ephesus" in 66 CE.[362] What exactly this means is not entirely clear; however, it may have been a new, constructed harbor which was built to the west of the Hellenistic harbor basin and for which there is archaeological and literary evidence, even if it has not been completely excavated, partially due to the high groundwater and vegetation which impedes research in the area.

As early as 1862 a marshy area to the west of the Hellenistic harbor basin was identified as the "City Port," although Falkener was unable to identify that the shoreline advance had subsumed earlier harbors and that this was in fact a Roman construction, instead identifying this as the port throughout the life of the city.[363] Falkener reconstructed the harbor as an elongated octagon with eight jetties projecting from both the north and south sides, based on his observations

[359] This event is related to us by Strabo (*Geog.* 14.1.24) and confirmed by geoarchaeological coring (Kraft et al. 2000, 189). It is discussed in more detail earlier in this chapter.
[360] For this specific discussion see Kraft et al. (2005, 155-56), however the coring program has also been discussed in the other articles by Kraft et al. (2011, 2007, 2005, 2000), Stock et al. (2019, 2016, 2014, 2013), and Brückner (2019, 2017, 2005).
[361] Steskal 2014, 334; Scherrer 2007, 335-36; Groh 2006, 72-73; Kraft et al. 2005, 156.
[362] Tac. *Ann.* 16.23; Zabehlicky 1995, 204-05.
[363] Falkener 1862, 50-61.

and those of his contemporaries but without support from excavations (Figure 11).[364] The same marshy area was also described by Wood in 1877 as the "City Port" the form of which he was able to identify thanks to the vegetation which grew within the harbor basin and a "massive stone embankment" which he traced almost the entirety of the way to the modern seashore (Figure 12).[365] This embankment is still partially visible today and reaches four kilometers to the west from the City Port, ending a few hundred meters before the modern shoreline at Pamucak.[366] But exactly how much of this stretch dates to the first two centuries CE is not entirely clear, especially given the focus of effort that was made to keep the port, and its associated canal whatever its length, navigable into the 2nd century CE and later. An inscription honoring the emperor Hadrian who "provided shipments of grain from Egypt, made the harbors navigable and diverted the river Kaystros which silts up the harbors…" may imply that at least in the early-mid 2nd century CE the channel was still navigable, even by large grain ships arriving from Egypt.[367] The remainder of the inscription, which may have offered insight to how he diverted the Cayster is, however, unfortunately lost.[368]

Wood's attempts to study the port brought some Byzantine structures to light, as well as a pavement covered with oyster shells, but perhaps most important to our understanding of the harbor and its facilities, on the south side of the port he found a small marble column with an inscription translated as:

> .....to Hadrianus Antoninus Caesar Augustus called Pius, and to the first and greatest metropolis of Asia, twice temple-warden of the Augusti, the city of the Ephesians, and to those who are engaged in the toll-office of the fish market,

[364] Falkener 1862, 50-51, pl. II.
[365] Wood 1877, 4-5. Wood's description of the vegetation and wild fowl seeking refuge here are not too dissimilar to the situation today, as the area is still overgrown with vegetation and other than this indicator of the ports form it is difficult to imagine what the hidden remains may look like.
[366] Scherrer 2007, 349.
[367] *IvE* 274 (trans. N. Lewis, 1974, 17); Zabehlicky 1995, 205.
[368] Zabehlicky 1995, 205.

> Cominia Junia dedicates out of her own property this statue of Isis with the altar,.....holding the office of President of the Senate.....[369]

Once again Ephesus is referred to as the leading city of Roman Asia, a common and formulaic epithet. Most significant, although there is little indication of where this column may have stood, is that the inscription informs us of the presence of a fish market with a toll-office in the time of Antoninus Pius, presumably near the harbor and potentially on the south side, if this column's find spot is indicative of its original location. This may be the same building as the one mentioned in a dedicatory inscription from mid-1st century CE that discusses the construction of a fishing customs house, including a description of its costs and basic form, by the fishermen and fishmongers of the city, which was dedicated to Nero and his wife Octavia.[370] This inscription was found along the southeast corner of the Roman harbor basin and Keil suggests that it may have been found *in situ,* although high groundwater prevented the excavation of its base, and may thus indicate that this customs house was situated alongside the harbor nearby.[371] Although the existence of a customs house at the harbor is unsurprising these inscriptions help to identify its likely position on the southern edge of the harbor.

Several other inscriptions provide important evidence of investment in the harbor and its facilities throughout the 1st and 2nd centuries CE and offer insight into the importance of the city and its administration by the Romans.[372] Two inscriptions from the early 2nd century CE honor individuals, T. Flavius Montanus and the prytanis C. Licinius Maximus Iulianus who gave money for the development of the port; however, neither provides much detail about how this investment

[369] *IvE* 1503; Wood 1877, 30-31. For the translation: "Inscriptions from the City and Suburbs" from Wood (1877, 34-35, No. 12) and *British Museum: 1868,0620.53.*
[370] *IvE* 20.
[371] Keil 1930, 48-50.
[372] *IvE* 23, 274, 2061, 3066.

was spent.[373] An edict from L. Antonius Albus is one of the most revealing about the general status of the city and comes from the north side of the Roman harbor, found in 1956 inventoried in the archaeological museum in Selcuk and originally built into the wall of a building alongside the harbor.[374] This inscription reproduces a decree of the proconsul L. Antonius Albus (146/147 CE) that those traders taking part in the wood or stone trade no longer store or work their materials along the quay. The stated goal was to protect the pillars used to fortify the port from the weight of the cargo and to prevent the debris from the working of the material from filling the basin, increasing the speed of the sedimentation, while also clearing the quay, which was becoming impassable. H. Zabehlicky has suggested that this quay was constructed by Hadrian, perhaps one of the efforts that he had had made to protect the harbor from siltation when he diverted the Cayster River.[375] If the Albus inscription, and the one discussing Hadrian's successes in diverting the Cayster are related, then perhaps the quay with pillars supporting it took a form similar to other Roman efforts to relieve harbors of siltation through arched or otherwise raised moles and/or quays such as at Puteoli or Caesarea Maritima; however it should be clear that this is only speculation as there is no archaeological evidence indicating this type of construction at Ephesus.[376]

When Benndorf began work at the site in 1895 he found the harbor in a state similar to that described by Wood, a sunken basin covered in vegetation with reeds growing up like a forest, although despite this he was still able to define the general shape of the harbor and the a canal leading to the sea (Figure 35).[377] High groundwater in these early investigations was a major

[373] *IvE* 2061 for the statue of T. Flavius Montanus, and *IvE* 3066 for the inscription honoring C. Licinius Maximus Iulianus who also gave money for the gymnasium, presumably the harbor gymnasium.
[374] *IvE* 23; Zabehlicky 1995, 205; Keil 1959.
[375] Zabehlicky 1995, 205-206.
[376] For a discussion of arched harbor moles and other Roman efforts to battle siltation see: Blackman (1982a, 197-204).
[377] Benndorf 1898a, 57.

impediment to the research; Benndorf describes any finds having to be "literally fished up," although he was successful in identifying a two storied "quay building" with marble steps that he dated to the Hadrianic period on the evidence of inscriptions on some architrave blocks, and that may have had some role in the exchange of goods, although the form is highly unusual and it has been since reinterpreted as a monumental gate dating to the Severan period (Figure 34).[378] Lesser groundwater in subsequent seasons allowed the team to identify a series of badly destroyed halls surrounding the harbor, with another gate interrupting their line and indicating the potential entrances to the city to the east.[379] Subsequent excavations have revealed a third gate on the north eastern edge of the harbor basin, although these gates have not be equally well preserved, with very few remnants of the northern gate remaining.[380] Inscriptions describing the dedication of the northern and southern gates point to their construction in the late-2nd or early-3rd century CE, but the dating of the central gate is not so clear.[381] It would have been a tripartite gate with a similar in appearance to a triumphal arch, although the central passage would have been topped with a lintel rather than an arch.[382] No dedicatory inscription has been identified for the central harbor gate, and R. Heberdey suggested a possible date in the Hellenistic or Late Hellenistic-Early Roman period when reporting on its discovery, while Wilberg et al.'s analysis of the gates as a whole led them to suggest a Hadrianic date accepted by more recent scholars.[383] The likely dating of each of these gates in the Roman period, and a gate at the eastern edge of the later Arkadiane to the 2nd century BCE would also match the chronology of the progression of the shoreline and the filling

[378] Benndorf 1898a, 61-62. For a description of the southern gate and the dating to the Severan period see Feuser (2020, 134-35).
[379] Heberdey 1900, 88-90.
[380] Zabehlicky 1995, 203; Wilberg et al. 1923.
[381] Feuser 2020, 131; Steskal 2015, 337; Zabehlicky 1995, 203; Wilberg et al. (1923, 172-88) for the southern gate.
[382] Heberdey 1900, 88-89.
[383] Zabehlicky 1995, 203; Wilberg et al. 1923, 213; Heberdey 1900, 89. Heberdey's argument rests on architectural elements which he states are similar to early Hellenistic architecture such as column form. Alzinger (1974, 58) mentions an Early Imperial date.

in of the former Hellenistic harbor basin throughout the Late Hellenistic and Early Roman periods.[384]

Excavations within the harbor basin itself were conducted by the ÖAI from 1987 to 1989 and were successful in identifying a quayside, 70 m long and 1.5-2 m wide, along with a jetty that extended into the basin from the southern side of the harbor (Figure 36).[385] G. Langmann writes that a structural change in the jetty can be seen 2-3 m below the upper surface of the structure, from large blocks bonded with mortar to large smooth ashlars, and hypothesizes that this may indicate an earlier phase dating to the Hellenistic period, emphasizing that the southern edge of the harbor was not affected as greatly by the landscape changes and siltation as the north, so the position and form of the structures may have remained more constant.[386] Much of the work was focused on the jetty, which was in a poor state of repair but did appear to be contemporaneous with the quay on the evidence of the join.[387] The excavation work was done mostly underwater with little to no visibility and was often conducted using only tactile sensations, however some later elements of the harbor were identified such as a house and a wall which may have been intended to combat rising water levels if the port itself subsided throughout antiquity.[388] There was not much dateable material from the Early Roman period, and what was recovered dated to from the "middle Imperial period to the early Byzantine Period," but the textual evidence presented earlier led Zabehlicky to suggest building activity during the Trajanic and Hadrianic periods.[389] Groh agrees with a construction date in the early 2nd century CE and believes that the quay wall and jetty

[384] Baier 2017, 124; Zabehlicky 1995, 203.
[385] Zabehlicky 1995, 206-10; Langmann 1990, 31; 1989, 8-9; 1988, 9.
[386] Langmann 1990, 31; 1989, 8-9. In 1990 Langmann also writes that the change in construction technique could also indicate simply an adaptation to the rising water level, however this still requires the earlier phase to come from an earlier period and thus "a pre-Roman quay wall can be assumed.".
[387] Zabehlicky 1995, 208.
[388] Zabehlicky 1995, 208-10.
[389] Zabehlicky 1995, 211. For the material recovered see Langmann (1990, 31), who attributes the fact the material dates to only the Middle Imperial period and later to the dredging that would have kept the harbor free of debris.

discovered in the 1980s excavations, along with recent mapping that has identified another jetty confirm the general plan provided by Falkener in 1862.[390] Thus he reconstructs the harbor with the same eight jetties on the north and south sides, although much shorter, matching the excavation results (Figure 17, 18).[391]

Unfortunately the appearance of the structures lining the harbor cannot be described from the excavation results, and Zabehlicky relies on analogy with other contemporary harbors, for instance that at Portus near Rome, to reconstruct the use and appearance of the port of Ephesus during its Roman Imperial phase, describing it as similar to the warehouses at Portus and "a vital, busy place."[392] Groh suggests that some buildings on the slopes of Bülbüldağ, near the harbor, would have likely been magazines, perhaps for the storage of wine due to Rhodian wine amphorae discovered nearby.[393] Perhaps more of interest to the functioning of the harbor rather than its appearance are the presence of what Groh describes as "eleven halls, approximately 46 m long and 6 m wide with their narrow sides to the port, which can be interpreted as shipsheds" in the southwest corner of the harbor.[394] These, and other features close to the harbor's edge, can be seen in geophysical survey results from recent years, however this allows us only to say that there were features nearby the harbor, which perhaps could have been assumed (Figure 37). The potential shipsheds are not listed in Blackman and B. Rankov's recent monograph *Shipsheds of the Ancient Mediterranean*, and would be the only Roman shipsheds identified outside of peninsular Italy should their construction, as suggested for the harbor itself, date to the early 2nd century CE.[395]

[390] Groh 2006, 99.
[391] Groh 2006, 99, Fig. 20. Although Groh writes "sechseckiges" both Falkener (Falkener 1862, pl. 1) and his reconstructions have eight sides.
[392] Zabehlicky 1995, 212-13.
[393] Groh 2006, 100.
[394] Groh 2006, 100.
[395] Blackman and Rankov 2017, 47. Blackman (2008, 23) writes: "There is still, however, a "missing link": we have no certain remains of the shipsheds, or *navalia*, of the Roman period."

Recent excavations at Portus have brought to light a structure lining the hexagonal harbor basin that may have contained shipsheds with a similar early 2nd century CE date; however the excavators suggest that there are many potential interpretations, and the identification of the remains as shipsheds cannot be confirmed.[396] Regardless of the exact interpretation of the structures in the southwest of the harbor at Ephesus, the majority of the length of the quayside is as yet unexcavated, and Falkener's claim that it would have been "embellished with porticos and public buildings" cannot be confirmed.[397]

Groh's reconstruction of the harbor itself results in a basin 21 ha in area and with an entrance just 23 m wide, shortened by walls from the 60 m wide canal leading from the sea (Figure 17, 18, 20).[398] Zabehlicky's excavations in the 1980s suggested that the basin itself would not have been very deep, at the edges 3.5-4 m deep and in the center 6-7 m, and would have barely been able to accommodate a fully loaded cargo vessel.[399] A thorough analysis of one of the geological coring samples taken more recently however, may provide a bit more detail about the chronology of the sedimentation of the harbor, and its depth throughout this period.[400] The analysis of a single 12 m long core from the Roman harbor basin, with a surface level approximately 50cm below the modern sea level, revealed a few abrupt changes in sedimentation rate, which can perhaps be identified or linked with events in the historical or archaeological record. Delile et al's analysis of carbon dates from this core shows that these major events allow for an approximate depth of the basin throughout the Roman Republic of 12.00-10.70 m, in the "Early Roman Empire" of 10.70 m-6.50 m, and in the "Late Roman Empire" of 6.50-5.15 m, and a sedimentation rate at the lower

[396] Keay 2012. For the discussion of their potential use as shipsheds see p. 507-08.
[397] Steskal 2014, 337; Falkener 1862, 55.
[398] Groh 2006, 99.
[399] Zabehlicky 1995, 209-12, Langmann 1990, 31.
[400] Delile et al. 2015.

portion of the core of ~20.0cm/year, with a distinct change to only ~0.2cm/year in the more recent sediments dating to the Byzantine period.[401] They suggest that there was continuous, rapid, siltation from the 12-5.5 m depths and that "a single disruptive event located at 550cm core depth and heralding a two-order-of-magnitude drop in sedimentation rate" could perhaps be associated with a variety of causes but suggest that the most likely event was "a durable displacement of the river course, which starved the harbor from further silt input."[402] Although they do not draw this direct link we do have the epigraphic evidence of Hadrian's diversion of the Cayster River and making the harbor navigable, which would seem to match the description of the type extreme event that can be identified at 5.5 m depth.[403] If these are indeed the same event then the harbor basin may have been accessible, even to ships with deep drafts, at least into the early 2nd century CE, when this problem was becoming more and more urgent, forcing the drastic action of altering the course of the Cayster, which may have been successful in slowing the sedimentation rate and, combined with dredging operations, preserved the functionality of the harbor throughout much of the century and into the later Roman Empire (Figure 38).

Literary accounts continue to describe various other elements of the harbor system including artificial islands and moles along the seashore, created in the late 2nd century CE, and an outer harbor called Panormos.[404] Philostratus, discussing the life and works of the sophist Titus Flavius Damianus who lived in the 2nd through early 3rd century CE:

> And for his estate by the sea-shore he made artificial islands and moles for harbours to secure safe anchorage for cargo-boats when they put in or set sail […][405]

[401] Delile et al. 2015, 205-09.
[402] Delile et al. 2015, 211.
[403] *IvE* 274.
[404] On the artificial islands and moles: Philostr. *VS,* 2.23. On Panormos: Strabo *Geog.* 14.1.20.
[405] Philostr. *VS,* 2.23 (trans. W.C. Wright, 1921).

M. Steskal suggests that this safe anchorage could have been "used for the reloading of cargo onto smaller ships" before making the journey into the shallower main harbor canal and basin (Figure 38).[406] This may have been necessary as the harbor would likely have been unable to accommodate the largest of ancient cargo ships due to the shallow depth of the canal and basin, although it was still large enough for the majority of boats and ships so this would have likely been the exception rather than the rule.[407]

The use of smaller ships to travel in smaller waterways from a distant deepwater anchorage is also attested at Rome, as larger ships would have unloaded their goods at the mouth of the Tiber, from the Early Imperial period at the built harbor of Portus, and smaller craft would have carried these goods up the river to Rome itself.[408] L. Casson describes the system of transshipment and then travel of goods from large sailing ships arriving in the harbor up to Rome emphasizing a few key points that might prove relevant to Ephesus.[409] Considering the limited space to maneuver in the harbor at Ephesus it would appear likely that larger vessels, should they have entered at all would have been towed, both up the canal, but also while docking within the harbor basin, similar to the situation at Rome.[410] Keil even suggested that some wheel ruts he discovered in excavation in 1912 near the harbor canal, at the terminus of the city wall, combined with the absence of a gate, may be indicative of the need to provide clear passage for the animals and ropes that would have been needed to tow vessels up the canal to the Roman port.[411] However, if ships instead anchored

[406] Steskal 2014, 336.
[407] Scherrer 2007, 349; Zabehlicky 1995, 209. The measurements of the draft of ships offered by Boetto (2010, 118 tab. 1) would seem to suggest that the canal and basin could have accommodated all of the ships listed when at its depth discussed below, however some of the larger ships may not have had much margin for error and any extra siltation may have caused them to run aground. Steffy (1975, 87) writes that the draft of a ship discovered near Yassi Ada that could have carried 900 amphorae would have had a draft of "slightly more than 6 feet," which would have been able to enter the canal and basin easily.
[408] Casson 1965.
[409] Casson 1965, 34-39.
[410] Casson 1965, 34-39.
[411] Keil 1912, 187-190, n. 3.

somewhere before entering the canal to transship their goods to smaller vessels, this process may have been managed by a corporation similar to the codicarii at Rome, who ran a fleet of at least 300 boats that would ferry goods up the Tiber from the port at the river mouth.[412] Although there is no clear evidence for this type of corporation at Ephesus, at least none from the period covered in this study, in the early 5th century CE the patriarch of Alexandria traveled to Ephesus, and after disembarking at an outer harbor travelled up the canal to the Roman port via a much smaller vessel, so this pattern of movement is not unknown in the history of the site.[413] But such an outer harbor or even a protected anchorage has not yet been definitively identified in the archaeological record although scholarship does appear to agree that such a place existed even if its exact form, date, and relationship to the city remains unknown.

Strabo acknowledges another harbor, called Panormus along the journey from Samos to Ephesus, which had its own temple of Artemis and is the final landmark he describes before arrival at Ephesus.[414] Falkener proposed that Panormus would have been immediately before the "City Harbor" and that the temple which Strabo refers to would have been the great temple of Artemis, which has subsequently been identified at the foot of Ayasoluk hill on the northeastern, not western, side of the city.[415] It would not have been unusual for a city as large and important as Ephesus to have possessed multiple harbors, as we can see similar multiple harbor systems at other sites in Asia such as Miletus, Teos, Cnidos, and Rhodes, and contemporaneously with the construction of the Roman harbor at Ephesus, Portus, Rome's harbor at the mouth of the Tiber river, was given a second, hexagonal basin by Trajan. However the geoarchaeological coring campaign which has sought the location of this harbor has been unable to confirm its location,

[412] Casson 1965, 36.
[413] Steskal 2014, 337; Scherrer 2007, 349.
[414] Strabo *Geog.* 14.1.20.
[415] Falkener 1862, 56-58.

either immediately outside the city harbor or in the Arvalya valley to the west, where some scholars have suggested it must have been located.[416] Another potential location, on the western side of Çanakgöl Tepe has proven to be a more likely site for a deep anchorage based on the geoarchaeological reconstruction and its accessibility throughout the Roman period; however investigations have not identified harbor structures in or around this area and the authors hypothesize a "Late Roman/Byzantine harbor" as opposed to earlier.[417] The harbor of Panormos continued to be used through the Byzantine period, and at least in this context Scherrer has located it even further west, "at the very south end of the Bay of Pamucak" while other authors have speculated at a variety of locations, all of which remain unconfirmed.[418]

In the Early Roman period the canal itself would likely not have stretched the full four kilometers to the beach at Pamucak but rather would have ended between 1-2 km to the west of the Roman harbor entrance (Figure 27, 38). Recent geoarchaeological coring has confirmed the canal's construction in the late 1st century BCE – 1st century CE and indicates that the depth of the canal in the Early Roman period may have been between 6.29-4.15 m, specifically identifying a grape seed datable to period 257-410 CE at 4.51 m depth.[419] Brückner claims that its original purpose was to maintain the passage of seagoing vessels to the port, and not simply to provide a path for the smaller barges which may have been used later.[420] The harbor and canal were still the focus of significant attempts to combat the siltation, via dredging throughout the 1st through 3rd centuries CE, again implying that there was an attempt being made to maintain navigation of some form, perhaps for ships with deeper drafts.[421] Additional coring has suggested that the northern

[416] Stock et al. 2013, 67; Kraft et al. 2000, 191-92.
[417] Stock et al. 2019, 360; Stock et al. 2013, 67-68.
[418] Steskal 2014, 338; Scherrer 2007, 349.
[419] Stock et al. 2016, 987.
[420] Brückner 2019, 296, 305.
[421] Stock et al. 2016, 989.

canal mole near Pamucak beach had been used as an anchorage, however there is significant uncertainty as to when this might have happened and Stock et al. suggest that this would not have taken place until more drastic siltation had blocked access to basins further east, citing the active late Roman / Byzantine harbor at Çanakgöl Tepe, which indicates that ships could have still navigated at least that far towards the city and that this western site was likely an "even later harbor."[422] Other studies have suggested that "the canal still functioned as a waterway until the 8th/9th century AD."[423]

If the harbor Panormus was developed as a location for the transshipment of goods at the mouth of the Roman harbor canal, closer to the modern shoreline, there is a notable lack of evidence for the kinds of intense architectural development that can be seen at other outer harbors such as at Portus in Italy. Additionally, as mentioned before, we know that the sort of transshipment of goods and people supposed for this type of distant anchorage took place in the early 5th century CE, but there is little evidence to suggest that this was also taking place at Ephesus in the 1st or 2nd centuries CE. When describing the situation at Ephesus, with a focus on Cyril's visit in 431 CE, H. Englemann argues that the canal was not constructed so that large sea-going ships could navigate it, and that certainly they must have anchored off the coast where smaller ships arrived to ferry goods and people up the canal to the Roman port.[424] However, he also admits that there are no Greek or Latin sources for this kind of transshipment taking place at Ephesus, thus the first example we have is in the 5th century CE.[425] The artificial islands and moles that Titus Flavius Damianus built were constructed near the end of the 2nd century CE and may have been

[422] Stock et al. 2019, 360.
[423] Brückner 2019, 296.
[424] Engelmann 1996a, 134.
[425] Engelmann (1996a, 134) writes: "Wenn ich recht sehe, hat nur die koptische, doch keine griechische oder lateinische Quelle das Umladen auf kleinere Schiffe und die Einfahrt über den Stichkanal in den Stadthafen festgehalten."

associated with this type of transshipment but could also have been simple waiting points before ships could enter the relatively narrow canal. In an analysis of the evolution of the geologic environment of the harbors at Ephesus, Kraft et al. write that "from the third century BC to the second century AD, major efforts were made to prevent damage to the main harbor" and that only afterwards did the focus turn towards dredging, and building and using new outer harbors.[426] When combined with the lack of evidence for a developed outer harbor, the fact that the coastline would have warranted a canal only 1-2 km long throughout the first two centuries CE, as well as the inscription which credits Hadrian with making the harbor navigable, the evidence suggests that at least through the 1st and most of the 2nd centuries CE that larger seagoing vessels would have been able to navigate, via towing, the canal. During and immediately after this period they could have anchored immediately before the canal's mouth before being towed into the harbor with facilities eventually being offered by Damianus to help them wait before entering the canal. The geoarchaeological map by Brückner, et al. appears to confirm this proposed chronology, with the shoreline only advancing past the mouth the original canal and creating multiple shoals throughout the Byzantine period (Figure 29).

Harbor Necropolis

The stretch of land that runs along the harbor canal to the west, on the northern slopes of Kaleburun Tepe and Bülbüldağ, and on the opposite, northern, side of the channel, has long been identified as a necropolis although without much further detail.[427] Initial mapping by Wood only identifies this area of the site as containing "Substructures" in 1877 (Figure 12), but Benndorf was able to confirm the presence of many funerary structures on the western portion of these slopes in

[426] Kraft et al. 2000, 191.
[427] Steskal 2014, 337; Steskal 2013, 1; Groh 2006, 110.

1899, while noting that towards the city center in the east there was no evidence of similar expansion of the necropolis.[428] However, until the early 2000s very little research had taken place on the cemeteries of the city, including this large area which would have lined the harbor canal and at some points been highly visible to people passing through this space.[429] Steskal began a project exploring the necropoleis of the city in 2008 and this "West" or "Harbor" necropolis proved to be the largest in the city, covering at least 45 hectares, which is significantly larger than Groh's estimate in 2006 of at least 8.5 hectares, and dating from the 2nd century CE onward.[430] Between surface survey, geophysical propsection, and analysis of aerial photographs, over 1000 burial houses or freestanding sarcophagi have been discovered in this area, in addition to a wide variety of related structures and spaces.[431] Burials began on the hillside at some point in the 2nd century CE, but the northern side of canal was only developed as a cemetery in the 3rd century CE and beyond.[432]

In general, the burials were not oriented along the street grid visible in the rest of the city but rather to the canal itself, indicating an intentional relationship between their form and the course of the canal.[433] These burial units were not as ornamental, nor as monumental as the individual tombs identified in the center of the new settlement, along the Kuretenstrasse, and on the contrary are notable in their general uniformity, with similar size, construction technique, and appearance.[434] Steskal argues that these units created an "architectural landscape of the dead" that would have been presented to visitors before they entered the city, a pattern which is not at all

[428] Benndorf 1899, 22 n. 3; Wood 1877, 1-2, fig. *Plan of the Ruins of Ephesus*.
[429] Groh 2006, 109.
[430] Steskal 2017, 229; Steskal 2013, 2; Groh 2006, 110.
[431] Steskal 2017, 230.
[432] Steskal et al. (2011, 292 n. 4) refers to the dating, although the actual excavations are as yet unpublished.
[433] Steskal 2017, 229.
[434] Steskal 2020, 127-30; 2017, 233-34.

unique to Ephesus but which was not present in this portion of the city until the emergence of this necropolis along the approach to the harbor in the 2nd century CE.[435] He attributes the decline in individual monument construction and the rise of large, uniform burial areas to a drop in the desire of local elites to express their rank or status outwardly and concurrent rise in more intimate "family-focused memorial"s.[436] Alongside this changing architecture practice was a rise in the extravagance in the funeral activities, used to express the individual's status in different ways than unique and monumental architecture.[437]

The temporal development of the Harbor Necropolis appears to match the architectural elaboration of the harbor canal in general and may postdate the Hadrianic interventions which secured the navigability of the canal and harbor in the mid-2nd century CE. The land on the northern hillsides along the canal would have been too distant from the city center to have been useful as civic or even residential space in this period, however a new cemetery taking advantage of this restricted path into the city to display some feeling to those arriving would be a productive use of this space. This pattern of development of burial features around the main paths entering cities is common around the Mediterranean in many cultures, including for example the Etruscans.[438] The uniform appearance of the graves perhaps speaks to the changes in the social structure of the city, as the Roman government gained importance and local elites began to find other ways to show their wealth and status, whether through the investment in funeral events and parades, as Steskal suggests, or through civil benefaction via the dedication of new structures, some of which took place in the new ground that had emerged around the harbor itself.

[435] Steskal 2017, 232-33.
[436] Steskal 2020, 131.
[437] Steskal 2020, 131.
[438] Oleson 1976.

Harbor bath-gymnasium complex

Like other cities in Roman Asia Minor, Ephesus was adorned with a series of monumental bath-gymnasia in the late 1st century through the mid-2nd century CE referred to as the Harbor, Theater, East, and Vedius bath-gymnasia, along with a bath complex along the Kuretenstrasse referred to as either the Varius baths or the Scholastic baths.[439] These structures combined elements typical of the Greek gymnasium with the thermal baths more common in the Roman world, and would have become essential parts of the city, emerging as new social centers of public activity, as seen in other contemporary examples.[440] These, and other baths and gymnasia, form one of the most common types of civil benefaction throughout the Roman Empire, and became "focal points of civic life and citizen interaction in the public sphere."[441] Zuiderhoek argues that the proliferation of these structures indicates that the elites who donated them were focused on providing "the amenities essential to a proper citizen existence" for their communities.[442] Their locations spread throughout the city, a resident would have never been more than 400 m from a public bath, and their massive physical nature, both in area and in height, has led Steskal to argue that they would have been significant elements of the cityscape.[443]

The most significant of these structures for the purposes of this study is the Harbor bath-gymnasium, which was the oldest and largest, almost one third larger than the next largest of these structures in the city, even if we exclude the large "Verulanus halls" which measured ~200 x 240

[439] Groh 2006, 104; Steskal 2003, 157-58. There would have been other baths in the city, but these five were at a significantly larger scale and fall into the largest

[440] Steskal 2015, 224; 2003, 157-58. See Ratté (2002, 26-27) for discussion of the Harbor bath-gymnasium at Ephesus, and (28-29) for the development of the bath-gymnasium complex as a popular form of architecture in the Greek East. A thorough discussion of the phenomena can be found in Yegül (1992, 250-313).

[441] Zuiderhoek 2009, 83.

[442] Zuiderhoek 2009, 83-84.

[443] Steskal 2015, 225-26.

m, and was one of the earliest bath-gymnasia in all of Asia Minor.[444] The structure was built under Domitian (81-96 CE) and was located in the center of what would have been the Hellenistic harbor basin, to the east of the later Roman built harbor (Figure 19).[445] Epigraphic evidence shows that it was not the benefaction of one individual but that multiple prominent citizens contributed to its construction and adornment over a period of forty or more years. Three inscriptions provide evidence of the earliest investment, by Tiberius Claudius Aristion in the later Domitianic period, and then there is a large gap until evidence for the adornment of the "Verulanus halls," to be discussed below.[446] It was excavated in the late 1800s and the 1930s, and although a full publication focusing on this specific structure is not available there is still a lot of information from interim reports and other publications that can allow for an understanding of its role in the maritime façade of Ephesus throughout the final years of the 1st century through the 2nd century CE.[447]

The Harbor bath-gymnasium was a massive complex that would have had three distinct sections, the baths in the west, closest to the harbor, then a palestra with a peristyle and the "Verulanus halls" in the east, a modern name assigned to a large open gymnasium-like space after an inscription indicating that marble paneling was donated by Gaius Claudius Verulanus Marcellus in 131 CE, although these halls likely date to the original construction of the facility in the Domitianic era, and its ancient name may have been Xystos or Xystoi.[448] Another inscription from approximately the same period indicates that a Prytanis named Dionysios supplied marble columns

[444] Steskal 2015, 230; 2003, 167; Groh 2006, 104; Yegül 1992, 272, 304; Maccanico 1963, 46.
[445] Steskal 2003, 167; Yegül 1992, 272, 304; Maccanico 1963, 45-47; Miltner 1958, 43-44. Benndorf (1906b, 182-83) suggests a date under Domitian and then he later reviews the inscription of a statue in which he identifies the names of officials from which he can date the entire complex to the Domitianic era (202-04). Thomas (2007, 129) offers a date of 102-111, but may have misunderstood the sources as even his citation, Burrell (2006, 447), writes that the building dates "to Domitianic times."
[446] *IvE* 427, 461, 508 for the initial investment. Discussion in Kalinowski (2002, 123).
[447] Steskal 2015, 230.
[448] *IvE* 430; Steskal 2015, 230; 2003, 167; Miltner 1958, 46.

to the structure.[449] Yegül classifies this bath-gymnasium complex as a "double row of spaces" type, with two parallel rows of bathing rooms which serviced different hot and cold bathing demands.[450] The inner row of cold rooms and the swimming pool would have faced east onto the palestra, while the caldarium would have projected westward from the rest of the bath structure by 20 m.[451] Its western face, looking towards the harbor, would have had three 10 m tall windows, with another two, one each at the north and south edges.[452] This large projecting room had one of the largest vaults in Asia Minor, spanning 19 m, greater than other similar monumental structures at Alexandria Troas or Sardis, and would have risen up to 22 m, although this figure is not completely secure it is the only elevation reported for this building.[453] Its footprint, including the "Verulanus halls" would have been approximately 200 m by 360 m covering an area which Steskal refers to as "unprecedented" in the ancient world and which F. Miltner suggests would have only been conceivable under Domitian, as architecture began to exceed prior standards of scale and dimension.[454] Yegül and Favro also cite it as the main example of a bath-gymnasium complex in Antaolia that could have rivaled the baths of Rome "in size, scope, and luxury."[455]

Its central position in the lower city and tremendous scale led S.J. Friesen to argue that it would have held an importance to the city as a whole, although the distribution of other bath-gymnasia throughout the city, not long after the construction of the Harbor bath-gymnasium, indicates that residents in Ephesus had many options often closer by, even if the Harbor complex

[449] *IvE* 661. Discussion in Kalinowski (2002, 123).
[450] Yegül 1992, 272-73.
[451] Yegül 1992, 272-73.
[452] Miltner 1958, 47.
[453] Yegül and Favro 2018, 610; Steskal 2015, 226 n. 18; Steskal and La Torre 2008, 291. Steskal and La Torre reference Miltner (1958, 47) but Miiltner only writes that the vaulted ceiling of the caldarium would have risen to 20 m, although here he offers no citation or evidence for this claim.
[454] Steskal 2015, 231. For the full dimensions see: Miltner (1958, 44).
[455] Yegül and Favro 2018, 687.

was the largest and grandest.[456] Miltner describes the experience of bathing in the caldarium, gazing out the large western windows over the square to the west and then the port, which would have had many ships of all types coming and going and a constant energy of trading and economic activity and suggests that it was presented to the gaze of the bathers, as if the view out over the harbor was intentionally prioritized in the construction of the baths.[457] But I would argue that the importance of the Harbor bath-gymnasium would extend beyond just the city itself and its residents gazing out over the harbor, to include those visiting or travelling to the city who would have encountered this building visually from afar upon their approach to Ephesus's Roman port and then more intimately after disembarking and passing through the town.

The square that Miltner mentions bathers gazing out over from the caldarium towards the port may have been mostly void of structures, providing for a direct line of vision from the harbor basin and the western façade of the bath-gymnasium complex.[458] It would have been split by a road running east from the 3rd century CE Northern Harbor Gate, but this gate and road must have been a dead end running into the bath-gymnasium due to the order of their construction.[459] On the north and south of this open space two structures of similar character were built, both three-aisled halls 25 m wide, and oriented with their long axes running east-west, so that their lengths were dictated by the limits of the harbor quayside; the southern one was 60 m long and the northern 120 m long.[460] Their location at the harbor quayside might indicate a use associated with trade and economic activity, and storage facilities such as magazines have been proposed, but the lack of walls between the piers of the structures leads Thür and others to accept an interpretation of their

[456] Friesen 1993, 131-32.
[457] Miltner 1958, 47-48.
[458] Thür 1995b, 180.
[459] Groh 2006, 98.
[460] Steskal 2014, 337; Groh 2006, 98; Thür 1995b, 181.

use as porticos or market buildings for trade.[461] The open space of the square, with these porticos framing the immense form of the bath-gymnasium complex behind may have interrupted a series of magazines and other structures lining the harbor, and thus would have stood out visually, not only for the scale of the Harbor bath-gymnasium but for this break in the port façade.[462] Remember that the Northern Harbor gate was not constructed at the time of the construction of the bath-gymnasium complex, and in fact dates to a later period outside the remit of this study, thus there is no evidence for any structure interrupting the view over this large open square to the buildings behind (Figure 19).

"Olympieion" (Temple of Hadrian)

Just north of the "Verulanus halls" of the Harbor bath-gymnasium another structure on a massive scale was discovered in 1972 by Karwiese, built on reclaimed land of the former Hellenistic harbor basin, part of a colossal temple complex which has been identified by some as being dedicated to the Emperor Hadrian as Zeus Olympios (Figure 19).[463] The existence of a temple to divine Hadrian is confirmed in inscriptions from the city, one for the chief priestess of Asia which mentions a temple "τοῦ κυρίου ʻΑδριανοῦ," "of lord Hadrian", and two which honor the hymnodoi of the temple of divine Hadrian although these do not go on to mention Olympios.[464] Thus, the identification of this temple complex is a somewhat controversial, especially since the only confirmation we have that there was ever an Olympieion at Ephesus comes from a passage of Pausanias that may not match the physical location of this complex in the former Hellenistic

[461] Steskal 2014, 337; Thür 1995b, 181. Groh (2006, 98) agrees and suggests that their form is similar to the Porticus Aemilia in Rome.
[462] Groh (2006, 80) suggests that the entire edge of the harbor would have been part of a functional commercial district.
[463] Karwiese 1995b, 186. For the discovery of this building see: Vetters (1973, 178-180).
[464] *IvE* 814 for the priestess; *IvE* 742, 921 for the hymnodoi.

harbor basin.[465] Pausanias, writing in the 2nd century CE, describes the events following the death of Androclus, the legendary founder of the city including passing by the Olympieion:

> The Ephesians carried off his body and buried it in their own land, at the spot where his tomb is point out at the present day, on the road leading from the sanctuary past the Olympieum to the Magnesian gate.[466]

In this case the sanctuary would have been the Artemision at the foot of Ayasoluk hill and the path into the city is presumed by some to have followed the well-established processional way that would have passed to the east, rather than west of Panayırdağ, where the structure in question was sited, before entering the city through the Magnesian gate. Benndorf, for instance, writes that the Olympieion, built between 129-135 CE, must have laid outside the city.[467] C.P. Jones agrees that the Olympieion must have been sited outside the city, to the east, and suggests that there is a long history of the presence of the cult of Zeus at Ephesus; thus a temple and cult statue must have already existed from long before the building in question was constructed under Hadrian.[468] Englemann similarly argues that although the temple of this complex would have been dedicated to the "divine Hadrian" there is no evidence that there was a link with Olympius, and thus discredits any extension of the identification of this structure as the Olympieion.[469] More recently, B. Burrell, has agreed with Benndorf, Jones, and Englemann that the Olympieion must have been outside the city to the east, and cannot be associated with the temple complex in the former Hellenistic harbor basin, going as far as to criticize the use of the name "the Olympieion of Hadrian" by the Austrian team and to point out that "no actual proof beyond size and a Hadrianic date" has been offered of this structure being even a temple to divine Hadrian.[470]

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[465] Jones 1993, 149-152.
[466] Paus. *Description of Greece*, 7.2.9 (trans. W.H.S. Jones, 1918).
[467] Benndorf 1906a, 94.
[468] Jones 1993, 150-52.
[469] Engelmann 1996b, 132-33.
[470] Burrell 2002, 44-48.

These arguments about the location of the Olympieion and resistance to identifying the massive structure north of the Harbor bath-gymnasium as this particular structure are correct that there is scant hard evidence for this association. But others have made compelling arguments in favor, which, with the lack of evidence that confirms that Pausanias was both referring to a route to the east of Panayırdağ and correct in locating the Olympieion along this route, lead me to agree with the excavation team. D. Knibbe suggests that there is no reason to think that Pausanias was describing the route that a procession would have taken and may simply have been describing a journey along the shortest path between the Artemision and the city, entering through a gate on the northwest side of Panayırdağ and continuing below the theater before eventually reaching the Magnesian gate after passing through the city.[471] The most complete discussion of the position of the Austrian team is given by P. Scherrer who directly addresses many of the arguments made against the identification of the temple as an Olympieion associated with divine Hadrian and dismisses them as conjecture.[472] He argues that Pausanias' use of the term "Olympieion" may be a general term used by an outsider in the city to describe an unusually large temple, given that no other sources mention a structure with this name and that the road he mentions may have run "in the direction of the Olympieion" before angling to the east, rather than "past the Olympieion."[473] He continues to discuss how the temple fits "the historical and archaeological requirements for a provincial sanctuary for the emperor's cult built under Hadrian" including its prominent location on the edge of the city and concludes that it fits all of the information we have for such a temple

[471] Knibbe 2002, 212-13.
[472] Scherrer 1999
[473] Scherrer 1999, 140-42.

at Ephesus with no clear refutation of this identification.[474] More recent discussions by both Groh and Scherrer have continued to identify this temple as the Olympieion of Ephesus.[475]

The excavation of the space identified in the 1972 season continued in the 1980s and as soon as the first field season in 1983, S. Karweise had begun to suggest an identification as the Olympieion dedicated to divine Hadrian, which H. Vetters agrees with.[476] Regardless of the issues with this identification, as discussed above, excavations revealed that the temple complex was constructed on the northern portion of the reclaimed land of the former Hellenistic harbor basin and would have covered an area of approx. 225 m x 350 m, similar in overall scale to the Harbor bath-gymnasium complex.[477] Groh offers more detailed measurements for the larger space surrounded by a two-aisled hall (231 m x 286 m) with a three-aisled hall, the "basilica," on the southern edge (265 m x 30 m).[478] The central structure in this otherwise open space surrounded by halls was a temple with a footprint of 57 m x 85 m and which may have risen to a height of 25 m, notably slightly taller than the Harbor bath-gymnasium complex.[479] Its location and tremendous size could have made it a prominent landmark to those arriving at the port, a suggestion that has been made by many others, even if it would not have been presenting its main frontal façade towards the harbor, but rather to the south.[480] Investigations on the northern edge of the harbor has not provided any specific large structures, but in general the zone is generally characterized by mercantile facilities, which may not have risen high enough to occlude the Olympieion in the distance upon approach to the Roman port (Figure 37).[481]

[474] Scherrer 1999, 141-44.
[475] Groh 2006, 82-83; Scherrer 2007, 337.
[476] Vetters 1984, 210-11.
[477] Karwiese 1995b, 186.
[478] Groh 2006, 82.
[479] Karwiese 1995b, 186.
[480] Scherrer 1999, 141.
[481] Groh 2006, 80.

"Ionian Acropolis"

Rising on the northside of Panayırdağ is a 31 m tall hill which has been commonly referred to as the "Ionian Acropolis," due to its prominent location, which would have allowed visual control over the site of the Archaic and Classical city and also out over the maritime approaches to the city while being easily fortified.[482] This smaller hill was first investigated by Wood in the 1800s, which he identified as the "Pnyx of Ephesus" due to parallels which he saw with the Pnyx at Athens.[483] In the 1920's Keil returned to investigate the area around the stadium, which lies to the east of this hill, seeking evidence for the earliest phases of settlement in the area (Figure 19).[484] Based on the ceramic and small finds he concluded that the hill, which he referred to as "Acropolis hill," must have been the site of the Ionic old settlement of Ephesus, while acknowledging that further investigation would be necessary to confirm this identification.[485] This identification, however became an accepted part of the literature about the city, even without further archaeological research or evidence being produced.[486]

Many of the structures visible on this small hill date to the Byzantine period or later, but a square courtyard, 65 m x 65 m, with a central "round" building which has been interpreted, based on inscriptions which may actually be associated with a different structure, as a macellum, and which dates to the late 2nd century CE.[487] The dating of the halls surrounding the courtyard has been placed in the third quarter of the 2nd century CE on the evidence of their decoration, which matches structures throughout Ephesus from around this same period.[488] Scherrer suggests that

[482] Ladstätter 2019, 198; 2016, 247.
[483] Wood 1887, 104-05.
[484] Keil 1926, 251-56.
[485] Keil (1926). See p. 252 for "Acropolis hill" and p. 255 for the Ionion old city.
[486] Kerschner et al. 2008, 110 n. 488.
[487] Karweise 1995c, 190.
[488] Plattner 2008, 282. Notably, in this publication the author still uses the term "Akropolis."

this structure was the only new construction at Ephesus during the Severan period and suggests that the form of the circular building in the center is reflective of a cult building of Caracalla, but he admits that the remains have "never been studied in detail."[489] The uncertainty surrounding this central "round" building can be shown as it is described as having either 12 or 16 sides, depending on the publication.[490] It has also been associated with the tomb of Androclus, but this is only due to its prominent location and its location along the path described by Pausanias if we accept Knibbe's interpretation of passing by the west side of Panayırdağ, rather than any inscription or other identifying features.[491]

Although there is no clear identification of this structure, and it comes in a period of relatively low investment in new construction around the city, this structure still would have changed the landscape, being placed upon a prominent hilltop rising behind the large form of the Olympieion.[492] This would have been the last major change to the cityscape within the scope of this study, although that does not mean that the changes stopped. On the same hill, for instance, a house was built in the mid-3rd century CE and another in the Byzantine period.[493]

Two of the largest and most monumental structures of the city can be found to the east of the "Ionian Acropolis," the stadium and the Vedius bath-gymnasium complex. The stadium would have run along the northern edge of Panayırdağ to the south of the area referred to as the Koressos harbor and may have Hellenistic origins.[494] Excavations, which took place in the early 1990s, did not reveal evidence for earlier phases however, and the monumentalization of the structure likely took place in the 1st century CE, as shown by a series of inscriptions, which date some parts of the

[489] Scherrer 2001, 78-79.
[490] Plattner (2008, 282) for 16-sided. Scherrer (2001, 78) and Karweise (1995d, 104) for 12-sided.
[491] Knibbe 2002, 212-13; Karweise 1995d, 104.
[492] Karweise 1995d, 113.
[493] Karweise 1995c, 190.
[494] Karwiese 1995a, 168.

building to the Neronian era (54-68 CE).[495] This monumentalization would have included the construction of a "towering ashlar wall" on the north side to support the seating, while the south side could use the hill slope for its support, and Karwiese comments that this wall must have been a "tremendous sight."[496] Between the stadium and the old city around Ayasoluk to the north with the Artemision was only the old harbor plain which would have been rather flat and which does not seem to have been heavily built up. Even if the stadium might have presented a powerful or imposing form to the north it would have been somewhat obscured by to those approaching by sea sea from the west, as ships could no longer navigate this far inland and the hill with the Ionian acropolis would have partially occluded it from view from the Roman period harbor. Even so, its tremendous height, and location on the hillside would have still allowed it to be seen from a distance.

The Vedius bath-gymnasium complex was the focus of recent research in six seasons of excavation, from 2000-2005, that aimed to build upon earlier studies from the 1920s and 1950s and to present the first complete analysis of any of the monumental bath-gymnasia of Ephesus.[497] This complex was the latest of the large bath-gymnasium complexes, dating the mid-2nd century AD (147-149 CE) and was donated by the building's namesake, M. Laudius P. Vedius Antoninus Phaedrus Sabinianus.[498] The dedication of this structure by a member of the Vedius Antoninus family in Ephesus is part of a longer tradition of this family group donating public structures to the community, as part of a the more general practice of euergetism in the Roman east.[499] For instance, Vedius and his wife Flavia Papiane were also responsible for the construction of the

[495] *IvE* 411, 2113, 4123; Scherrer 2001, 72; Karweise 1995a, 168.
[496] Karwiese 1995a, 168.
[497] Steskal 2008, 1.
[498] *IvE* 431, 438; Steskal 2008, 1.
[499] Steskal 2008b, 303-06. For this process in general see Chaniotis (2018, 318-22) or Zuiderhoek (2009), and for a focus on Ephesus in comparison with Pergamon see Halfmann (2001, 2003).

bouleuterion according to epigraphic sources.[500] This practice enabled local elites to affirm their loyalty to Rome and the Emperor while fulfilling their obligations to benefit the community through the donation of prestigious permanent structures such as this bath complex, or through alternatives such as funding of festivals and competitions.[501] Another example of an elite benefaction is the Varius bath building along the Kuretenstrasse, donated by P. Quintilius Varius Valens and his family under Trajan, which measured 43 x 48 m but did not contain the gymnasium portion of the other bath-gymnasia in the city.[502]

However, attempts at elite benefaction to cities did not always go as planned, and the large construction projects of Vedius Antoninus are an example of a case where the intention and the reception of these investments were not matched. In 145 CE the emperor Antoninus Pius had to write directly to the Ephesians encouraging them to appreciate his proper fulfillment of his civic responsibility through construction rather than festivals, shows, or games which had become popular at Ephesus by this time:

> The generosity which Vedius Antoninus lavishes on you I have learned not so much from your letters as from his. Wishing to obtain assistance from me for the embellishment of the public works that he had offered you, he informed me of the size and greatness of the buildings he is contributing to the city. But you do not appreciate him properly. Now I have granted him all that he asked, appreciating that he prefers to make the city more majestic not in the customary manner of public figures, who for the sake of immediate popularity expend their generosity on spectacles and distributions and the prizes of games, but in a manner that looks to the future.[503]

This letter to the Ephesians was then followed about five years later by two further letters from the emperor in praise of Vedius, perhaps indicating that what the larger community at Ephesus valued (spectacles and games) differed from what the emperor, and Vedius, valued (public works and

[500] *IvE* 460.2; Kalinowski 2002, 109.
[501] Chaniotis 2018, 318-22, 349-54; Steskal 2008b, 303.
[502] *IvE* 500; Groh 2006, 88; Kalinowski 2002, 123.
[503] *IvE* 1491 (trans. A. Kalinowski 2002, 111).

great buildings).[504] The final message mentions that through his works Vedius "intended to increase the beauty of the city and the adornment of the province," indicating that building activity at Ephesus would be recognized not just as a symbol of the city itself but as representative of the entire province.[505]

In the case of the Vedius bath-gymnasium the land on which it was built needed to be terraced before construction could begin, even though its location to the north of the stadium, to the east of the Ionian acropolis, would have touched upon the former Koressos harbor which by this point had long silted up.[506] Although its location would not have been as highly exposed as the structures built higher on the hillsides or closer to the harbor, it still would have played a prominent role in the topography of the city as it was the last large structure along the processional way leaving the north side of the Roman city when heading towards the Artemision and its tremendous height, and somewhat isolated position on the northern edge of the city, would have let it play a significant role in the cityscape when viewed from the west.[507] A. Kalinowski has argued that it was placed directly on "the main thoroughfare of Roman Ephesos" and "in a high-traffic area" which would have increased its visibility.[508] The overall footprint of the bath complex would have been quite large, at approximately 75 x 135 m, but would have paled in comparison with the huge Harbor bath-gymnasium previously discussed.[509] Although it may have had a smaller footprint, its tremendous height, 32 m which is 10 m taller than the Harbor bath-gymnasium, would have helped to make it stand out to travelers along the northern path into and out of the city and stand proud of the Ionian acropolis hill because it was located on slightly higher

[504] *IvE* 1492, 1493. Discussion in Zuiderhoek (2009, 109) and Kalinowski (2002, 115-17).
[505] Kalinowski 2002, 117.
[506] Steskal 2008c, 309.
[507] Steskal 2008c, 309. For the visibility of the structure from the sea see chapter 6.
[508] Kalinowski 2002, 124.
[509] Kalinowski 2002, 123.

ground, and was further north, beyond the central peak of the hill itself.[510] Steskal suggests that this structure may have been associated with a residential quarter of the city, as yet unidentified but potentially in the large flat area north of the Vedius bath-gymnasium and stadium, which he argues has not been sufficiently explored to allow a conclusion.[511]

The So-called Serapeion

On the other side of the former harbor basin, on the lower slopes of Bülbüldağ, immediately southwest of the Tetragonos Agora, another monumental temple complex was constructed in the late 2nd century CE, often referred to as the Serapeion of Ephesos (Figure 19).[512] Excavations of this building initially took place in the early 20th century. On initial inspection Heberdey identified it as a temple to Claudius, but after the discovery of a complex water system in subsequent excavation seasons, he reconsidered and began to identify it as a well house drawing analogy to the nymphaeum in Nimes.[513] In the very same publication that Heberdey presents this new interpretation Keil writes that he directly objects, due to the structure's topographical context not matching the pattern of known nymphaea in Asia Minor and instead suggests that it was a temple to unidentified gods associated with the water installations inside.[514] When Keil returned to investigate the structure in the 1920s he discovered two statue bases with inscriptions, one of which directly mentions Serapis and the other of which describes an official who is also associated with Egypt, which have led to the presumed association of this complex with the worship of this Egyptian god.[515] Later, Keil more thoroughly developed the idea of this structure as a Serapeion

[510] Steskal and La Torre 2008, 291.
[511] Steskal 2008c, 310.
[512] Schultz 2020, 41; Scherrer 2005, 109; Salditt-Trappmann 1970, 26-27; Keil 1957, 94-96; Keil 1947.
[513] Heberdey (1912, 182) for the initial identification, (1915, 83-86) for the evidence and analogy as a nymphaeum.
[514] Keil 1915, 285-86.
[515] *IvE* 627, 1230; Schultz 2020, 42-45. See Keil (1926, 267-70) for the initial publication of the inscriptions.

including making reference to a statue of Egyptian granite discovered during the course of the excavations.[516] This identification was debated in subsequent years, and given that the evidence is not clear on either side there is no consensus around this identification, although the lack of evidence against also prohibited alternative proposals.[517] R. Salditt-Trappmann, for instance, was convinced by the inscriptions that Keil presented in support of the identification of the complex as a Serapeion.[518] In the early 1990s Scherrer returned to explore the halls surrounding the square to better define the history of this portion of the sanctuary and better understand the complex as a whole.[519]

Scherrer was able to define a total area of approximately 76 m x 117.5 m on three levels, with the "temple-like" main building on the southern edge presenting its façade to the north.[520] The open courtyard measured approximately 59 m x 72 m, and was surrounded on east, west, and north by halls approximately 7 m deep, with a propylon entrance on the northern edge.[521] Scherrer was skeptical of the identification as a Serapeion because the form of this temple, especially the niches and water features "does not correspond to any known sacred building of the Roman Empire" and instead suggests that it was a mouseion, similar to the one in Alexandria.[522] His proposal has not gained significant traction, and he himself has still referred to this building as "the so-called Serapeion" rather than as mouseion; thus the general consensus still appears to support, hesitantly, an identification as a Serapeion.[523] In recent years Schultz has conducted a

[516] Keil 1947. For the granite statue p. 183 and p. 188.
[517] Scherrer (2005, 130-31) for the various arguments used by other authors.
[518] Salditt-Trappmann 1970, 26-27.
[519] Scherrer 2005, 111.
[520] Scherrer 2005, 131. Salditt-Trappmann (1970, 27) mentions a courtyard measuring 73 m x 106 m surrounded by halls on three sides, but the more recent measurements are likely more accurate.
[521] Schultz 2017, 14; Scherrer 2005, 132.
[522] See Scherrer (2005) p. 131 for the lack of similar sacred structures, p. 132-38 for his argument of this structure as museion.
[523] Schultz 2020; 2017; Seren et al. 2015; Scherrer 2007, 334.

block by block study of the architectural elements of the temple, including both more precise measurements as well as proposing a reconstruction of the façade, which does not differ significantly from what Keil and his architects had presented in the early-mid 1900s.[524] The experience of a viewer in the temenos, gazing at the approximately 24 m high temple, rising from a level about 5 m higher than the level of such a viewer, with water running down the steps of the podium, would have been similar to that of viewing a spring grotto.[525] The main building was also notably for its large doorway, 5.33 m wide by 9.3 m tall, and its use of large monoliths in its construction, so that the overall experience of viewing this structure from within its precinct would have been unusual compared to other buildings in Ephesus.[526] The height of this building and its position on the hillside would have also allowed it to been seen from ships approaching the harbor via the harbor canal, although, like to the Olympieion to the north it would have been seen from the side rather than presenting its façade to the viewers arriving.

Groh links each of these temples together in their respect for the Hellenistic grid system in the lower portion of the city, which may explain some restrictions placed on the orientation of these newer structures (Figure 20).[527] Groh also mentions a large circular structure, 16 m in diameter, visible in geophysical prospection data in the southern portion of the city block to the west of the Serapeion and thus somewhat closer to the Roman harbor; however S. Seren, the longtime geophysical prospection specialist for the Ephesus excavations, et al. only mention "large areas of debris" in this area, and no circular structure is visible in their published plot nor their interpretation.[528] Even if the Olympieion and Serapeion were constructed within an existing grid,

[524] Schultz 2020; 2017.
[525] Research by Schultz (2020; 2017) indicates a temple height of 24 m. Scherrer (2005, 131-32) suggests 18 m.
[526] Schultz 2020, 46; 2017, 14. Salditt-Trappmann (1970, 28) estimated a height of about 12 m for the doorway.
[527] Groh 2006, 86-87.
[528] Seren et al. 2015; Groh 2006, 87.

the fact that they were constructed somewhat removed from the harbor's edge and no longer presented their façades towards the vessels arriving or anchored in the harbors would have created a different experience for the individuals on these vessels.

Urban Development at Ephesus

This pattern visible in the Early Hellenistic era, and even reaching back as far as the Archaic construction of the original Artemision, of a temple or sanctuary alone being the focus of architectural identity at Ephesus did not continue in the development patterns of later periods as the façade of the city became crowded with new and diverse types of structures. The Felsspalttempel, which itself went out of use in the late 2nd century BCE, was perhaps a landmark which overlooked the harbor, as discussed by Ladstätter; however it was the last of these cult structures to line the harbor or to have a prominent place along the seaside at Ephesus, and even while standing it was not anywhere near the scale of the Artemision itself.[529] After the Peace of Apamea, when Ephesus was given over to Pergamon by the Romans, there was a period of increased building activity, including the more monumental stone phases of the theater, both agoras, and - above the theater - the residence which has been associated with the proconsul of Asia even though no permanent official link has been confirmed.[530] Some of these structures, notably the theater and the residence above it, were in highly visible locations, looming over the harbor and in direct axis along the maritime approach to the city, presenting themselves prominently to the sailors and travelers arriving at the city in competition with the Artemision and other earlier features of the city. The decline of the Felsspalttempel alongside the investment in these other landmarks of the city may reflect a change in the way that the city would have been

[529]Ladstätter 2019, 198.
[530] Ladstätter 2019, 203-04; Marek 2016, 262, 369.

viewed by those arriving from the sea, a change in experience that would have been formed by the urban armature of the city. The large monuments constructed in the newfound terrain by the harbor would have presented a monumental façade to those arriving by sea, from the first moment that they could have recognized the city, with the hillsides sloping above perhaps dotted with residences and other fabric of the city. Prominent monuments such as the round monuments would have been at highly visible locations in the landscape, but their size may have made them difficult to recognize when in the same vista as the larger structures surrounding the harbor, including the theater on the opposite hillside.

Similarly to the much later developments in Roman Carthage, this development would have been facilitated by the coastal nature of the city, rather than being dictated by it, and would have been an additive process, changing shape over a long period.[531] In any event it is clear that the experience of arrival would have had a sensory focus on a wide variety of civic and entertainment structures and less on the religious and cultic monuments that were typical of earlier Greek settlements. However, one constant from Lysimachus onward would have been the prominence of the fortifications on the top of Bülbüldağ, running from the center of the city westwards towards the sea. With the gap between the uppermost line of the developed area of the innerwall area, dictated by the steep slope of the hill, and the fortifications, the walls would have stood isolated from the city here, and would have been visible to those approaching from the south long before they made the right turn around the point to sail into the harbor. The city walls and fortifications of Ephesus would have likely been the first recognizable architectural feature of the city for the majority of people approaching, whether from the south or the west, however once these travelers came closer to the city itself around the point it is likely that the other defining features of the city

[531] Morton 2015.

would have been similarly prominent as the fortifications on Kaleburun Tepe, to the west of the city, would have been at a much lower elevation and thus had less of a looming, or isolated, effect.

In later periods the channel leading from the sea to the Roman harbor was lined by tombs, part of a 450,000 sq.m. necropolis that began in the 2nd century CE, after many of the development in the lower portion of the city.[532] This pattern of personal, or family remembrance along the arteries leading into or out of cities is neither unique to this period or region and has abundant parallels elsewhere in the ancient Mediterranean.[533] But the "individual" nature of display to those approaching the city by sea at Ephesus appears to not be inspired by being a part of a funerary zone along the canal in the Late Hellenistic and Early Imperial city but rather through benefactions and architectural development of features of the city, such as the families investing heavily in the bath-gymnasia, many of which would have been visible upon approach to the city, or on individual monuments such as the round monuments on the hillsides. These benefactions would have "made the benefactors visibly present within the city" and would have "strengthened the social prestige and the political influence not only of the benefactors but also of their families, for decades."[534]

The alignment of the largest and costliest architectural developments of the lower city of Ephesus throughout the Late Hellenistic and Early Roman periods were oriented towards the port and the approach to the harbor. The prominence of these monuments would have created a scenography unique to the city, which could have communicated ideas such as security (fortifications), luxury (baths), entertainment (theater), or power (the scale of these monuments) to the travelers arriving at Ephesus, who may have recognized and felt these concepts as they viewed the city, then bringing that idea with them as they interacted with others.

[532] Steskal 2013, 2.
[533] See for example the tombs of Etruria discussed by Oleson (1976, 211-213).
[534] Chaniotis 2018, 320-21.

The development of the maritime façade of the city of Ephesus was profoundly influenced by the rapidly advancing shoreline that put old ports out of use and necessitated tremendous investment to preserve others (Figure 29, 33). There was however an opportunity presented by this new terrain, one which the elite residents of the capitalized upon, to redevelop the image of the city to foreign travelers, officials, and even to regional or local travelers of all types, via the construction of different forms of architecture than the cult structures that had previously defined the experience of the approach to the city.

Chapter 3 – Pergamon: A Hellenistic Kingdom in Need of a Harbor

Pergamon is an ancient city in Mysia, in western Turkey approximately 110 km north of Izmir on a 300 m high hilltop, with portions of the lower city partially covered by the modern city of Bergama (Figure 39).[535] It lay further inland than the coastal cities discussed in this dissertation, approximately 26 km up the Caicus river valley from the shore where its main maritime harbor, Elaia, was located, similar to the relationship between Rome and its harbor at Ostia and Portus (Figure 40, 41).[536] In the Augustan period Strabo clearly outlines the relationship between Elaia and Pergamon:

> After Pitane one comes to the Caïcus River, which empties at a distance of thirty stadia into the Elaïtic Gulf, as it is called. On the far side of the Caïcus, twelve stadia distant from the river, is Elaea, an Aeolic city, which also is a seaport of the Pergamenians, being one hundred and twenty stadia distant from Pergamum.[537]

And Strabo again later confirms that Elaia belonged to the Attalids and possessed a harbor and naval station.[538] Pirson notes that Elaia had been settled since the Bronze Age, but that the most intense period of occupation and expansion was in the Hellenistic and Roman periods when Elaia became an important harbor to support the growth of Pergamon.[539] Although this section is titled "Pergamon" the close relationship between Pergamon and Elaia, and the use of Elaia as the main maritime outlet for the larger city under the Attalids and Romans leads me to consider Elaia as an extension of the inland settlement, at least in the context of arrival at Pergamon by sea, and other

[535] *New Pauly Online* (Pergamum).
[536] Pirson 2004, 198.
[537] Strabo *Geog.* 13.1.67 (trans. H.L. Jones, 1924). For "seaport of the Pergamenians": "Περγαμηνῶν ἐπίνειον."
[538] Strabo *Geog.* 13.3.5: "λιμένα ἔχουσαν καὶ ναύσταθμον."
[539] Pirson 2010, 195-197; 2009, 190; 2008, 140.

sites in the coast surrounding Pergamon itself will be discussed to thoroughly address the role of satellite habors in the maritime aspect of the city.

Pergamon has been excavated by German scholars since the late 1800s, and their work has emphasized the importance of understanding the city in relation to its landscape from the publication of the first *Altertümer von Pergamon* in 1912 to the present day.[540] At Pergamon itself, the earliest archaeological evidence of monumental architecture dates to the Bronze Age, with the construction of a fortification wall around the 300 m high acropolis.[541] The first time the site is referred to in ancient literature comes in approximately 399 BCE, from Xenophon, who merely uses it as a geographic location but without any description of the site or its environment.[542] Writing much later, in the 2nd century CE, after the city had grown significantly, Aelius Aristides describes the wonder of the site:

> But as to what immediately strikes the eye, there is the Acropolis, of such magnitude, splendid from afar on every side, as it were, a sort of common summit of the province. Beneath it the rest of the city is different at each location and is variously sited and formed. […] There are adornments, both ancient and new, which cover the whole city, any one of which is enough to be an adornment even for an entire city.[543]

Later in the same oration he makes reference to the lack of a harbor at Pergamon itself and uses poetic license to interpret the later Sanctuary of Asclepius as this harbor:

> One would not even say that the region here was without a harbor, but it is most correct and just to state that this is the most secure and firmest of all harbors, and the one which receives the largest number of people and enjoys the greatest calm, where for all mankind the stern cables of safety have been fastened to Asclepius.[544]

[540] Pirson 2017, 43-46; Schuchhardt 1912, 65.
[541] Pirson 2017, 49; Hertel 2011, 23-27. Dating to the Bronze Age in *New Pauly Online* (Pergamum). Radt (1994, 62-58) placed this wall in the 7th century BCE.
[542] Xen. *Anab.* 7.8.8.
[543] Aristid. *Or.* 23.13 (trans. C.A. Behr, 1981).
[544] Aristid. *Or.* 23.17 (trans. C.A. Behr, 1981).

Although the city was the site of intense growth throughout the Hellenistic and Early Roman periods many of the notable developments of the city were focused on the hill and the surrounding plains. My focus lies elsewhere, on the experience of arrival for those coming by sea and disembarking at Elaia, 26 km away, or the other small harbors nearby, and the question how they may have perceived different aspects of Pergamon from afar, and whether or not this was a concern for the Attalids and the Romans.

First, I will begin with a short discussion of the founding of the city and early developments, such as the Bronze Age fortification, but the focus will soon shift to Elaia and other surrounding settlements, to outline the features that would have defined the experience of arrival by sea. Of the Bronze Age fortifications there is a 70 m stretch of wall preserved, approximately 3 m thick, that can be traced on the terrace of the later sanctuary of Hera on the southern slopes of the hillside, which W. Radt argues represents the earliest settlement of the site because the stones used appear to be general surface stones rather than more intentionally worked blocks used in other periods throughout the site.[545] Otherwise, the earliest phases of the city are not well understood, and it is difficult to describe the form or fabric of the settlement, beyond it being a fortified hilltop settlement, until the Late Classical / Early Hellenistic period and even more clearly after the founding of the Attalid Kingdom by Philetaerus in the 3rd century BCE.[546]

Two major monuments of the city were likely constructed in the second half of the 4th century BCE: The Temple of Athena and a phase of the city wall, which is often associated with Philetaerus, but which may, on the evidence of construction technique, be slightly earlier.[547] This phase of the fortifications surrounded the citadel with a wall that used more finely worked stones

[545] Pirson 2017, 49; Radt 1994, 65-66.
[546] Pirson 2017, 50-55; *New Pauly Online* (Pergamum).
[547] Pirson 2017, 54-55.

than the earlier version whose course it followed at some points, and had a 3.2 m width and rose at least 3.3 m tall.[548] There are a few other potential pieces of evidence, both architectural and otherwise, which indicate that there was an extensive settlement on the acropolis of the city in the late 4th century BCE, but none allowing for the definition of the street system and some of which, such as a potential earlier phase of the Hellenistic theater, remaining hypothetical.[549] Pirson suggests instead that the 4th century city was organic in layout, with varying orientations and adapted to the terrain rather than being restricted to a singular orthogonal system.[550]

However, much of this would change in the Hellenistic period with the rise of the Attalid empire. Strabo relates that Pergamon was under the control of Lysimachus during the early 3rd century BCE, and that he placed a certain Philetaerus in charge of the defense of the city and its treasury.[551] After some internal disagreement between Lysimachus' allies, which resulted in the death of Agathocles, Philetaerus defected from Lysimachus to support his rival, Seleucus.[552] After this tactical decision Philetaerus was able to consolidate independent control over Pergamon and its surroundings, secure relations and gain influence in other Greek cities through gifts and donations, and ultimately pass control to his nephew, Eumenes I, beginning a period of extended growth and control until Attalus III bequeathed the kingdom to Rome in 133 BCE.[553]

The only monument that is definitively dated to the time of Philetaerus is the sanctuary of Demeter, although there may have been other changes to the city such as alterations to the street system.[554] Although the structures like the Temple of Athena and the Late Classical fortifications,

[548] Radt 1994, 70.
[549] Pirson 2017, 55.
[550] Pirson 2017, 59.
[551] Strabo *Geog.* 13.4.1.
[552] Strabo *Geog.* 13.4.1; Paus. *Description of Greece*, 1.10.4.
[553] Strabo *Geog.* 13.4.2; Chaniotis 2018, 160; Magie 1950, 4-5.
[554] Pirson 2017, 61.

along with the alterations to the city grid, were used for some time to imply that Philetaerus made significant alterations to the city that contributed to its rapid development more recent archaeological evidence and analysis does not support this argument, and instead puts a somewhat greater emphasis on the subsequent Attalid kings.[555] Although his immediate heir, Eumenes I, continued his policy of bequeathing gifts and currying favor in important communities via civic benefactions which earned him the title Euergetes, and established a general pattern of behavior by the Attalids, there is no architectural development in the city which can be dated to his reign.[556] It was, rather, under Attalus I, who ruled in the late 3rd century into the early 2nd century BCE, that the city saw a significant restructuring and received new monuments such as a sanctuary to Zeus and a large market hall, and continued expansion into the surrounding plains, notably at the sanctuary of Asclepius.[557] At the beginning of his reign he began a war with the Gauls who has been maurauding the countryside, a way which the Kingdom of Pergamon prevailed in at the Battle of the Caicus River in 241 BCE.[558] Attalus I may have also been responsible for the initial expansion of the fortifications, a project that was completed by his successor, Eumenes II, and just in time for Pergamon's participation in a conflict which would shape much of the subsequent centuries of its development.[559] At the end of Attalus I's reign, the city was still mostly restricted to the hilltop, with some individual monuments spread over the surrounding landscape, such as tumuli and suburban sanctuaries, and Attalus continued the foreign investment program begun by his predecessors with benefactions as far as Athens, Delphi, and Delos.[560]

[555] Pirson 2017, 62.
[556] Pirson 2017, 62; *New Pauly Online* (Eumenes).
[557] Pirson 2017, 62-68.
[558] Strab. *Geog.* 13.4.2; Paus. *Description of Greece* 1.8.1.
[559] Pirson 2017, 66.
[560] Pirson 2017, 69.

During the reign of Eumenes II war broke out between Rome and the Seleucid empire, led by Antiochus III, who at least for some portion of the conflict was based in Ephesus. Pergamon played a significant role as an ally of Rome's, and in the middle of the conflict in 190 BCE, while the Pergamene fleet was assisting Rome and Rhodes in Lycia, Antiochus III set about threatening Pergamon itself, which caused Eumenes II to abandon the conflict and return to the core of his kingdom, arriving at Elaia as related by Livy.[561] Soon the Roman and Rhodian fleets arrived at Elaia to support Pergamon, and Antiochus III traveled there to begin peace negotiations, which ultimately failed and resulted in further destruction in the hinterland of Pergamon and Elaia.[562] At least by this point it was clear that Elaia was the main harbor for those sailing for Pergamon and was an extension of the city itself.[563]

Elaia

Elaia was an Aeolian polis that lay at the mouth of the Caicus river, where it fed into the Bay of Elaia, and was the closest harbor town to Pergamon, although still 26 km from the center of the Pergamene Kingdom (Figure 40, 41).[564] The main harbor basin of the site is still visible in the marshy wetlands of the site if the tide allows (Figure 43). Until recent work undertaken by the Deutsches Archäologisches Institut (DAI), led by Pirson, Elaia could have been considered "largely unexplored from an archaeological point of view" and the authoritative map of the remains was from a 1912 publication by C. Schuchhardt and in need of revision to better understand the development of the site in tandem with the developments at Pergamon and elsewhere in the ancient

[561] Livy *Hist. of Rome*, 37.18.
[562] Livy *Hist. of Rome,* 37.18-19; Polyb. *Hist.* 21.10.
[563] Marek (2016, 245) writes that "The connection between Pergamon and the world overseas was the harbor city of Elaia at the mouth of the Kaikos, which has recently been subjected to more precise investigation." That investigation is the work undertaken by Pirson and the DAI, as discussed below.
[564] Pirson 2004, 198.

world (Figure 42).[565] Lehmann-Hartleben's comprehensive catalog of ports discusses Elaia and its relationship with Pergamon, as well as the early knowledge of the harbor facilities themselves.[566] Elaia would have had a close relationship with Pergamon, falling under its power during its growth in the 3rd century BCE, as it provided the city with a connection to the sea, but it also had the advantage of lying along the main road to Smyrna, one of the other metropoleis of the Aegean coast of Asia Minor and the next case study to be considered in this dissertation.[567] This type of harbor site, associated primarily with an inland city although it may be a settlement of its own, is often referred to as an *ἐπίνειον* (epineion), and this is the word that Strabo uses to describe Elaia.[568]

Extensive surface survey conducted by the DAI team has identified high concentrations of pre-Roman material, especially pre-Hellenistic, on an 18 m high hill referred to as Maltepe or the Acropolis hill, as well as on another nearby hill to the northeast, Maltepe 2; in the lower plains surrounding these hills and along the coast, Hellenistic and Roman Imperial material was the most prevalent.[569] The expansion of the city under the Attalids may be supported by the ceramic distributions, although activity was still focused around the hills in the north portion of the city, with significantly less material in the southern half of the city.[570] Geophysical prospection also revealed a street grid in the northern portion of the city, with insulae approximately 28 m x 56 m, a 2:1 ratio, which is consistent with the ceramic evidence that points to expansion in this quarter

[565] Feuser et al. 2018, 91. Pirson (2007, 47-48) describes the start of the new project at Elaia and refers to this map as coming from the end of the 19th century, but the publication was made in 1912. Pirson (2004, 199) for the lack of earlier archaeological exploration at the site. An excellent discussion of Elaia's relationship with Pergamon can be found in Pirson (2014).
[566] Lehmann-Hartleben 1923, 129-130.
[567] Feuser et al. 2018, 95; Pirson 2004, 198.
[568] Strabo *Geog*. 13.1.67; For a thorough discussion of the use of the term see Casacuberta (2018, 136-154) but this definition is not new and has been discussed by many authors including Leonard (1997, 165), Rougé (1966, 109-10), and Lehmann-Hartleben (1923, 24).
[569] Feuser et al. 2018, 91; Pirson 2010, 197; 2009, 184, 190; 2007, 48.
[570] Feuser et al. 2018, 95; Pirson 2012, 233; 2010, 197; 2008, 139.

of the city in the Hellenistic period (Figure 49).[571] The expansion of the city from the hills into the flatter areas along the coast meant that the city was claiming new territory on land which was once sea, with the coastline having advanced over time to the west, a pattern familiar from other communities in the region such as at Ephesus (Figure 45, 46).[572]

The DAI team has suggested that the city's expansion took place under the Attalids in order to meet the military and economic demands of Pergamon, rather than corresponding to the needs of the community at Elaia itself, which was only of limited local significance in the Archaic and Classical periods, and which may explain why there were multiple voids, or zones of lower activity, in the survey results within the Hellenistic fortifications but further from the acropolis hill.[573] Even accepting that idea, whether the city was under control of the Pergamene kings in the time of Phileataerus or whether it came under their control in the time of his successor, Eumenes I, is not entirely clear, although it was firmly under Pergamon's control by time Eumenes II took the throne in the early 2nd century BCE.[574]

Although the remains of Elaia visible on the surface are rather scant, the course of the city wall is clear in some places and allowed the reconstruction by Schuchhardt, who claims the wall was 3.50-3.55 m thick.[575] He went on to date the construction of the wall to the reign of Attalus I based on a series of letters inscribed in one of the blocks which matched those found in the north stoa of the Demeter shrine at Pergamon which was constructed under Attalus and although this association seems somewhat tenuous, Pirson accepts a dating in the second half of the 3rd century

[571] Pirson 2010, 190; 2009, 184, 190.
[572] Pirson 2013, 129-30.
[573] Feuser et al. 2018, 95; 2008, 135-36. This would also match the relationship suggested by the use of the term *epineion* to describe the harbor, as discussed above.
[574] Pirson 2004, 198.
[575] Schuchhardt 1912, 113.

BCE.[576] Pirson does suggest that earlier phases may be identified in the future upon further analysis considering that the extant sections of the wall appear to have been formed of different construction techniques and different materials.[577] The fortifications enclose an area of approximately 46 hectares, which makes Elaia easily the largest of any of the other cities nearby Pergamon, although admittedly the size of the walled area of the city may not definitively indicate a larger population, nor the significance of a site (Figure 44, 49).[578] The expansion of the city as an epineion affiliated with Pergamon rather than due to the demands of the city itself may have necessitated the building of the city walls to protect this important harbor resource. Given the close link between the two sites, the apparent poor condition of the walls at Elaia may be due to intentional destruction by the Romans under Sulla in the 1st century BCE as punishment for the relationship between the city and Mithridates during the Mithridatic Wars or the necessity to sell materials to pay the imposed debts to Rome.[579] Appian describes the actions that Sulla took after he "settled the affairs of Asia" generally, although offers no specifics as to which sites were involved so the link to Pergamon and to Elaia itself is somewhat tenuous writing "The walls of many towns were demolished" and:

> The cities, oppressed by poverty, borrowed it at high rates of interest and mortgaged their theaters, their gymnasiums, their walls, their harbors, and every other scrap of public property, being urged on by the soldiers with contumely.[580]

A dividing wall, or *diateichisma*, discovered within the fortified area of the city, running from the southeastern extension of the quay wall and running perpendicular to the coast to the city

[576] Pirson 2004, 208; Schuchhardt 1912, 113.
[577] Pirson 2007, 53.
[578] Pirson 2004, 208.
[579] Pirson 2015a, 105. The destruction of the city walls of Pergamon by the Romans is proposed by Lorentzen (2014, 103-4) who associates it with the destruction of some residential quarters of the city which has been dated to the 1st century BCE in the period after the Mithridatic Wars and the passage from Appian which describes the punishments that some cities had to endure, including the destruction of their walls.
[580] App. *Mith.* 9.61-63.

wall on the northeast of the city, appears to separate the more intensely occupied northern half of the city from the more vacant southern half (Figure 44, 49).[581] The northern portion of the city, with evidence of the insulae and street grid, measure approximately 25.25 hectares, and the southern area approximately 18 hectares, with the protected area of the harbor zone measuring approximately 3.70 hectares.[582] Initially, Pirson proposed two competing interpretations for the purpose of the diateichisma and the main use of the southern half of the walled area: 1. A military space, with naval facilities and a space for troops. 2. An emporium where foreign merchants could have been somewhat separated from the rest of the city, with its purported military importance.[583] However subsequent coring in the area in question did not produce evidence of a large harbor basin in this southern extension of the city and so the DAI team has settled on the military identification.[584]

Similar to the situation of other harbors in this study, Elaia was sited close to the mouth of a river, in this case the Caicus River, which brought with it issues of siltation and an advancing shoreline that needed to be defended against. C. Texier began an 1865 description of Elaia with by bringing attention to this situation:

> Elaea, the port and arsenal of Pergamus, was situated at a distance of twelve stadia to the south of the mouth of the Caicus. This was an unfavourable situation, for all sea-ports near the mouths of rivers are liable to be choked up with sand. When we visited these shores, their former condition was so changed, that, in order to reach the lagoon, which was formerly the port, we had to proceed through a vast marsh. The alluvial soil brought down by the Caicus extends for several miles into the sea.[585]

[581] Feuser et al. 2018, 95; Pirson 2012, 233; 2011, 169-70.
[582] Pirson 2011, 185.
[583] Pirson 2011, 170-71.
[584] Feuser et al. 2018, 99; Pirson 2012, 240.
[585] Texier 1865, 10.

In the early 1900s there was an intensity of publications surrounding the location of the mouth of the Caicus river in antiquity, especially in relation to the comments in Strabo's *Geography*, with efforts made to discredit or to prove correct his account, but these studies used primarily analogy with other regions and were far from scientific, with A. Philippson even admitting that although it was known that the delta had been progressing since antiquity and had cut Elaia off, still they had not examined it very closely.[586] More recent studies, led by Seeliger, have examined the history of siltation and landscape change at Elaia via scientific geoarchaeological coring.[587] In the Hellenistic period, around the time of the construction of the built harbor at Elaia, sea level was approximately 1.80 m lower than it is currently, so any remains along the coast and the harbor likely would have stood much more prominently above the waterline.[588] The siltation of the last of the ancient harbors appears to have begun in the 3rd – 4th century CE, and was probably complete by the 6th century CE based on this geoarchaeological coring and associated C-14 dating.[589] Survey in the area discovered a settlement near Püsküllü Tepeler, north of Elaia, that appears to date no earlier than the 7th century CE and may be a successor site to Elaia after the harbor silted up.[590]

The Harbors at Elaia

The general form of the harbors of Elaia was already known by the time Schuchhardt described the city in the first edition of *Altertümer von Pergamon* in 1912, and the main harbor basin can still be seen in the marshy landscape (Figure 42, 43).[591] The city had two harbors, a

[586] Strabo *Geog.* 13.1.67; Schneider et al. 2013, 84-85; Pirson 2009, 194; Dörpfeld 1911; Philippson 1911; Dörpfeld 1910, 395-399; Philippson 1910, 98-100. Philippson (1910, 99): "Das Delta des Kaĭkos, das sich unterhalb dieser Schwelle südwärts ins Mfeer vor streckt, ist jedenfalls seit dem Altertum gewachsen, da seitdem Elaia vom Meer abgeschlossen ist. Ich habe das Delta nicht genauer untersuchen können."
[587] Seeliger et al. 2013.
[588] Seeliger et al. 2013, 79-80.
[589] Pirson 2012, 235-36; 2010, 213-14, 219.
[590] Pirson 2010, 197-200.
[591] Schuchhardt 1912.

"closed" harbor basin to the southwest of the acropolis hill which was framed by the coast and two moles, and an "open" stretch of coast to the southeast of the central hill, with an undeveloped beach further south of the open coast.[592] The western mole, which is still visible on the ground surface, measured just under 200 m long with a width ranging from 3.10-3.75 m and ended with a large rectangular base, presumably for a tower, while the southern mole was detected in geophysical survey data but would have not extended as far into the sea, leaving a gap for the entrance in the south; together they would have enclosed about 4.8 hectares (Figure 46).[593] The basement of the moles would have been almost 8 m wide and at least 2 m tall, with a gradual slope to the seaward side and a steep face on the internal side to allow ships to moor in the protected space.[594] The southern entrance to the harbor was approximately 45 m wide and would have allowed ships to enter while limiting the sedimentation from the Caicus River to the north, and the western mole would have protected the basin from the prevailing winds coming from the west.[595] Seeliger et al. suggest that the built harbor was likely constructed in the Hellenistic period as the construction techniques do not match general trends from the Roman period, for instance the lack of maritime concrete, the site was not of sufficient importance before the Hellenistic period to warrant this type of investment.[596] They later mentions that this has been confirmed by ceramics discovered in the basements of the moles.[597] Based on C-14 dating of wood found at a depth of 6.75 m in one of the cores near the western mole, at the level where sedimentation rate changes from open sea to quasi-lagoon conditions, Pirson proposes a date for the construction of both of

[592] Feuser et al. 2018, 95; Seeliger et al. 2013, 73; Schuchhardt 1912.
[593] Feuser et al. 2018, 95; Seeliger et al. 2013, 73; Pirson 2007, 50-52.
[594] Feuser et al. 2018, 96; Seeliger et al. 2013, 80.
[595] Feuser et al. 2018, 95; Seeliger et al. 2013, 80. Schuchhardt (1912, 111) writes that the entrance was 75 m wide but more recent mapping is likely more reliable.
[596] Seeliger et al. 2013, 73, 79-80.
[597] Seeliger et al. 2013, 73, 79-80.

the moles to the 4th – 3rd century BCE, the later portion of which may match with the expansion of the city grid north of the acropolis hill, as well as the ceramics indicating intensity in the Hellenistic period.[598] To the north of the built harbor basin a large amount of material, including large boulders, was dumped and compacted, which may have formed a more solid base for "the erection of other harbor-related facilities including warehouses and magazines."[599] Feuser et al. write that the geomagnetic results indicate the presence of a 33 m x 40 m structure opening towards the harbor, with a 12 m x 25 m courtyard surrounded by smaller rooms that is reflective of "mercantile buildings in the Hellenistic harbours of Delos and Ephesos."[600]

A relatively slow siltation rate of the harbor basin until sometime in the late 3rd – 4th centuries CE allowed for the basin to offer a mean depth of approximately 2.6 m to ships arriving, which would have been sufficient for the majority of Hellenistic and Roman ships.[601] The largest ships we know of from the ancient world, such as the Isis with a draft of 4.5 m, would have been unable to use the harbor but the majority of ships would likely have had much smaller drafts, of 2.5 m or less even when filled with goods.[602] The geoarchaeological coring data do not indicate that dredging was ever undertaken at the harbor at Elaia, even though it would have rapidly silted up in late antiquity and other harbors in the region, such as at Miletus and Ephesus, show evidence

[598] Pirson 2012, 235-36; 2010, 210, 213-14, 219.
[599] Seeliger et al. 2013, 79-80.
[600] Feuser et al. 2018, 96.
[601] Seeliger et al. (2013, 80) write that "[…] normally the draught of Hellenistic and Roman ships did not exceed 1.60 m", this may be sufficient for the majority of ships and boats but many of the larger ships that would have been transporting cargoes across the Mediterranean headed for Rome may have been significantly larger. Duncan-Jones (1977, 332) estimates that Roman ships that were large enough to transport obelisks or those like the Syracusia were too large for most harbors, while Casson (1965, 35-36) discusses the lighters that would have likely been common in the harbors that would have assisted these larger ships in offloading their cargos, referencing the excavations of two such ships in the harbor of Claudius at Portus.
[602] Salomon et al. 2016, 9-10; Boetto 2010, 188 Table 1.

of dredging activity.[603] The siltation of the closed harbor would have made it inaccessible by 500 CE, thus marking the end of Elaia as a significant harbor settlement.[604]

Magnetic survey in the protected harbor basin revealed five linear features running parallel across the harbor at lengths varying from 92 m to 140 m and an initial interpretation by Pirson is that they may have been the foundations of constructions for footbridges, expanding the berthing area within the basin or that they supported platforms for shipyard operations, however he offers no date nor a confident functional identification.[605]

An open beach stretched along the coast from the southern mole of the built harbor for approximately 250 m, before reaching the city's fortification wall.[606] The area was both relatively void of ceramic finds and also has provided no evidence of a mole or other breakwater so may have been an unprotected harbor where ships would have been pulled up on the shore without the facilities of the built harbor.[607] Geophysical survey conducted in this area revealed a series of features that together may form a single structure approximately 105 x 55 m, with the general form, and location at the waterline, of other known shipsheds but the data were inconclusive due to significant surface disturbance (Figure 48).[608] Pint et al. argue that the water depth in front of this "open harbor" would have been approximately 3 m, based on extrapolation from the adjacent closed harbor, easily deep enough to allow the passage of oared-warships and thus supporting the identification of the anomaly in the geophysical survey results as shipsheds.[609] If the feature is indeed a shipshed then it would have been able to accommodate 14 ships of standard dimensions

[603] Seeliger et al. 2013, 81.
[604] Pirson 2013, 129-30.
[605] Pirson 2008, 133.
[606] Pint et al. 2015, 343.
[607] Pint, A. 2015, 352.
[608] Feuser et al. 2018, 97-98; Pint et al. 2015, 345, 352; Pirson 2011, 167-169.
[609] Pint et al. 2015, 352. Pint et al. builds upon work presented by Pirson (2012, 123-129).

of the time, a somewhat small number for a complete fleet, but Feuser et al. write that it may have just been one of a distributed network of Pergamene shipsheds throughout their territory.[610] That said, I do not find the interpretation of the geophysical anomalies anomalies as shipsheds based solely on their form and an estimated water depth of 3 m convincing. Their location by the shore and general form may support this conclusion, but it is difficult to see their form in the results, as Pirson points out (Figure 48).[611] Whether shipsheds or not, the results of the DAI's geoarchaeological investigations show that by the 1st century BCE the area of the open harbor was unnaturally filled and leveled as siltation had begun to impact the harbor's accessibility, and it would have no longer been accessible to anything but the smallest of ships by the Early Roman period.[612] That this area may have been used as a beach harbor site for a wide variety of vessels would appear to be more likely to me, although this too would have proven more difficult as the sedimentation rate increased and the shoreline advanced to the southwest towards the entrance of the closed harbor (Figure 45, 46).

Some aspects of the harbor have been interpreted from the results of a comprehensive geophysical survey of the acropolis of Elaia and its surroundings which began in 2006 but have not been confirmed via excavation and thus dating the resulting features is difficult (Figure 47).[613] From the first field campaign the course of the fortification wall could be followed running north from the built harbor before angling inland; where it meets the harbor there is a large building which has been interpreted as a "massive fortification tower" given its location near the harbor along the coast.[614] Another similar anomaly can be seen at the eastern edge of the harbor near

[610] Feuser et al. 2018, 98-99.
[611] Pirson 2012, 229.
[612] Pint et al. 2015, 353; Pirson 2012, 239-40.
[613] See Pirson (2007, 54-57) for the first report on the geophysical survey work
[614] Pirson 2007, 54-55. This may be the same feature that Feuser et al. (2018, 96) interpret as a "mercantile structure."

where the southern mole would have sprung from the shoreline, and this has been interpreted as another tower, which once stood at the landward end of the mole.[615] Schuchhardt describes a tower still standing in this location in the early 20th century, describing a medieval tower on an antique foundation, but provides no further useful details.[616] After a gap, potentially for a gate against the southeastern edge of this tower, the fortification wall, here a separate sea wall, continued running parallel to the coast to the southeast, set back some distance from the course of the ancient coastline, which Pirson interprets as space having been intentionally left as an extensive harbor zone outside of the city wall in this area.[617] He points out that this pattern of a large harbor area outside of the fortifications can be seen at nearby Kyme, which was perhaps a free port that operated independently of the economic system in the city harbor.[618] Feuser et al. suggest that the area further to the southeast, beyond the end of this seawall and the Diateichisma, may have been suitable for housing the larger military fleets that arrived here during the Roman-Seleucid War, protected from the land by the interior city wall and offering a large open area for beaching ships and temporary camps.[619]

To the west of the site, a series of six linear features running perpendicular to the coast, with other features that appear to represent chambers connecting them, extend into the sea for up to approximately 270 m, the furthest of which is 2 km from the central harbor zone (Figure 44).[620] Initially, Pirson speculated that these features may have played a role in an outer harbor system, perhaps as piers or breakwaters, or shipyards or other support activities, and in tandem with other

[615] Pirson 2007, 56; 2004, 209-12.
[616] Schuchhardt 1912, 111.
[617] Pirson 2007, 56.
[618] Pirson 2007, 56-57. For Kyme's harbor see Esposito et al. (2002, 15-16) for a discussion of the relationship of this open area to the rest of the city.
[619] Feuser et al. 2018, 99.
[620] Feuser et al. 2018, 100-01; Pirson 2009, 185; 2008, 136-137.

potential features in the landscape, such as a peninsula projecting into the bay from south of the city, that the harbor system of Elaia was significantly larger and more well supported than the protected harbor basin and open harbor alone.[621] However, further research, including geoarchaeological coring, has shown that the walls themselves have no significant foundation and are thus not appropriate for use as a breakwater or harbor facility.[622] The most likely interpretation thus turned to saltworks which appear to fit parallels from elsewhere across the Mediterranean.[623] These walls date to the sometime in the 2nd to 4th centuries CE at the earliest, but likely in the 4th to 6th centuries CE, which may indicate an shift in the economic output in the area as the harbor began to silt up.[624]

Other features of Elaia

Geophysical prospection around the acropolis hill revealed some questionable evidence of a theater in the eastern slope of the hill and to the west of the hill there may be a rectangular feature measuring approximately 16 m x 21 m, within an otherwise void area approximately 38 m x 60 m, which Pirson suggests may be a small temple with temenos.[625]

A few large features in the landscape south of Elaia have been interpreted as markers of territory to those approaching the Caicus Valley from the south, a Hellenistic fort at Gavur Evleri, an uncertain feature at Zindan Kayası which does not appear to have been occupied past the Late Classical period, and a military installation used in the Hellenistic period on the Sakarkaya mountain spur.[626] The Gavur Evleri appears to have been used from the Hellenistic through the

[621] Pirson 2008, 138-40.
[622] Feuser et al. 2018, 101; Pirson 2011, 183-84.
[623] Feuser et al. 2018, 101; Pirson 2012, 239; 2011, 183.
[624] Feuser et al. 2018, 101; Pirson 2012, 239; 2011, 183.
[625] Pirson 2009, 184; 2008, 91.
[626] Pirson 2010, 201. Schuchhardt (1912, 114-15) discusses some of the architectural details of the fortress at Gavur Evleri.

High Imperial period, but there is little evidence for intensive use before or after this periods, which follows a similar trend to Attalid expansion at Elaia.[627] The site on the Sakarkava mountain spur would have been highly visually prominent, with sightlines over the bay of Elaia, as well as the terrestrial approach to the Caicus Valley, and appears to have been visited since the Bronze Age but with a temporary encampment defined only in the Hellenistic period, perhaps used only as needed rather than having a consistent presence.[628]

Given the existence of large tumuli in the landscape around Pergamon, such as the centotaph monument Bozyertepe found north of Elaia or the Seç Tepe tumulus just 3 km south of Elaia, Pirson suggests that it would not be surprising to find a similar monument from the Late Classical or Early Hellenistic period closer to Elaia, "visible from afar from land and sea, to keep alive the memory of the heroic prehistory of city and countryside," however no clear candidate for this type of monument has been identified.[629]

Atarneus, Kane, and Pitane

Three other settlements can be found along the coast in the hinterland of Pergamon to the south and west of the city and to the northeast of Elaia: Atarneus, Kane, and Pitane (Figure 40). These three sites surround the Kane peninsula, now called the Kara Dağ peninsula, which stretches west from the Caicus valley to Dikili and then south to Elaia (Figure 40, 41).[630] Although these sites benefitted from their position along the coast and increasing trade and travel across the Mediterranean through the later 1st millennium BCE, much less is known about these three cities

[627] Pirson 2011, 166-67.
[628] Pirson 2011, 172-74; 2010, 201.
[629] Pirson 2012, 225-27; 2010, 220.
[630] Pirson 2016, 175; Pirson et al. 2016, 188-89.

from an archaeological perspective so they will be treated together in this subsection rather than each being presented on their own.[631]

Atarneus is located near the coast to the north of the Kane peninsula, almost 25 km due west of Pergamon, and approximately 5 km north of the modern city of Dikili (Figure 50).[632] Herodotus describes it as in Mysia opposite Lesbos, and also notes that for a long time anything that came from the city was unsuitable for use in sacred rights, although this is somewhat outside the scope of this study.[633] Already by the mid-1st century CE, however, the city, once an oppidum, had declined to the status of a pagus according to Pliny.[634] This may have been, at least in part, due to the changing environmental situation, for Atarneus was once located along the coast, but was subject to similar siltation issues as many of the other sites included in this study and at the very least by the 2nd century CE, according to Pausanias, it was overtaken by the progressing shoreline and what was one a connection to the sea turned into a swamp that brought with it stagnant water, and thus disease and forced the residents to move (Figure 51).[635] Schuchhardt follows W. Dörpfeld in suggesting that the Caicus river once flowed past Atarneus, before shifting to the eastern side of the Kane peninsula where it emptied just north of Elaia, and that this may explain the earlier significance of Atarneus and then its rapid decline around a similar period to the rapid rise of Elaia.[636] Recent attention to the site by the DAI team has evaluated this "Dörpfeld Scenario," and concludes that at least as far back as 65 CE there is no evidence for a northern

[631] Pirson (2016, 139) writes that the archaeological remains of the Kane peninsula have hardly been explored. Schneider et al. (2014, 87) offer a very basic historical overview of these cities although they do offer the comment that "At the beginning of the Archaic period (ca. 750-500 BC), connected with the boom in the whole Aegean, the coastal settlements of Elaia, Pitane and Kane were the first to benefit from the intensifying overseas trade." Presumably this is in the context of the local region, rather than in the Aegean as a whole.
[632] Zimmerman et al. 2015, 194.
[633] Hdt. *Hist.* 1.160.3-5.
[634] Plin. *HN* 37.56.
[635] Paus. *Description of Greece*, 7.2.11.
[636] Schuchhardt 1912, 66-67. The debate as relates to Elaia was referenced in the text above.

branch of the Caicus river which would have had a mouth near Atarneus, however the coring is unable to describe the situation earlier than that, which is of course when this branch of the river is thought to have existed.[637]

Regarding the physical remains of Atarneus, Texier uses the account of Pausanias in 1862 to explain why "the ruins of Atarneus have completely disappeared."[638] However, soon after H.G. Lolling was able to identify the remains of the city not far from Dikili and provide an general description of the ruins.[639] Lolling cites a few ancient accounts of the city but it is notable that Diodorus Siculus, writing his history in the mid-1st century BCE describes the city as ὀχυρόν, strong or secure.[640] Using this description and a few of the other accounts, Lolling was able to associate Atarneus with a site with the modern name of Kale Ağılı just northeast of Dikili, an association that is generally accepted even if unconfirmed by inscriptions.[641] Lolling writes that the hill is approximately 200 m high, that it "attracts the attention of the traveler from far away," and that the remains are focused on the top of the hill, but scarce, only preserved where they were used as substructures for later constructions.[642] M. Zimmerman et al. agree in regards to the prominence of the hill, commenting that it would have dominated the landscape as the last significant elevated portion of the mountain range north of Dikili and the Caicus plain.[643] The hilltop was surrounded by a series of fortification walls, which date from pre-Classical periods through to the Hellenistic period, and which enclose approximately 14 hectares (Figure 53).[644]

[637] Schneider et al. 2013, 94.
[638] Texier 1862.
[639] Lolling 1879; Texier 1862, 354.
[640] Diod. Sic. *Bibl.* 13.65; Lolling 1879, 1-2.
[641] Zimmerman et al. 2015, 194; Lolling 1879, 6.
[642] Lolling 1879, 7. As to the height of the hill, Schuchhardt (1912, 119) says "approximately 150 m", Schazmann and Darier (1912, 331) write "the 160 m high mountain", and more recently Schneider et al. (2014, 84) write "about 175 m above the coastal plain" while Zimmerman et al. (2015, 195) state that the summit reaches 170 m ("im Gipfelbereich eine Hohe von 170 m erreicht").
[643] Zimmerman et al. 2015, 195.
[644] Schneider 2014, 88.

From the hill there is a clear view over the current coast to the west, all the way to the sea and onward to Lesbos, which would have been in direct opposition with Atarneus as described by Herodotus.[645]

Returning to the site a few times in the early 1900s to document the remains, the DAI team was unable to confirm Lolling's identification of the city via epigraphic evidence and Dörpfeld was left with some doubts as to whether the site was Atarneus at all.[646] A short excavation season in 1909 did uncover some ceramics that are "closely related to the ceramics of Troy VI," which suggests that the site is much older than some of the others in the region, including the acropolis of Pergamon itself.[647] From his own work in 1898 and the intervening work, Schuchhardt was also unable to gain a clear picture of the form of the settlement although certain elements were clear, such as a Hellenistic fortification wall, and a quarry (Figure 52).[648] More intensive excavations in 1911 were able to identify a few structures of unidentifiable function that date to the Attalid period, some of which reused materials from earlier structures, but which still do not give a clear impression of the city beyond the Hellenistic fortification walls.[649] F.E. Winter has also indicated that aspects of the fortification walls at Atarneus are identical in style to Attalid construction at Pergamon itself, so this dating appears to be secure.[650]

After these early 20th century investigations almost 100 years went by with "no further archaeological investigations at the site," until a project led by the DAI with a series of archaeological and geological surveys in the area was able to return to the site and its surroundings to better define the city in the context of the expansion of Pergamene power in the Hellenistic

[645] Lolling 1879, 9.
[646] Dörpfeld 1910, 395.
[647] Dörpfeld 1910, 395.
[648] Schuchhardt 1912, 119-21.
[649] Schazmann and Darier 1912, 332-40.
[650] Winter 1985, 682.

period.[651] The research on the urban center was set to build upon the understanding of the various fortifications from the Archaic through Byzantine period, the Late Classical buildings on the prominent peak of the hill, the large terraces that appear to be similar in form to the Hellenistic terraces at Pergamon and Priene that were filled with public structures, among other aspects.[652] Although the many of architectural features of the site are no longer visible, S. Schneider et al. were able to identify a few features which may have attracted earlier settlers, namely access to natural resources from a wide variety of intersecting landscapes and the defensible position high on the hilltop, providing a vantage point overlooking both the plains and the sea.[653] The evidence from the archaeological investigations suggests that Atarneus was most prominent in the Late Classical/Early Hellenistic period, and that it gradually declined in significance throughout the Hellenistic period, a reconstruction supported both by the literary evidence and by the ceramics recovered in the first season of the new field project.[654] Specifically from the 1st century CE onwards there is no evidence in the ceramics found at the site of further activity, although material from the 13th century CE show that the site was reoccupied after a long hiatus.[655] There is no evidence for marble architecture or other typical forms of monumentalization from the Hellenistic period, and the ceramic and numismatic evidence show increasing Pergamene influence throughout the 2nd and 1st centuries BCE, perhaps indicating that as Pergamon grew Atarneus stagnated.[656] Schneider et al. suggest that the decline and ultimately the abandonment of Atarneus was associated not only with landscape change as ancient authors have suggested but also by the growing power of Pergamon, given the inverse growth patterns at the two sites and their

[651] The project is first described in Pirson (2007, 42-47), and is summarized in Zimmerman et al. (2015).
[652] Schneider et al. 2014, 88; Pirson 2007, 45-46.
[653] Schneider et al. 2014, 94.
[654] Zimmerman et al. 2015, 202-03; Schneider et al. 2014, 88; Pirson 2007, 46.
[655] Zimmerman et al. 2015, 195.
[656] Zimmeman et al. 2015, 203.

competition for resources given their proximity, and the following relative peace of the Early Roman Imperial period which would have made the attractiveness of a hilltop site from a military perspective a lower priority.[657] Zimmeman et al. also add that a potential punitive response by Rome after the Mithridatic War may have caused the rapid decline in Atarneus in the 1st century BCE, but they emphasize that none of these hypotheses can be confirmed from the available archaeological evidence.[658]

Atarneus is an example of a site that is not so well represented in collection the larger and more successful urban centers in the Hellenistic and Early Roman period beyond Pergamon itseld, namely the fortified hilltop settlement. Although its location on the coast and location atop Kale Ağılı might appear to match conditions where one might expect the development of visually prominent architecture there is no evidence for such construction from the period of interest of this study and in fact it appears that the city fell into decline, perhaps due to competitive pressures from nearby communities but also because of landscape change that also would have removed the benefit of its location along the coast, changing sea access to a pallid swamp. A large amount of Imperial material was found at nearby Bozbayir Tepe, which the DAI team suggests may be the site of the Imperial settlement of Atarneus once the coastal settlement was abandoned as described by Pausanias, but this cannot be confirmed by any further evidence.[659]

Further south along the coastline, approximately 40 km from Pergamon and 20 km northwest of Elaia, lies Kane, listed by Pliny alongside Atarneus as one of the cities in Aeolis that "no longer exists" in the mid-1st century CE.[660] Even if it was no longer a major city by Pliny's time, in the early 2nd century BCE the Roman fleet spent winter there during their campaigns

[657] Schenider et al. 2014, 95—97.
[658] Zimmeman et al. 2015, 203.
[659] Pirson 2007, 47.
[660] Plin. *HN* 5.32; Fediuk et al. 2019, 43.

against Antiochus, as Livy describes them pulling the ships ashore and building a wall around them for the winter.[661] As far as the location of the site is concerned, Strabo describes it as a "small city," opposite the southern portion of Lesbos on a promontory.[662] Today the remains cover approximately eight hectares on a peninsula which rises to at most 20 m above sea level near the modern town of Bademli, and modern construction on a nearby hilltop may have destroyed evidence of further settlement at an elevated location, although only 30 m high, as at to Atarneus.[663]

A survey initiated in 2014 by the DAI was the first modern archaeological investigation of the site and consisted of both traditional archaeological survey and geophysical prospection on land and in the shallow waters nearby.[664] Almost no remains stand proud of the raised central spine of the peninsula, but erosion on it eastern and western faces reveal some architectural features, predominantly domestic structures, which are likely pre-Roman and Byzantine but which are difficult to date.[665] There is evidence of a sea wall on the eastern and western edges of the peninsula, which likely dates to the Late Classical – Early Hellenistic period on the evidence of the building technique, along with a portion of city wall on the western edge of the survey area, again dated to the Hellenistic period; however, both of these identifications are tentative and there is no further evidence of public structures.[666]

With respect to the harbor facilities, the survey identified a large stone embankment, which would have rested upon a natural spit of land, and which was likely used as a breakwater along the northern side of the western bay along with a potential southern breakwater in the form of a

[661] Livy *Hist. of Rome*, 36.45.8.
[662] Strabo *Geog.* 13.1.68.
[663] Fediuk et al. 2019, 44-45; Pirson 2015a, 139-42.
[664] Fediuk et al. 2019, 43; Pirson 2015a, 139.
[665] Pirson 2015a, 142-43.
[666] Pirson et al. 2018, 184-85; Pirson 2016, 177; 2015a, 143-45; 2015b, 179. Initially the sea wall in the eastern bay was thought to have been a stoa, see Pirson (2015a, 143-45).

concentration of stones.[667] However, the DAI team dates both to pre-Roman periods based on their "simple construction techniques."[668] Some opus caementicium walls near the shore were likely part of a quay, given the nearby discovery of a mooring pole, however no such structures were found in the eastern bay.[669] With the ancient sea level likely being approximately two meters lower than today's level there would have been about 30-35 m of open beach between the shore and the sea wall, which could perhaps have been used as a landing zone, even for the Roman fleet as related to us by Livy, and was at some point reinforced with the quay due to rising water levels encroaching on this space.[670] Geophysical prospection in the harbor basin has detected features that would seem to support the identification of a small harbor, just 0.5 hectares in size, which Fediuk et al. justify by the relative insignificance of the city compared to Elaia.[671] Pirson suggests that the diminutive size of the harbor basin perhaps indicates that Kane was not used as an entrepot but rather as a simple shelter for ships continuing their journey and delivering goods elsewhere.[672]

About four kilometers south of the city the survey identified and recorded a series of small scale Roman baths, with a potential villa maritima, along the coast at İlıca, but little is known about surrounding structures or their relationship to Kane or other settlements.[673] The overall definition of the city is thus rather limited, although the literary sources and other datable materials would appear to indicate some limited activity in the pre-Hellenistic period, with a peak in the Late Classical through Early Roman periods before a drop in intensity of activity and perhaps

[667] Fediuk et al. 2019, 48-49; Pirson 2016, 175; Pirson et al. 2016, 189-90; Pirson 2015a, 145-46.
[668] Fediuk et al. 2019, 48-49; Pirson 2016, 175; Pirson et al. 2016, 189-90; Pirson 2015a, 145-46. Fediuk et al. (2019, 48-49) specifically mention "Hellenistic."
[669] Pirson 2016, 175-77; 2015a, 145-46.
[670] Pirson 2018, 185-86.
[671] Fediuk et al. 2019, 48. Pirson, F. (2015b, 179-80) also emphasizes that Kane would have been relatively insignificant, and that even Elaia would have been modest in comparison with other large harbor towns from the period.
[672] Pirson 2015b, 180.
[673] Pirson et al. 2018, 191-92; 2016, 190-91; Pirson 2016, 178-79.

prominence/significance in the High Imperial period, matching Pliny's claim that it no longer existed by this time.[674]

On the southern side of the Kane peninsula, at modern Çandarlı, lay the ancient site of Pitane itself a small peninsula extending into the bay west of Elaia, described and mapped by Schuchhardt in the early 20th century (Figure 54).[675] Strabo describes Pitane as having two harbors, presumably to the east and west of this small peninsula and adds that at the site there were peculiar soil properties that allowed bricks to float on the water.[676] Schuchhardt describes visible remains of a Hellenistic city wall along the coast of the peninsula, which are still visible today, especially on the southwestern side, where a harbor mole also projects to form a long and narrow harbor, but he suggests that this was not necessary on the eastern side because the peninsula itself would have provided shelter to ancient ships as it did to vessels when he was writing.[677] He goes on to describe a stadium and theater on the eastern edge of the peninsula, potentially overlooking the natural eastern harbor basin, but the evidence he provides is only due to the topographical conditions of his time and not due to any archaeological finds in the area so their existence is rather insecure.[678] The more recent survey by the DAI team was unable to find any evidence of the stadium or theater, and they presume the ancient harbor mole on the west of the peninsula is now buried under the modern mole, and that at its greatest extent the harbor there would have measured 8.5 hectares.[679] Survey on the western side of the peninsula identified a large group of structures, covering approximately 135 x 90 m, some of which are amorphous, while others have clearly defined

[674] Fediuk et al. 2019, 44; Pirson et al. 2016, 194. For the ceramic material: Pirson (2015a, 146-48) and Pirson (2015b, 180).
[675] Schuchhardt 1912, 99-100.
[676] Strabo *Geog.* 13.1.67; Plin. *HN* 5.32.
[677] Schuchhardt 1912, 99-100. Pirson et al. (2018, 188) date the city wall to the Hellenistic period based on construction techniques.
[678] Schuchhardt 1912, 100.
[679] Pirson et al. 2018, 188; 2016, 192; Pirson 2016, 181.

orientations and internal divisions.[680] Pirson et al. infer that some of these structures were built in the Roman Imperial period to supplement the harbor facilities as the import of firewood and the export of ceramics would have demanded more space than the small protected harbor and the natural shore could have provided.[681]

Recent geophysical prospection on the peninsula was only able to identify a few potential residential structures and a potential kiln site, while limited ceramic study showed a continuity of material from the Classical through late Roman periods including evidence of local production, in contrast to the situation at the other two sites on the peninsula where there are specific gaps, with little evidence from the later Hellenistic and Roman periods at Atarneus and a significant drop in material in the High Imperial period at Kane.[682]

The recent survey of the Kane peninsula by the DAI team also documented two towers that they assign to the Hellenistic period, specifically the 2nd century BCE due to ceramic scatter found nearby.[683] These towers would have had controlling views over the sea but would have been hidden from passing ships due to their location removed from the seashore and the cliff edges, which may suggest a military function, similar to the Gavur Evleri site to the south of Elaia.[684] That these features seem focused on remaining somewhat hidden, and their subsequent interpretation as military structures is in stark contrast to the way that other communities such as Cnidus or Ephesos decorated their coastlines with highly visible monuments, even in pre-Roman periods.

The development of visual aspects of Pergamon's harbor system

[680] Pirson et al. 2018, 186-88.
[681] Pirson et al. 2018, 187-88.
[682] Pirson et al. 2018, 188-89; 2016, 192-93; Pirson 2016, 181-83.
[683] Pirson et al. 2018, 189-91.
[684] Pirson et al. 2018, 190-91.

When considering the coastal zone surrounding Pergamon, with a focus on Elaia but also Atarneus, Kane, and Pitane, development throughout the Late Hellenistic and Early Roman periods is significantly different to that which took place at Ephesus, both in type and in scale. The developments at the site of Elaia appear to be more infrastructural and focused on functional, controlled space in the area around the harbor, rather than on developing a clear monumental façade or an imposing architectural program. This was, of course, taking place in and around Pergamon further inland, but the coastal zone was left in a more functional state. Artenus experienced similar issues with rapid siltation to Ephesus but it did not take advantage of this opportunity to expand into these zones and to develop new features. At Elaia the siltation process was more gradual, but the city appears to have only put some features, potentially shipsheds, out of use, and built relatively few features on the north side of the harbor, rather than taking full advantage of the new land by the mouth of the Caicus. There is also no evidence for highly visible features of the city on the terrestrial route between Smyrna and Pergamon, which could have served as an alternative site for display and for creating a façade. Perhaps the harbor of Elaia functioning as an epineion for Pergamon, rather than it being the dominant urban center itself caused its development to be somewhat overlooked or at least secondary to the monumental development of Pergamon. Rome itself had a similar relationship with its harbor at Portus, and although it is hard to use Rome as an analogy because it was so unique both in size and power throughout this period it is notable that the harbor on the Italian coast was also developed primarily with structures that served a functional purpose such as the lighthouse, smaller baths, and horrea, rather than the types of monumental bath complexes, entertainment structures, and individual monuments found at Ephesus. That both Pergamon and Rome were distant from their harbor may have contributed greatly to this pattern of development.

Chapter 4 – Smyrna: "The Most Beautiful of All"

One of the main rivals to the grandeur of Ephesus in the Late Hellenistic and Early Roman periods was Smyrna, situated at the eastern extent of the modern Gulf of Izmir (Figure 55, 56, 57, 58).[685] Any ships approaching the city would have had to travel over 75 km from the Aegean along this long gulf before reaching the settlement on the eastern coast. The Hellenistic and Roman period settlement would have ranged from the coast to the south of the mouth of the Meles River up the northern slopes of the Pagos mountain, now called Kadifekale. The city has a long history, from the original settlement on the north of the Meles River having Archaic prominence to Classical insecurity, ending with a refounding by early Hellenistic rulers and newfound prominence throughout the Roman period. Already near the end of the Roman Republic Cicero referred to Smyrna as a city of Rome's oldest and most faithful allies, and Strabo described it as the most beautiful of all the Ionian cities.[686] This reputation was later enhanced by investments and benefactions by its citizens and the Roman emperors as it grew to rival the other major cities of Asia Minor in significance.[687]

One of the most thorough treatises on the history of the site was published in 1938 by C.J. Cadoux, a Christon theologian but born in Smyrna, which is still cited regularly by other scholars discussing Smyrna.[688] The maps that Cadoux provides, although over 80 years old, still offer a good picture of the location of Smyrna at the east end of the long gulf (Figure 56, 57, 58).

[685] Cadoux (1938, 18-19).
[686] Cic. *Phil.* 11.5; Strabo *Geog.* 14.1.37
[687] Magie (1950, 73-76) calls it "The third of the great Ionian ports" alongside Ephesus and Miletus.
[688] Cadoux 1938. It is rare to see a discussion of Smyrna that does not refer to Cadoux.

Throughout the twentieth century until today there have been various excavations throughout the city, the largest of which have focused on the earliest settlement of the site, referred to as Old Smyrna or Alt-Smyrna, and on the agora of the Hellenistic and Roman periods.[689] There is a notable dearth of archaeological evidence in general for such an important city during the Roman period thanks to the rapid development of the modern city of Izmir.[690] The lack of evidence has led to more uncertainty about some aspects of the city than we would hope, for instance estimates of the population of the city, which are mostly speculative.[691] Smyrna was nevertheless an important center during the Late Hellenistic and Early Roman periods, which warrants inclusion in this study due to its prominence but also because it can offer a different type of case study, as the natural landscape of the city did not undergo the same extreme changes that we saw at Ephesus

[689] A partial summary of the history of investigations can be found in Ersoy (2016) and Kohl and Ersoy (2008, 345). For an overview of the excavations in Old Smyrna / Alt Smyrna see: Tanrıver et al. (2017, 95-96), Akar Tanrıver (2017), Akrurgal (2012, 1995), Akurgal (1983, 1950), Cook (1958/1959), Miltner and Miltner (1932), and Keil (1932). For the excavations at the agora and by the team elsewhere in the city see: Ersoy (2020), Ersoy et al. (2019), Ersoy and Alatepeli (2018), Ersoy et al. (2017), Ersoy et al. (2015), Ersoy, et al. (2012), Ersoy et al. (2011), Ersoy (2010, 2009), Kohl and Ersoy (2008), Taşlıalan and Drew-Bear (2006, 2005, 2004), and Naumann and Kantar (1950).

[690] Almost all authors note the lack of extensive archaeological evidence. This is highlighted in *New Pauly Online* (Smyrna).

[691] Cadoux (1938, 186) writes: "It has been conjectured that the whole population in the middle of the first century B.C. and in the early days of the Empire, may have amounted to about 100,000 persons." However, he references only Bürchner (*RE* 1929, 760), who writes that the capacity of the Hellenistic theater was 20,000 people and that in the Imperial period, likely already by the last Mithradatic War, the population was approximately 100,000. There is no indication of where these figures come from why they are dated to these periods. In fact, the remains of the theater that exist at the site would appear to date to the 2nd century CE, although potentially resting on the site of an earlier structure, and the published estimate of the capacity by the investigators at the time of Bürchner's *Pauly* entry in 1929 was only 16,000 seats (Berg and Walter 1922, 20-24). Later studies have produced vastly different estimates of the population of the city. Russell (1958, 80-82, Tab. 83) suggests an area of 600ha for the city which would amount to a population of 90,000 given their estimates of density. Hanson (2011, 253-58) first repeats the 200,000 figure for Smyrna based on the size of the theater but comments that this estimate has been "scaled up artificially based on comparison with Pergamon" and later writes that a figure somewhere between 50,000-90,000 is much more likely based on an "area-based estimate" even though Smyrna is not listed in the presented charts of the area of various cities (Table 9.1 & Fig 9.13). The overall appearance is that the population estimates are being pulled from extremely incomplete and inconsistent estimates of the size of the theater or the urban area of the city and vary wildly.

once it was resettled south of the Meles River, allowing for a more consistent shape to the landscape.[692]

Old Smyrna

Smyrna was initially settled at the base of a spur of the Yamanlar Dağı nearby the Meles River, from at least the 3rd millennium BCE.[693] This settlement mound is currently under the residential neighborhood of Bayraklı but at one point would have been situated in a favorable location on the seaside.[694] The location of the settlement near the Meles River caused it to experience the same issues of siltation that we have seen in many other cities in the region, and the coastline has now advanced approximately 500 m, creating a flat plain around the base of the settlement.[695]

In the later 1920s Keil, who was excavating Ephesos at the time, saw the opportunity to begin an excavation program at the site of Old Smyrna (or Alt Smyrna), with the goal of understanding an Aeolian or high Ionian city that was not disturbed by Hellenistic and Roman development.[696] Even at this time development was encroaching on the remains of the early settlement and Keil writes about the urgency of such a project, noting that he had asked his deputy, Miltner, to undertake the excavations while he himself was occupied at Ephesus.[697] In one season of excavation the Austrian team was able to confirm the location of the early Greek settlement and the destruction of the city, which they dated to 575 BCE due to the lack of ceramic evidence after

[692] Taşlıalan and Drew-Bear (2006, 319) write that the tremendous size of the major monuments of the city indicates the importance of the city in the Roman period, even though they are no longer visible due to the impact of modern development.
[693] *New Pauly Online* (Smyrna); Cook et al. 1998, xix, 9; Akurgal 1983, 13; Cook 1958/1959, 1.
[694] Akrugal 1983, 13. Cadoux (1938, 59-60) comments that the location of this settlement was unknown as of his analysis.
[695] Akurgal 1983, 13; Cook 1958/1959, 1.
[696] Keil 1932, 126. For a discussion of the discovery of Old Smyrna, from the early travelers through to the scientific excavations see: Akar Tanrıver (2017).
[697] Keil 1932, 125-26.

this period.[698] They were able to show the contemporary nature of the tumuli surrounding the city, the fortification network, and the city itself, thus suggesting that the tombs were a part of the same community as the city dwellers, who in this period could be considered Greek.[699]

In 1948 a new Anglo-Turkish project began in collaboration between the British School at Athens and E. Akurgal, and this project conducted excavations at the site of Old Smyrna through 1952.[700] These excavations were able to identify material from as early as the third millennium BCE at the site as well as considerable evidence from the Protogeometric and Geometric periods.[701] One of the major results that generally concerns this project is the destruction of Old Smyrna, as this may alter our understanding of the later settlement of the city. On the basis of the Anglo-Turkish excavations Akurgal argues for an earlier date of the destruction of the city by the Lydian kings, placing it as early as the last decade of the 7th century.[702] Work has continued at the site in more recent years to further define the features of the site, including the Temple of Athena, "the earliest Greek temple in Anatolia."[703] The results of the archaeological and historical study of Old Smyrna have helped to define these important early periods of the settlement at the site, but the details of this period are somewhat less relevant to the current study given temporal and physical distance of this settlement from the later city. The physical structures of this site would have still been visible to travelers arriving at Smyrna in later periods, including the tumuli mounds rising on the hill behind Old Smyrna, but the monuments and attractiveness of the new settlement may have been able to capture the attention of the travelers at sea.

[698] Miltner and Miltner 1932.
[699] Miltner and Miltner 1932, 187-88.
[700] Cook 1958/1959, 7-8; Akurgal 1950, 52-53.
[701] Miltner and Miltner 1932, 9-13.
[702] Akurgal 1950, 65.
[703] Tanrıver et al. 2017; Akurgal 2012, 1995. For commentary on the temple see Tanrıver et al. (2017, 96).

Hellenistic Resettlement and the Growth of the Roman City

The destruction of the old city in the led to a period of dispersed settlement for almost 400 years until the resettlement of the city in the Hellenistic period in a new location.[704] Although this period is void of significant architectural development it is an important historical lull in the intensity of occupation at the site. Given that the conditions that led to the success of the later settlement, arable land and a location at the crossroads of important trade networks, were in place throughout this period, the gap is notable, as one might have expected a new foundation to have arisen sooner. A. Ersoy has emphasized its advantageous position and maritime significance throughout its history: "Smyrna succeeded in existing till today as the most important seaport of western Anatolia because it is both surrounded by very fertile land, providing numerous products, including mineral resources, and at the same time situated on seaways and trade routes."[705] The long gulf would have helped to provide a naturally protected anchorage for ships, and the depth and width of the gulf allowed the easy passage of the biggest of ancient vessels.

In a story related by Pausanias, this new location came to Alexander while he was hunting on the mountain and paused for a rest under a plane-tree at a sanctuary of the Nemeses, and he was encouraged to relocate the residents of the dispersed community of Old Smyrna to this new settlement.[706] There is inconsistency in the attribution of this refoundation, however, as Strabo makes no mention of Alexander but rather attributs the refoundation of the city to Antigonous and

[704] Akurgal 1950, 65; Cadoux 1938, 86-87; Keil 1932, 126. Exactly how long this period of dispersed settlement was is not entirely clear, as the date of the destruction of Old Smyrna has been adjusted based on new interpretations of the evidence with each successive excavation.
[705] Ersoy 2016, 1.
[706] Paus. *Description of Greece* 7.5.1-3. Pausanias also describes how he was instructed to resettle the inhabitants of Old Smyrna and that the community consulted the oracle at Claros which returned a positive answer and so they resettled voluntarily.

Lysimachus.[707] Lysimachus' presence in the early history of the new city is again seen as he named the new foundation Eurydikeia, after his daughter, as shown by coins minted at the site from 288-281 BCE; however, this name would soon go out of favor as Eurydike sided with her husband Antipatros against her father, and with the death of Lysimachus it was dropped for good.[708] What appears to be consistent in the accounts is that the new settlement was formed in the Early Hellenistic period with the goal of creating a new urban center consolidating the dispersed settlements in the area, and capitalizing on the advantageous setting of the site, similar to many other synoikisms that took place in the ancient world.[709]

The Hellenistic and Roman settlement is found to the south of Old Smryna, on the other side of the Meles River, on the northern slopes of Kadifekale.[710] This new foundation was conveniently placed on major transportation networks, from Sardis to the coast, and between Phocaea and Pergamon to the north and Ephesus to the south, giving it a natural commercial significance, and combined with the fertile hinterland.[711] The new settlement, centered on Kadifekale could monitor and visually control both the agricultural hinterland and the surrounding gulf.[712] When describing the connections with the interior Magie comments on the city's

[707] Strabo *Geog.* 14.1.37. The exact discussion of who founded the city is not so relevant to the current study but the inconsistency is notable. Cadoux (1938, 95-100) sides with Lysimachus as the most responsible for the new foundation. Bevan (1902, 116) is clear that Antigonous was responsible, even commenting in a note (116, n. 5) that "Strabo xiv. 646.The tradition which hascribes the foundation of the new Smyrna to Alexander (Paus. vii. 5, 1) is discredited by Droysen in view of Strabo's statement." This note is somewhat unconvincing in the light of Droysen actually writing that Alexander was responsible for new Smyrna twice (1877, 202; 235 n. 2, with Antigonous). Magie, meanwhile assigns the re-foundation to Anitgonous, writing that "there is no reason why Strabo's assignment of this measure to Antigonus should be doubted" (1950, 76-77; 876 n. 66). Ramsay (1904, 252) writes that the idea was Alexanders, Antigonus began it, but Lysimachus is the one who carried it out. The entry in *New Pauly Online* (Smyrna) attributes it to both Antigonous and Lysimachus.

[708] Marek 2016, 195. Cadoux (1938, 103-7) and Milne (1923, 3-7) for a discussion of the coinage.

[709] For a thorough discussion of the sources and who may have been responsible at each step of the resettlement of the city see: Cadoux 1938, 94-100.

[710] Cook 1958/1959, 3; Cadoux 1938, 101-2.

[711] Ersoy and Alatepeli 2011, 105-6; Magie 1950, 77.

[712] Ersoy and Alatepeli 2011, 105-6; Magie 1950, 77.

inconvenient position at the end of a long east-west gulf, which "provided an excellent harbor, [but] made the city less accessible to the Aegean sea-lane."[713] Although this may have been true from the perspective of absolute distance along a route, the length of the gulf did not inhibit the city's rise to prominence in the maritime networks of the Mediterranean in antiquity, nor that of Izmir in the modern period.[714]

Strabo describes the distance between the old foundation and this new city as about 20 stades, which matches the distance between Bayraklı and Kadifekale, adding support to the historical account of the sites and the identification of the location of the old city:

> Next one comes to another gulf, on which is the old Smyrna, twenty stadia distant from the present Smyrna. After Smyrna had been razed by the Lydians, its inhabitants continued for about four hundred years to live in villages. Then they were reassembled into a city by Antigonus, and afterwards by Lysimachus, and their city is now the most beautiful of all.[715]

This new city was not so distant from Old Smyrna, but the lack of contemporary architecture in the old settlement meant that the ruins may not have been as prominent as the new monuments on and around Kadifekale in the visual approach to the Hellenistic center. However, in the vicinity of the old settlement there was also a large cemetery landscape, dominated by a series of over sixty tumulus mounds, some of which date to the period between the destruction of the old city and the new foundation, when the region was under Persian control, according to J.M. Cook, on account of an analysis of various construction techniques such as the use of dove tail clamps found in the Tomb of Tantalos.[716] This tomb may have been the oldest of the tumulus mounds in the cemetery similarly based on masonry style and as one of the largest may have been

[713] Magie 1950, 77.
[714] Cadoux puts a more positive perspective on the physical siting of the city, emphasizing that "The sheltered calm of the Gulf largely compensated for the long sail involved in coming to Smyrna from the Aegaean Sea." (1938, 100-1). For the prominence of the city through the modern period see: Ersoy (2016, 1).
[715] Strabo,*Geog.* 14.1.4, 14.1.37 (trans. Jones, H.L. 1924).
[716] Cook et al. 1998, xix; Cook 1958/1959, 3, 32.

an important marker in the landscape that attracted the presence of the others.[717] It stood just under 30 m in diameter with a 1.5 m wide ring wall and had a large burial chamber which was still well preserved when Miltner and Miltner investigated it in the early 20th century.[718] Cadoux writes that "the apex of the cone surmounting the drum was about ninety feet from the ground, and was probably adorned with a phallos."[719] Whether these estimates are justified from the scanty remains is unclear but it would have stood proud from the ground in any case, and its precise elevation is not of particular concern. It would have loomed over the seaside from its position at the top of the steep slope above the city and may have been a marker throughout the 6th century and onward, as it and the other tumuli in the cemetery on the slopes below would have continued to dot the landscape throughout the subsequent periods (Figure 59). A visual relationship linking these mounds to the landscape and the Hellenistic and Roman city that would have been perceived by the travelers arriving at this new city may have existed in a similar way that tombs elsewhere often mark approaches to cities, although in this case the tumuli were constructed before the city.

Regarding the new city though, there are several authors who describe it, remarking on its beauty. Even though the city was young, being founded in the early 3rd century BCE, less than two centuries later it had already earned a reputation for its beauty as Antipater of Sidon, of the seven wonders, lists the claimants to the home city of Homer with only Smyrna described as beautiful.[720] Later authors provide more detail, and Strabo, for instance, tells us not only that Smyrna was the most beautiful city in Ionia but also describes some of the structure of the city:

> A part of it is on a mountain and walled, but the greater part of it is in the plain near the harbor and near the Metröum and near the gymnasium. The division into streets is exceptionally good, in straight lines as far as possible; and the streets are paved with stone; and there are large quadrangular porticoes, with both lower and upper

[717] Nicholls 1958/1959, 64 n. 125.
[718] Cadoux 1938, 42; Miltner and Miltner 1932, 149-57.
[719] Cadoux 1938, 42.
[720] Antip. Sid. *Greek Anthology* V, 296.

> stories. There is also a library; and the Homereium, a quadrangular portico containing a shrine and wooden statue of Homer; for the Smyrnaeans also lay especial claim to the poet; and indeed a bronze coin of theirs is called Homereium. The River Meles flows near the walls; and, in addition to the rest of the city's equipment, there is also a harbor that can be closed.[721]

This description, especially of the porticoes, is echoed by Philostratus, writing two centuries later, as he reports the words of Apollonius in offering a lesson to the residents of the city not to take excessive pride in their buildings but rather in their people:

> And remarking the zeal with which the people of Smyrna devoted themselves to all sorts of compositions, he encouraged them and increased their zeal, and urged them to take pride rather in themselves than in the beauty of their city; for although they had the most beautiful of cities under the sun, and although they had a friendly sea at their doors, which held the springs of the zephyr, nevertheless, it was more pleasing for the city to be crowned with men than with porticos and pictures, or even with gold in excess of what they needed. "For," he said, "public edifices remain where they are, and are nowhere seen except in that particular part of the earth where they exist, but good men are conspicuous everywhere, and everywhere they utter their thoughts; and so they can magnify the city more to which they belong, in proportion to the numbers in which they are able to visit any part of the earth."[722]

The advice that Apollonius offers to the residents of Smyrna encourages them to focus on the human element of their community rather than the physical element of the city itself, not an uncommon trope in ancient texts. But the fact that this needs to be said implies that the residents there were taking pride in the built environment that they had constructed, including the "porticos and pictures." The passage continues to mention that people are able to travel and be seen and thus bring attention to the city, as opposed to the monuments and physical structures of the city. Cadoux even discusses how the "ancient authors usually had in mind its buildings rather than its natural surroundings" as they discussed the image of the city.[723] This is particularly relevant to the discussion in this thesis as the idea and reputation of the monuments is similarly able to travel

[721] Strabo *Geog.* 14.1.37 (trans. Jones, H.L. 1924).
[722] Philostr. *VA* 4.7 (trans. F.C. Conybeare, 1912).
[723] Cadoux 1938, 173-74.

around the world, perhaps even more easily than people themselves as the description and depiction of monuments can be passed via word of mouth. How did so many authors come to declare Smyrna such a beautiful city, and to whom were they speaking or discussing this idea with? The ability for architecture to "magnify the city" is not limited only to those who venture to see it, but also to those who hear about it or otherwise come to understand it.

The Hellenistic and Roman period site is also where the modern city of Izmir is still centered, but while the urban development and expansion of Izmir has hidden most of the remains of the ancient city, there is still a lot of information about the importance and sometimes even the form of the city from the available evidence. For instance, in the early 1st century CE the cities of Asia together committed to building at temple to Tiberius, his mother, and the senate, which was approved by Rome.[724] The location of this temple was hotly debated, as many of the main urban centers of the period were eager to have this erected on their territory, and ultimately it fell to either Sardis or Smyrna to host this honor, with both making pleas before the senate in Rome. The Smyrneans emphasized their historical commitment to Rome, via their support of Rome throughout prior conflicts as well as their claim to being the first city in Asia to build a temple in honor of Rome, arguments which won the day.[725] The earlier temple to the city of Rome, which is mentioned by Tacitus, dates to 195 BCE during the Roman-Seleucid War as the city resisted Antiochus the Great.[726] It is perhaps the first clear sign of the close relationship between Smyrna and Rome, which Cicero later referred to and which repeatedly arose in appeals from the city to Rome for assistance.

[724] Tac. *Ann.* 4.15.
[725] Tac. *Ann.* 4.55-4.56.
[726] Tac. *Ann.* 4.55-4.56; Lewis 1991, 126; Cadoux 1938, 134-37.

Philostratus, writing in the 3rd century CE about the 2nd century CE sophist Polemo recounts the success he had in currying the favor of Hadrian:

> Also he proved to be of great value to the city by going on embassies to the Emperors and defending their ways at home. Hadrian, at any rate, had hitherto favoured Ephesus, but Polemo so entirely converted him to the cause of Smyrna that in one day he lavished ten million drachmae on the city, and with this the corn-market was built, a gymnasium which was the most magnificent of all those in Asia, and a temple that can be seen from afar, the one on the promontory that seems to challenge Mimas.[727]

These benefactions from the imperial family to the city are not dissimilar to what we have seen elsewhere in Ionia and western Asia Minor, but unfortunately the archaeological remains for Smyrna do not provide the same amount of information as at some of the other sites in the region, as the development of the modern city of Izmir has either destroyed or covered up many of the remains of the Hellenistic and Roman periods of the city, including the prominent temple that Philostratus attributes to Hadrian.[728]

Aelius Aristides is perhaps the most prominent author in the corpus of descriptions of the city but also in defining this close relationship with Rome. He was a 2nd century CE rhetorician and a prominent part of the Second Sophistic, born in Mysia, not far from Smyrna, who spent much of his education and later life in Smyrna, Pergamon, Ephesus, and other nearby cities, although he also travelled to Athens and Egypt at various points in his early life.[729] Throughout his career he became a well-known orator and even spoke out against the contentious nature of the cities of Asia, as they attempted to curry the favor the Emperor.[730] This is all the more ironic given that he himself often praised the beauty and importance of Smyrna, for instance in front of the

[727] Philostr. *VS* 1.25.531 (trans. W.C. Wright, 1921).
[728] Ryan 2016, 52; Kılıç and Gülbay 2010, 107-8; Akrugal 1978, 122.
[729] *New Pauly Online* (Aristides); Behr 1968, 1-22.
[730] Behr 1968, 104-5.

proconsul P. Cluvius Maximus Paullinus in 157 CE, when he gave the *Smyrnaean Oration* which begins[731]:

> For our city, speaking must be approached in a different way than for other peoples. The sights which other peoples have to offer would fall short of their claims; whereas our claims would fall short of all the sights which we can provide.[732]

Throughout the oration, as he raves about the city, he writes that it "triumphs at first sight" and "lies spread above the sea, ever displaying the flow of its beauty," which connect with the main ideas developed in this thesis of visual impact and a maritime view of the coastal cities of Roman Asia.[733] As he describes the city he mentions some of the major structures and monuments of the city, but rather than providing a clear depiction that may allow us to define the specific relationships between these aspects of the built environment, he consistently returns to the idea of them forming an overwhelming whole that would impress the viewer, regardless of whether they are gazing out from the center or looking back towards the city. One claim that he presents in this oration is that people who have seen Smyrna should not discuss the sights of the city with others, because of the intense almost religious experience that one would feel after viewing the city.[734] The idea that people otherwise would discuss the beauty of cities, and likely did so even of Smyrna, would go along with the argument that forms the basis of this thesis that the built environment, specifically in these cities of Roman Asia, could have been used to communicate certain ideas to distant communities and individuals. Whether the people viewing Smyrna actually did so is perhaps unproveable, but the fact that Aristides finds this something to mention in his oration indicates that the spread of a reputation of a city via word of mouth would not be unusual or unexpected when it did happen.

[731] For the context of this oration: Behr 1968, 91.
[732] Aristid. *Or.* 17.1 (trans. C.A. Behr, 1981).
[733] Aristid. *Or.* 17.7, 17.9.
[734] Aristid. *Or.* 17.18.

This was not the only time that Aristides wrote about the beauty Smyrna though, as he returned to the subject in *A Monody for Smyrna* and when appealing to Marcus Aurelius and Commodus for assistance after an earthquake rocked the city in 177 CE.[735] In his *Monody* he again focuses on the maritime approach to the city:

> […] and the descriptions of writers naming it the fairest city of all --. Indeed, the sights were beyond description. Immediately upon approaching there was a sheen of beauty and there was proportion, measure, and stability in its magnitude, as it were in a single harmony. Its feet set firmly on the beaches, harbors, and glades; its central portion rising above the plain the same distance by which it fell short of the heights, its southern extremity gradually elevated, everywhere level and imperceptibly ending in the Acropolis, which serves as a lookout point over the sea and the city.[736]

Once again, we hear of the beauty of the city in relationship to a maritime approach, but although no specific monuments are mentioned in this portion, rather the harmony of the city as a whole, he still highlights the different regions of the city including the harbors and the acropolis. He goes on to write that the city could be viewed from many vantage points, including from the sea and would have made an impression as it "suddenly sprang into view" even before entering, and lists a few of the landmarks of the city, including the harbors and monuments of the seacoast, but without offering any indication of structure of the cityscape.[737] In the subsequent letter to the emperors Marcus Aurelius and Commodus he again describes the beauty of the city and reminds them of their visit to the city, even specifically mentioning that they commented on the beauty of the city as they approached:

> Smyrna, the ornament of Asia, the jewel of your empire, has fallen […] You saw the city. You know the loss. Remember what you said when you viewed it on approaching, remember what you said when you entered, how you were affected, what you did.[738]

[735] Behr 1968, 112-13 (n. 68 for the date of 177 CE rather than 178 CE, as reported by other authors).
[736] Aristid. *Or.* 18.2-3 (trans. C.A. Behr, 1981).
[737] Aristid. *Or.* 18.5-6 (trans. C.A. Behr, 1981).
[738] Aristid. *Or.* 19.1-2 (trans. C.A. Behr, 1981).

His appeal went far beyond the physical appearance of the city though, touching on the relationship between the community and Rome and in the end his appeal appears to have worked, moving Marcus Aurelius so deeply that he wept and so agreed to help rebuild the city.[739] For this Aristides is credited by Philostratus as the founder of the city, as the rebuilding both began and was completed rather quickly, within two years of the earthquake.[740] He sent a celebratory text, *A Palinode for Smyrna*, to the provincial assembly while the work was underway, praising not only the assistance from Rome but also from the other Greek cities in support of Smyrna, and ultimately describing the reconstruction of the city in relation to its harbors, alongside the city gates the only specific aspects of the built environment discussed: "The harbors are getting back the embrace of their most beloved city, and it in turn is adorned by them […]"[741]. In the end, we can learn more about the way that Aristides thinks and communicates about the city, rather than his texts offering any particular insight into the physical structure of the built environment there. He repeatedly returns to the idea of arrival, and viewing the city from afar, including when discussing the Emperor's visit, although he also discusses the overall beauty of the streets and features within the city, as well as the view from the acropolis hill. The concept of a city embracing its harbor and being adorned by it is worth mentioning however, and emphasizing, indicating that this relationship, including the view from the sea is one that was important to him, and presumably to his audience.

Of the landmarks and monuments of the city there is only scant evidence beyond the ancient authors.[742] The location of the Metröon and the gymnasium mentioned by Strabo may have

[739] Philostr. *VS*, 582; Behr 1968, 112-13.
[740] Philostr. *VS*, 582; Behr 1968, 113.
[741] Aristid. *Or*. 20.15-21 (trans. C.A. Behr, 1981).
[742] Cadoux 1938, 174.

been nearby the sea, and Cadoux makes an argument for the Metröon on Tepejik which may have laid closer to the sea in ancient times, with the city wall running west of the hillside.[743]

The other temples and sanctuaries at the city that are described by the ancient sources are similarly difficult to place in the city. Pausanias describes a sanctuary of Asclepius twice, writing that it was constructed in his lifetime, inspired by the one in Pergamon, and would have been placed "between Mount Coryphe and a sea into which no other water flows."[744] At some point this sanctuary was linked with the remains of a large temple on a small hill, now called Değirmentepe, to the south of the presumed ancient city center at the southeast edge of the gulf; however, this location does not appear to match the conditions described by Pausanias, nor does the dating of the remains that have been found on the hill.[745] Unfortunately like many of the monuments of the ancient city the physical remains on Değirmentepe have been either covered or dispersed thanks to modern development of the city.[746] Some 19th and early 20th century plans of the city include this temple on the hill, with an east-west orientation but no indication of which face would have been the façade. These plans and a description by A. Prokesch von Osten, an Austrian diplomat who traveled to and wrote about Smyrna in the 19th century, outline a large, ~50 m x 100 m, peripteral temple with 10 columns across the short side and 23 along the long side, similar in scale to the Artemision at Ephesus.[747] Prokesch von Osten goes on to describe the foundations as being made of granite and that there were marble chips lying about the area, and comments that the

[743] Strabo *Geog*. 14.1.37; Cadoux 1938, 175 n. 1. Cadoux breaks down many of the descriptions of ancient authors including Strabo, Aristides, Varro, and Pliny along with two inscriptions which mention Demeter (*IK 24.1* 655, 727) to determine this location. The evidence for the sea approaching Tepejik is somewhat supported by the potential northern harbor which will be discussed below.

[744] Paus. *Description of Greece* 2.26.9; 7.5.9 (trans. W.H.S. Jones, 1918).

[745] For speculation that the temple was the Asclepion: Prokesh von Osten (1834, 63). For the topographic mismatch: Cadoux (1938, 204-6). For the dating of the remains: Kiliç and Gülbay (2010).

[746] For a full discussion of the evidence regarding this temple see Kiliç and Gülbay (2010). Even in the early 19th century Prokesch von Osten (1836, 522; 1834, 62) describes that the materials from the temple were being reused in other structures, and specifically mentions the barracks.

[747] Taşlıalan and Drew-Bear 2006, 318-19; Prokesch von Osten 1836, 522; 1834, 62-63.

column shafts would have been six-feet in diameter, placing them among the largest in Greece, and dates the temple to either the Hadrianic or Antonine period.[748] This temple was potentially dedicated to Zeus Acraeus and erected well before Pausanias' time, thus eliminating it from being the sanctuary of Asclepius, and eventually developed an association with the worship of Hadrian, reinforced even more strongly upon its reconstruction after the earthquake in the second half of the second century CE.[749] According to Cadoux, the Asclepion was more likely to be found at the foot of Değirmentepe, closer to the sea.[750] Both of these structures would have likely been visible from the sea, but the large temple on the hillside would have been more prominent from an earlier period and would have presented its short axis to those approaching, below and potentially to the right of the acropolis.

Many travelers in the early modern period write that a stadium stretched approximately 200 yards east-west and 40 yards north-south, with a rounded bank of seats to the east and a squared opening to the west, lying to the west of the acropolis and taking advantage of a natural slope for its southern bank.[751] "The seats of honour in the centre of the eastern end must have commanded a magnificent view of the sea" but also the view up along the stadium must have been impressive as it lay above the city below.[752] The only evidence remaining is an outline in the ground as almost all of the building material has been removed.[753]

[748] Prokesch von Osten (1836, 522; 1834, 62-63) describes that the columns were similar in size to those of the Hadrianic temple at Athens, second only in size to those at the Temple at Olympia.
[749] Kiliç and Gülbay (2010, 111-12); Taşlıalan and Drew-Bear (2006, 318-19). Cadoux (1938, 202-4) also supports a dedication to Zeus.
[750] Cadoux 1938, 204-5.
[751] Cadoux 1938, 178; Texier 1862; Chandler 1825; Tournefort 1741, 343. Alatepeli (2009, 43-45) claims that although many travelers describe the stadium Cadoux is the most authoritative source, he himself likely relying heavily on the earlier. Alatepeli (2009, 45) goes on to specify that the stadium is likely in the Aziziye district, which is the same neighborhood that Storari placed it on his map in 1856.
[752] Cadoux 1938, 178.
[753] Cadoux 1938, 178. There is also no archaeological evidence for multiple other facilities even multiple are mentioned by Aristides. A description of the stadium by Wheler from 1682 (243) does not describe any of its material

Another entertainment structure in the same general area of the city was a theater, built into the north-western slope of Kadifekale, below the acropolis.[754] By its dimensions alone it was the largest theater in Anatolia.[755] In the late 17th century the theater was still visible, described as being "built of white marble," but it was already under threat at that time, as its building materials were being repurposed for other structures in the city.[756] G. Wheler suggests a date in the 3rd century CE for the standing structures of the time, given the discovery of a "pot of medals," presumably coins, which date to the time of the Emperor Gallienus in the foundation of the structure, however he admits that this is not an accepted dating as his companion, presumably J. Spon believes it dates to Claudius in the 1st century CE "because he found his name on a piece of a pedestal, in the scene of it."[757] An examination of the remains in the early 20th century by Berg and Walter determined that the remains likely come from a theater constructed around the end of the 2nd century CE, perhaps on the same site as an earlier one which was reconstructed after the earthquake in 178 CE.[758] O. Berg and O. Walter suggest that the theater likely had a capacity of 16,000, although Bürchner puts forth a figure of 20,000 in the 1929 *Pauly*.[759] More recently the team from Dokuz Eylül Üniversitesi, led by Ersoy, that has been working at the agora has begun a project studying the theater and although that work is still undergoing they write that the capacity is presumed to

features the way other structures in the city are described, but rather just mentions that it was "dug deep in the Hill, that is West of the Castle, about Two hundred and fifty paces long, and about Forty five broad."

[754] Cadoux 1938, 178-180. The theater has been studied more recently by the agora excavations with the most recent report coming from Ersoy (2020, 85-87).

[755] Taşlıalan and Drew-Bear (2006, 319) write that it was the largest because it was slightly larger than that at Ephesus. According to Sear (2006, 334, 352) the cavea of the theater of Smyrna was 152 m in diameter and the orchestra was 27 m, while that at Ephesus was 142 m and the orchestra 25.8 m.

[756] Wheler 1682, 242.

[757] Wheler 1682, 242. Here Wheler relates his "comrade"'s evidence of the inscription on the pedestal, but expresses his doubt as to the relation to the theater. There is no evidence given as to the text of this inscription nor an identification number of any kind.

[758] Berg and Walter 1922.

[759] *RE* (Smyrna) 760; Berg and Walter 1922, 20. Notably, Cadoux (1938, 178-180, 186) does not make a claim as to the capacity in his discussion of the theater, although he does cite the same passage from Bürchner when discussing the population of the city.

be 21,000.[760] The initial excavation work in 2014 revealed a portion of the stage building the construction of which they date to the Early Roman period, and within the remains of the stage building a 12-line inscription that mentions Marcus Cladius Proklos' repair of a water structure nearby was found.[761] More complete excavations in subsequent years have revealed portions of the orchestra and cavea, and finds have included ceramics and coins that date to both the Hellenistic and Early Roman Republican periods, giving more weight to the hypothesis that the 2nd century CE theater was built on the site of an earlier structure.[762]

Cadoux wrote that it would have had "a splendid view of the Gulf and the further coast," however being oriented almost directly norther it would not have had a very direct view of the gulf but rather much of the urban sprawl along with a small portion of the northeast corner of the gulf (Figure 63, 64).[763] Once again we see that Aristides uses the plural when describing theaters in the city rather than the singular, implying that there was more than one even though there is no archaeological evidence to support another full theater.[764] An odeon, however, has been identified by Fontrier to the southwest of the city center, which, according to Aristides, would have been "near the harbor," although this is hardly unique to any particular structure in Smyrna as the entire city would have been focused around the harbor (Figure 63, 64).[765]

[760] Ersoy 2020, 85-87; Ersoy et al. 2017, 307; Ersoy 2016, 1; Ersoy et al. 2015, 17. Their claim of a capacity of 21,000 from Ersoy (2020, 85) cites Sear (2006, 352), but this isn't exactly what Sear writes. Sear writes: "Capacity: 16,300/20,350" with the estimates varying based on differing seat widths (0.50 v 0.40 m). The rest of the entry in Sear' catalog (2006, 352-354) predominantly cites either Berg and Walter (1922) or Cadoux (1938).
[761] Ersoy et al. 2017, 307.
[762] Ersoy et al. 2019, 70-73; Ersoy and Alatepeli 2018, 432-35.
[763] Cadoux 1938, 178.
[764] Cadoux 1938, 179 n. 4.
[765] Aristid. *Or.* 51.30. Cadoux (1938, 180 n. 2) discusses this passage along with a 2 Jan 1907 article in *La Réforme de Smyrne* by Fontrier which mentioned the remains, but this article appears to be unavailable, as it was for Cadoux in 1938. In a later publication where Fontrier (1907) presents the topography of the ancient city via an annotated map, he mentions that the odeon was likely placed in location 22 (see B/C-6 on the map) due to the discovery of beautiful marble blocks along with the description from Aristides, and then again cites his own article from *La Reforme* (116-17).

The acropolis of the city, on the top of Kadifekale, may have been viewed as a "crown," and this metaphor would have been especially applicable to those viewing the city from afar, by land or by sea.[766] This imagery was also commonly depicted on coins of Smyrna, as of many other cities, with figures representative of the city shown with crowns made of the city walls and their associated towers.[767] The form of the acropolis itself is not well defined, as most of the early remains are focused on the western edge of the summit, particularly on the southwestern corner where a tower once stood; however, Cadoux suggests that it was likely designed to include the entire summit and that a later medieval cistern was likely originally a Hellenistic construction.[768] The city was surrounded by walls and towers, built by Lysimachus, presumably similar to those that are still visible at Ephesus but which here at Smyrna no longer exist.[769] In 2009 the excavation team led by Ersoy began excavations on the Kadifekale and identified portions of the Hellenistic and Roman city walls on the southwestern edge of the hill, essentially confirming that the Hellenistic resettlement of the city included the hill as tradition claims.[770] In later seasons they excavated to the full extent of the wall on the southern side of the hill, dating the foundation to the time of Antigonos Monophtalmos and Lysimachos.[771] They also discovered a 9x10 m tower that dates back to the earliest construction of the wall, but was used through the Roman period as well,

[766] Cadoux 1938, 174: "The crown of the city was, of course, the Akropolis on Mt. Pagos."; Ramsay (1904, 257-60) also discusses this representation of the city.
[767] See, for instance: Various coins listed in Milne (1923) or the discussion in Ramsay (1904, 258-259). Wheler (1682, 241) describes some of these coins which he saw when visiting the city: "One small one hath her Head crowned with Towers, and her two-edged Hatchet on her Shoulder, almost worn out with Age; and about it are these Letters, ΣΜΥΡΝΑ; on the other side the Prow of a Ship, and these ΣΜΥΡΝΑΙΩΝ."
[768] Cadoux 1938, 101-2.
[769] Cadoux 1938, 102-3. Cadoux uses the accounts of prior travelers to discuss the course of the walls, as portions of them were still visible through the 19th century CE.
[770] Ersoy et al. 2011, 142.
[771] Ersoy et al. 2015, 17-19.

a feature which is not unusual given the walls constructed contemporaneously at other sites such as Ephesus.[772]

Other significant features of the city according to the ancient accounts include its roads, porticoes, and gymnasia, all of which have had been identified in one way or another but without any significant investigations.[773] There are a few structures which once existed, and have been fairly well described, but have since been destroyed and about which we cannot make any conclusive identification or dating. One of these is the "Tomb of S. Polycarp," which was long associated with ruins on the hillside near the stadium but which F.W. Hasluck suggests may have been a nymphaeum at the end of an aqueduct that runs into the city.[774] Wheler, writing in the late 1600s, describes a "four square Stone-building, about three Yards square, with two doors opposite to each other" which he identifies at the Temple of Janus, supported by the discovery of a statue with two faces at the site.[775] R. Chandler writes that "the foundations a great and solid fabric, probably the gymnasium, were visible" in the Armenian quarter of the city in 1675, although this identification is not supported by any further evidence than the existence of the solid foundations.[776] If the gymnasium was visible in 1675 Wheler, who published his account in 1682 did not see it as he claims that the location of the gymnasium and "the many noble porticoes" has been lost.[777] Although these would have had a significant impact on the presentation and reputation

[772] Ersoy et al. 2015, 17-19.
[773] Cadoux 1938, 175-82. Storari (1857, 49) supposes there is a gymnasium by the harbor, which he places north of Kemeraltı, the location where most authors place the harbor.
[774] See Hasluck (1914), notably p 89-93 for a description of the ruins and their suggestion of an association with the aqueduct.
[775] Wheler 1682, 242
[776] Chandler 1971, 59. Meyer (2008, 332-33) writes that the blocks that Chandler attributes to the gymnasium are the same as those that Spon (1678, 307) attributes to the Temple of Cybele but this link is not entirely clear in the original text. Chandler appears to distinguish between "a thick and massive wall, which has a large V cut on each stone" and the foundations of the "great and solid fabric, probably the gymnasium." Where Spon does not provide enough details to say for sure.
[777] Wheler 1682, 242.

of the city, there is simply not enough evidence to describe them in detail and to attempt to reconstruct what the experience of viewing them may have been like.

In 2007 the excavations in the agora passed to Dokuz Eylül Üniversitesi and have been led by Ersoy ever since.[778] The excavation team has focused on expanding excavations of the important structures in this portions of the city as well as an extensive conservation program.[779] For instance, the excavations of the Bouleuterion have led to a dating of the structured based on finds and construction techniques to the Augustan period "at the earliest."[780] And a Roman bath was discovered in 2010 by the team excavating in the agora, which is the first of this kind of structure confirmed in the city and the initial construction of which has been dated to the Roman Republic.[781] These investigations of the agora, and the team's studies of other areas of the city, such as at the theater, are filling in many gaps about the shape of the city, but much remains unknown, especially regarding the harbor facilities and the structures that may have surrounded it.

Modern Accounts

Smyrna captured the imagination of visitors and travelers in the ancient world with its incredible beauty, and this characteristic of the city survived through the early development of the modern city of Izmir. Many travelers during the early modern period commented on the beauty of the city, including referring to archaeological remains that are no longer visible or that cannot be identified.[782] C. de Bruyn, for instance, depicts the view from a ship in the gulf, looking at the late-

[778] Ersoy 2016, 2007.
[779] Ersoy (2009) discusses excavation and conservation including in the basilica. In Ersoy (2010) excavations have expanded to include the Bouleuterion. Ersoy at al. (2011) continue most previous work. Ersoy et al. (2012) includes a discussion of the discovery of a Roman bath, the first to be studied in the city (185-186). Ersoy et al. (2015) discusses the expansion of excavations to include the theater on the slopes of Kadifekale, with work expanding here and elsewhere in Ersoy et al. (2017), Ersoy et al. (2018), and Ersoy et al. (2019).
[780] Ersoy et al. 2019, 64-68.
[781] Ersoy, 2020, 83-85; Ersoy and Alatepeli 2018, 429-32; Ersoy et al. 2012, 185-86.
[782] Meyer (2008) has a full discussion of these accounts. Cadoux (1938, 172-73) also summarizes some of the most significant voices.

17th century city, and describes a few of the ancient remains, including city walls, however seems skeptical about some of the associations between other older remains visible and their purported identification as important monuments of the past (Figure 60).[783] Some, like Ramsay, project the beauty that they saw onto the ancient past:

> The beauty of the city when seen from the sea, clustering on the low ground and rising tier over tier on the hillside, is frequently praised by the ancients and is celebrated on its coins; the same impression still strikes the spectator, and must in ancient times have been much stronger, when magnificent buildings, an imposing acropolis, and the wide circle of massive walls combined with the natural scenery in one splendid picture.[784]

When describing the modern city in a later publication Ramsay is clear about the ideal view of the city coming from the sea: "The view of Smyrna in which its character and situation are best seen is got from the deck of a ship lying out in the gulf before the city."[785] Not all modern authors agree about the best view of the modern city, however, as L. Storari claims that although the view is beautiful from the sea it is even more beautiful from the fortress on the top of Kadifekale.[786]

In a 1682 publication by Wheler, one of the earliest of the relevant accounts of the city, the approach to the city along the long bay from the open sea is described and depicted.[787] In this account he mentions the advantages the city held for its location, for instance its well protected harbor, and the persistence of its residents to rebuild it repeatedly after its destruction by natural

[783] de Bruyn 1702, 16-19, pl. 4. Although de Bruyn seems content to accept the attribution of the city walls to "the Greek Emperors" he does not accept an identification of a statue nor of blocks that supposedly belong to the Temple of Cybele.
[784] Ramsay 1888, 186.
[785] Ramsay (1904, 254-55) then continues to describe the approach to the city, with the buildings rising above the horizon and "a wonderful feeling of brightness, light, and activity in the scene", likening it to approaching Constantinople from the east. The idea is repeated by other authors, such as Calder (1906, 97): "The 'beauty of Smyrna' was a commonplace in ancient Ionia, and Smyrna, as seen from the bay in front, is still one of the loveliest sights in the Levant."
[786] Storari 1857, 23.
[787] Wheler 1682, 240.

disasters, and "restoring to all the Beauty the Art of its Inhabitants could contrive to adorn it with," similar to how the Romans rebuilt in the 2nd century CE.[788]

The Harbor

Although resting far from the open sea Smyrna still benefitted from intense trade through its maritime port, with many authors, both ancient and modern, commenting on the maritime nature of the city. Strabo writes that the greater part of the city is in the plain around the harbor and mentions that there is a closed harbor, a common form of Greek harbor construction.[789] A closed harbor could have been placed within the walled portion of a city, but is more likely to have been "closeable" via a chain or other barrier across a narrow entrance, and it is not clear whether this term would have been used to refer solely to military or commercial harbors, but rather was likely used for both types.[790] More generally, Magie emphasizes the city's "crescent-shaped harbor, its rectangular plan and its many two-storied colonnades" when describing the beauty of the city in the early Christian era.[791] But this crescent-shaped harbor could have taken a few different forms given the physical conditions of the shore in the area of the new settlement, and identifying exactly where the port facilities were has proven elusive beyond the relatively small closed harbor that has been located with some confidence.

From an archaeological perspective the waterfront of Hellenistic-Roman Smyrna has not been clearly defined and explored, as investigations have faced significant restrictions imposed by modern development. Much of what we can learn about the nature of the harbors, both in their

[788] Wheler 1682, 240.
[789] Strabo, *Geog.* 14.1.37: "ἔστι δὲ πρὸς τῇ ἄλλῃ κατασκευῇ τῆς πόλεως καὶ λιμὴν κλειστός." For further discussion on closed harbors see: Mauro and Gambash (2020), Blackmann (1982, 194) or Raban (1980, 756-758).
[790] Blackmann 1982, 194. Meyer (2008, 323) in reference to the port at Smyrna claims that these types of ports were primarily used for warships but his supporting reference to Baladié (1980, 236-37) does not support his claim directly but rather says that these ports are appreciated for their military value but that all constructed commercial ports are also in this category (that of *limen kleistos*) (see n.8 in Baladié for the full discussion).
[791] Magie 1950, 76.

relationship to viewing the city as well as their physical form, comes from the modern sources that recount descriptions of the city. As early as 17th century the location of the bazaar near Konak square, now called Kemeraltı was identified as a likely location of the ancient closeable harbor described by Strabo.[792] Ramsay, in the early 20th century, writes that there are two harbors, the protected basin that has been identified in Kemeraltı, and another that "was probably only the adjacent portion of the gulf which served as a mooring-ground."[793] Given the position of the city at the end of a long gulf, protected from the more violent conditions of open water ships simply choosing to moor in the open water could very well have been the case.[794] In support of a commercial nature of this protected basin, which he attributes to the closeable harbor mentioned by Strabo, Cadoux refers to it as "an excellent centre for the commercial life of the place; and the merchant-ship pictured on Smyrnaian coins witnesses to the local appreciation of at least one ground of the city's prosperity."[795]

Storari, however, goes into more detail when describing the ancient waterfront, arguing that because the city stretched as far as the harbor according to ancient authors, and that the city walls have been generally outlined, that the harbor must have laid beyond them (Figure 62).[796] He goes on to describe a large wall that was discovered during remodeling of the Greek hospital in 1852, made of massive blocks of white marble encrusted with shells and other maritime detritus

[792] Wheler 1682, 242.
[793] Ramsay 1904, 253.
[794] de Bruyn (1702, pl. 4) depicts this very situation, with ships anchored in open water in front of 16th century Smyrna and with a small opening for the protected harbor indicated by number 16 on the image. Ships arriving at Rome before the construction of the Imperial harbors at Portus would have moored out at sea as they unloaded their goods onto smaller vessels, even though it was significantly more dangerous than the protected gulf near Smyrna would have been. (Strabo *Geog.* 5.3.5).
[795] Cadoux 1938, 101.
[796] Storari 1857, 46-47. Meyer (2006) offers a detailed account of his proposal, but it is worth discussing here when looking at what he has to say directly. For another appraisal of Storari's contributions to the urban history of the region see: Bugatti (2017).

as well as the presence of pozzolana.[797] Upon further investigation he identified similar blocks along the modern waterfront, in the area that was once the English wharf, and suggests that the entire area outside of the city walls here must have been an open basin (Figure 65).[798] In the process of describing this larger basin he mentions the enclosed port in the area of Kemeraltı, which he calls natural and "much more recent," although it is not clear what he means by this relative dating.[799] The presence of large walls with maritime concretions on them that may have formed an enclosure outside the city walls would be convincing, but it is also hard to dismiss the presence of the natural enclosed basin in the center of the city. There very well could have been two harbors, as was common at other sites, and the construction of a larger basin built out of large blocks stretching out into the sea may have been seen as necessary in the Roman period given an expansion of trade and the general common pattern of this type of construction at other Roman harbors.[800]

Storari discusses some of the other structures that were likely nearby the harbor, supposing that the Temple of Cybele and the gymnasium, both mentioned by ancient authors, were likely in the location of the Armenian church because of the presence of many ruins in that area.[801] Some two hundred years earlier Spon writes that in the lower portion of the city, perhaps by the coast, some large blocks were found mixed in with some houses, and he attributes these to the Temple of Cybele, without giving any particular reasoning.[802] Wheler, who traveled with Spon but published his account a few years later, also speculates about the association of the Temple of

[797] Storari 1857, 47-48. Belhomme (1940, 89) suggests that the blocks may not have been made of marble but rather of another local stone that looks similar.
[798] Storari 1857, 47-48.
[799] Storari 1857, 49.
[800] There are many examples of these types of harbor construction, such as at Portus, Caesarea, or Carthage, and an overview of the various forms and methods used in their construction can be found in Blackman (1982a).
[801] Storari 1857, 49.
[802] Spon, 1678, 307.

Cybele with some remains along the sea writing: "Along this Wall from the Sea, you come to the Foundations of a great Building of hewed Stone, they were then demolishing; which might have been the Sibyl's Temple, the great Mother of the Gods."[803] G. Meyer later suggests that these descriptions, as well as those of a few other travelers, were all referring to the same blocks as those cited by Storari, which may have formed the outline of the commercial basin which he proposed north of the city limits (Figure 65).[804]

Even with the limitations imposed by the development of the modern city, research on the agora by R. Naumann and S. Kantar from 1932-1941 was able to provide an understanding of some of the significant buildings as well as providing a basic plan of the city which highlights a coastline, city wall, and the harbor basin at Kemeraltı (Figure 63).[805] The ancient coastline that they propose in their reconstruction is based primarily on assumptions from the modern form of the city, with a medieval fort assumed to be a boundary and the shoreline passing beneath modern streets forming the enclosed harbor around the area of Kemeraltı, now just to the east of Konak Square.[806] Around the same time excavations elsewhere uncovered more blocks similar in nature to those mentioned by Storari, this time near a fire station in the same portion of the city where Storari sited his proposed harbor, and L. Belhomme's resulting critical evaluation of the blocks ultimately concludes that the evidence was uncertain and that excavation was needed so as to compare the physical evidence with that of the harbor at Ephesus.[807] Unfortunately, this excavation had not taken place by the time that new excavations of the agora were restarted in the late 1990s

[803] Wheler 1682, 242. Note that in this passage he is already calling attention to the destruction of the ancient remains of the city.
[804] Meyer 2008, 332.
[805] Naumann and Kantar 1950, 71 fig. 1.
[806] Naumann and Kantar 1950, 71.
[807] Belhomme (1940) for the material at the fire station and the overall review of Storari's proposal. For his proposal of how to answer the question see p. 87-88.

and in their 2006 report the excavation team confirmed most of what Storari had described regarding these blocks, including appearing to accept his proposal of a second harbor basin, although again expressing some uncertainty, commenting that a more thorough mapping of these blocks would be necessary in order to properly define this "second port, situated north of the assumed city limit."[808]

Later geomorphological studies have been unsuccessful at identifying the coastline; but Ersoy and Alatepeli generally confirm the plan proposed by Naumann and Kantar based on an analysis of the slopes of the ancient ground level in and around the area of the agora, which are significantly steeper than along the line of the proposed coast.[809] They also suggest that the medieval fortress likely stands on a natural projection of the coast that had once formed the mouth of the closeable harbor with an artificial breakwater constructed projecting north from the south west.[810] These assumptions are based on logic and the physical topography of the lower portion of the city, around Kemeraltı, but harbor structures have not been detected nor has a basin been defined based on geomorphological coring.[811] Alatepeli describes some of the architectural fragments that have been found in sporadic excavations around the harbor area between 1995 and today but the complete picture is still unclear and the function of these fragments is uncertain.[812] Five soundings which were later undertaken in the area may provide support for the reconstruction of a protected harbor basin, since two undertaken on the proposed mainland produced some architectural remains including a column and a capital, while two in the proposed sea did not

[808] Taşlıalan and Drew-Bear 2006, 319-20. The early reports on the new project in the agora can be found in: Taşlıalan and Drew-Bear (2004, 2005, 2006) and Kohl and Ersoy (2008).
[809] Ersoy and Alatepeli 2011, 106-10.
[810] Ersoy and Alatepeli 2011, 106-10.
[811] Ersoy and Alatepeli 2011, 106.
[812] Alatepeli 2009, 62.

produce any such remains.[813] Their analysis of the construction dates of mosques and other historical structures in the proposed area of this harbor suggests that it is likely that the basin would have been open until the 17th century CE when it then began to rapidly fill for unknown reasons.[814]

Although Cadoux claimed that this small basin at Kemeraltı was likely the center of commerce for the city, this is not a view of the recent excavation team.[815] In the 2006 publication where they mention that they were able to confirm Storari's observations, they also write that the basin was a modest and closable port, most likely the military port, distinct from a larger and more open commercial port, but otherwise do not provide evidence to support their interpretation.[816] More recently, Meyer writes that the presence of the blocks described by Storari has been confirmed in the area which he described and suggests that there is no question regarding the presence of a maritime enclosure, and that it was likely associated with the commercial port that would have been formed to the north of the city wall that ran towards the coast nearby Kemeraltı.[817]

At this point it appears that the evidence has not progressed significantly beyond what Storari, Ramsay, and other early modern authors proposed. There was likely a basin in the area of Kemeraltı, although there is no archaeological evidence of physical harbor structures in this area, nor has geologic coring confirmed the geomorphological chronology of the basin. The recent work at Smyrna by the team led by Ersoy at the agora has engaged with the question of the presence of

[813] Ersoy and Alatepeli 2011, 110-12, 111 fig. 10. Unfortunately, the sounding that would have been the most definitive (43/44 on the plan), because it was placed on the location of the spring of the hypothetical breakwater, was unable to be conducted due to the presence of a historical building on the site. On the plan sounding 57 produced the column and the capital, sounding 9/10 produced minimal architectural material, and 11/13 and 51 produced no material.

[814] Ersoy and Alatepeli 2011, 112-14. Other analyses suggest different chronologies for the filling of the harbor. Ramsay (1904, 253) writes that it was still visible in the 18th century, but Meyer (2008, 323-326) uses other historical accounts to suggest that it was already partially silted up in the 16th century, and that it was filled in in the 18th century and began to be developed in the second quarter of the 19th century.

[815] Cadoux (1938, 101) for his commentary of the basin as a commercial center.

[816] Taşlıalan and Drew-Bear 2006, 319-320, 317 fig. 11.

[817] Meyer 2008, 334.

a harbor basin at Kemeraltı but has not gone any further. This could be the closeable harbor that Strabo refers to but if the blocks that Storari and Belhomme present, and which M. Taşlıalan & T. Drew-Bear confirmed north of the city wall, are also part of the architectural definition of a harbor basin between the old Greek hospital and the English wharf, this may make the identification less clear. Perhaps this larger basin was added later, which may explain why it was outside of the city walls and which may reflect patterns in the development of other significant harbors in the Early Roman period, as new basins were constructed either to expand capacity or to protect and control shipping, such as at Portus or Caesarea.

The Visual Approach to the City

Archaeological investigations at Smyrna have revealed less of the form and fabric of the city than in the other case studies discussed in this dissertation but Smyrna is no less significant to consider in the context of the urban maritime façades of coastal Asia Minor. The emphasis on the beauty of the city and impact that it would have had on travelers arriving is a consistent theme of authors from the ancient world to modern times. The descriptions of these authors differ in what they highlight, from Aristides focusing more on the harmony of the city and how it worked together as a whole in his Orations while Philostratus describes some of the individual monuments that were constructed under the Hadrian including "the corn-market was built, a gymnasium which was the most magnificent of all those in Asia, and a temple that can be seen from afar, the one on the promontory that seems to challenge Mimas."[818] Unfortunately these structures cannot be identified archaeologically due to modern construction of Izmir but the evidence of the harbor and the monuments that do exist do appear to confirm that the city would have surrounded the enclosed harbor in rising terraces that ultimately led to the "crown" of Kadifekale which would have been

[818] Philostr. *VS* 1.25.531 (trans. W.C. Wright, 1921).

surrounded by the city walls. The fortifications would have been a clear marker in the landscape, as those at Ephesus would have been, lining the highest points of Kadifekale and the surrounding hillsides. The other monuments, such as those built by Hadrian may have also been monumental and could have been seen from afar, presumably also visible by those approaching by sea, further crafting the façade of the city into a harmonious backdrop punctuated by these individual monuments. What is notable is that there are fewer no smaller individual monuments highlighted by ancient authors that could be seen as parallel to the circular monuments at Ephesus or the honorific statues found elsewhere.

The city of Smyrna may have prided itself on its overall harmony rather than the individual monuments which punctuated the cityscape of other cities and the archaeological evidence available would appear to support the idea that the city enveloped the harbor and that the walls may have given the appearance of a crown above the city. This was a distinct change from the appearance of Old Smyrna, which would have been low along the coast and the large tumuli above and behind the city may have attracted the eye of those arriving at the city by sea. The existence of these structures in the landscape may have persisted through the Hellenistic and Roman periods and they may have still been visible but the grandeur of the façade of the new foundation of the city would have likely attracted the attention of those arriving away from these smaller individual monuments. This pattern is seen in the descriptions of modern authors as well, who describe and depict the city rising above the open water, crowded with ships, and the harbor, ultimately crowned by Kadifekale and the fortification walls. In contrast to the situations at Ephesus, where the focus would have been on the structures surrounding the harbor, on the slopes of the hillsides, in addition to the city walls running along the top of the hills the focus at Smyrna would have been squarely on the overall harmony of its presentation beneath the crown of the fortifications.

Chapter 5 – Rhodes: Unequaled for its Harbors and Infrastructure

Rhodes was established in the late 5th century BCE on the northeastern point of the island of Rhodes, which is located in the southeast Aegean Sea (Figure 66). Although located on an island the site would have been in close physical, and visual contact with the mainland, which lay just 18 km away at the nearest point (Figure 67). The site sloped gently up from the eastern shore of the peninsula to an acropolis to the west, which stood over much steeper slopes to the water on the western side. There were a number of natural indentations in the coastline to the northwest, east, and southeast of the city, many of which were used as harbors in antiquity (Figure 68, 69 72, 73). The significance of its harbors did not go unrecognized in antiquity:

> The city of the Rhodians is on the eastern promontory. With regard to harbours, roads, walls, and other buildings, it so much surpasses other cities, that we know of none equal, much less superior to it.[819]

This is the way that Strabo introduces Rhodes in his *Geography*, emphasizing the importance of its architectural articulation, while commenting first on its harbors. He goes on to describe many of the important aspects of the city, including lamenting that the Colossus, which once stood 70 cubits high has now collapsed thanks to an earthquake and lay ruined on the ground.[820] He also comments on the importance of security and government control of some of the harbors, claiming a punishment of death for anyone who entered or explored these secure

[819] Strabo *Geog.* 14.2.5 (trans. H.L. Jones 1924).
[820] Strabo *Geog.* 14.2.5.

dockyards.[821] The importance of the harbor areas is highlighted perhaps due to the importance of maritime trade and ship manufacturing in the economy of the city, as these were its two of its distinguishing features.[822] Its role as a large power situated at a highly trafficked point in the extensive maritime network in the eastern Mediterranean facilitated the city's development as a "crossroads of cultures," a place for the circulation of ideas and cultural currents.[823] But Rhodes has a somewhat different, more difficult relationship with Rome throughout the Late Hellenistic and Early Roman period when compared with the other case studies in this project, which perhaps at least partially influences different patterns of development in the city as the community reacts to the rising power and overall influence of Rome in the Mediterranean in different ways than the rest.

The city of Rhodes that was the primary center on the island in the Hellenistic and Roman period was founded somewhat late, as the other communities on the island came together and created a new city on the north point of the island with the founding of the Rhodian Republic in the late 5th century BCE.[824] Strabo comments on this saying:

> The present city was founded at the time of the Peloponnesian War by the same architect, as they say, who founded the Peiraeus. […] It is also related of the Rhodians that they have been prosperous by sea, not merely since the time when they founded the present city, but that even many years before the establishment of the Olympian Games they used to sail far away from their homeland to insure the safety of their people. […] As one sails from the city, with the island on the right, one comes first to Lindus, a city situated on a mountain and extending far towards the south and approximately towards Alexandria. In Lindus there is a famous temple of Athena Lindia, founded by the daughters of Danäus. Now in earlier times

[821] Strabo *Geog*. 14.2.5.
[822] Although this idea is not particularly unique it is mentioned, for instance, by Maglio (2013, 1233) and Beloch (1886, 226) among others but a more thorough explanation supported by evidence can be found in Duncan-Jones (1990, 37).
[823] Manoussou-Ntella 2010, 587.
[824] Filimonos-Tsopotou and Patsiada. 2018, 69; Manoussou-Ntella 2010, 582-83; Filimonos-Tsopotou 2003, 33; Higgins 1988, 124; Berthold 1984, 19-23; Pugliese Carratelli 1951.

> the Lindians were under a separate government of their own, as were also the Cameirians and the Ialysians, but after this they all came together at Rhodes.[825]

The first phrase in this passage, giving credit for the design of the city to the same architect who designed Piraeus has led to a scholarly debate as to who this might be: whether it was Hippodamus himself, or someone from his general school of architecture.[826] Whoever was responsible, the city was given a street grid that was orientated to the cardinal directions, even though the site was far from orthogonal, with the jagged coastline to the east and the rising hill of the acropolis to the west and south west (Figure 68, 71, 72, 73). This grid was obscured by later developments in the city but research by both J.D. Kondis and J. Bradford in the 1950s, including innovative methods combining aerial imagery with ground based inspections, led to the elucidation of the organized city plan (Figure 71).[827] The city's position on the hillside rising up from the sea in a series of terraces measuring multiple meters tall led to its appearance being likened to that of a theater twice by Diodorus, once when describing a devastating flood in 316 BCE:

> Since Rhodes is shaped like a theatre and since the streams of water were thus deflected chiefly into a single region, the lower parts of the city were straightway flooded […][828]

And then again when discussing the siege of Demetrius just 10 years later:

> For the soldiers of the Rhodians, occupying their several positions on the walls, were awaiting the approach of the hostile fleet, and the old men and women were looking on from their homes, since the city is shaped like a theatre […][829]

[825] Strabo *Geog*. 14.2.9-11 (trans. H.L. Jones 1924).
[826] Arist. *Politics* 2.1267b gives credit for the design of Piraeus to Hippodamus, and thus the logical conclusion is that he also designed Rhodes. One of the major issues that is often raised is whether Hippodamus would have still been alive and of working age at the time that Rhodes was refounded (see, for instance: Kondis (1958, 146), Bradford (1956, 61). Wycherley (1964) makes a case for the possibility of Hippodamus himself taking part in the design of Rhodes, although also acknowledges the main issues, such as his likely advanced age at the time, and highlights the other sources of the debate (135 n. 1). Earlier authors, such as Newton (1865, 147), did not critique the association with Hippodamus and accepted that he, himself, was the designed.
[827] Kondis 1958; Bradford 1956. Bradford (1956, 60) alludes to the urban plans of Miletus and Olynthus when describing the dimensions and organization of the city blocks at Rhodes.
[828] Diod. Sic. *Bibl*. 19.45.3 (trans. R.M. Geer, 1947).
[829] Diod. Sic. *Bibl*. 20.83.2 (trans. R.M. Geer, 1954).

These passages show at the very least that Diodorus considered that the physical form of the had an impact on the visual connections between the city and the sea, in this case as the citizens looked out towards the water but the sightlines would have been bi-directional, and this study sets out to contextualize the façade that may have faced outward towards the sea throughout the cities life and development during the Hellenistic and Roman periods.

Rhodes was a fickle ally throughout its first century of existence, siding with Athens as part of the second Island Confederacy briefly before abandoning it on the insistence of Mausolos, then later allying with the Persians before ultimately with Alexander the Great.[830] After the death of Alexander, Rhodes was an important hub in multiple trade routes across the eastern Mediterranean and thus a highly desirable site to control for the various competitors for power, which led to Antigonous requesting the Rhodians' allegiance against Ptolemy, an offer which they rebutted because of their economic relationship with Egypt with the result that Demetrius sailed against the city with a tremendous force and besieged it in 305 BCE, although the Rhodians ultimately prevailed (Figure 74).[831] Pliny writes that Demetrius left behind his siege engines, which the Rhodians sold and with the profits built the famous Colossus in the first decades of the 3rd century BCE.[832] Around the same time Rhodes expanded its influence on the Anatolian mainland, developing its Peraia as it expanded its territory while wielding ever greater influence on the region and on international relations.[833] For instance in the middle of the 3rd century BCE the Rhodians turned against their long time Egyptian allies when their interests appeared to be threatened.[834] In the later 3rd century BCE a massive earthquake shook the island and toppled the

[830] Higgins 1988, 124-25; Berthold 1984, 19-37.
[831] Diod. Sic. *Bibl*. 20.82-88; Wheatley and Dunn 2020, 179-201; Higgins 1988, 126-27; Berthold 1984, 61-80.
[832] Plin. *HN* 34.18; Higgins 1988, 127; Maryon 1956, 68.
[833] Wiemer 2010; Berthold 1984, 83-89; Fraser and Bean 1954.
[834] Berthold 1984, 89-92.

Colossus, leaving it lying in ruin in the city although it remained a significant feature for centuries to come.[835] As a result of this earthquake the Rhodians had to repair their city walls and required some relief from duty paid by its ships in foreign ports and other various support from other cities, such as from Hiero of Syracuse.[836] The Colossus will be discussed in more detail below, but at the moment it is important to note that it collapsed fewer than 100 years after its construction, and thus was no longer standing by the time Rome gained greater influence on the island in the 2nd century BCE and beyond.[837]

Estimations for the population of the city are hard to come by as there is somewhat less evidence than other sites, such as Ephesus, although as described elsewhere that extra evidence does not necessarily provide a clear picture of the total number of inhabitants but may also add confusion to the estimates. Beloch estimates that at the time of the siege of Demetrius the total number of citizens at Rhodes would have been 8000, with a civic population of 24000 and a free population of 30000, by extrapolating from a passage from Diodorus that 6000 citizens and about 1000 metics were able to join the fight.[838] He goes on to estimate that city of Rhodes covered 200 hectares and "may have counted in its heyday approximately 100000 inhabitants," basing his figures on the area of the city.[839] Broughton accepted these figures but R.M. Berthold is less convinced, instead proposing a significantly higher number of inhabitants of 40000 compared to Beloch's 24000, but he admits that the population remains unknown and focuses instead on the fact that "Rhodes was in the top rank of cosmopolitan communities."[840] The international nature

[835] Diod. Sic. *Bibl.* 26.8; Strabo *Geog.* 14.2.5; Plin. *HN* 34.18.
[836] Diod. Sic. *Bibl.* 26.8. For a fuller discussion of the relief from the international community see Berthold (1984, 92-93).
[837] Plin. *HN* 34.18 writes that it fell in an earthquake just 56 years after its construction.
[838] Beloch 1886, 226-27; Diod. Sic. *Bibl.* 20.84.2.
[839] Beloch 1886, 226-27. Its heyday would have been the 2nd century BCE in Beloch's estimation.
[840] Berthold 1984, 55-56, 55 n. 64; Broughton 1938, 814. Maglio writes in a footnote when discussing the foundation of the city that "Rhodes probably had over 50,000 inhabitants" (2013, 1233 n. III) but does not explain how this figure was calculated.

of the city is attested by the large number of foreigners living within its limits, especially in the 2nd – 1st centuries BCE, as shown by the large number of inscriptions, and which is surely due to its position as a maritime crossroads in the booming long distance networks of the time.[841]

With the dawn of the 2nd century BCE Rome began to involve itself more regularly in the affairs of the east and thus came into contact regularly with the maritime power that was Rhodes. After Rome's victory over Antiochus III, the Treaty of Apamea divided much of the territory of Asia and the Aegean islands between Rome's allies, with Pergamon arguing against Rhodes but Rhodian envoys convincing Rome of their fidelity, resulting in Rhodes being granted control of Lycia and much of Caria, to the south of the Meander river.[842] At the time this made Rhodes "the Greek *polis* with the largest territory, holding areas that neither Athens at its apogee nor Sparta had eve dreamed of."[843] Of this expanded power and close relationship with Rome, E.S. Gruen writes that "Ancient Rhodes reached a pinnacle of power in the early second century B.C" and Berthold that "Rhodes now stood at the peak of its power."[844] This favor from Rome would not last long, however, as the Third Macedonian War took its toll on the island's loyalty, ultimately resulting in Rhodes turning against Rome just before Rome's final victory, which led to severe repercussions.[845] One of these was that in 167 BCE Delos was established as a free port by the Romans, which allowed ships and traders to avoid the habor tax imposed at Rhodes, and within a year the trade networks through the Aegean Sea adjusted and began to pass over Rhodes in favor

[841] Morelli (1956) discusses the epigraphic evidence for foreigners at Rhodes, and comments on the prosperity visible in the 2nd – 1st centuries BCE (126).
[842] Chaniotis 2018, 172-73; Berthold 1984, 162-55; Gruen 1975, 64-66.
[843] Chaniotis 2018, 172-73.
[844] Berthold 1984, 165; Gruen 1975, 58.
[845] Berthold 1984, 173-94; Gruen 1975, 58. These are summarized by Polybius (*Hist.* 30.31).

of the free port at Delos.[846] In an appeal to Rome 12 years later, an embassy from Rhodes, Astymedes, said of the overall penalties to the city:

> From this you see that you have imposed a heavier tribute on the Rhodians for a single mistake than on the Macedonians who had always been your foes. But the greatest calamity inflicted on our town is this. The revenue we drew from our harbour has ceased owing to your having made Delos a free port, and deprived our people of that liberty by which our rights as regards our harbour and all the other rights of our city were properly guarded. It is not difficult to convince you of the truth of this. For while the harbour-dues in former times were farmed for a million drachmae, they now fetch only a hundred and fifty thousand, so that your displeasure, men of Rome, has only too heavily visited the vital resources of the state.[847]

This decline in revenue may have been somewhat exaggerated as the city certainly survived and even prospered after this period. Casson has suggested that rather than earning income from harbor dues themselves the Rhodians instead benefitted from the booming grain trade from Egypt to Rome and elsewhere, and thus "still maintained her large carrying trade and stayed prosperous."[848] Although the declaration of Delos as a free port had the potential to damage the economic power and success of Rhodes the expansion of trade at the same time across the Mediterranean, especially the connections between Alexandria and Rome allowed Rhodes to maintain its main source of income by engaging with different trade networks.[849]

During the Mithridatic Wars, which had such a tremendous impact on the other cities along coastal Asia Minor, Rhodes had to invest in reinforcing its city walls, which had fallen into disrepair, against the growing threat of siege by Mithridates.[850] Once again the Rhodians ultimately prevailed against the siege, thanks to their fortifications and their strong maritime military

[846] Kotarba-Morley 2019, 767 n. 10; Adams 1999, 89-90; Duncan-Jones 1990, 37; Berthold 1984, 201-09.
[847] Polyb. *Hist*. 30.31.9-12 (trans. W.R. Paton, 1922).
[848] Casson 1954, 181-182. Berthold (1984, 206-09) accepts this argument and suggests that the Rhodian economy was disrupted but ultimately survived.
[849] Filimonos-Tsopotou 2003, 37.
[850] App. *Mith.* 4.24-27; Manoussou-Ntella *forthcoming*, 1-2.

power.[851] After Mithridates abandoned hope of taking the city, Rhodes supported Rome's efforts to defeat him which were ultimately successful and which curried favor with Rome.[852] However, as usual this did not last long, as the Rhodians supported Pompey during the Civil War before switching their loyalty to Caesar after Pompey's defeat at Pharsalus, a decision which proved pragmatic as they were able to avoid punishment.[853] Soon after they resisted the demands of Cassius, but this decision ended up costing them greatly as he was able to infiltrate and sack the city in 42 BCE.[854]

Despite the strained relationship with Rome, Rhodes was not severely punished by the growing power in the central Mediterranean. Part of this may be thanks to the early adoption of a cult of Roma by the Rhodians, in the 2nd century BCE, and the establishment of a cult of the emperor rather early in Augustus's reign.[855] The honors given to Augustus reflect the dynamic loyalties of the Rhodians, as they initially supported Pompey, then Caesar, then Antony, before ultimately committing to Augustus in the late 1st century BCE, "by establishing cult honours for Augustus, by means of formal embassies to the emperor, by officially sanctioned participation at major festivals celebrating Augustus' victory and of course by honouring friends of the Romans such as Eupolemos."[856]

This attempt at cultivating a positive dynamic with Rome continued throughout the Early Imperial period as some Roman aristocrats had a close relationship with Rhodes. For instance, Tiberius left Rome to live in Rhodes in 6 BCE, and did so until 2 CE, perhaps to distance himself

[851] App. *Mith.* 4.24-27; Berthold 1984, 224-225.
[852] Chaniotis 2018, 211-14; Berthold 1984, 225-230.
[853] Berthold 1984, 215-216.
[854] App. *B Civ.* 4.65-74; Delrieux and Ferriès 2010.
[855] Erskine 1991, 272.
[856] This quote comes from Erskine (1991, 274) in a discussion of an honorific inscription that describes the relationship between a local aristocrat, Eupolemos, son of Basileides, and Rome (*SEG* 39:752). Erskine does admit that we do not have enough detail to date this inscription within Augustus' reign. For a further context see the surrounding pages in Erskine (1991, 271-74).

from government duties.[857] Erskine suggests that his presence may not have been ideal for the Rhodians as they continued to try to curry good favor with Augustus in Rome, and as a result when Gaius visited the eastern Mediterranean near the end of Tiberius's stay they honored him.[858] Their actions may have helped them maintain their independence as, for instance, Augustus did not punish the Rhodians harshly for supporting Anthony, and they maintained this status until Claudius ended their freedom in 44 CE in response to their killing of some Romans, although they regained it soon afterwards.[859] Berthold has argued that by late 1st century BCE "any notion of an independent foreign policy had clearly become meaningless" due to the rise of Rome and that from this period onward Rhodes was operating within the Roman world, despite their considerable autonomy.[860]

That is not to say that Rhodes was void of sculptures under the Roman Empire, in fact the situation is rather the opposite. Pliny comments the vast number of sculptures adorning the city, over 3000 total and 100 of these are colossal in size, likening Rhodes to Athens, Delphi, and Olympia.[861] The focus on dedicating a large number of statues drew attention from Dio Chrysostom in the late 1st century CE, who urged the community to remember its strong past and to honor its reputation by working together to avoid various common shameful or disorderly practices.[862] Some of his arguments make a comparison between the reputation of the people of the city and the reputation of the architecture of the city, commenting:

> I ask you to bear in mind, rather, that, although there are many things about your city on all of which you have a good right to pride yourselves — your laws in the first place, and orderliness of your government (things of which you are wont to

[857] Chaniotis 2018, 263; Bellemore 2007.
[858] Erskine 1991, 275.
[859] Chaniorits 2018, 274; Marek 2016, 331; Berthold 1984, 218-219. For Claudius and the end of Rhodian independence: Dio Cass. *Roman Hist.* 60.24.4.
[860] Berthold 1984, 218-232.
[861] Plin., *HN*, 34.17-18.
[862] Dio Chrys. *Or*. 31.

> boast most), and, in the second place, I imagine, such things also as temples, theatres, shipyards, fortifications, and harbours, some of which give evidence of your wealth and high aspirations and the greatness of your former power, others of your piety toward the gods — you rejoice no less in the multitude of your statues, and rightly; for not only do such things do you credit just as any of your other dedicated monuments do, but they also more than anything reveal the strength of your city and its character.[863]

And

> […] all these manners lend your city dignity, they all cause you to be looked upon as superior to the others, for all these customs you are admired, you are loved; more than by your harbours, your fortifications, your shipyards are you honoured by that strain in your customs which is antique and Hellenic, so that when anybody comes among you he recognizes instantly on disembarking, even if he happens to be of barbarian race, that he has not come to some city of Syria or of Cilicia. But in other cities, unless the stranger hears someone mention the name of the place he sees, that it is called, let us say, 'Lyceum' or 'Academy,' they are all alike to him![864]

These passages highlight the reputation of the character of the citizens of Rhodes but also the aspects of the urban environment that Dio Chrysostom chooses to mention. In the first passage he lists temples, theaters, shipyards, fortifications, and harbors, and in the second passage harbors, fortifications and shipyards. The fact that harbors, shipyards, and fortifications are mentioned both times is likely not by accident and perhaps indicates that these aspects of the city were well known and may have been landmarks in which the Rhodians could pride themselves. Specific architectural structures may have been memorable if they were unique, or cities if they presented some unique façade outward to travelers, and in the case of Rhodes that may have been the number of temples, theaters, and other structures, including the harbors, as well as the astonishing infrastructure, along with the reputation and customs of its citizens.[865]

Although Rhodes was a significant site and a major maritime power in the Hellenistic and Early Roman periods it has not always received the same dedicated attention by scholars as other

[863] Dio Chrys. *Or.* 31.146-47 (trans. J.W. Cohoon and H. Lamar Crosby, 1940).
[864] Dio Chrys. *Or.* 31.163 (trans. J.W. Cohoon and H. Lamar Crosby, 1940).
[865] For the "astonishing" infrastructure see: Aristid. *Or.* 25.3.

sites. Berthold writes that the entire scholarship on Rhodes from the turn of the 20th century through the 1980s can be summed up in three pieces of work: van Gelder (1900), Schmitt (1957), and von Gaertringen (1931), and comments on the deficiencies of each of these pieces of scholarship before setting out to write a more complete history of the island.[866] A similar pattern can be seen in the way that archaeological investigations were published infrequently and incompletely in the early 20th century.

Early Archaeological Research

From an archaeological perspective some antiquarian collection took place in the 19th century but the research on the ancient built environment of the island saw renewed emphasis in the early 20th century, first with a Danish project led by Kinch and Blinkenberg that worked at Lindos, Lardos, and Kattavia, but later under Italian rule with the cooperation of the Italian Archaeological School of Athens (SAIA) and the foundation of a new Archaeological Museum, which led to an emphasis on restoration of structures to mimic their earliest phases and extensive archaeological campaigns.[867] In 1923, when Lehmann-Hartleben wrote his catalog of ancient harbors, there was little archaeological evidence published about the ancient city, partially due to its occupation and development during the Middle Ages, but research by the Italians, and later by others, has expanded our knowledge of the city significantly.[868]

At the outset of Italian research on Rhodes, A. Maiuri was placed in charge of the archaeological mission, a post which he held from 1914 until 1924, and under his direction the

[866] Berthold 1984, 11-12. For the volumes he mentions see: Schmitt (1957), von Gaertringen (1931), and van Gelder (1900).
[867] A history of the early investigations can be found in *New Pauly Online* (Rhodes), Livadiotti and Rocco (1996, 7-10), and Konstantinopoulos (1968, 115-116) and there is some discussion of the foundation of the Archaeological Museum in Maglio (2016, 82). The full text of Maglio (2016) describes some of the early modern period on the island and the transition from Ottoman to Italian control.
[868] Lehmann-Hartleben 1923, 128.

Italian mission conducted projects throughout the island, focusing in the city itself on the city wall, the water supply, and some of the structures on the acropolis, namely the stadium, odeon, and gymnasium, along with an area around the contemporary arsenal which led to the identification of a temple of Aphrodite.[869] Later, G. Iacopi continued work further north on the acropolis hill, focusing on a temple which has been identified as belonging to Athena Polias and Zeus Polieus, as well as a relatively late (late 2nd -early 3rd century CE) tetrapylon near the harbors.[870] Further projects were undertaken in the prewar period by the mission and by Italian architects in order to define these and other monuments, as well as the necropoleis near the town.[871] These archaeological campaigns were not always consistently published, but recent attempts have been made to bring this material to light.[872]

Since the end of World War II, archaeological exploration at Rhodes has been under the direction of Greece, now the Ephorate of Antiquities of Dodecanese. Further excavations have taken place throughout the town including by the harbors, but also in connection with recent development projects associated with the expansion of the modern town.[873] One of the major contributions of early Greek research was the first clear understanding of the orthogonal street network of the city, which was identified by Kondis soon after he became the first director of the new Archaeological Service.[874] More recently, projects have been undertaken by a wide variety of teams exploring various aspects of the city including the harbors, the necropoleis, and the cult monuments, but even so, much of the core of the city remains undefined.[875] In the late 1980s and

[869] Livadiotti and Rocco (1996, 12-39); *New Pauly Online* (Rhodes).
[870] Livadiotti and Rocco (1996, 12-39); *New Pauly Online* (Rhodes).
[871] Livadiotti and Rocco (1996, 12-39); *New Pauly Online* (Rhodes).
[872] See for instance: Lippolis (2016), who discusses the early excavations on the acropolis, and Livadiotti and Rocco (1996, 12-39), who present the results of the early excavations throughout the city.
[873] *New Pauly Online* (Rhodes).
[874] Kondis (1958), *New Pauly Online* (Rhodes). The organization of the city will be discussed further below.
[875] Filimonos-Tsopotou (2003, 33) attributes the better understanding of the city and its monuments to the excavations of the second half of the 20th century, and when combined with the recent reevaluation of the earlier

early 1990s the Archaeological Institute of the Dodecanese began a project to digitize and bring to life the city of Rhodes via modeling, based on historical maps and excavation results.[876] However, this model of the site has not been well published, and the overall city map by W. Hoepfner remains the plan that most authors build on for their publications and his reconstruction of the city offers an idea of what the site may have looked like (Figure 69, 72).[877]

Urban Fabric

As noted above, Diodorus Siculus describes the city as being shaped like a theater, in such a way that when it rains the water rushes to the lower portion of the town and floods this lower flatter area, and so that the inhabitants could look down towards the sea from their homes behind the walls.[878] The choice of this method for describing the city was not determined by any curved form to the shape of the slope on which the city was built but rather on the visibility to and from the slope, as if in a theater.[879] R.E. Wycherley suggests that the description of the city as a theater would have been inspired by the view from the harbors, as the roads fanned out not in a linear manner but diagonally, given the way that the harbors arranged themselves in a diagonal manner relative to the urban grid of the city.[880] Although someone within the harbor basin or approaching the city could have gazed along the streets, rather than at an angle, when considering the way the

excavations a good picture of the form of the city and many of its monuments has emerged. Even so, Feuser (2020, 3-4) chooses not to include Rhodes as a fully developed case study in his survey of ancient harbors, a decision which he attributes to the poor preservation and limited understanding of the urban organization, including the physical relationship between the harbors and the monuments of the city. Although this is true of much of the lower city there are sufficient remains and descriptions to justify the site's inclusion in this study, from the structures on the acropolis to the literary descriptions and the built environment around the harbors there is more than enough data to make an analysis of what the experience of arrival may have been like.

[876] Zarifis 1996, 817-19.

[877] Hoepfner's map was published in Hoepfner and Schwandner (1986, 22-23 fig. 16) and then again described and discussed by Hoepfner (1999).

[878] Diod. Sic. *Bibl.* 19.45.3; 20.83.2.

[879] This idea is discussed by Kondis (1954) and more recently by Filimonos-Tsopotou and Patsiada (2018).

[880] Wycherley 1964, 136.

streets lay across the topography of the site along with the position of the harbor, Wycherley appears to be correct that the impression may have been that the streets radiated from a center point in a way, as the city rose up the slope towards the upper portion of the city: "from the region of the Great Harbour, the 'orchestra', with the ground rising gently to the west and south-west, one would get the impression of facing a great theatre, its tiers forming not a semi-circle but the sides of a triangle."[881] The terraces that would have characterized the gentle slope running up to the upper portion of the city were typically 1.2-2.2 m in height and would have contributed greatly to the overall scene presented by the city to those approaching from afar or resting in the harbors.[882] Filimonos-Tsopotou and Patsiada go so far as to say:

> By the extensive use of terracing, Rhodes presented the image of an entity, where no building obstructed unlimited view towards the open sea, providing impressive visual effects for both the inhabitants and the visitors arriving to its harbours, fully corresponding to its characterisation as a "theatroid."[883]

This use of terracing and this outward facing nature of the city developed during the Hellenistic period, but it was an important aspect of the city throughout its entire subsequent history.

The monumental public center of the city was located on a rise, which is sometimes referred to as the acropolis, toward the western edge of the ancient urban area, but which Bradford argues was never used as a defensive stronghold and had no wall between itself and the rest of the city and thus should be considered only an "upper" portion of the city, reaching approximately 110 m above sea level, rather than a true acropolis.[884] This area included temples, the stadium, odeon, likely a gymnasium and theater, and the sanctuary to Helios, which likely lay on the eastern slope

[881] Wycherley 1964, 136. The concept of the city forming a theater facing the harbors is commonly repeated, for instance by Manoussou-Ntella (2010, 584-88).
[882] Kondis 1958, 150-51; Filimonos-Tsopotou and Patsiada 2018, 80-82.
[883] Filimonos-Tsopotou and Patsiada 2018, 82.
[884] Bradford 1956, 63.

descending to the town and harbor below.[885] And the public structures on this raised portion of the city do appear to be connected directly with the slopes and the lower portion of the town while being oriented on the same alignment as the grid of the rest of the city. For instance, the stadium and the Temple of Apollo were both aligned to the city grid and date to the mid-Hellenistic period.[886] E.E. Rice comments that "these public structures would have been a visual highlight above the busy harbours, drawing the eyes above and away from the bustling dock areas," once again recognizing the visual nature of the city's form and its close connection with its harbors and the sea.[887]

The area between the upper city, or acropolis, and the harbors would have been filled with other structures, as attested by inscriptions and various material remains.[888] The identification of specific buildings was somewhat elusive in the first years of study of the site, although that has changed more recently.[889] Hoepfner and Schwandner hypothesized that the agora and the civic center of the city could be found on a large flat area to the west of the Great Harbor at an important intersection between major streets, including the north-south running street that would have led through the later Roman tetrapylon at Mandraki harbor to the north and an east-west running street that would have led west towards the upper city.[890]

Similar to the descriptions of Smyrna, we once again hear from Aristides of the walls and towers of the fortifications Rhodes sitting like a crown upon the city:

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[885] Rice 1995, 384. Filimonos-Tsopotou and Patsiada (2018, 70-71), disagree, writing that the temple of Helios was "probably" erected in the location of the current palace of the Grand Master. However, neither of these identifications is secure.
[886] Bradford 1956, 62.
[887] Rice 1995, 384. Rice also comments that the Colossus would have stood in the sanctuary of Helios, on the eastern side of the hill.
[888] Newton 1865, 173.
[889] Newton 1865, 173.
[890] Hoepfner and Schwandner 1986, 23-24. This hypothesis has been generally accepted. See, for instance, Filimonos-Tsopotou and Patsiada (2018, 70-71).

> But a wonder, both before and after all this, which could not satiate the eye, the circuit of the walls and the height and beauty of the interspersed towers, which were like beacons for those sailing in, so that only at Rhodes, did men, landing and taking in the view, immediately grow in spirit. What was fairest of all was the fact that this circuit was not separated from the rest of the city nor was there any empty space in between, but it clung to the city and like a crown circled its head.[891]

The fortifications of the city would have been highly visible to those arriving by sea, but it is notable that this passage comes later in the oration than his description of the harbors, a passage which will be addressed later. Scant remains of a large fortification wall have been found on the northeastern edge of the acropolis, while the north and west were naturally defended by steep cliffs.[892] Elsewhere, notably by the harbors and on the southern edge of the city, a more complete picture of the fortifications has emerged (Figure 73).[893] The fortifications of the city would have had multiple phases, first a meager fortification built soon after the foundation of the city, which withstood the siege of Demetrius, but which spurred the community to construct a new, stronger, defensive system in the early 3rd century BCE.[894] This version of the fortifications was severely damaged in the earthquake that toppled the Colossus in the late 3rd century, and thus required another rebuilding in the subsequent years, resulting in the fortification system that withstood the siege of Mithridates in 88 BCE.[895]

While discussing the architectural characteristics of Rhodes G. Rocco writes that the buildings of the city would have necessarily been decorated with stucco surfaces, on accout of the local building material being comprised of soft limestone, and "often painted with brilliant colours" making it unique in comparison with other nearby urban centers such as Cos or Cnidus, which he claims would have used their local stone, namely travertine and marble, to achieve a

[891] Aristid. *Or*. 25.7 (trans. C.A. Behr 1981).
[892] Filimonos-Tsopotou 2004; Newton 1865, 164-65.
[893] Filimonos-Tsopotou 2004.
[894] Filimonos-Tsopotou 2004. For a summary of the chronology of the walls see p. 165-68.
[895] Diod. Sic. *Bibl*. 26.8; Filimonos-Tsopotou 2004.

similar effect.[896] He continues to point out that the stone architectural remains that have thus far been studied from the site all date to the 4th century BCE or later, perhaps indicating that there was not a tradition at Rhodes of this type of construction before this point.[897] Although many of the structures of the city were built in the Early Hellenistic period, before the main question of this study, there are some changes to the city's form as well as to how it is perceived by the ancient authors that still make it relevant to the current study. And as far as the connection between travelers and those arriving at the city with the built environment it is important to evaluate the evidence for the harbors of this maritime city.

The Harbors

The urban center of Rhodes was surrounded by five harbor basins, four of which are to the east of the northern point, and one is to the northwest of the city center (Figure 68, 69, 70, 71, 72, 73).[898] In his catalog of ancient harbors Lehmann-Hartleben is clear that the ancient authors do not define more than two basins and that the use of any beyond the first two (Mandraki and the Great Harbor) could not be confirmed with the evidence at the time he was writing.[899] Looking at the ancient sources, however, there is some evidence that there may have been more harbors than just the two that were definitively confirmed in the early 20th century.

Here, we once again return to an oration by Aristides, who described the harbors of the city including the sensory impact they, and their docks, would have had on those approaching the city:

> Upon sailing in, immediately you were met by so many great harbors. They jutted out into the sea with stones as breakwaters, some receiving those from Ionia, some those from Caria, and others those from Egypt, Cyprus, and Phoenicia, as if each

[896] Rocco 2018, 8 n. 2.
[897] Rocco 2018, 8.
[898] The potential harbors are described by Newton (1865, 149-77), but more recent summaries can be found in Filimonos-Tsopotou (2004, 46-69) or Blackman (1999). Hoepfner and Schwandner (1986, 24-25) touch upon each harbor and some of the surrounding monuments but do not develop the discussion in any significant way.
[899] Lehmann-Hartleben 1923, 128-29.

> had been made for the reception of a different city. Lying near the harbors there were many handsome docks when you ruled the sea, and they became no less great through the years, nor was one compelled to guess where they were located, but their mere sight caused astonishment.[900]

This description shows us both the vibrancy and activity of the harbors at Rhodes, receiving ships from around the eastern Mediterranean into a wide variety of harbors, but also emphasizes the visual experience of arriving travelers, as they would have been met by the harbors, almost greeted by them, and the harbor facilities would have "caused astonishment." Aristides does go on to describe the rest of the beauty of the rest of the city as well, including its monuments and fortifications, which he also states would have been a beacon for those sailing to the city.[901] And in describing the aftermath of an earthquake in the mid-2nd century CE, the direct cause of the writing of this oration, he again emphasizes the importance of the view of the cityscape upon the approach to the island:

> No longer do those who are making for port still at sea behold the city, but after disembarking they must investigate what each thing was, for they see an unsightly mound instead of a city.[902]

Although there was surely some hyperbole in this description, the details of what was visible are less important than to emphasize that Aristides repeatedly focuses on this maritime approach to the city, and that in in doing so he often describes the harbors and their facilities, as well as some of the other prominent monuments of the city such as its fortifications.

These harbors were described, not just by Aristides but also in other various ancient accounts, which offer some detail that cannot be verified in the archaeological remains. For

[900] Aristid. *Or.* 25.3 (trans. C.A. Behr 1981). There is some debate about whether this oration is actually from Aristides or whether it has been misattributed. Jones (1990) argues that it likely was composed by Aristides but somewhat later than other scholars have assumed. Behr (1981, 371 n. 1), taking the opinion that the text is by another unnamed author, argues that the style "[…] could not be more unlike Aristides' manner."
[901] Aristid. *Or.* 25.7.
[902] Aristid. *Or.* 25.10 (trans. C.A. Behr 1981).

instance when writing about the Mithridatic wars Appian describes how the Rhodians "strengthened their walls and their harbor and erected engines of war everywhere" and after initially going out to engage with Mithridates at sea eventually retreated their ships into the harbor and "closed the gates" preventing Mithridates from entering despite his attempts to do so.[903] Although the discussions and identification of a "military harbor" at other sites have often rested on the interpretation of the meaning of *liman kleistos* in this case we can see in the account from Appian that the Rhodians used a harbor with a closeable entrance for this military function. Demetrius' siege of the city in the late 4th century BCE has also been described in detail, notably by Diodorus, who emphasizes the defensive fortifications that protected the harbor and the city, including emergency additions to the walls along the harbor and on the harbor moles by the citizens of Rhodes; thus the existence of a protected harbor extended to the earliest years of the city.[904]

The five basins that have been identified as the harbors of ancient Rhodes have been confirmed to various degrees of certainty based on the physical remains found throughout research and rescue excavations, predominantly since the middle of the 20th century:

Mandraki

The northern most of the eastern basins is called Mandraki in modern times and has been associated with the military harbor that Appian describes since at least the mid-19th century (Figure 75, 76).[905] It was formed from a seemingly natural indentation in the coast, with a rocky promontory to the north and a large mole to the east, running northwards, which Newton describes as "Hellenic."[906] He later describes the mole of his era as extending 1000 feet, and states that the

[903] App. *Mith.* 4.24 (trans. H. White 1899).
[904] Diod. Sic. *Bibl.* 20.81-88; Berthold 1984, 59-80.
[905] App. *Mith.* 4.24; Newton 1865, 149. Berthold (1984, 69-70) identifies Mandraki as the "small harbor" of Diodorus (*Bibl.* 20.85.4).
[906] Newton 1865, 149.

majority of it rests upon a Greek foundation that was "built of enormous squared blocks regularly fitted together."[907] When Kondis describes the ancient street grid of the city, writing in the mid-19th century, he makes reference to the multiple changing layers of the city along the western edge of the harbor basin:

> The end [of the street] was closely associated originally with the mikros limen (Mandraki) from which it is now divided by the Knights' Wall. However, remains of the neoria, found by the tetrapylon, show that in antiquity the sea came very close to this point. These remains partially go under the tetrapylon, which was clearly built when the neoria (or at least this section) had fallen into disuse. Furthermore, the presence of remains of Hellenistic buildings by this point, lower than the level of the constructions of the street, show that the street in its revealed form corresponds to a radical reformation of the harbourside part of the city.[908]

Kondis goes on to date these neoria to the Hellenistic period, with similar construction methods to the Hellenistic walls of the city, which were rebuilt in the 2nd century BCE after the earthquake that toppled the Colossus, noting that these structures were probably damaged again in the much later earthquake described by Aristides, in the mid-2nd century CE, and that they were eventually built over in part by the tetrapylon.[909] Lehmann-Hartleben offers a more thorough description of the harbor facilities, writing that the 335 m long, 25 m wide mole was built on a natural reef and that the smaller breakwaters that enclosed the 20 m wide entrance to the harbor would have been formed simply with rocks.[910] The harbor may have been outside of the city walls, as we know from the story of the siege of Demetrius, and it would have been "closeable" potentially by a chain that could have been strung across the 20 m wide entrance.[911]

[907] Newton 1865, 161, 176.
[908] Kondis 1954, 9-10 (trans. D.J. Blackman et al. 1996, 372).
[909] Kondis 1958, 146-158.
[910] Lehmann-Hartleben 1923, 129. These figures are also accepted by Filimonos-Tsopotou (2004, 49).
[911] App. *Mith.* 4.24; Diod. Sic. *Bibl.* 20.85.4; Lehmann-Hartleben 1923, 129. Filimonos-Tsopotou (2004, 49) writes that it was likely fortified due to the remnants of some Hellenistic walls in the area as well as the likelihood that a war harbor would have been well protected.

The neoria that Kondis describes that would have surrounded the harbor were studied in detail by Blackman et al. in excavations beginning in the 1970s and may have been able to house 100 ships.[912] The excavations identified two types of shipsheds for housing ships of differing sizes from the 3rd and 2nd centuries BCE, and the ships in question were all of military rather than commercial nature.[913] The implication of the results of this study is that the Mandraki harbor was used as a military harbor throughout the Hellenistic period and at least through the Early Roman period. The necessity, or perhaps the ability, of Rhodes to maintain a large fleet of warships declined significantly in the Early Roman Imperial period and with it the need to maintain such a large set of shipsheds, which may have led to their abandonment, even though the city would still have maintained a smaller fleet of some kind.[914] With the changing water level in the harbor, and the changes to the cityscape in the Roman period, the southwestern edge of these shipsheds was eventually built over by a tetrapylon in the late 2nd or early 3rd century CE, to be discussed below.[915] By late antiquity and into the medieval period the harbor was shallow and only of secondary importance, being located outside of the Byzantine walls of the city.[916]

The interpretation of Mandraki as a military harbor in the Hellenistic period is further interesting in light of the description of the harbors by Aristides who comments with respect to their function that "some [were] receiving those from Ionia, some those from Caria, and others those from Egypt, Cyprus, and Phoenicia, as if each had been made for the reception of a different city."[917] He does not mention a war harbor but he does mention that each of the harbors were built to receive travelers or traders from different origins, indicating the commercial or transport

[912] Blackman 2010; 1999; Blackman et al. 1996.
[913] Blackman 2010; Blackman et al. 1996. The shipsheds are categorized into 6.0-6.3 m or 4.2-4.4 m wide.
[914] Blackman 2008, 30.
[915] Cante 1991; Kondis 1958, 146-158. For the changing water level in the harbor see: Stiros and Blackman (2014).
[916] Manoussou-Ntella 2012, 21-22.
[917] Aristid. *Or.* 25.3 (trans. C.A. Behr 1981).

function of each of these spaces. Writing slightly earlier, in the late 1st or early 2nd century CE, Dio Chrysostom does mention the shipsheds (νεωρίων) as an important part of the harborscape.[918] These passages could thus support the archaeological evidence that indicates that in the 2nd century CE Mandraki was no longer used solely as a military port but had been converted in function to a more civic or commercial space, perhaps welcoming those from around the Mediterranean as described by Aristides.

Great Harbor

The second of the harbors on the eastern side of the point is the largest and has been identified as the commercial harbor of the ancient city, although there is no particular reason to assume there would have been just one commercial harbor given the account of Aristides of the multiple harbors that could have accommodated ships of different origins (Figure 75).[919] Berthold suggests that this basin is where the cargo ships which were armed with catapults by the Rhodians during the siege of Demetrius would have been located, although the description by Diodorus is not entirely clear as to which harbor this took place in.[920] The close proximity of this harbor with Mandraki, makes this interpretation reasonable and the size of the basin could certainly have supported a commercial function. The eastern breakwater would have been smaller than that of Mandraki, measuring approximately 250 m long, and 30 m wide, and again resting on a reef, but the harbor mouth would have been much larger, 230 m wide, and could not be closed.[921] Lehmann-Hartleben also describes a smaller protected basin within this larger basin, writing that it would

[918] Dio Chrys. Or. 31.146-47.
[919] Aristid. *Or.* 25.3. For one of the first identifications see: Newton (1865, 149, 177). For a full description of the fortifications in the area of the harbor see: Filimonos-Tsopotou (2004, 47-49).
[920] Berthold 1984, 69-70. Diod. Sic. *Bibl.* 20.85.5.
[921] Filimonos-Tsopotou 2004, 47; Lehmann-Hartleben 1923, 128.

have been protected by two smaller moles leaving only a 13 m entrance.[922] This protected space within the larger harbor basin could have perhaps been used for the transshipment of particularly important goods, or even for the protection of smaller ships that were at greater risk if anchored out in the more open basin. Newton suggested that there was a smaller protected basin used for shipbuilding and repairs, and Maiuri also refers to a military dockyard, which has now been silted up, however, this smaller basin or a military dockyard as part of the Great Harbor have not been subsequently archaeologically confirmed and may be referring to other aspects of the city that have yet to have been discovered.[923]

Excavations in the area east of the Temple of Aphrodite, between Mandraki and the Great Harbor, have revealed a massive wall which K. Manoussou-Ntella has interpreted as protecting a canal which would have connected the two harbors and allowing access between the two even when under siege (Figure 78, 79).[924] Other excavations on the eastern mole of the harbor have unearthed a Hellenistic fortification with two large square towers, which was destroyed in the 2nd or 1st century BCE for the space to be used for storage facilities, and then subsequently built on in the Medieval period (Figure 80).[925] These defensive fortifications and the inner canal would appear to indicate the importance of a military aspect to these spaces in the Hellenistic period, in line with the evidence from Mandraki. However, the lack of shipsheds in this harbor basin would tend

[922] Lehmann-Hartleben 1923, 128. This is also mentioned by Newton (1865, 176) although in a more speculative nature.
[923] Maiuri 1922, 32; Newton 1865, 176.
[924] Manoussou-Ntella *forthcoming*, 2-3; 2014, 25-26. Manoussou-Ntella discusses the evidence for this canal by suggesting that the southern edge of the pier running to the north is built upon a rocky outcrop, as was the Temple of Aphrodite to the south, but that there is approximately 8-10 m wide space between these rocky outcrops that this level that would have been flat and sandy, and thus may have allowed for the passage of ships between the two harbors. Speculation about the existence of this canal was comes from as early as Newton (1865, 175-76) and Lehmann-Hartleben (1923, 129).
[925] Manoussou-Ntella 2009, 74-75.

towards an interpretation of this space as serving a commercial function, as the largest emporium of the city.

Acandia

Just to the east of the Great Harbor, and slightly further to the south, is another basin which is called Acandia Bay. It too would have had a harbor mole to its east, projecting from the south, which again Newton calls a "Hellenic" construction.[926] He goes on, however, to note that the mole was more likely a secondary defense to help protect the main large basin and that Acandia Bay "does not appear to have been used as a regular port in antiquity" although it may have been a somewhat protected anchorage, and Lehmann-Hartleben agrees with this interpretation.[927] Very few archaeological remains have been discovered in the area of the harbor, and the Hellenistic city wall runs slightly further inland, excluding this basin from its protection (Figure 73).[928] Some foundations closer to the harbor have been excavated, which could represent either cisterns or storage facilities, although their function is unclear, and they likely date earlier than the construction of the Hellenistic city wall.[929]

South East Basin

Situated to the south east of the core of the city, this harbor would have also opened towards the south east, differing from the other basins and would not have had a large harbor mole or other significant protection from the open sea (Figure 81). As in the case of Acandia, the evidence for a constructed harbor or any kind of use of the South East Basin is rather slim. E. Zervoudaki writes that excavations in the 1970s unearthed an ancient wall of uncertain date along the coast, which implies that the area may have been used as a basin or a harbor, although it was not mentioned in

[926] Newton 1865, 149, 177.
[927] Lehmann-Hartleben 1923, 128; Newton 1865, 149, 177.
[928] Filimonos-Tsopotou 2004, 54.
[929] Filimonos-Tsopotou 2004, 54; Blackman et al. 1996, 375.

any of the ancient sources.[930] This harbor is also marked by Hoepfner on his plan of the city of Rhodes as the "Süd Hafen" and by M. Filimonos-Tsopotou, who provides a more thorough archaeological evaluation at least of the city walls in the area (Figure 72, 73, 81).[931] This basin has not been well defined, partially due to the relatively little archaeological investigation that has taken place in the area, but Filimonos-Tsopotou argues that it was location where Demetrius encamped during his siege of the city in the late 4th century BCE, which according to Berthold took place from the south (Figure 74).[932]

Western Basin

To the west of the northern point of the city there is another depression in the landscape that has been identified as the location of an early commercial harbor. Some remains, including foundations that showed weathering from the sea, are described by Newton, which he interprets as representing "the base of an oblong tower."[933] Taking the natural topography in the area into consideration, he suggests that this depression must have been a harbor in antiquity, and notes that a local oral tradition attests the existence of a canal linking this harbor basin with the port of Mandraki to the east, a contention which has now been disproven.[934] The potential existence of a western harbor was endorsed by Maiuri, and Inglieri describes a mole visible in the area around

[930] Zervoudaki 1973, 618. Inglieri (1936, 18) plots a wall on his early 20th century plan of the city in this area but does not provide any commentary about its form or function.
[931] Filimonos-Tsopotou 2004, 67-69, 68 fig. 15; Hoepfner and Schwandner 1986, 22-23 fig. 16.
[932] Filimonos-Tsopotou 2004, 42-44, 68-69; 2003, 35; Berthold 1984, 70 map 1. On this question Bouras (2016, 206) writes that the West Harbor was used by Demetrius and cites Filimonos-Tsopotou (2004, 55). However, this passage from Filimonos-Tsopotou only discusses past interpretations and proposals in scholarship, and in the same volume Filimonos-Tsopotou elaborates rather clearly that they believe that Demetrius actually used the South Eastern basin for his camp.
[933] Newton 1865, 174-75.
[934] Newton 1865, 174-75. At the end of this passage he describes that the foundations may have been of one of the square towers of the city wall. Lehmann-Hartleben (1923, 129) urges restraint on the speculative interpretation of this basin as a harbor without any archaeological confirmation. For the lack of a canal linking this basin with Mandraki see Filimonos-Tsopotou (2004, 58-67) and specifically the argument that the same sediment is found in the proposed area of the channel and further north, with no northern edge of a canal apparent in any of the investigations.

the early 20th century neighborhood at Neocori, and observes that the line of the ancient port can be seen in the depression of a lake that formed in the depression.[935] Bradford writes that "on the N.W. side of the peninsula are the outlines of an ancient harbourage, still preserved as a well-marked depression in the ground."[936] However, the archaeological evidence for the existence for this basin only came to light in the second half of the 20th century through excavations linked to development in the area that revealed the port facilities in bits and pieces.[937] Filimonos-Tsopotou has interpreted elongated hypostyle structures by the recently confirmed harbor as storage facilities indicating a commercial nature to the port.[938]

The harbor was at one point larger, but at the beginning of the 3rd century BCE was made smaller by the abandonment of its southern section, as evidenced by an abandoned quayside.[939] Manoussou-Ntella, focusing on later periods of the city, writes that the ancient port fell out of use in late antiquity, silted up, and became an ideal location for windmills.[940] The area between this basin and Mandraki was primarily a residential area in antiquity, with the exception of the sanctuary of Demeter, which would have been sited on the eastern edge of the peninsula.[941]

The Colossus

The Colossus of Rhodes is one of the most indelible images of the city, even though it only stood in the city for a relatively short period, and its form and location in antiquity are unknown.

[935] Inglieri 1936, 13; Maiuri 1922, 32.
[936] Bradford 1957, 280 n. 2.
[937] Filimonos-Tsopotou 2004, 58-67; Blackman et al. 1996, 378.
[938] Filimonos-Tsopotou 2004, 58.
[939] Filimonos-Tsopotou 2004, 67. Bouras (2016, 206; 2014, 671) writes that the harbor basin was silted up by the 4th century BCE and that it was no longer in use by the 3rd century BCE, but provides no citations for this claim which appears to go against the evidence that Filimonos-Tsopotou presents (2004, 58-67), which includes an argument that a lack of ancient remains north of the quayside here show that this area was used as a port throughout antiquity.
[940] Manoussou-Ntella 2012, 22. Filimonos-Tsopotou (2004, 58) writes that the fill from the harbor area includes material from the 4th century BCE until the 3rd century CE, which would seem to support the fact that the harbor was still in use in some form throughout that period.
[941] Manoussou-Ntella 2012, 36.

As already noted the Colossus was constructed by Chares of Lindos in the early 3rd century BCE after Demetrius ended the Siege of Rhodes and the Rhodians profited from selling the goods that were left behind.[942] Multiple accounts, written more than a hundred years after it was constructed, suggest that it would have stood 70 cubits tall and that, before the end of the 3rd century, after standing for 56 years, it toppled in an earthquake, broken at the knees, and lay in ruins for hundreds of years until it was broken up and sold off in the mid-7th century CE.[943] For one of the Seven Wonders of the Ancient World we know relatively little about the statute with confidence, and of all the accounts that mention it there are only three significant descriptions in ancient literature.[944]

H. Maryon attempted to address many of the questions about the Colossus, from how tall it was to where it stood in a detailed analysis from 1956. In this study he suggests that it would have stood just over 120 feet tall and offers some details about how it likely would have been constructed, including the use of a large mound of earth to reach the upper levels during its construction, accepting the description that Philon offers of this process.[945] He goes on to dismiss the possibility of the sculpture straddling the harbor, given the widths of the harbor mouths would have been hundreds of feet and far too grea a span for the legs to bridge, a conclusion which is generally accepted.[946] One potential site for the Colossus is identified by Newton, at the end of the harbor mole of Mandraki, where the Fort of St Nicholas now stands, but he supports this using only his own intuition and a description of the construction of the fort, which makes this same

[942] Maryon 1956, 68; Plin. *HN* 34.18; Philon *De Septem Orbis Spectaculis* 4; Strabo *Geog*. 14.2.5.
[943] Strabo *Geog.* 14.2.5; Pliny *HN* 34.18. For a summary of its history, as well as its sale in the 7th century CE see Maryon (1956, 68-71).
[944] Higgins 1988, 127. These are the accounts by Philon, Pliny, and Strabo.
[945] Maryon 1956, 73-79. In a response by Haynes (1957), many of Maryon's claims about the method of construction of the statue itself are criticized, but Haynes does not bring up any concerns with the discussion of the location of the statue.
[946] Maryon 1956, 79. This claim is readily accepted by other authors, for instance by Rice (1993, 236) and Higgins (1988, 133-34).

claim.[947] Maryon dismisses this location because in his analysis the mound of earth required for the construction of the statue would have extended too far into the sea to be practical.[948] Others dismiss this location because had it collapsed here it would not have had damaged houses, as has been claimed by some historical accounts, and it likely would not have been allowed to lie for hundreds of years in such an important and busy location along the harbor mole.[949] The final location which Maryon presents, and which he settles on only due to the space and the proximity to the harbor, is within the lower area of the city, which was at his time part of the "castle" fortifications.[950]

More recent studies suggest that the Colossus may have stood within the civic sanctuary of Helios, which was not located in the lower portion of the city near the harbor, but rather on the eastern slope of the hill leading to the upper city or even on the acropolis itself.[951] One proposed area on the eastern slope of the hill for the sanctuary of Helios is based on a large number of related inscriptions that have been discovered in this area, and there is evidence of a bronze foundry in the area, which may at least give some support to the idea that the statue was constructed nearby.[952] Rice goes as far as to associate this position on the hillside with a view out over the sea:

> In this prime position on the east slope of the acropolis, the Colossus would have been visible from a great distance out to sea, from the lower town below, and from the citadel above. It would thus have served as a landmark to mariners, which would have ensured its fame almost as much as its great size.[953]

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[947] Newton 1865, 177.
[948] Maryon 1956, 80.
[949] Rice 1993, 236-37; Higgins 1988, 134-36. Higgins (1988, 136) writes that "[…] one ancient author tells us that in its fall the Colossus knocked down many houses", but this commentary is not present in the passages from Pliny, Philon, nor Strabo.
[950] Maryon 1956, 80-81. This location close to the harborside, but not on the harbor moles is also supported by Manoussou-Ntella (2010, 588-592).
[951] Lippolis 2016; Rice 1995, 384; 1993, 236-39; Higgins 1988, 136-37. Filimonos-Tsopotou and Patsiada (2018, 70-71), disagree, writing that the temple of Helios was "probably" erected in the location of the current palace of the Grand Master.
[952] Rice 1993, 237-39.
[953] Rice 1993, 239.

This association with the sanctuary of Helios is not mentioned in any of the ancient sources nor can it be confirmed in the archaeological record and should be considered a speculative hypothesis at the moment, despite the logical link between the statue and sanctuary. In any event, the Colossus would have collapsed by the end of the 3rd century BCE and its value as a landmark for mariners would have collapsed with it. Although it remained an important artifact in the memory of the city and its ruins themselves an attraction it would not have played a significant role in the maritime approach to the city throughout the Late Hellenistic and Roman periods.

In later periods other statues may have replaced the Colossus in the cityscape, fulfilling a role similar to that of the Hellenistic monument, even though these statues could not have matched the size, and thus the prominence, of the Colossus. Pliny, for instance, when recounting statues of colossal size writes:

> But that which is by far the most worthy of our admiration, is the colossal statue of the Sun, which stood formerly at Rhodes, […] In the same city there are other colossal statues, one hundred in number; but though smaller than the one already mentioned, wherever erected, they would, any one of them, have ennobled the place. In addition to these, there are five colossal statues of the gods, which were made by Bryaxis.[954]

In this passage he describes the statue and its ruins, but also describes the large number of other colossal statues that adorned the city, presumably at the time he was writing in the 1st century CE. Although we cannot reconstruct from the evidence the location or form of many these other statues, and many likely would have been sited within temples or other spaces occluded from the sea, it is possible that they would have played a large part in the experience of moving about the city, and perhaps may have had an impact from afar by sea if placed strategically. One statue in particular we may be able to locate, and that is a statue dedicated to Rome, which Polybius mentions when

[954] Plin., *HN*, 34.18 (trans. J. Bostock 1855).

discussing the relations between Rhodes and Rome after they had settled their differences post the Third Macedonian War and became allies stating:

> They also voted to erect in the temple of Athena a colossal statue of the Roman People thirty cubits high.[955]

Although less than half the size of the Colossus that once stood in the city, this statue would have still been rather prominent in the landscape if sited in an elevated, open position. R.B. Kebric has argued that this statue likely stood outside, rather than inside the Temple of Athena Polias and Zeus Polieus in the sanctuary on the top of the acropolis of the city, although this is also assuming that it was actually constructed, and not just a vote that was never followed through.[956] Between the description by Pliny of one hundred colossal statues in the city, and this specific description by Polybius, one potential image of the fabric of the city in the Early Roman Imperial period emerges, with colossal statues of varying sizes potentially dotting the cityscape, if they were not all kept within sanctuaries or other structures, visible from afar, perhaps altering or punctuating the façade that previously would have been made up primarily of sanctuaries and terraces.

The Monuments

The monuments of Rhodes would have been scattered throughout the city, from the acropolis down to the coastline by the harbors. Some have been excavated more thoroughly than others but given the long, continuous occupation of the city, many have not been uncovered or have only been identified in bits and pieces. The discussion here will attempt to highlight some of the more well studied monuments or those that would have been particularly relevant to the

[955] Polyb. *Hist.* 31.4.4 (trans. W.R. Paton 1922).

[956] Kebric 2019, 107-10. Although Kebric makes an argument that this implies that the original Colossus would have also stood in the same location in the same sanctuary precinct this is rather hypothetical and the argument by Rice (1993, 237-39) that the statue may have stood lower on the slopes at their proposed location of the sanctuary of Helios also holds merit.

question of the experience of arrival at the city. As discussed earlier the city of Rhodes did not experience the massive changes in development that took place at Ephesus so much of the city may have been more static, but this does not mean that these monuments would not have helped to structure the experience of arrival at the city in the Late Hellenistic and Early Roman periods. For instance, many of the sanctuaries throughout the city of Rhodes were constructed in the Early Hellenistic period soon after the foundation of the city, but these structures, as well as some constructed or renovated at later dates, played a significant role in the overall cityscape throughout the Hellenistic and Roman periods and thus they are worth presenting here.[957]

In discussing the sanctuaries, and the visual aspects of the theater-like form of the city Filimonos-Tsopotou and Patsiada write:

> Low hillocks and rocky outcrops which disrupted the rhythmical succession of the terraces were exploited for the erection of the most important sanctuaries, as the temples of Helios and the temple of the agora, Asklepion and the open air sanctuary of Cybele. The terraces were not as high as in Pergamon, but rose gently towards the south and the west to the acropolis, "like a ripple," according to the characteristic phrase of I. Kondis. On the natural plateau of the acropolis, surmounting the city, more impressive and imposing architectural settings were organized, similar to those of the acropolis of Lindos and Kamiros.[958]

Their analysis summarizes the situation of the temples and sanctuaries well, emphasizing the views that they provided outward but also that these sanctuaries could be seen from afar, and Rocco supports the idea that they were intentionally constructed to be visible over long distances, with the sacred area on the acropolis forming "the focus of the entire urban composition."[959] A short

[957] Filimonos-Tsopotou and Patsiada (2018, 70-82) provide a summary of these structures, and for a more thorough analysis see Rocco (2018).
[958] Filimonos-Tsopotou and Patsiada 2018, 82.
[959] Rocco 2018, 21-22. Rocco (2018, 32) also comments that the use of terraces is not unique to Rhodes, nor to Hellenistic architecture but rather that it is "a more widespread feature that, from Halikarnassos and Knidos to the great sanctuaries of Cos and Labraunda, seems to characterize the Aegean coasts from the Late Classical period onwards."

description of some of the patterns and more important developments of these sanctuaries and of other significant structures follows here.

There is evidence for multiple temples and sanctuaries throughout Rhodes, with prostyle and *in antis* forms being common and only the Temple of Apollo on the acropolis being peripteral in form.[960] The Doric Temple of Apollo, with its initial construction in the 4th or 3rd century BCE, would have had a footprint of 22.25 x 40.90 m and was oriented towards the east, facing out over the city and the harbors below.[961] The fragments of the column capitals that have been recovered have been dated to the 1st century BCE, and perhaps indicate a significant remodeling in the Roman period, which included a slight reorientation of the entire structure.[962] The temenos of this temple would have reached to the east, and made up the upper, and final, terrace on the top of the acropolis hill, immediately above the stadium and the odeon.[963]

Within the same precinct there is another temple, referred to as "Temple B," which has received less attention than the Temple of Apollo by excavators and scholars.[964] E. Lippolis argues that this temple's location on the north eastern corner of the terrace would have made it significantly more prominent and created a "direct visual and topographical connection with the lower city, with respect to which it functions as a terminal perspective, from the top of its terrace, better visible and more advanced than the same *naòs* of Apollo."[965] It may have been an imposing structure and it may have taken a similar form to the great altar of Pergamon, although given the

[960] Rocco 2018, 8.
[961] Rocco 2018, 23; Lippolis 2016, 124; Livadiotti and Rocco 1996, 12-17. For the 4th century date see Hoepfner (1999), who bases their analysis of architectural decorative elements and parallels with other temples. Livadiotti and Rocco (1996, 14), however, argue that the epigraphic evidence and architectural fragments support a foundation in the 3rd century.
[962] Livadiotti and Rocco 1996, 14; Lippolis 2016, 124-25.
[963] Rocco 2018, 23.
[964] Lippolis 2016, 127-42. Livadiotti and Rocco (1996, 17-20) refer to this temple as belonging to Artemis thanks to a large votive deposit found nearby, however Lippolis (2016, 140-41) suggests that this association may be spurious and that the votive deposit may date to significantly earlier than the temple's foundation.
[965] Lippolis 2016, 157.

dearth of evidence this is only speculative.[966] M. Paolini dated this monument to the Augustan period based on some patterns which he associated with Roman construction, such as the use of the Corinthian order, however Livadiotti and Rocco suggest that the stylistic parallels are more likely to be from the late 2nd or early 1st century BCE.[967] Both of these suggestions are in a later period than the foundation of the Temple of Apollo, and already after Rhodes had begun to experience the influence of Rome, and to find that a monumental structure, potentially a sanctuary to Artemis, was constructed in the sacred precinct of Apollo shows us that the maintenance of this space for a ritual and monumental function continued at least into the Late Hellenistic period.

On the acropolis, just below the sanctuary of Apollo and "Temple B," a stadium, a gymnasium, and an odeon were discovered in the early 20th century.[968] The stadium was first excavated by Maiuri, who dated its initial construction to no earlier than the 2nd century BCE, and Lippolis agrees that it was likely constructed in the first years of the century, in the general rebuilding after the late 3rd century earthquake.[969] The capacity of the stadium has been estimated at between 28-30,000 spectators, and it was built into the hillside, with the west long edge of the stadium taking advantage of the slope, while the eastern edge had to be fully constructed.[970] The track measured approximately 200 m long with a maximum width of approximately 33.5 m.[971] A statue base discovered in the course of the excavations has an inscription with a dedication to the emperor Antoninus Pius from the people of Rhodes, evidence of the emperor's support in the

[966] Lippolis 2016, 129-30; Livadiotti and Rocco 1996, 19-20.
[967] Livadiotti and Rocco 1996, 20. Lippolis (2016, 129-30, 140-41) only suggests that it was likely constructed after the earthquake in the late 3rd century BCE and that it underwent a significant renovation in the 1st century BCE.
[968] Livadiotti and Rocco 1996, 20-26.
[969] Lippolis 2016, 149-50; Maiuri 1928, 48-49. Newton (1865, 168) also commented on its likely existence in this location, but did not excavate the structure.
[970] Lippolis 2016, 146-150; Livadiotti and Rocco 1996, 21-22.
[971] Lippolis 2016, 146.

restoration efforts of the city after the earthquake of the 2nd century CE described by Aristides.[972] The Roman attention to this specific monument and its location high on the acropolis show that the monuments of the city, especially the highly visible ones, were worthy of restoration, rather than being allowed to fall into ruin; however, it is likely that Antoninus Pius also contributed to restoration efforts throughout the city beyond the stadium.

The odeon and the gymnasium were similarly first identified by Maiuri in the early 20th century, and then subsequently excavated by Iacopi and Laurenzi in the following decades.[973] The semi-circular odeon measures approximately 27 x 24 m and was built into the hillside, with the seating for 700-1000 people facing east, towards the lower city.[974] The dating is not clear, but Iacopi suggests simply the Hellenistic age, while Lippolis writes that sometime after the late 3rd century BCE earthquake is likely due to the close relationship with the other monuments in the area, which were either constructed, or underwent renovations in this period.[975] Lippolis comments that the gymnasium is not so clearly defined, and both its form and its dating cannot be determined with confidence, although its location is known and it was likely constructed after the stadium given the relationship between the two spaces.[976] These monuments all made up part of the monumental complex on the acropolis immediately below the sanctuary of Apollo and likely have similar developmental histories.[977]

The odeon-stadium complex along with the temple complex on the terrace above are the major structures that are known from the central area of the acropolis; but they are not the only

[972] *Studi Ciaceri* 255, Ib; Pugliese Carratelli 1940, 255. Livadiotti and Rocco (1996, 23) mention this inscription but do not provide a reference, and Lippolis (2016, 149 n. 65) only makes reference to their comment also omitting a source.
[973] Lippolis 2016, 143-44; Livadiotti and Rocco 1996, 23-25.
[974] Lippolis 2016, 144-44.
[975] Lippolis 2016, 144.
[976] Lippolis 2015, 151-53.
[977] Livadiotti and Rocco 1996, 23-26.

structures located on the top of the hill. There is less evidence available for the temple of Athena Polias and Zeus Polieus, which is located on the northern portion of the acropolis hill, which was first excavated by Maiuri in the early 20th century.[978]

Closer to the harbors, a Temple of Aphrodite was constructed after the earthquake in the 3rd century BCE, which would have faced eastward over the edge of the Great Harbor, and which disrupted the line of the fortification walls.[979] The first excavations of the temple were undertaken by Maiuri in the 1920s in an area now called Plateia Simi, with his successors continuing his work.[980] The temple was located on the spur of land between Mandraki harbor and the Great Harbor and was amphiprostyle in form, oriented east-west, presenting one of its faces out over the Great Harbor, as may be expected for the patron of seafarers.[981]

The Sanctuary of Demeter was located just northwest of Mandraki harbor near the northern residential quarter of the city.[982] Not much can be said about the architecture of the sanctuary, as very few structures were discovered, and the main identification of the area was based on votive deposits.[983]

There may have once been a sanctuary to Dionysus in a location near the tetrapylon and the later decumanus maximus, but if it existed here it was destroyed and not reconstructed.[984] The description of the late 4th century BCE flood of the city by Diodorus mentions that the temple would have been in the area of the agora and that both structures would have been flooded before

[978] Rocco 2018, 23; Maiuri 1928, 46-48.
[979] Manoussou-Ntella *forthcoming,* 2-3; Rocco 2018, 9-14; Livadiotti and Rocco 1996, 31-33. For the dating see Maiuri (1928, 46).
[980] Rocco 2018, 9-14; Livadiotti and Rocco 1996, 31-33.
[981] Rocco 2018, 11-13.
[982] Filimonos-Tsopotou 2003, 34; Giannikouis 1999; Zervoudaki 1988.
[983] Giannikouris 1999; Zervoudaki 1988.
[984] Filimonos-Tsopotou and Patsiada 2018, 71; Miauri 1928, 46. Konstantinopoulos (1994-1995) argues that the inscriptions and artistic reliefs that have been found that mention Dionysus indicate that there was an earlier monumental Dionysion in the area that must have been destroyed in the 2nd century CE earthquake and never reconstructed, although he admits that there is no archaeological evidence for such a structure or complex.

the water reached the Temple of Asclepius, which implies that these would have been on lower ground and near each other, which matches the proposed location of the Dionysion near the tetrapylon.[985] The Temple of Asclepius was excavated and identified in the 1990s, but there are scant remains, and the form of the space remains unclear, although the remains of Doric columns and an architrave have suggested a date of the 3rd century BCE or earlier.[986]

The Temple of Isis along the eastern shore of the city, to the south of the main harbors, but north of the South-Eastern Harbor, has recently been studied and published.[987] Although this temple was known from the ancient sources and numerous finds from other excavations in the city, its precise location had not been identified until recent investigations by C. Fantaoutsaki.[988] Unfortunately "no above ground architectural element from the ancient structures survives," but the foundations and other features discovered in the course of excavations have allowed for a basic understanding of the its form.[989] Its location between the Acandia harbor and the South-Eastern Harbor may have made it accessible to travelers arriving at the city by sea, even though it is not possible to reconstruct how it may have appeared to them above the city wall, if at all. The sanctuary was likely to have functioned from the middle of the 3rd century BCE until the end of the 3rd century CE, given inscriptions throughout the city that attest to the activity of the cult.[990]

One of the most well-known images of the city, already discussed, is the colossal statue of Helios, which was constructed in the 3rd century BCE. The dedication of this statue to Helios speaks to the importance of the cult to Helios in the city and the location of its main sanctuary has

[985] Diod. Sic. *Bibl.* 19.45.4.
[986] Filimonos-Tsopotou and Patsiada 2018, 71; Fantaoutsaki 2004.
[987] Filimonos-Tsopotou and Patsiada 2018, 72; Fantaoutsaki 2011.
[988] Fantaoutsaki 2011, 47. App. *Mith*. 4.27 writes that Mithridates attacked the city walls where the Temple of Isis stood.
[989] Fantaoutsaki 2011, 49-54.
[990] Fantaoutsaki 2011, 63.

not been securely located, although various locations have been proposed including near the Palace of the Knights of Rhodes and the Church of Saint John, or higher up on the eastern slope of the acropolis hill, or even on the acropolis itself in the sanctuary of Apollo.[991] The form of what this sanctuary may have looked like is unclear, but it is likely that the Colossus would have been erected nearby.

One of the major and most prominent monuments of the city would have been its fortification walls, which were listed by Aristides as one of the significant features of the city and which collapsed in the 2nd century CE earthquake.[992] These fortifications, constructed in the beginning of the 3rd century BCE, were lauded by Philon of Byzantium later that century, and were long an impressive landmark in the cityscape and a "symbol of independence and power of the city."[993] Much of this early phase of the walls, along with the shipyards, also collapsed in the same earthquake that shook the Colossus to the ground.[994] In the 2nd century and early 1st century BCE the fortifications were rebuilt and strengthened and were able to withstand the siege of Mithridates in 88 BCE (Figure 73).[995] There do not appear to be major changes in the fortifications after this point, and their course remains generally the same as those of the high Hellenistic iteration.

The Tetrapylon

Another of the major monuments that would have faced onto the harbors was a tetrapylon, which was constructed in the late 2nd or early 3rd century CE, after the earthquake shook the city to the ground, and which would have displaced some of the shipsheds on the southern side of the

[991] Rice 1995, 384; Filimonos-Tsopotou and Patsiada 2018, 70-71; Lippolis 2016. The location on the hillside, along with the other important sanctuaries of the time is convincing, thanks to the inscriptions and the evidence of bronze working in the area provided by Rice. Lippolis argues for an association with "Temple B" on the top of the acropolis.
[992] Arist. *Or.* 25.
[993] Philon *Belopoeica* 5.17; Filimonos-Tsopotou 2003, 34-35. For a full analysis of the fortifications see Filimonos-Tsopotou 2004.
[994] Polyb. Hist. 5.88.1.
[995] Marek 2016, 275; Filimonos-Tsopotou 2003, 37.

Mandraki harbor.[996] The first work in the southern portion of Mandraki harbor, in the area near the Castle of the Knights of Rhodes, was undertaken in the 1920s by Maiuri and Jacopi, and an inscription discovered in the pavement of a Byzantine church in the area with a dedication to Dionysus led the investigators to believe that the remains in the area were of a monumental temple to the god.[997] Excavations continued in 1938-1940 under the direction of R. Bartoccini and Paolini, unearthing further architectural fragments that clearly did not belong to the temple of Dionysus but rather to a monument from the Roman Imperial period, namely the tetrapylon.[998] Unfortunately many of the remains were lost in WWII, but enough survived to allow M. Cante to analyze and reconstruct the structure.[999] It would have had a footprint of 15.20 by 14.25 m, with four great arches, one in each cardinal direction, with the northern opening, facing Mandraki harbor, and southern opening, facing the decumanus maximus, spanning 7.5 m, and the eastern and western openings spanning 7.0 m.[1000] Cante has reconstructed it flanked by two smaller arches abutting the structure to the east and west, with the tetrapylon projecting to the north and a portico stretching south along the decumanus maximus; this complex would have marked the opening of the city to the harbor at Mandraki for those either arriving or departing the city (Figure 82).[1001]

The monumentalization of this gateway between the port and the city would have served to change the experience of travel between the harbor basin and the city, in an area that once would have been purely functional, as the site of the shipsheds.[1002] However, the tetrapylon may not have served a signaling function to those afar because of its relatively low height against the backdrop

[996] Livadiotti and Rocco 1996, 26-31; Cante 1991; Kondis 1958, 146-158.
[997] Maiuri 1928, 46; Jacopich 1926, 326.
[998] Cante 1991, 179-180.
[999] Cante 1991, 179-180.
[1000] Cante 1991, 191.
[1001] Manoussou-Ntella 2012, 24. Cante 1991, pl. 17-24.
[1002] Kondis (1958, 153-154) believes that the area to the east of the Tetrapylon would have been monumental in nature but there is little evidence for monuments in this zone other than the Temple of Aphrodite.

of the rising topography. Bouras emphasizes that the construction of the tetrapylon here marks a change in the use of space in this part of the city, as this harbor opened up to become a "a place of exchange and commerce" under the Romans.[1003] This is not to say that it was an insignificant addition to the experience of arrival at the city, but just that its role may not have been to have the same visual impact of some of the other monuments of the city or that have been discussed elsewhere in this project.

Arrival at the Harbors of Rhodes

After the earthquake of the 2nd century CE Aristides describes in some detail what was lost in the city, including the harbors, the fortifications, the statues, and other adornments as the earthquake caused devastation throughout the eastern Mediterranean, lamenting how the city would no longer be recognizable or wonderous to those arriving by sea.[1004] These adornments and architectural features would have created a spectacular façade for those arriving at the harbors of Rhodes in the Late Hellenistic and Early Roman periods, and the reconstruction of the city including the construction of the tetrapylon indicate that the city still warranted adornment and investment, even after its destruction. Pausanias writes that Antoninus Pius was responsible for much of the financial investment that led to the restoration of Rhodes and other cities in Asia Minor:

> The cities of Lycia and of Caria, along with Cos and Rhodes, were overthrown by a violent earthquake that smote them. These cities were also restored by the emperor Antoninus, who was keenly anxious to rebuild them, and devoted vast sums to this task.[1005]

[1003] Bouras 2004, 673.
[1004] Aristid. *Or.* 25.
[1005] Paus. *Description of Greece*, 8.43.4 (trans. W.H.S. Jones and H.A. Ormerod, 1918).

His commitment to rebuilding these cities is commemorated in an inscription on a marble statue base which was discovered near the stadium on the acropolis.[1006] The reinvestment in the city after the earthquake is one of the relatively few clear moments of architectural development that come after the beginning of the Roman Imperial period. Filimonos-Tsopotou, for instance, describes in detail the development of the various areas of the city throughout the Classical and Hellenistic periods but then dismisses the Roman period by saying that excavations have not revealed any changes in terms of urban organization, instead emphasizing the late 2nd century CE construction of the tetrapylon as the next major change in the city.[1007] There were certainly changes made to the city, but as can be seen in the comments from the ancient authors there appears to be a focus on individual aggrandizement in the form of dedicatory statues rather than significant changes in the monuments of the city throughout this period. But that does not mean that the experience of arrival was insignificant or that it did not change at all.

The form of the city, built on terraces rising up the hillside, which presented a theatrical view both towards the sea and toward the city to travelers arriving in the harbors, originated in the earliest layout of the city but was reinforced in the 2nd century BCE, in the reorganization of the city at the height of its independent power and through some of the later developments from the acropolis to the harbor quaysides.[1008] These developments, along with the potential impact of the expansion of the practice of colossal statue construction commented on by Pliny, would have slightly altered the experience of arrival, but the theatrical form of the city would have remained mostly constant. In Rhodes we thus see a less dramatic overall change from the Hellenistic through the Early Roman period than in Ephesus, but a change nonetheless. Rhodes did not have the

[1006] *Studi Ciaceri* 255, Ib; Pugliese Carratelli 1940, 255.
[1007] Filimonos-Tsopotou 2003, 38
[1008] Filimonos-Tsopotou and Patsiada 2018; Filimonos-Tsopotou 2003, 37.

opportunity to experiment or to try new forms of expression like Ephesus did, with its new land as the coastline advanced, so perhaps trying to fit new, or different monuments into an already well developed cityscape resulted in the expansion of smaller forms of expression, like the statues or even the tetrapylon, which took up a significantly smaller footprint than the temples, sanctuaries, and entertainment structures on the acropolis and elsewhere throughout the city. Whatever the precise motivation for these changes, or lack of changes, in the 2nd century CE Rhodes was still considered a city known for its architectural features and its façade, as Aristides clearly shows in his texts, and was a city that warranted reinvestment in its public facilities and infrastructure as the work of Antoninus Pius and the reorganization of the southern edge of the Mandraki harbor to incorporate the tetrapylon attest.

Chapter 6 – Modeling Ancient Cities & Discussion

The case studies presented in Chapters 2-5 show different patterns in site evolution, both the natural development of the topographic conditions of each of these cities as well as their architectural elaboration throughout the Hellenistic and Roman periods. Ephesus, for instance, battled constantly throughout this period with the advancing shoreline that threatened to cut its harbor off from the coast, with the main harbor of the city changing places multiple times between the Archaic and Roman periods. Smyrna and Rhodes, on the other hand, did not have to adapt to the same risk of losing contact with the sea, since the sedimentation and landscape changes, although present at those sites, were not as extreme as at Ephesus. The development of the architectural features of these cities also followed different patterns, as Ephesus filled the reclaimed land at the foot of the Bülbüldağ and Panayırdağ hills with large monumental structures and open spaces such as bath-gymnasium complexes, whereas at Elaia, while there was an expansion of some of the infrastructure of the city via the city walls, the port facilities, and perhaps some shipsheds, there is little evidence for major monuments or highly visible architecture on the low acropolis of the site. These site histories attempted to present conventional evidence for what we know about the built environments of these cities, in order to determine whether the experience of maritime arrival in these cities was a significant factor in their architectural development. The purpose of the present chapter is to undertake a different form of analysis, using a Geographic Information System to produce supplementary imagery based on the spatial data collected from the maps and plans

presented earlier and on the shape of the landscape as derived from modern topographical information.

Methodology

Archaeology has benefited greatly from methodological developments over the past few decades that allow for a more rigorous evaluation of individual experience in the landscapes and urban spaces of the ancient world. One method used to evaluate visual connectivity, and thus individual visual experience, has been viewshed analysis, which generates maps of what spaces a viewer could have seen from a certain point in a landscape. Simple raster viewshed analyses, which model a binary "visible" or "not-visible" relationship from a static point on a landscape have been supplemented by other visual developments such as D. Wheatley's "Cumulative Viewshed Analysis", P. Fisher's "fuzzy viewsheds", M. Llobera's "visualscapes", or "Higuchi viewsheds", and less regularly applied methods such as D. Nutsford et al.'s "Vertical Visibility Index".[1009] Often these methods have been applied to studies of natural landscape elements, but they have been successfully applied to examine the built environment as well, both within archaeological studies and in the urban planning and design fields.[1010]

Relevant to this dissertation are instances when these types of visual analyses have been employed to evaluate the visual impact and intentionality of the siting of certain elements of the built environment.[1011] For instance, via a visibility analysis, C. Ruestes was able to show that 3rd century BCE hillforts in Iberia were not sited with visual impact in mind, but rather for visual control of territory, after comparing the view from the forts over the landscape as a whole and then

[1009] Wheatley 1995; Fisher 1992; Llobera 2007, 2003, 2001; Wheatley and Gillings 2000; Nutsford et al. 2015.
[1010] Richards-Rissetto 2016; Garnero and Fabrizio 2015; Paliou 2014; De Gaetano 2013; Ruestes 2008a, 2008b; Kaiser 2003.
[1011] Some examples of these studies include: Williamson 2016; Ruestes 2008a, 2008b.

the cumulative view towards the forts from paths approaching them or otherwise passing through the landscape.[1012] She also showed that there was a distinction in the visual pattern between coastal hillforts and hillforts in the interior. I believe that in the case of the communities of Hellenistic and Roman Asia Minor a similar distinction between the organization of cities and their outward presentation may emerge between coastal and interior cities, although this dissertation has focused solely on describing the various experiences of arrival at coastal cities rather than attempting to support such a claim. In coastal Asia Minor, viewshed analyses have shown the importance of landforms, including around the region of Pergamon. C.G. Williamson's 2016 study used a viewshed analysis to conclude that Teuthrania, a settlement in the flat plains to the south of Pergamon, which has been identified at Kalerga Tepe, was a symbolic marker in the landscape midway between Pergamon and the harbor at Elaia, which increased its importance thanks to the importance of these visual connections.[1013]

Many of the questions that these approaches have been used to investigate concern control of territory; however, I apply them to questions of experience and communication. The built environment could be used to communicate ideological or symbolic messages both within and between social groups, and I believe that evaluating the visibility of landmarks and monuments in the cities of Asia Minor will offer insight into the patterns in the messages that these communities wished to share outwardly, including the different experience of arrival at the ports of the region.

In general, this project highlights the major monuments for which there is archaeological evidence from the case studies discussed above. By georeferencing the published plans of the various sites, and where possible, individual monuments, the outlines and footprints of important

[1012] Ruestes 2008a, 2008b.
[1013] Williamson 2016.

features in the cityscape could be traced, and then elevations were assigned based on reported figures or my best estimates. The major monuments that are modeled are certainly not the only parts of the built environment that would have been present in these spaces, but this project provides a comprehensive overview of the monuments that would have played a significant role in the maritime façades of these cities for which we have published evidence, and it charts some of the changes in those façades over time. Where needed, the built up area of these cities has been highlighted with a translucent grey layer to show the estimated extent of the sites as well as significant gaps in our understanding. In many instances, such as in Smyrna or Rhodes, the descriptions from the ancient authors that mention the cities being impressive in their overall scope and harmony of their structures cannot be properly modeled without significant speculation and liberties being taken in the reconstruction, which is beyond the scope of this dissertation. Although many of the buildings and structures modeled may have taken slightly different forms throughout various periods a best effort was made to model them as closely as possible, and any errors or inconsistencies are on a scale that would be insignificant in terms of visibility from multiple kilometers away. Finally, all of these structures have more detailed and elaborate forms than the "grey box" outlines provided here. Even something as simple as the roofs of these structures were likely varied and angled in a way that these models do not capture, and while this likely would have had a significant impact on the viewing experience, the main questions of this dissertation concern the perception of the built environment at a distance, and once again I would argue that the size, and overall space occupied in the viewscape, is a more significant point when asking about what could or could not be seen from a distance. Not all the buildings mentioned in chapters 2-5 are modeled, but every effort was made to model the most significant and prominent structures relevant to the questions of this dissertation.

Discussion of Case Studies and Analysis

The first case study is also the one which we have the most evidence for and which formed the primary study of this dissertation, Ephesus. Before the Hellenistic period we do not have a very clear idea of what the city would have looked like beyond the Artemision, but we do know the location and approximate height of the temple and its altar (Figure 83).[1014] The general maritime approaches to the city, from the south and the west, are shown in Figure 84, with the estimated coastline from the Late Classical period highlighted in blue. Two viewsheds then show that the travelers approaching from the south would have been unable to see the Artemision, or any of the other features of the city, before the ships turned east to enter the Cayster River valley, while those approaching from the west may have had a much longer view of the Artemision and any other aspects of the cityscape (Figure 85, Figure 86).[1015] This is a pattern that likely would have held true throughout the history of the site, with only the later fortifications on the crest of Bülbüldağ being potentially visible from the southern approach. The final piece of analysis that emerges from this period is that in spite of its great size, the Artemision would only have been visually prominent and architecturally recognizable upon close approach. The view of the temple from approximately 5 km away, at the site of the later entrance to the Roman harbor canal can be seen in Figure 87, and it is clear that at this distance the landscape surrounding the structure would have still been more imposing and the temple itself would have been just a blip in the distance. However, this same approach to the city would have been a much different experience through the Hellenistic

[1014] Bammer and Muss (1996, 55) state that the temple would have stood 32m high and Bammer (1974, 204) writes that the altar "rose to a height of 10 meters".

[1015] The perspective nature of these types of images makes adding a scale difficult. For consistency and clarity each of the viewsheds presented in this dissertation will have a 20 km length from the observer. So the green and magenta coloring of what is visible and non-visible will reach 20 km from the small white dot of the observer, who is typically located at 2m above sea level.

and Roman periods as the city was relocated to its new location and became more fully developed with a wide variety of other structures.

In the Hellenistic period the shoreline had advanced significantly, leaving the Artemision landlocked, at a significant distance from the shore, but the maritime approaches to the city would not have changed, being limited by the mouth of the Cayster River valley (Figure 88). The construction of the city walls and the expansion of the new foundation of the city took place between Bülbüldağ and Panayırdağ, and the course of the walls, the curve of the shoreline, and the developed area can be seen in Figure 89. The monuments that we have evidence for from this period include the city fortifications, the theater, the Tetragonos Agora, the Felsspalttempel, and the residential complex above the theater, in addition to the Artemision, which persisted through this period. These are all modeled and shown in their relationship to the shore and the developed area of the city in Figure 90. If we consider a viewer on the water approaching the city via the western route indicated in Figure 88, they would have potentially been able to make out the presence of a city from as far away as the site of Notion, approximately 13 km from the new foundation at Ephesus, however individual structures may have been difficult to perceive (Figure 91). As they approached the city, however, individual structures would have become clearer, and by time they entered the Cayster River valley, approximately 7 km from the city the new town's fortifications and towers would have been clearly visible on the slopes of Bülbüldağ, and the theater likely would have been identifiable if the ship took a more northernly approach (Figure 92). The Artemision would have still been highly visible to the left (north) of the city, and if the viewer was attentive and in search of it the side of the Felsspalttempel may have been visible as well, near the Hellenistic harbor basin (Figure 92). A viewshed model calculated from a viewer in this position shows that the natural topography of the southern side of the valley, including the hill of

Kaleburun would have occluded much of the southern portion of the city, including most of the Tetragonos Agora and all of the upper town (Figure 93, 94). For viewers on a ship approaching along the southern coast this experience may have been even more extreme, as the natural topography would have occluded much of the lower town as well. By the time someone from this approach would have pivoted around the landscape to see much of the lower portion of the city they would have been approximately at the point of the beginning of the later Roman harbor canal, but even from here the upper portion of the city would have been mostly occluded by the landscape, city walls, and towers (Figure 95, 96). It is also notable that from this position the Felsspalttempel may not have been as exposed and visible as Ladstätter has argued, and that the other monuments, such as the Artemision, the theater, and the fortifications, would have had a much larger impact on the view of a person arriving by sea (Figure 95).[1016]

Throughout the Roman period the siltation of the river valley increased, threatening to cut Ephesus off from the sea, and so a canal was constructed reaching out from the city to the new seafront. The shoreline in the Roman Imperial period, the city walls, and the developed area of the city according to Groh can be seen in Figures 97 and 98.[1017] The Ephesians took full advantage of this new terrain in what was the former Hellenistic harbor basin to build many large monuments on the flat land near the harbor, but also to begin to use the space outside the city walls along the southern side of the canal as a necropolis, and these architectural and spatial developments have been modeled in Figure 99.[1018] When comparing the lower city at Ephesus in this period with that of the city in the Hellenistic period, as seen in Figure 90, the difference is dramatic, both in the

[1016] Ladstätter argues for this in a few publications, claiming that it may have even have served as a navigational landmark (2019 198-201; 2016, 257).
[1017] Groh 2012.
[1018] Compare Figures 97 and 98 with the plans presented in Figures 16 and 18 for a key to the structures.

relationship of the city with the sea and with the construction of a large number of new monumental buildings. Even from 13 km away, at sea in front of Notion, the city is significantly more visible and prominent at this time than it was in the Hellenistic period (Figure 91, 100). As a viewer approaches the city the fortifications still remain prominent, as does the Artemision, with many of the newer monuments of the city providing large, imposing façades in the views from the entrance to the Cayster River Valley (Figure 101, 102, 103). Perhaps surprisingly, the two large structures to the east of the Ionian acropolis, the Vedius bath-gymnasium and the stadium, were some of the most prominent structures, standing tall above the height of the Ionian acropolis but also reaching out to the north of the highly developed area at the foot and on the slopes of Panayırdağ. These buildings may have been some of the first that a traveler would have been able to perceive as individual structures, even if the architectural elements may not have been readily apparent, and a traveler approaching from the south, who would have seen the city reveal itself from north to south as they curved around the natural hills on the south side of the valley, would certainly have seen these buildings before the masses of the harbor bath-gymnasium or the theater came into view -- although still long after making out the fortifications on Bülbüldağ. As can be seen in Figure 103, the lower slopes of Bülbüldağ including the Serapeion and the upper city of Ephesus would not have been highly visible, even when approaching from the northern route. Also, from this perspective the tremendous footprint of the harbor bath-gymnasium complex, blocking the Verulanus halls from view, as well as any other lower structures in the area, is apparent. At the same distance, approximately 7 km from the Roman harbor basin, a traveler on a ship approaching the city from the south may not have been able to see any of the large monuments of the site, as they would have been occluded by the southern hills of the river valley, with the lone exception of the fortifications on the crest of Bülbüldağ (Figure 104). As the ship approached the entrance to

the harbor canal, the northern portion of the city would have begun to reveal itself, including the Artemision in the distance, the Vedius bath-gymnasium, the stadium, and the Olympieion (Figure 105). Once travelers reached the entrance to the harbor canal, the entire façade of the lower city would have presented itself, and as the ship sailed directly up the canal it would have been travelling towards the two buildings that presented the largest and most imposing façades in the harbor bath-complex and the theater (Figure 106). Even from this point the upper city was still not visible, and although the two round monuments are difficult to view in the viewshed plot, they stand proud of the slopes of Panayırdağ and Bülbüldağ quite clearly in the first-person view (Figure 106, 107).

For a traveler approaching the city of Ephesus in the Hellenistic period the fortifications, the Artemision, and the theater would have been the largest, and most recognizable features of the city from a distance. As they approached and eventually entered the harbor basin the Felsspalttempel, the Tetragonos Agora, and the residence above the theater would have also come into view and may have stood out from the fabric of the city that surrounded these monuments. Because of tremendous size, the Artemision would have persisted as a visible, prominent marker in the landscape long after the city moved to its new location. Even in the Roman period, a ship sailing along the coast toward Ephesus from the south would have first been able to see the fortifications and then the Artemision, an initial experience unchanged since the Hellenistic period, even as there were such dramatic changes taking place on the new land around the harbor. As the journey to the city continued, newer monuments would have come into view, beginning with those on the northern side of the lower town and then sweeping through to the impressive mass of the harbor bath-gymnasium and the theater. At the same time the smaller round monuments on the hillsides would have come into view, not for their size, but for their location. The larger

monuments at the base and on the slopes of Panayırdağ would have been part of a busy cityscape, but the round monuments would have stood proud from the slopes.

The necropolis, although not significantly developed in this period, may have played a significant display function in a similar way to that of the round buildings, which were monuments of remembrance of one form or another. In later periods, as the necropolis expanded to the other side of the canal, the experience of viewing and passing through this space would have been similar to that of approaching landlocked cities elsewhere in the ancient world, where roads often led through a city of the dead before arriving at a city of the living. One difference may be that in the case of Ephesus other landmarks and monuments of the city would have still be visible throughout this approach, rather than being hidden completely beyond a terrestrial city wall. Another pattern that can be seen in the types of structures that are built on the coastline near the harbor is the dominance of the baths, and entertainment structures like the theater and stadium in the view. Even though the Olympieion would have been visible it would not have presented such a large area towards the viewer and would have been below the stadium and the Varius bath-gymnasium complex for the viewer, and thus it would not have had the benefit of prominence, like the round monuments did. The development of Ephesus may have been following the advancing shoreline, but the monuments that were constructed, whether by private individuals or government representatives or civic bodies, also happen to be highly visible and some of the largest present their most monumental face to the canal. Although cause and effect may be outside of our grasp it is easy to say that travelers would have seen the familiar features of the city fortifications and Artemision as they approached the city, but then a whole series of diverse structures, including civic buildings as well as temples and sanctuaries.

At Elaia, the maritime satellite for Pergamon, the situation was rather simpler and more consistent. Despite the various potential structures identified during geophysical survey and other investigations at the site, only the city walls have been confidently identified, phased and mapped. When entering the Bay of Elaia the landscape would not have provided the same restrictions as at Ephesus, and ships arriving would have generally had a similar view of the site, with almost the entire site visible to an observer, even at a distance (Figure 108). As an observer approached the city the city walls would have played a significant role in the cityscape, but the acropolis hill also would have stood proud above the walls, so any structures there would have been highly visible (Figure 109). The viewshed plot of a viewer approximately 2 km from the city shows that the city's fortifications would have occluded some of the space behind them but also that the acropolis hill would have still been highly visible (Figure 110). The other features of the city, such as the potential shipsheds or the structure by the harbor have not been dated or published in enough detail to reconstruct their form or to place them into a particular time period. Even with the lack of evidence for landmarks or the forms of other monuments in the cityscape the images produced here can help provide a better understanding of the importance of the city's fortifications and the acropolis hill in the landscape of Elaia, and thus the first moment of arrival for many at Pergamon. Larger structures may be identified in future research at the site but at the moment it appears that Elaia did not develop in the same way as Ephesus, and was instead left without the monuments that developed at Pergamon itself. A visitor or traveler would have seen Elaia, potentially at a distance, but may not have been able to perceive any sort of pattern or meaning to the architecture there beyond the city's fortifications, reserving that experience for the land journey to, and subsequent arrival at, Pergamon itself. Whether intentional or not the public authorities and private building patrons responsible for the monumental development of Pergamon did not develop the

maritime façade of their primary harbor in a way that matched that of Ephesus, or that would have made a major impression on travelers arriving via the sea.

At Smyrna the development of the modern city has significantly limited our ability to identify the ancient buildings of the site, but fortunately ancient authors provide us with some insight into the appearance of the city may beyond the archaeological remains. As far as those remains are concerned, there is little that we can model with confidence (Figure 111, 112). From the city walls to the recent excavations around the agora and theater some features of the city are better known than others, but the stadium and the Temple of Zeus (later Temple of Hadrian) are less clearly identified although still plotted by Ersoy in his recent plan of the city.[1019] The acropolis on Kadifekale is often referred to as highly visible, but from a distance it would have been viewed against the backdrop of the larger mountains to the east and thus would have been less visually distinguishable until a closer approach (Figure 113). As a ship approached the city from the west, monuments such as the Temple of Zeus, the theater, seen from the side, and the bath above the harbor in the Roman period would have obscured much of the cityscape behind them (Figure 114, 115). Along with the city walls, the stadium, and the acropolis, many of the monuments of the city would have been highly visible as a ship approached the city (Figure 116). Aristides comments repeatedly on the prominence of the acropolis and the overall harmony of the city below it, but this harmony is difficult to perceive today.[1020] The relatively sparse cityscape that we are able to reconstruct does not include many of the impressive features that he describes, such as the Asclepion, not to mention the streets and avenues, so perhaps these missing elements would have filled out a city with greater harmony and balance than the current reconstructions allow. At the

[1019] Ersoy 2016, 3 fig. 2.
[1020] Aristid. *Or.* 17, 18.

moment the enormous Temple of Zeus on the western point of the city appears as if it would have presented a tremendous mass over the city walls and out to sea. And the association of this temple with Hadrian is reminiscent of the debate over the identification of the Olympieion at Ephesus, which is thought by some to be a Temple of Hadrian, and is also in a prominent feature to travelers arriving at sea. Between the missing architecture something that is also notably missing from our ability to reconstruct with confidence is the mass of ships that would have been anchored in the open water outside of the city. The painting by de Bruyn from the 17th century and the engraving published by Tournefort from 1718 give some indication of what this sort of clustering of ships looked like in the late 1600s – early 1700s, with the masts of the ships rising up to touch, or even block the view of the city, even if the acropolis's prominence above the city is greatly exaggerated (Figure 60, 61).[1021] This non-static aspect to the maritime vistas of these cities, of the ships in their harbors and other elements like smoke rising from fires, is also difficult to capture without a more speculative reconstruction, which is beyond the scope of this project, but which was central to ancient experience.

The last of the four case studies is Rhodes, which is another case of a city which has seen near constant occupation since antiquity leading to much of the ancient city being hidden beneath later developments. The modern city covers much of the same area as the ancient Greek and Roman settlement, and is clear from overlaying the ancient town plan on the modern satellite imagery (Figure 117, 118). Rhodes is the only one of the case studies that is located on an island or on a peninsula, rather than in a bay, and so it had many more potential approaches. There are two major approaches that will be touched upon here based upon travelers moving along the coastline on long distance journeys, one from the west and one from the east (Figure 119). The

[1021] Tournefort 1718, 332 fig. 140.

eastern approach may have been taken by ships travelling from Egypt and the Levant to the Aegean and beyond, and this path may have seen a lot of traffic as goods and grain flowed from east to west. Many of the best studied landmarks of the city come from the acropolis, such as the Temple of Apollo, Temple "B", the stadium, odeon, and gymnasium, but other areas have been identified as the general sites for other monuments, such as the Asclepion or the Ptolemaion, together with the shipsheds and the tetrapylon near the military harbor (Figure 72, 73). These other areas have been modeled as complete terraces, at the elevation of their highest point, but not raised to show architectural features where there is no evidence. The city has been described as having a series of such terraces which may have helped define the view from at sea, and so modeling at least these areas that have been identified as housing ancient monuments may help offer at least some of that experience.[1022] Another interesting pattern seen at Rhodes is that the city generally maintained its character between the Late Hellenistic and Early Roman periods. The erection of the tetrapylon in the late 2nd century CE is the most significant change to the cityscape, as most of the Roman involvement in construction for which we have evidence comes from the renovation and restoration of existing structures rather than new construction. Although specific changes to the maritime façade throughout this period may be hard to identify, the destruction of the shipsheds in the 2nd century CE earthquake and their replacement with a monumental gateway can still speak to some change in the ideals and goals of local civic authorities and building patrons.

When approaching the city from the west there was little visible at a distance, as the city lay on a low peninsula with no higher mountains or hills to frame it from behind (Figure 120). Given that the natural topography slopes gently downward from west to east when approaching from this direction almost the entire cityscape would have been visible, if difficult to understand

[1022] Filimonos-Tsopotou and Patsiada 2018, 82.

in detail (Figure 121). As a ship approached more closely, the major features of the city that come into focus first were the city's fortifications, including those on the more distant southern edge of the city, and the monuments that rose prominently up from the top of the acropolis, namely Temple of Apollo and the Temple of Athena Polias and Zeus Polieus, with the somewhat lower Temple "B" not as highly visible despite its location further east within the same terrace as the Temple of Apollo (Figure 122). At this distance, 4 km from the harbors, the city walls can be seen to have a significant impact on what is visible of the lower city, which would have included the harbors and quaysides themselves and even the Temple of Aphrodite by the Great Harbor, although these areas would not have been visually prominent (Figure 123, 124). In the late 2nd century CE the would have been prominent upon close approach to the harbor entrance (Figure 82, 125). When approaching from the west the steep slope of the acropolis hill would have blocked any view of the terraces and monuments on the eastern slopes of the city, but the Temple of Apollo and the Temple of Athena Polias and Zeus Polieus would have stood proud above the crest of the hill and provided two reference points as in the approach from the east (Figure 126, 127, 128). The city walls along this edge of the city and the temples would have been the first features of the city that could have been perceived by travelers approaching from the west in all periods. The area just south of the West Harbor, at a slightly higher elevation than the fortifications would also have been visible but thus far there has been no evidence of monumental construction in this area; rather it seems to have been residential in nature and thus may have presented a more textured without notable landmarks.[1023]

[1023] Manoussou-Ntella 2012, 36

The prominence of the temples on the acropolis of Rhodes is notable throughout both the Hellenistic and the Roman periods.[1024] Even if there were other structures throughout the rest of the city, including large buildings like the theater or harbor baths at Ephesus, these temples would still have stood prominently on the hill top as opposed to being lost in the terraces and mass of structures on the slope below. The smaller scale building fabric closer to the harbor may have changed over time, with the construction of the tetrapylon, for example, but the first visual markers of the city appear to have remained the same throughout the Late Hellenistic and Early Roman periods.

Comparison with other cities

The case studies presented here are far from an exhaustive list of the cities of coastal Asia Minor, and many other sites are able to contribute to our understanding of the experience of arriving at these harbors while also offering some insight as to what the various conditions that led to these architectural forms may have been like. A few of these other cities will be discussed briefly here, without the full historical overview or site descriptions of the main case studies, but instead with a focus on specific aspects of the cities that are most relevant to this dissertation and to the questions about how people experienced and viewed the city.

One of the clearest examples of an outward facing city in the rest of Asia Minor is Halicarnassus, modern Bodrum, which has been discussed a few times elsewhere in this dissertation. Vitruvius's description of the city offers valuable information about the topography of the site, but also about what was important to a viewer and what features of the city would have

[1024] The persistent prominence of the temples on the acropolis offers some support for Lippolis (2016)'s argument that the sanctuary of Helios, and the Colossus, would have been located on the acropolis nearby the Temple of Apollo, if we consider that this monument was intended to be as visually prominent as possible. From the acropolis it also could have been viewed from all approaches to the city, not only from the east.

been prominent in his time.[1025] He describes the city as like a theater, and outlines the monuments that would have stood at the various levels of the city, as if in the different seating and structural areas of an ancient theater (Figure 131).[1026] Given the detail of the description and the personal, emotive language used, this account is likely based on the author's own experience, as he visited the city in the mid-1st century BCE.[1027] The effect that the city had on Vitruvius at this time was the result of the urban development program of the 4th century BCE, one of the first such programs designed with a specific visual impact in mind, according to P. Pedersen:

> The Greek world had seen impressive building projects before which were not without representational intentions (such as the Periclean building programme) as well as residential dwellings of tyrants and kings. But the designing and entire new city which had as its purpose not only to fulfil the functions of a normal city, but also to express visually its role as the capital and residence of the ambitious and powerful Hekatomnid dynasty was a new phenomenon in the Aegean world.
>
> The planners and architects of Halikarnassos managed to give the new city an adequate monumental appearance in its layout and an unprecedented royal aura in its embellishment with monumental buildings.[1028]

Although these monumental buildings would have included temples, theaters, and other types of structures, in Halicarnassus the visual focus was on the Mausoleum, another one of the seven wonders of the ancient world (Figure 132).[1029] The variety of structures that Vitruvius describes, and the impression made by the city as a whole, rather than just by individual temples and other buildings, foreshadows case studies examined here, such as Smyrna and Rhodes, which were described for the way the elements of the cityscape worked together in harmony to provide a vista

[1025] Vitr. *De arch.* 2.8.10-15.
[1026] Pedersen (2018, 95 fig. 5a-h), the director of the Danish Halikarnassos Project, has produced a guide to where each of the spaces that Vitruvius mentions would have fallen on a plan of a theater.
[1027] Pedersen 2018, 104; Jeppsen 1989; Bean and Cook 1955, 87.
[1028] Pedersen 2018, 105.
[1029] The plans of the city demonstrate that the Mausoleum would have sat in the center of the façade and the reconstruction by Krischen also emphasizes how dominant this feature would have been in the landscape.

to approaching visitors. At Ephesus, too, we can see the transition from a single monument dominating the vista to a wide variety of structures working in concert to define the view from the sea.

Fewer than 25 km from Halicarnassus lay the city of Cos, on the northern edge of the island of the same name (Figure 133). The city was founded as the result of a synoecism in 366 BCE in its current location, and Diodorus comments on the construction of fortifications and a harbor, and notes that the success of this resettlement made it a rival of the leading Greek cities.[1030] The city is described by Strabo as one of the most beautiful to approach by sea:

> The city of the Coans was in ancient times called Astypalaea; and its people lived on another site, which was likewise on the sea. And then, on account of a sedition, they changed their abode to the present city, near Scandarium, and changed the name to Cos, the same as that of the island. Now the city is not large, but it is the most beautifully settled of all, and is most pleasing to behold as one sails from the high sea to its shore. The size of the island is about five hundred and fifty stadia. It is everywhere well supplied with fruits, but like Chios and Lesbos it is best in respect to its wine.[1031]

Strabo does not elaborate on what would have made the city so pleasing to behold from the sea, but the emphasis given to way the city wrapped around the harbor and to the city walls, which separated the harbor district from the rest of the city, as well as to the harbor itself in the description by Diodorus would perhaps indicate that these features were significant in the view approaching the harbor (Figure 134). Here, as in Ephesus, Smyrna, and Rhodes, the city was built on a slope rising up from the sea, although perhaps a gentler slope than the steep hillsides at Ephesus and Halicarnassus. Many of the monuments that have been discovered near the harbor break from the Hippodamian grid of the city and face towards the harbor, including the Sanctuaries of Aphrodite

[1030] Diod. Sic. *Bibl*. 15.76.2.
[1031] Strab. *Geog.* 14.2.19 (trans. H.L. Jones, 1928).

and Heracles, an emporion, shipsheds, and a stoa connected to the two sanctuaries (Figure 134).[1032] These features were raised by terracing to be visible above the quayside by those approaching by sea and they "constituted an urban scenography offering a privileged view to those who came from the sea, as confirmed by Strabo."[1033] The scenography provided by the area around the harbor was enhanced in the Roman period by repairs to the commercial district and agora after the earthquake of the mid-2nd century CE, which resulted in the destruction of the fortification wall, the lower courses of which were subsequently used for the foundations for a large propylon that connected the harbor with the rest of the city, described by Livadiotti:

> This transformation created a huge public space, a great agora-forum, which extended from the port to the ancient plateia; the new north building kept the agora in direct communication with the harbour, not for commercial purposes, but rather to increase the splendid image that the city projected to visitors arriving from the sea. During this period, it seems that the function of the northern sector of the agora and its relationship with the harbour were deeply altered: the original market was replaced by a monument of representative type and strong visual impact, in keeping with the provincial Imperial constructions due to the euergetism of the emperors.[1034]

This pattern of development, where a monumental gateway was constructed around a harbor after the abandonment of older structures or their destruction due to disaster, is similar to the evolution of the Mandraki harbor at Rhodes, where the tetrapylon was constructed to replace the Hellenistic shipsheds. Both Rhodes and Cos were islands with gentle sloping terrain characterized by terraces that would have presented a stepped vista out to the sea, and both saw similar developments at their harbors. At Rhodes, however, we saw that the temples on the acropolis of the site stood proud of the rest of the city, and would have been identifiable at a long distance. At Cos there was a

[1032] Livadiotti and Rocco 2017, 156
[1033] Livadiotti and Rocco 2017, 156. This concept is also discussed by Rocco and Caliò (2016).
[1034] Livadiotti 2018, 64.

large, elaborate Sanctuary to Asclepius on a hill southwest of the city, but lay approximately 4 km away, and the hills behind would have limited its prominence in the skyline above the city below. At Cos the fabric of the city rising on the hillside above the harbor, and the orientation and remodeling of the façade of the port itself would appear to have characterized the view on arrival and created the "most pleasing" feeling as described by Strabo.

Some of the specific ideas and concepts examined in the case studies in this dissertation appear in other sites from the region. For example, Cnidus at the end of the Datça Penninsula had a double harbor system, with the city rising up on the northern hillside, presenting a number of terraces to ships and travelers arriving by sea (Figure 135, 136). M. Coppa, in describing the city writes that the monuments and civic spaces would have stood out clearly in the skyline of the city as people moved about within the city, but even more so "from the ships and passengers arriving, to whom Cnidus presented itself with spontaneity in an incredible vista."[1035] There is also a different aspect of the built environment at Cnidus that presents an alternative kind of connection between monument and maritime traveler. A monumental tomb located about 4 km east of the city was excavated by Newton in the 1800s, and its famous lion sculpture was taken to the British Museum.[1036] The tomb stood approximately 18m high and was surrounded by a temenos wall, and given its location on a promontory high over the water it likely would have been a clear landmark for travelers approaching Cnidus by sea.[1037] The monument is likely from much a much earlier period than the focus of this study, probably dating to the late 4th or early 3rd century BCE, based on comparisons with similar tombs such as the one from Amphipolis.[1038] But the idea of a

[1035] Coppa 1981, 625 (trans. by author).
[1036] For the discovery and excavation see Newton (1863, 480-502). The statue is British Museum Number 1859,1226.24.
[1037] Rice 1993, 250-51; Fedak 1990, 77.
[1038] Fedak 1990, 78. This date is not secure and dates as wide as from 394 BCE to the 2nd century BCE have been offered (Rice 1993, 250-51).

landmark in visual dialogue with the sea and specifically an individual monument like this one, rather than the full cityscapes that we saw at Halicarnassus and Cos (which were likely also present at the city of Cnidus upon arrival), recalls the round monuments that sprung up from the hills of Ephesus. These Ephesian monuments were constructed much later than the Lion Tomb from Cnidus, but they would have been similarly prominent, and they would have performed a similar display or honorary function, now integrated into the fabric of the town rather than being perched along the approach to the city. In the case of Cnidus, the Lion Tomb would not have been the only monument along the coast as Newton comments that there were other tombs along the peninsula to the east of the city center and supposes that they may have functioned as a series of watchtowers, but a display function outward towards the sea also seems likely.[1039]

[1039] Newton 1863, 502.

Chapter 7 – Conclusion

Recent studies of the ports and harbors of coastal cities in the eastern Mediterranean have addressed the issue of the aesthetic character of the port facilities, examining how the built environment can be used to express ideas to certain visitors, notably Roman aristocrats and government officials. With the work by Feuser, Bouras, and Ryan, the comparative approach to harbors and their ideological or symbolic function has been a renewed theme in the scholarship, within the broader expansion of the study of Mediterranean networks and the sea as a connecting medium in antiquity brought to the forefront by Horden and Purcell's *The Corrupting Sea*.[1040] This dissertation set out to address a different question, namely that of the more general experience of arriving by ship at the cities of Asia Minor and the surrounding area, well in advance of the embrace of the harbors. Were there certain elements of the maritime façades of these cities that were visible from afar, or more prominent than others? Did these cities appear the same to maritime travelers throughout antiquity or did they undergo changes to their form that would have created a different impression for visitors arriving in later periods? And, if so, could these changes be linked to some kind of messaging or some kind of intentional communication to a specific group, whether to Roman elites or to other groups of people who would be traveling to and from these cities?

The four main case studies were selected in order to provide a diversity of contexts, both in terms of their physical landscapes and in their local histories, including their varied relationships with Rome. Through analysis of the historical contexts, natural settings, and architectural

[1040] Feuser 2020; Ryan 2018, 2016; Bouras 2016, 2014; Horden and Purcell 2000.

development of these sites, with a focus on the development of harbors and harbor facilities during this period as well as the landmarks and monuments that would have been visible on the approach, some clear contributions have emerged of relevance both to the scholarly discourse on urbanism in Asia Minor and to port and harbor studies in the Hellenistic and Roman periods throughout the eastern Mediterranean.

The Experience of Arrival

The experience of traveling along the coast, and of arriving at cities by sea is described by a number of ancient authors. These descriptions offer valuable information about the ways these cities were viewed and experienced, although admittedly from a very limited social perspective. Diodorus Siculus writes that Rhodes was shaped like a theater, and Vitruvius similarly describes Halicarnassus, even offering more detail as to the different elements of the city throughout this analogy.[1041] These descriptions were comments on the physical form of the cities but also offer insight into how their built environments were perceived, showing that their spatial organization and the siting of individual monuments were important considerations. Vitruvius also makes a clear distinction between how coastal and inland cities should be formed, writing that for coastal cities the forum should be located by the harbor, and in inland towns in the center of the city.[1042] Aelius Aristides gives a more detailed description of the maritime view of Smyrna, with the city rising up from the harbors to the Acropolis, and recalls to Marcus Aurelius and Commodus how they were affected when they approached the city.[1043] After the devastating earthquake in the 2nd century CE he describes what it used to be like to approach Rhodes:

[1041] Diod. Sic. *Bibl*. 19.45.3; 20.83.2; Vitr. *De arch.* 2.8.10-11.
[1042] Vitr. *De arch.* 1.7.1
[1043] Aristid. *Or.* 18.2-3, 19.1-2.

> Upon sailing in, immediately you were met by so many great harbors. They jutted out into the sea with stones as breakwaters, some receiving those from Ionia, some those from Caria, and others those from Egypt, Cyprus, and Phoenicia, as if each had been made for the reception of a different city. Lying near the harbors there were many handsome docks when you ruled the sea, and they became no less great through the years, nor was one compelled to guess where they were located, but their mere sight caused astonishment. And if one should look down upon their roofs from above, he would compare them to a kind of hanging field. After this could be seen triremes, with two and three banks of oars, or with seven and nine rows, some ready for sailing, others in dry dock, as it were in storage; but if one wished to launch and sail any of them, it was possible. There could be seen bronze beaks, some at the harbors, others distributed in the upper parts of the city along with many other glorious spoils of war, some taken from the Etruscans' pirate fleet, some from the campaigns of Alexander, others from wherever each had been brought into the city. There could be seen the precincts of the gods, temples and statues, of such numbers, size, and beauty, that they were worthy thank offerings for all the other works, and that it was impossible to decide which of them one would admire more, for any one of them was a sufficient source of pride for another city. After this, bronze statues equal to all those in the rest of Greece, and paintings of every style, various ones set up in different parts of the city, and adornments, come unique to this place, others the fairest. And the Acropolis full of fields and groves, in the rest of the city nothing higher than anything else, but the construction ample and equal, so that it would seem to belong not to a city, but to a single house. The avenues uninterrupted from beginning to end, least deserving to be called lanes. The city glorious and gloriously extended in every direction. But a wonder, both before and after all this, which could not satiate the eye, the circuit of the walls and the height and beauty of the interspersed towers, which were like beacons for those sailing in, so that only at Rhodes did men, landing and taking in the view, immediately grow in spirit. What was fairest of all was the fact that this circuit was not separated from the rest of the city nor was there any empty space between, but it clung to the city and like a crown circled its head.[1044]

Cosmopolitan travelers and Roman rulers formed only a small sliver of the maritime audience that would have seen these façades, of course, among the traders and merchants who would have approached these ports regularly, not to mention the daily comings and goings of fishermen and the like. It is difficult to recover all these different perspectives. The architectural decoration of individual structures would have required a specific lexicon or understanding to interpret, an understanding of the semiotics of the imagery that may not cross between cultures or

[1044] Aristid. *Or.* 25.3-7 (trans. C.A. Behr, 1981).

even between time periods. But the perception of the mass of the structures, or the prominence of their outlines on the slopes and hilltops of the cities would have been accessible to all maritime audiences. As ships approached these cities, anchored in the seas or bays nearby, or even entered their harbors, the visible landmarks and urban fabric could have imparted certain feelings in travelers of all types, perhaps the "astonishment" or "affect" that Aristides mentions, but also perhaps other sentiments or ideas such as security via the city walls, or excitement at the prospect of entertainment or spectacle caused by theaters and other entertainment structures.

Patterns in Development

This dissertation presented the archaeological development of four port towns in and around Asia Minor with a focus on the maritime façades of these cities as well as the historical development and the literary record that helped to define the maritime experience of arrival at these sites in different periods from the 2nd century BCE to the 2nd century CE.

Chapter 2 focuses on Ephesus, a city that was rapidly expanding throughout the Hellenistic and Early Roman periods, even as it engaged in a wide number of political and military struggles throughout the final two centuries BCE. Writing in the 2nd century CE Aristides does not provide as thorough a description of Ephesus as he does of Smyrna or Rhodes, or even Pergamon, but he does refer to the importance of Ephesus as one of the highest ranking cities in the known world writing:

> I think that all men who live between the Pillars of Hercules and the river Phasis would rightly regard Ephesus as having a connection with them both through the accessibility of its harbors and through all its other means of reception. All men journey to it, as if to their own country, and no one is so foolish, or so flies in the face of reality, that he would not concede that the city is the common chancellery of Asia and a refuge in time of need.[1045]

[1045] Aristid. *Or* 23.24 (trans. C.A. Behr, 1981).

With the support of the visualizations created in chapter 6 the importance of the city and its leading role throughout the early years of the Roman period can be inferred also from the number and scale of the monuments constructed by its harbor, at the foot of Bülbüldağ and Panayırdağ (Figure 106). The investment made to construct these monuments was substantial and they would have been on full display as travelers approached the Roman harbor basin, whereas in the Hellenistic period the Artemision and theater would have dominated the view from the sea (Figure 92, 95, 101, 106). Throughout the entire period considered in this study however, the first impressions of the city would not have come from the theater, nor the other monuments by the harborside, but rather from the Early Hellenistic fortifications that crested the hills around the city, and the Artemision which would have risen more prominently from its location somewhat isolated from the Hellenistic and Roman urban center. These monuments were constants in the image of the city throughout the period under consideration, but the many other new buildings, all sharing a common orientation, would have played a significant role in the approach from the sea as travelers made their final turn around the hills to the southeast to head towards the city. As a traveler's vision panned to the right across the landscape they would have encountered the Vedius bath-gymnasium complex and the stadium, rising up over the Ionian Acropolis and the Olympieion, then the huge mass of the Harbor bath-gymnasium and the theater above it. Each of these structures was built, or in the case of the theater expanded, in the Late Hellenistic and Early Roman periods, and while some may have taken advantage of new land that had become available with the advancing Cayster River sedimentation others, like the theater or the stadium were on land that always would have been accessible. In the later years of the period under study the necropolis on the southern edge of the harbor canal would have also become established, causing a visitor to pass

through a "city of the dead" before arriving at the city of the living, a common pattern in land-locked cities across the Mediterranean.

In Chapter 3 the development of the coastal approach to Pergamon was discussed, but with Pergamon removed from the coastline its ports did not receive the monumental elaboration that the other cities in this study, nor others around the region, may have experienced. The archaeological evidence from Elaia, and the other harbor towns, does not paint a picture of any particular landmarks being intentionally placed in the landscape to draw the attention of visitors. At Elaia the city walls are the only monument that is securely identified and, like at Ephesus and indeed the other case studies discussed, these would have been a highly visible aspect to the city (Figure 109). Although there is room on the acropolis of the site for the potential development of prominent landmarks visible from afar there is no evidence any such construction, This is very different from the pattern that can be seen in central Italy, with Portus and Rome, where Portus became elaborately decorated with monuments that would have been displaying messages outward to the audiences arriving at its quaysides.[1046]

In Chapter 4 Smyrna, "the ornament of Asia," was presented and discussed, with an emphasis on the literary record as provided by Aristides, but also the evidence for the location of the harbors of the city, which may have dictated both where ships would have headed but also their perspective towards the city. Being sited at the end of a long bay the maritime approach to the city would have been restricted to a western path, arriving with the city rising up before you, but still below the mountains beyond (Figure 113). The experience of those arriving would have been dominated by the Temple of Zeus Acraeus, or Hadrian, on the western edge of the city, which has

[1046] Keay and Millett 2005, 304-05.

been lost under modern development but would have had a massive footprint of 50x100m with columns six feet in diameter.[1047] But the rest of the city may have additionally provided a harmonious façade, with terraces and stoas rising up on the hillside to reach the acropolis on the Kadifekale hill, as described by Aristides. The monuments of the city are difficult to identify but the city walls have been traced in some places and a full reconstruction is provided by Cadoux, then Naumann and Kantar, and most recently by Ersoy (Figure 57, 63, 64). These fortifications would have again proven an indelible landmark in the cityscape, a pattern that appears to be similar between the case studies and one that is more consistent than any temple or theater or other type of structure having a particular orientation towards the sea. At Smyrna the limited evidence we have still supports the descriptions of the ancient authors like Aristides, but the archaeological record of development of the city does not appear to present a broad array of monuments like that of Ephesus.

The final case study, presented in Chapter 5, was that of Rhodes, on an island just off of the coast of mainland Asia Minor. Its position on a peninsula meant that it could take advantage of multiple harbors in multiple directions along its coastline, but the two most well developed harbors were in the northeast of the site, those of Mandraki and the Great Harbor (Figure 75). The city rose up on a hillside to the west of the harbors, reaching an acropolis that would have stood at the edge of steeper slopes to the water on the western side of the promontory. As at Smyrna, the buildings of the ancient city are unfortunately obscured or hidden by modern development and so the evidence we have is limited. The Colossus that the city was known for would have collapsed by the Late Hellenistic period, and even though it would have still been an attraction for visitors during the Roman period, it would not have had the same visual impact upon those arriving at the

[1047] Prokesch von Osten 1836, 522; 1834, 62-63.

city as when it was standing. Instead the city was defined by its terraces, its fortifications, and the many sanctuaries and temples scattered throughout the city, but especially on the top of the acropolis (Figure 124). These features of the city were mostly constructed in the Hellenistic period and would have stood throughout most of the Roman period before being damaged in an earthquake in the 2nd century CE. At the same time the shipsheds that would have lined the quay of the harbor basin at Mandraki were destroyed, as lamented by Aristides, and in the late 2nd century a monumental tetrapylon was constructed over some of their remains (Figure 82). The Roman period interventions in the city appear to be mostly renovations and smaller constructions, such as the tetrapylon, rather than the elaborate, monumental construction program that took place at Ephesus. At Rhodes, as at each of the case studies, the fortifications of the city would have played a significant role in the visual approach to the city, even if the temples on the acropolis would have stood proud of the crest of the hill of the city and would have thus been clear landmarks for ships approaching from any direction from a long distance away (Figure 122, 126).

Between these case studies and the brief commentary on the sites of Halicarnassus, Cos, and Cnidus it is clear that there was no one pattern of development in the sites of the eastern Mediterranean throughout the Late Hellenistic and Early Roman periods. There is a diversity of approaches to their architectural development that ranges from very little investment, such as at the harbors of Pergamon, specifically Elaia, to a tremendous amount of investment that resulted in a completely new maritime façade at Ephesus. H. Halfmann has argued that the large buildings constructed in Ephesus in the first decades of the Roman period were due to an influx of wealthy foreigners at the site thanks to its successful port and position as the main entrepot to Asia Minor from west along with its role as the main center of attention for Roman officials.[1048] But he claims

[1048] Halfmann 2003; 2001.

that at Pergamon there was less motivation to innovate and to develop new architectural features of the city, until the massive developments under Trajan, because the local aristocrats were not so ingrained in the affairs of Rome, were especially proud of the heritage and Hellenistic building programs of the city, and the city was not such a high traffic zone so personal displays of wealth and power may not have been so effective.[1049] Eventually Pergamon does experience a building boom, in the 2nd century CE, but this does not translate to the harbors at Elaia, Atarneus, Kane, or Pitane. Similarly, the other case studies of Smyrna and Rhodes do not see the same amount of investment or attention as Ephesus, at least not as far is visible in the archaeological or literary records, despite being important ports with highly trafficked harbors. These sites would have had different relationships with Rome, and the close relationship that Ephesus maintained with the government officials as well as the new investments from Italian foreigners, as identified by Halfmann, may have been one of the causes of Ephesus to stand out from the other cities studied here in the number of new monuments and the changes to the maritime façade throughout this period. But in addition to the sociopolitical context Ephesus was fortunate, in some respects, to have the Cayster River siltation provide new land at the harbor's edge just at the moment that the conflicts of the Late Hellenistic period were coming to an end and these new connections with Rome were made. This new canvas for the built environment allowed foreigners, and eventually locals alike, to build new monuments in the landscape that could be visible from afar. At Smyrna and at Rhodes the landscape was more static, so there was less opportunity to create a new monumental district without drastically changing the form of the city, and there may not have been the motivation, as at Pergamon, to make such changes.

[1049] Halfmann 2003; 2001.

Regarding the façades of these cities more generally, Feuser has recently claimed the harbors of cities across the eastern Mediterranean acted like plazas, with buildings crowding the quayside, dominated by temples, honorary monuments, porticoes, and monumental gate buildings.[1050] This dissertation moved beyond the harbor to look at the entire façade of the city, Between the two extremes of Elaia and Ephesus the other two case studies are lauded by Aristides for their harmony and for the overall aesthetic impression provided by their monuments, terraces, and functional buildings, such as the shipsheds at Rhodes,. Even though at Rhodes the shipsheds are replaced with a monumental tetrapylon this may not have been a significant change to the first impression that the city would have made via the temples on the acropolis, the fortifications, and its overall terraced form, which are what would have been first identifiable from afar.

As a whole, the cities of Asia Minor throughout this period appear to undergo less change as regards their maritime façade than might have been expected. The monumentalization of the area around the harbor at Ephesus can be explained by the rise of Roman influence and an attempt by both locals and foreigners to articulate new aspirations in a well-established language of public benefaction via construction on reclaimed land, but in the other cities the changes were much less identifiable between the Late Hellenistic and Early Roman periods. This study has shown a wide diversity in the developmental trajectories of the harbors of the most significant and prominent cities of Asia Minor and the surrounding regions via an analysis of the archaeological and literary evidence. In the end it seems as if the developments of the maritime façade at Ephesus in the Late Hellenistic and Early Roman periods were unique, similar to the city's position as the largest emporium and most important city in Asia during this period, as claimed by the ancient authors.[1051]

[1050] Feuser 2020, 328-40.
[1051] Strabo *Geog.* 14.1.24; Dio Cass. *Roman Hist.* 51.20.6; Aristid. *Or* 23.24.

Future Directions and Final Remarks

This project opened at least as many paths for future research as it was able to address. Some of the most obvious directions for future research include adding more case studies to the analysis, including a wider diversity of cities and their ports beyond just the largest most prominent urban centers throughout this period and addressing some non-coastal cities for comparison. Well studied sites from the region and relative time period could include Aphrodisias, Magnesia, or even Sardis, and these cities could provide the foil to the outward facing nature of the coastal cities if their urban form presents different patterns less focused on this performative function.

Another contextual question that could be expanded upon in more detail includes who, specifically, was investing in these monuments. A more thorough analysis of the epigraphic and historical evidence from these sites may expose patterns in which groups or individuals were responsible for the developments visible from the sea versus those that were less prominent. If a deeper pattern were to emerge then this study would be able to link that pattern to the visual aspect of the façade of the city and to evaluate what groups were responsible for these structures more confidently, thus potentially allowing for a more nuanced discussion of a potential message or idea that these structures were meant to convey.

Beyond the analytical questions there is also room to expand upon the methodological approaches undertaken in this study. Much of the focus in this dissertation was on providing a thorough and comprehensive site biography of the major case studies presented, and the computing approaches to modelling these sites relied heavily on published plots that were georeferenced by eye and by the understanding of the author. The future of this project could include obtaining the original site plan data from the individual projects, removing potential error, however small, from the georectification and tracing process. This kind of close connection with the projects and site

directors may also lead to access to unpublished data and interpretations regarding the form and scope of the structures being modelled, adding cutting-edge information to the models and viewsheds that have already been produced.

Overall, this dissertation was able to present a considerable amount of information regarding four of the most significant and prominent coastal communities of Asia Minor throughout the Late Hellenistic and Early Roman periods, supported by visual analyses that are novel and unique. The analysis of these site biographies and the visual outputs shows that there is considerable diversity in how these sites developed over this period and that they did not all respond in the same way to historical changes such as the rise of Rome. On the contrary, each of these cities, and the people responsible for their architectural development, had their own motives and were working within unique historical and environmental conditions, which influenced the decisions regarding urban planning and building investment. Further research on some of the new questions raised by this project may allow for a better understanding of these issues, and each of them has the potential to contribute to future scholarship on urbanism, the maritime world, and community identity in the Hellenistic and Early Roman periods.

FIGURES

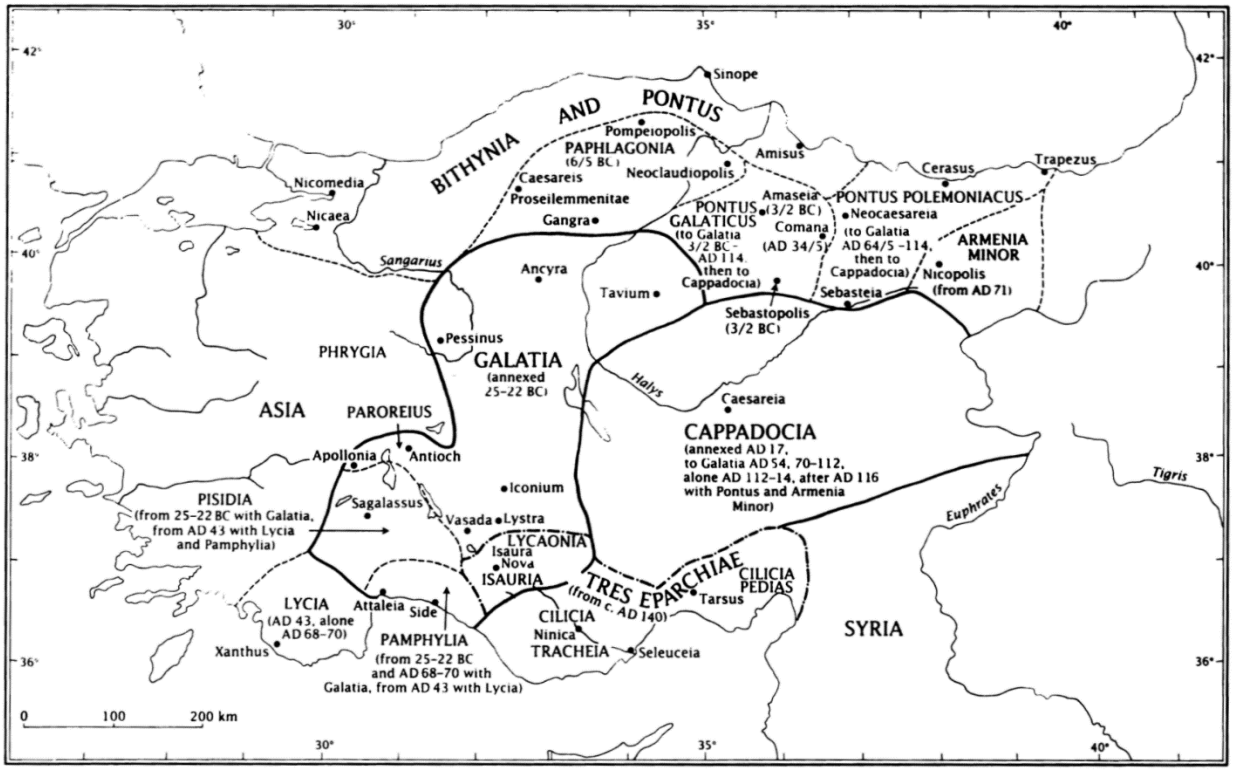


Figure 1 – Roman provincial boundaries in Asia Minor from 25 BCE to 235 CE. (Mitchell 1993, 2:156 map 6).

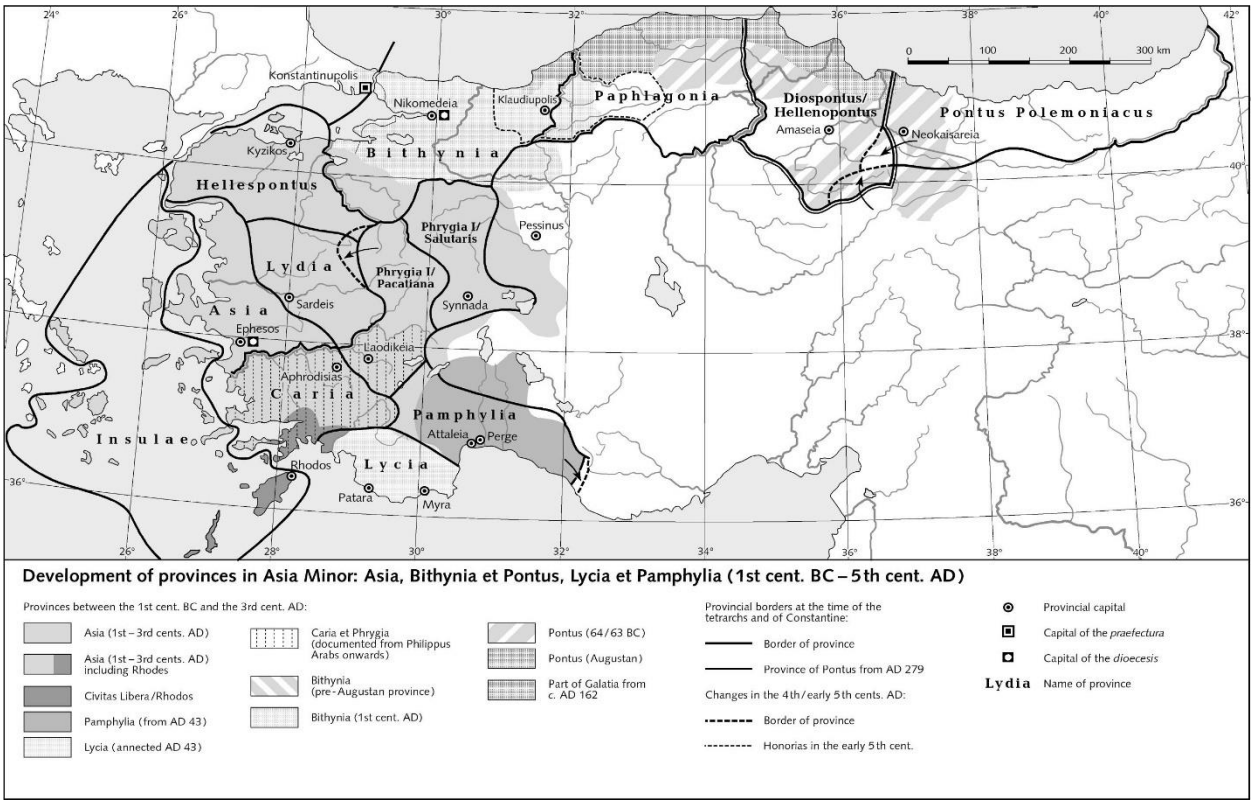


Figure 2 – "Development of provinces in Asia Minor: Asia, Bithynia et Pontus, Lycia et Pamphylia (1st cent. BC – 5th cent. AD)". (*New Pauly Online* (Asia Minor)).

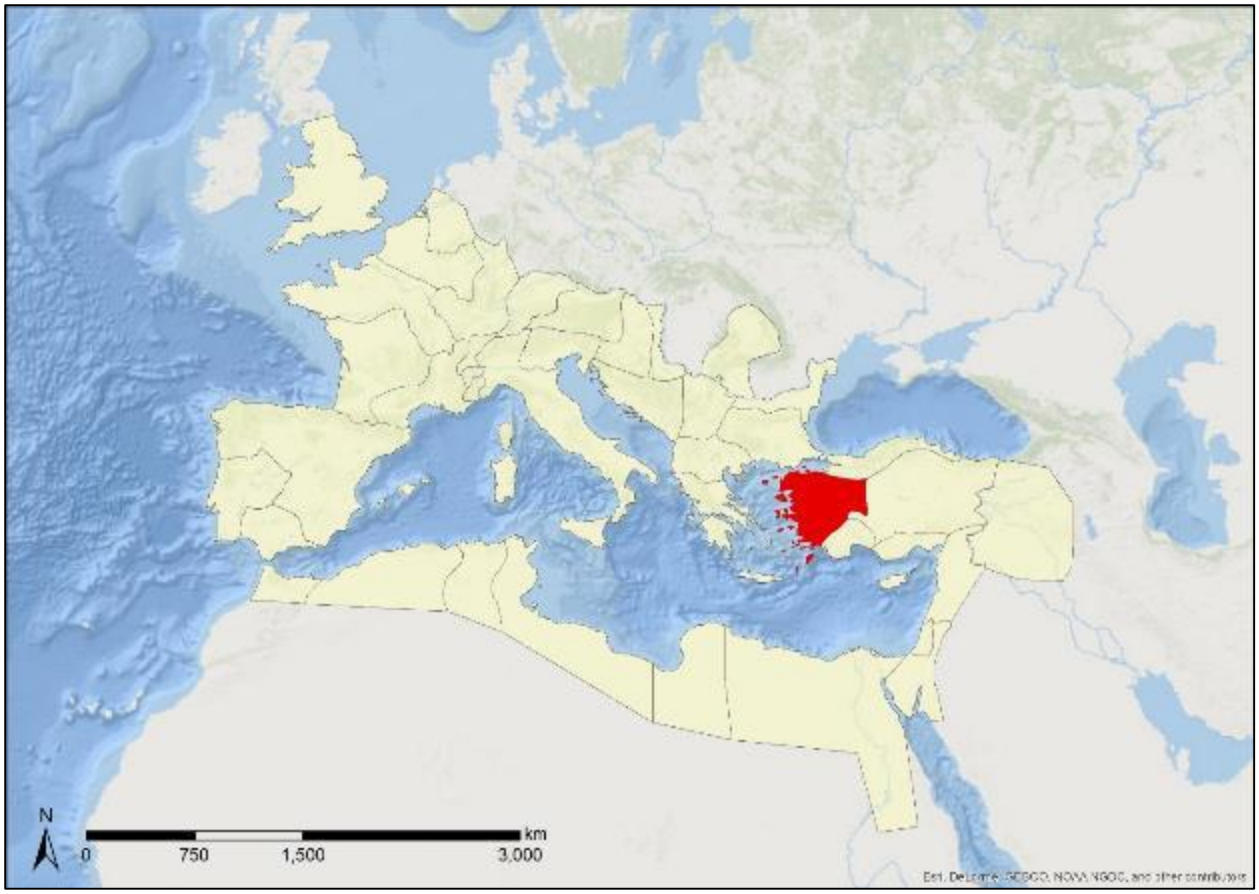


Figure 3 – Outline of the Roman province of Asia in red, overlaid on the extent of the Roman Empire in 117 CE according to ArcGIS Online data provided by the Harvard DARMC. Divisions indicated at the province level.

Figure 4 - Outline of the Roman province of Asia as of 117 CE in red, with surrounding provinces outlined and labeled according to ArcGIS Online data provided by the Harvard DARMC.

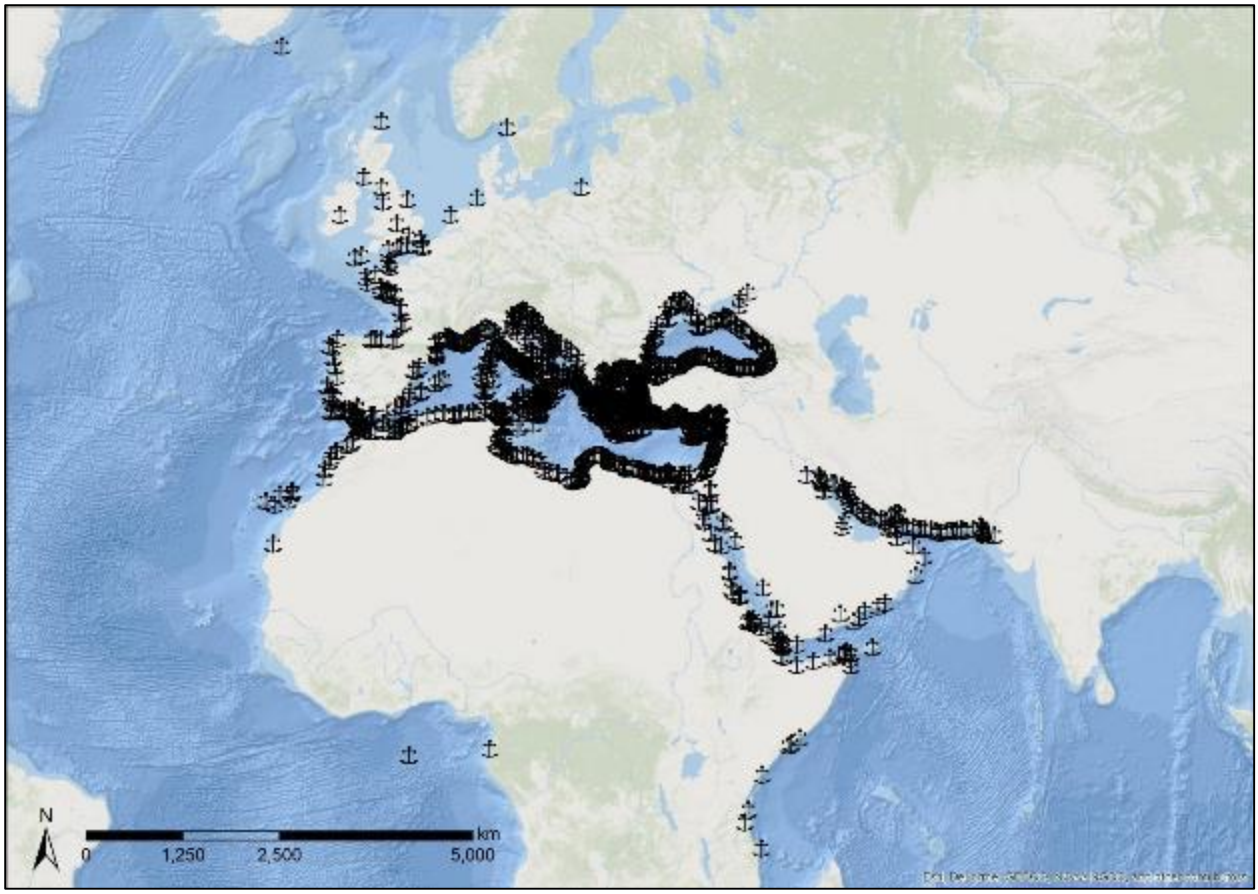


Figure 5 – Each of the "Ancient Coastal settlements, Ports and Harbours" as indicated by de Graauw (2020) in their database plotted with an anchor.

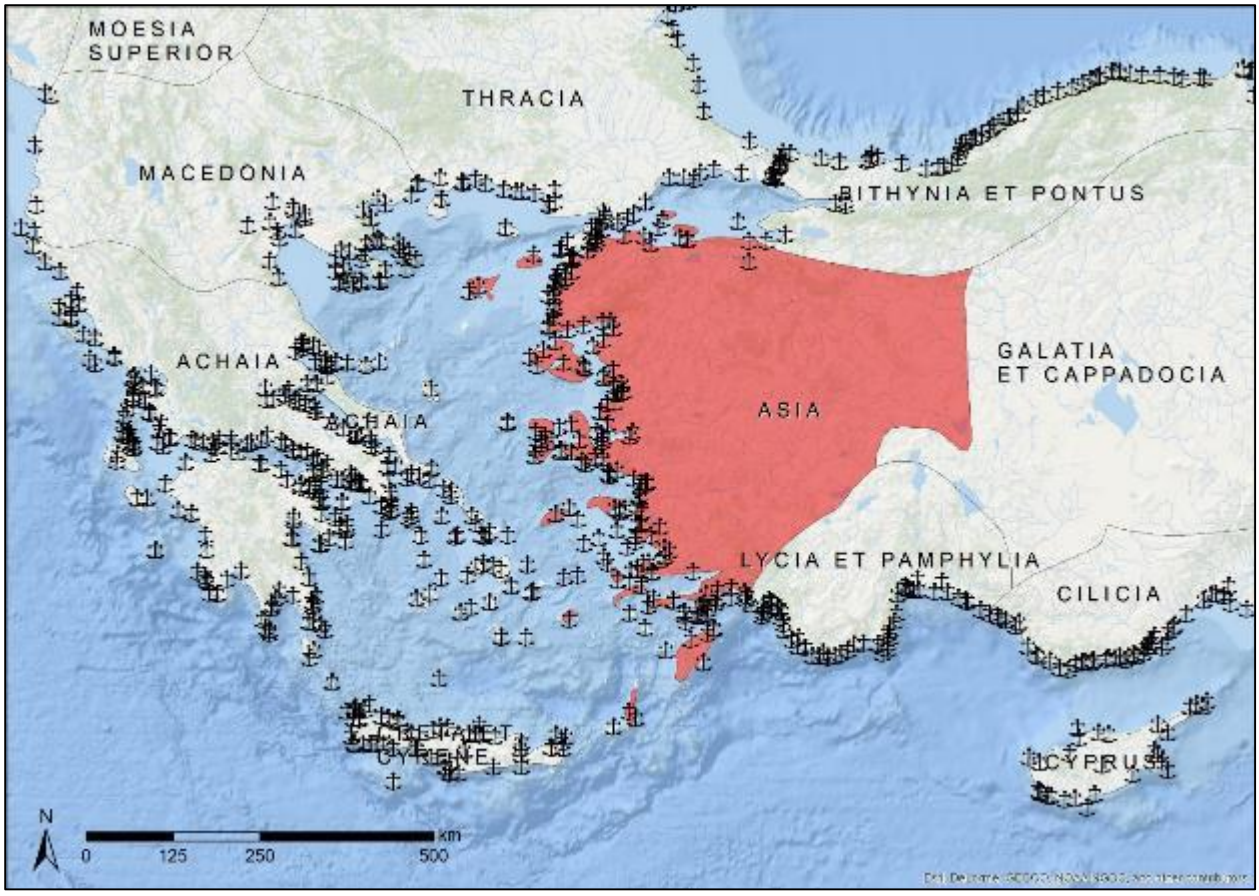


Figure 6 - The "Ancient Coastal settlements, Ports and Harbours" of the Aegean and the surrounding region, as indicated by de Graauw (2020) in their database plotted with an anchor. Outline of the Roman province of Asia as of 117 CE in red, with surrounding provinces outlined and labeled according to ArcGIS Online data provided by the Harvard DARMC.

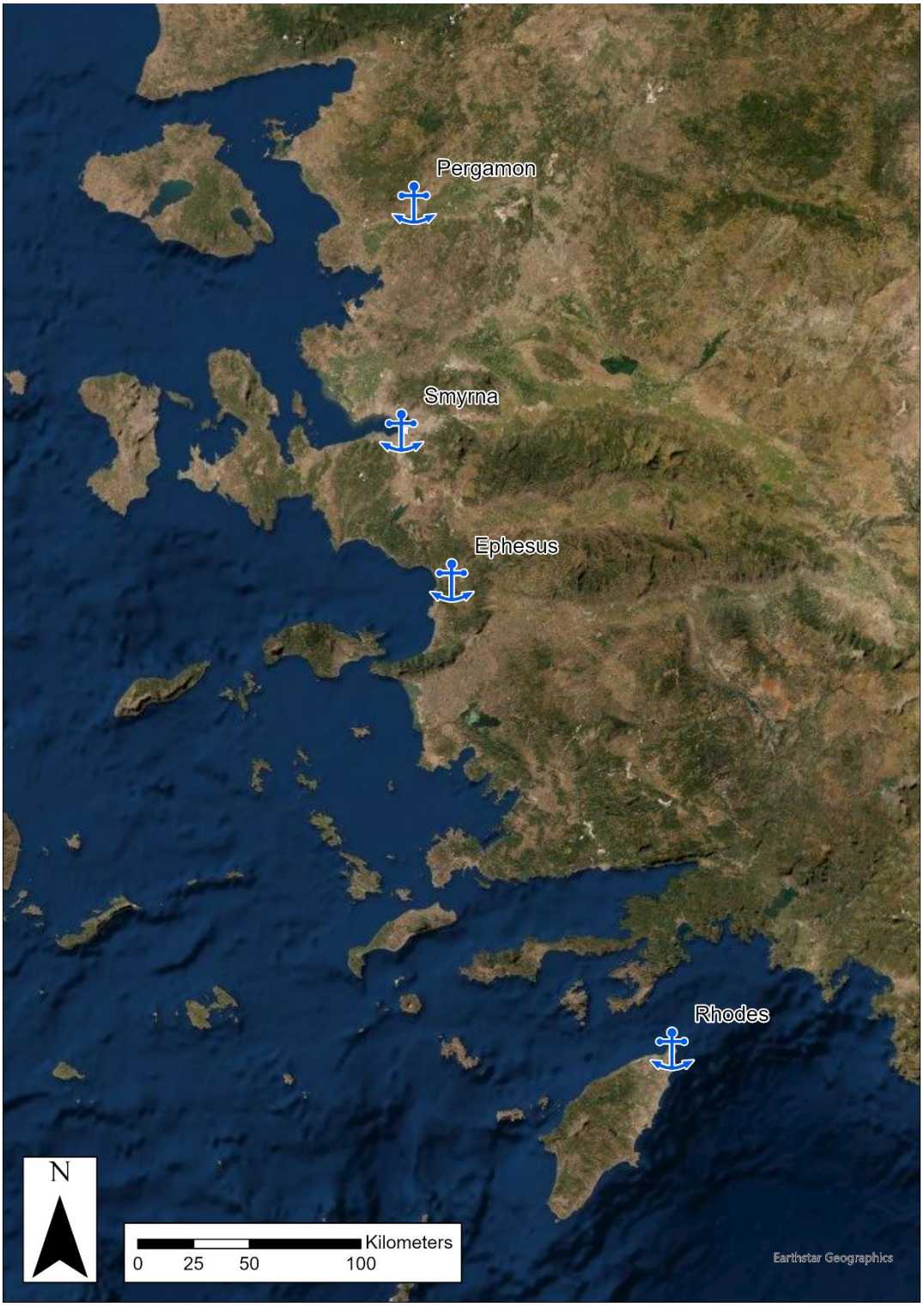


Figure 7 – The locations of the four major case studies of this dissertation overlaid on satellite imagery of western Asia Minor and the eastern Agean sea.

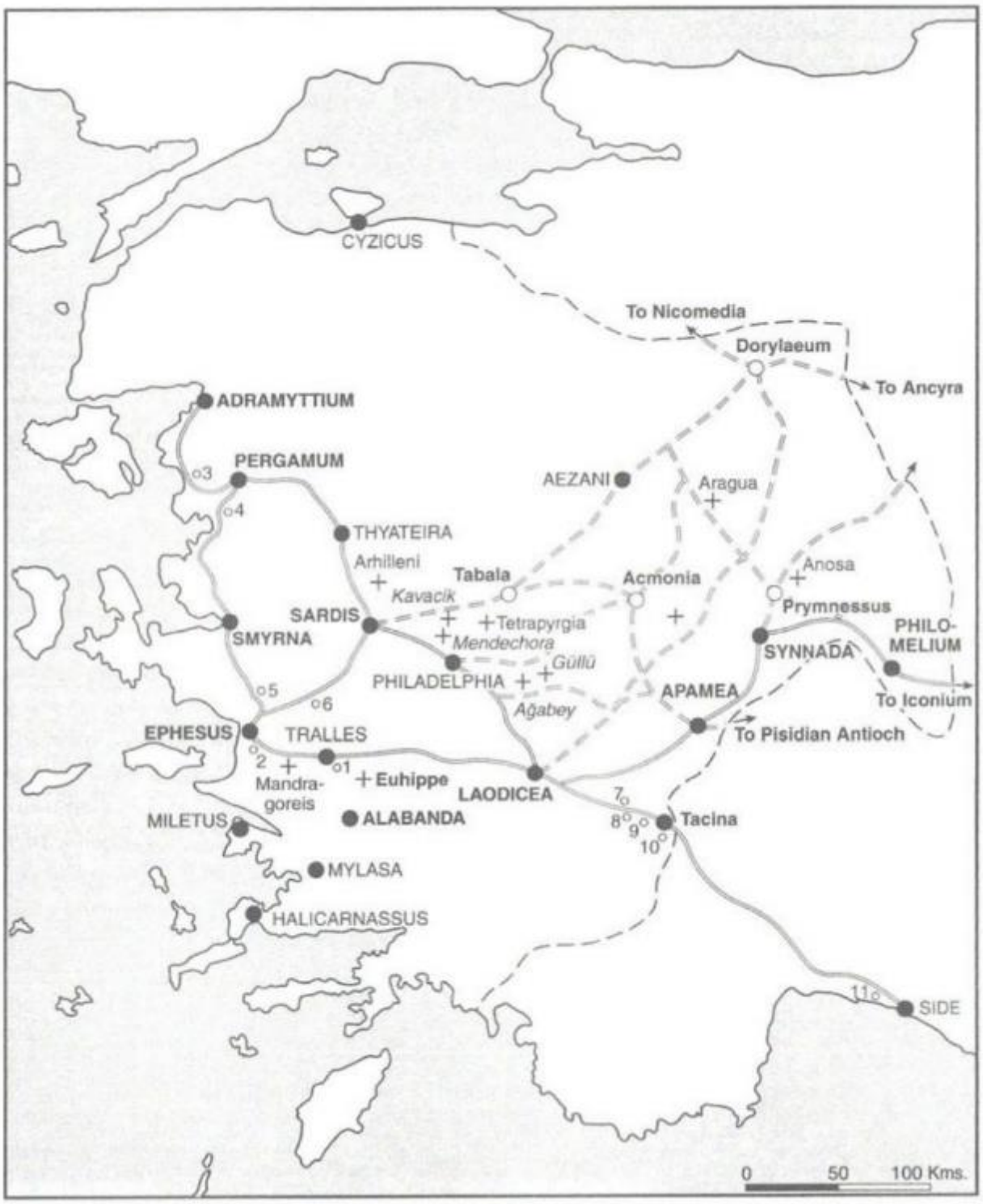


Figure 8 – The roads of Aquillius in Early Roman Asia Minor. (Mitchell 1999, 21).

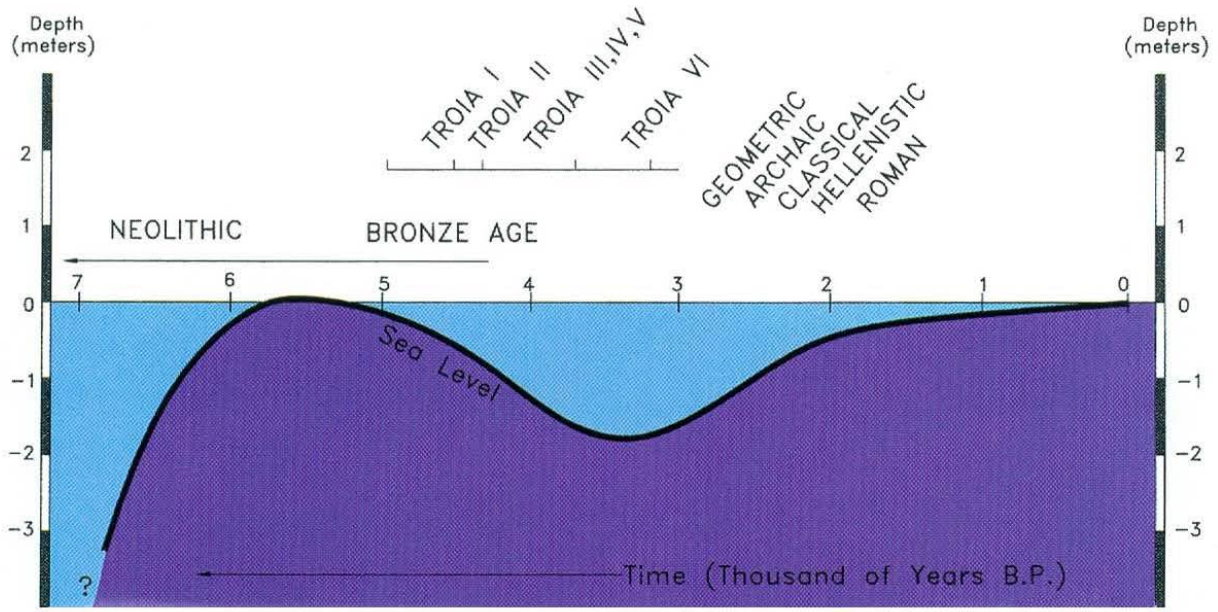


Figure 9 – Generalized sea level change over time on the coast of western Asia Minor, with 0 on the y-axis indicating current sea level. (Kraft et al. 2000, 206 fig. 3).

Figure 10 – The location of Ephesus on modern satellite imagery.

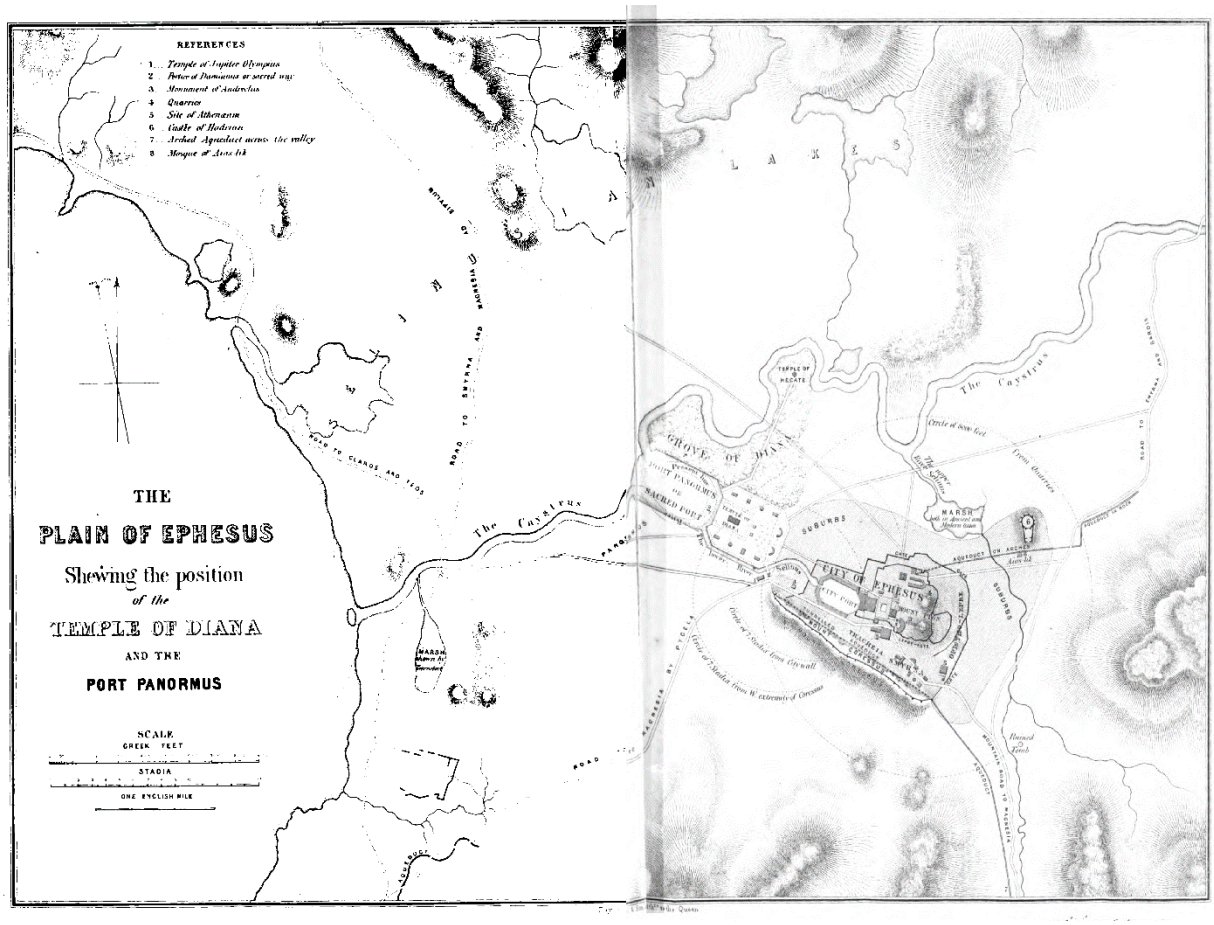


Figure 11 – "The Plain of Ephesus showing the position of the temple of Diana and the Port Panormus" according to Falkener in 1862. (Falkener 1862, pl. 1).

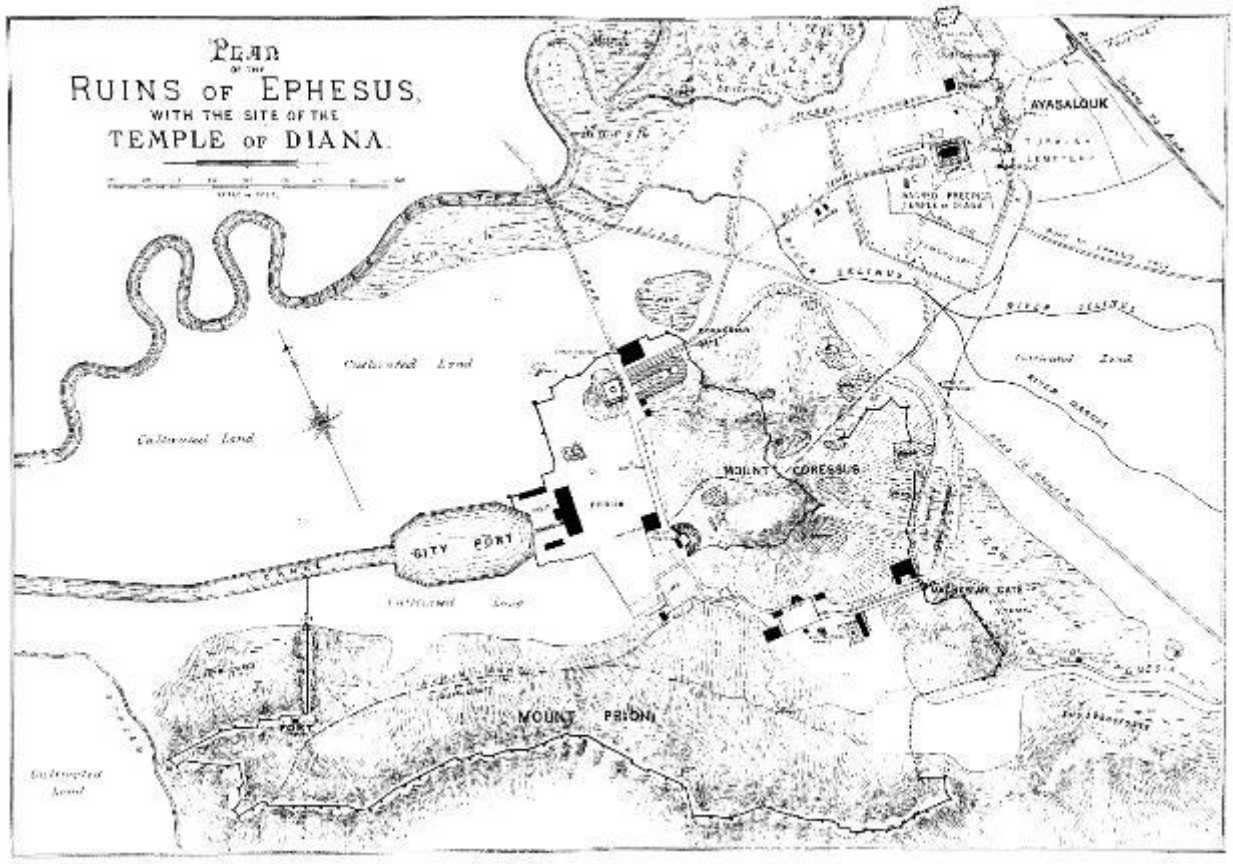


Figure 12 – "Plan of the Ruins of Ephesus, with the site of the Temple of Diana." An early plan of the city of Ephesus. (Wood 1877, 1).

Figure 13 – The approach to Ephesus in the 18th century. (Tournefort 1718, vol. II, 387).

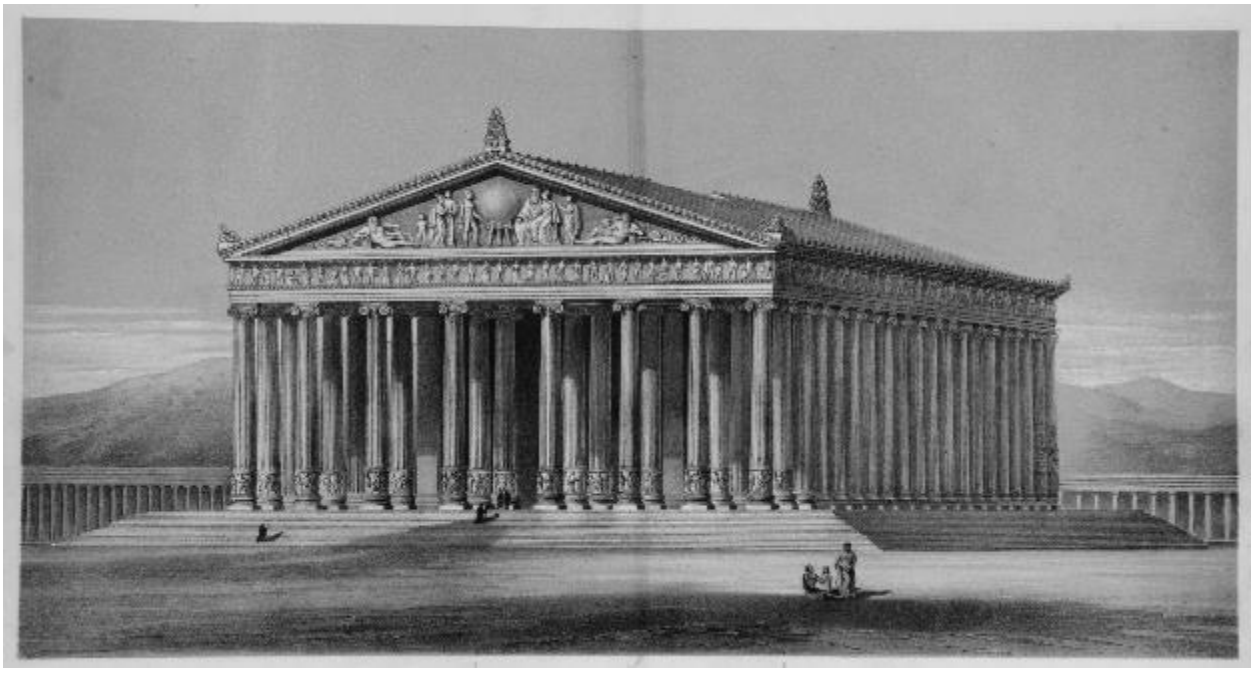


Figure 14 – "Temple of Diana, Ephesus. Perspective view looking eastward." This reconstruction drawing by Wood shows an early conception of what the Artemision may have looked like when approached from the west. (Wood 1877, 264).

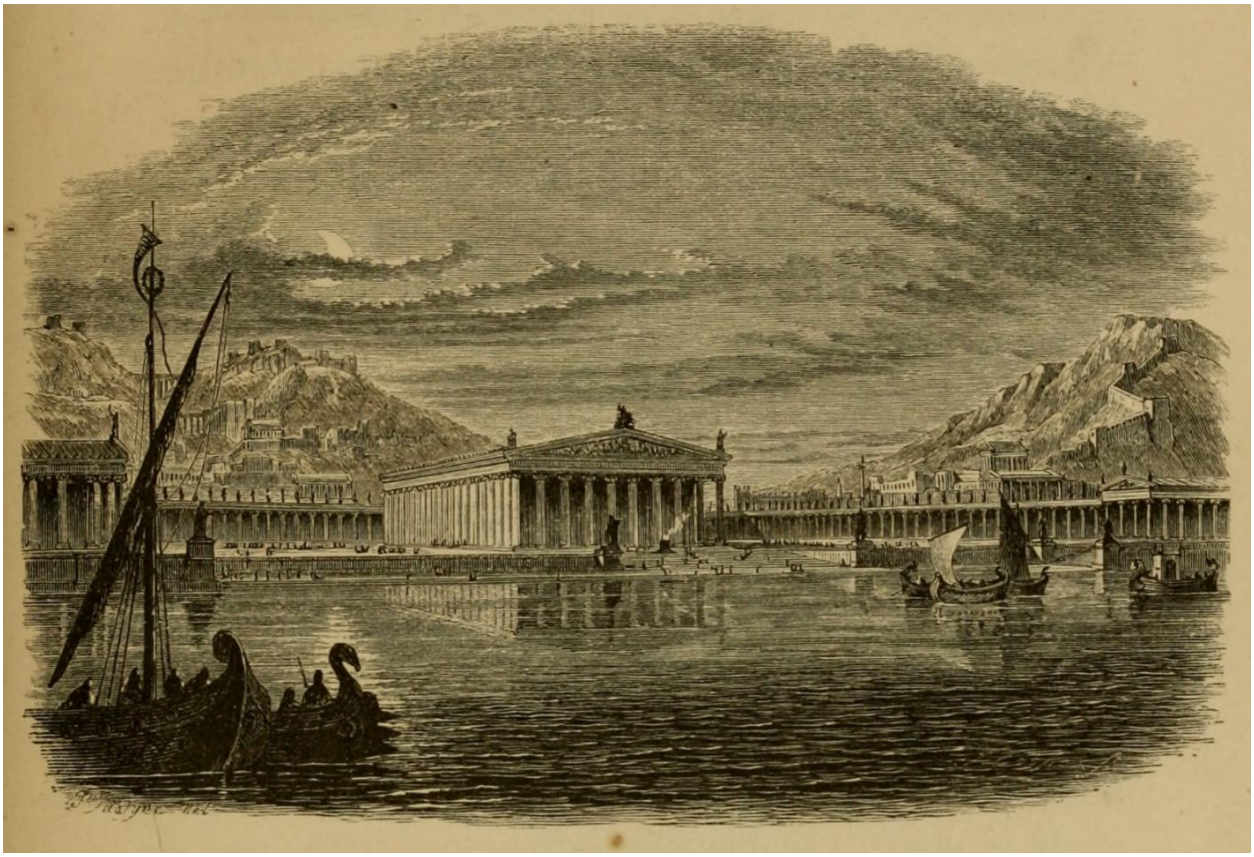


Figure 15 – Reconstructed view of the Artemision when viewed from approximately the northwest. (Falkener 1862, 189).

Figure 16 – "The City of Ephesus." View from behind/above the theater, looking west towards the harbor. (Falkener 1862, pl. 5).

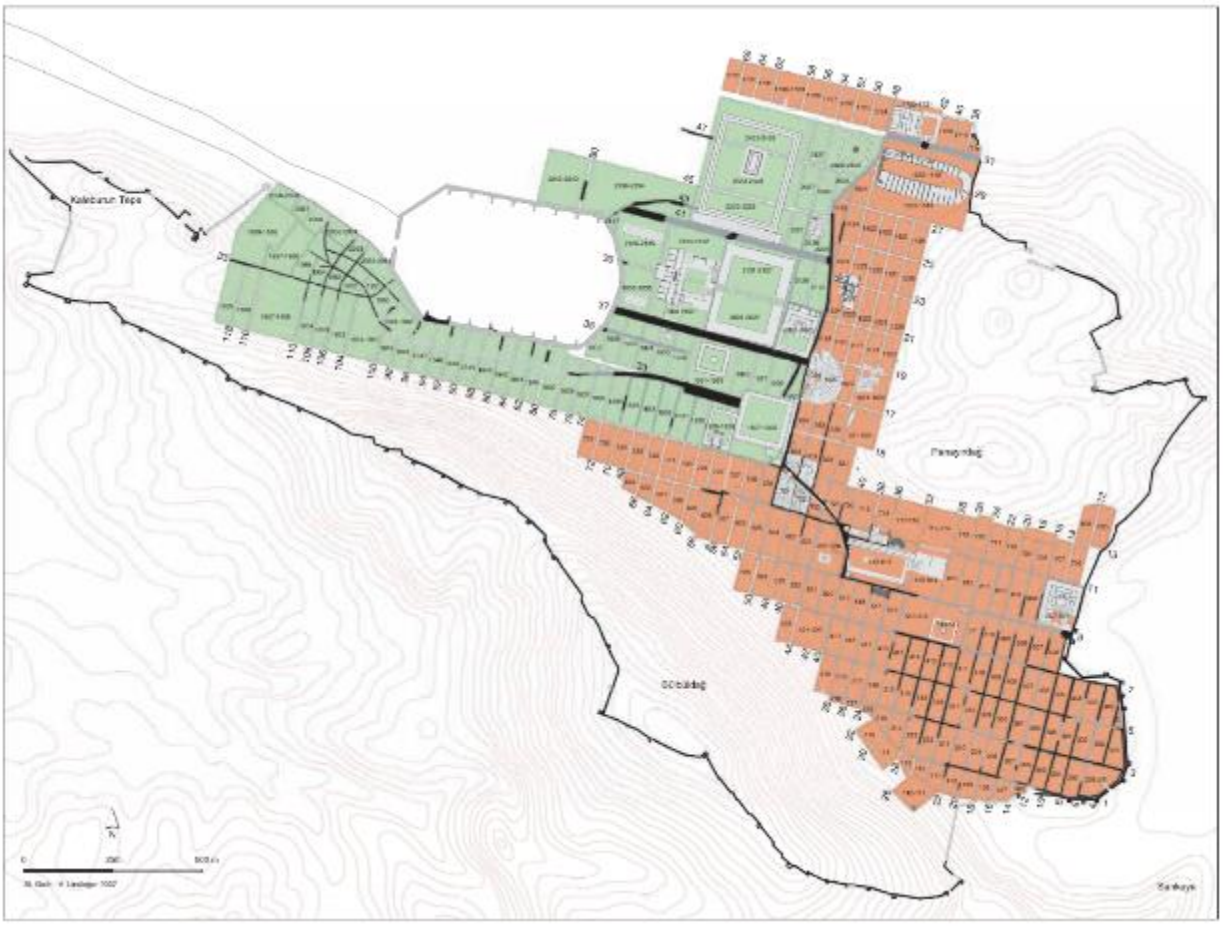


Figure 17 – The Roman city grid with outlines of the major monuments of Ephesus based on survey results from the early 2000s. (Groh 2006, 80-81 fig. 20).

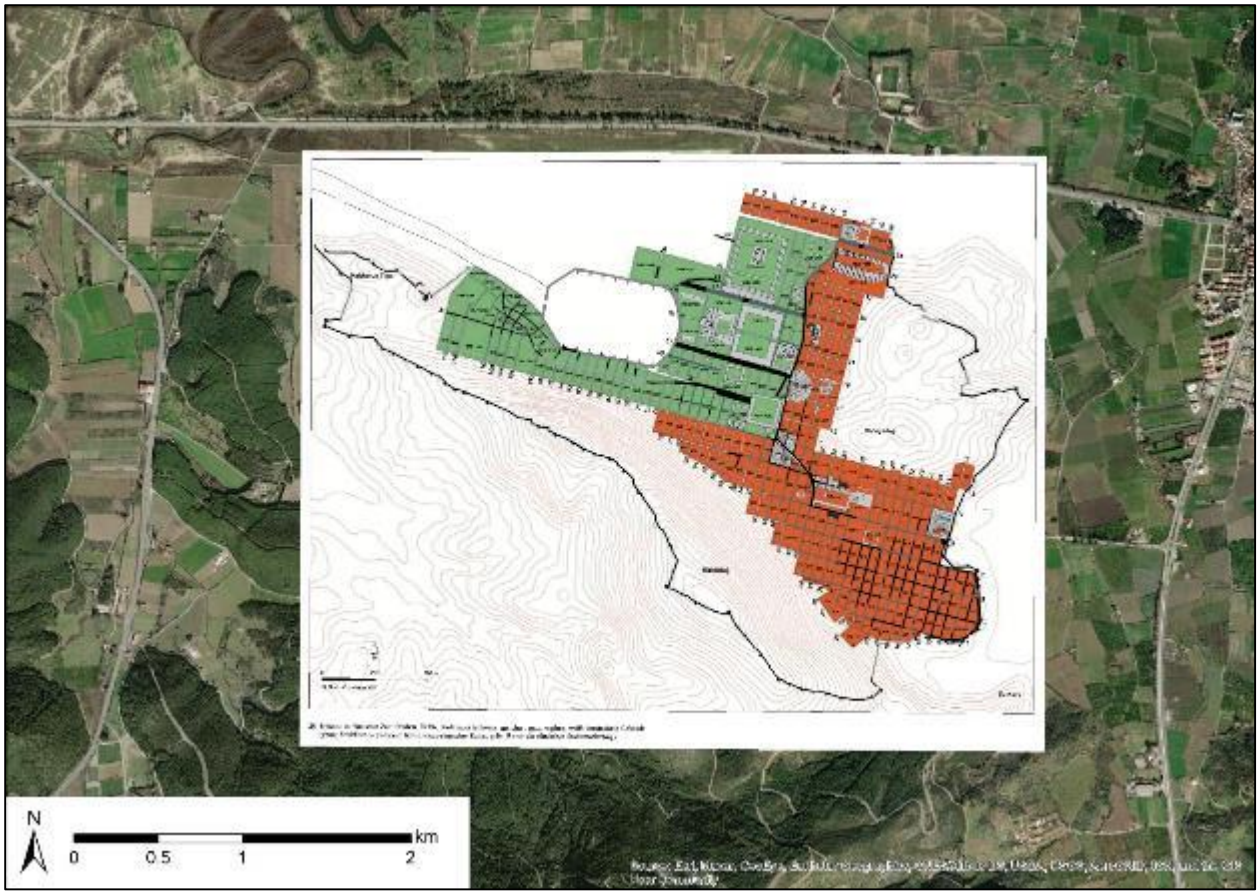


Figure 18 – Groh's plan (2006, 80-81 fig. 20) overlaid on satellite imagery of the site of Ephesus. (Image by author).

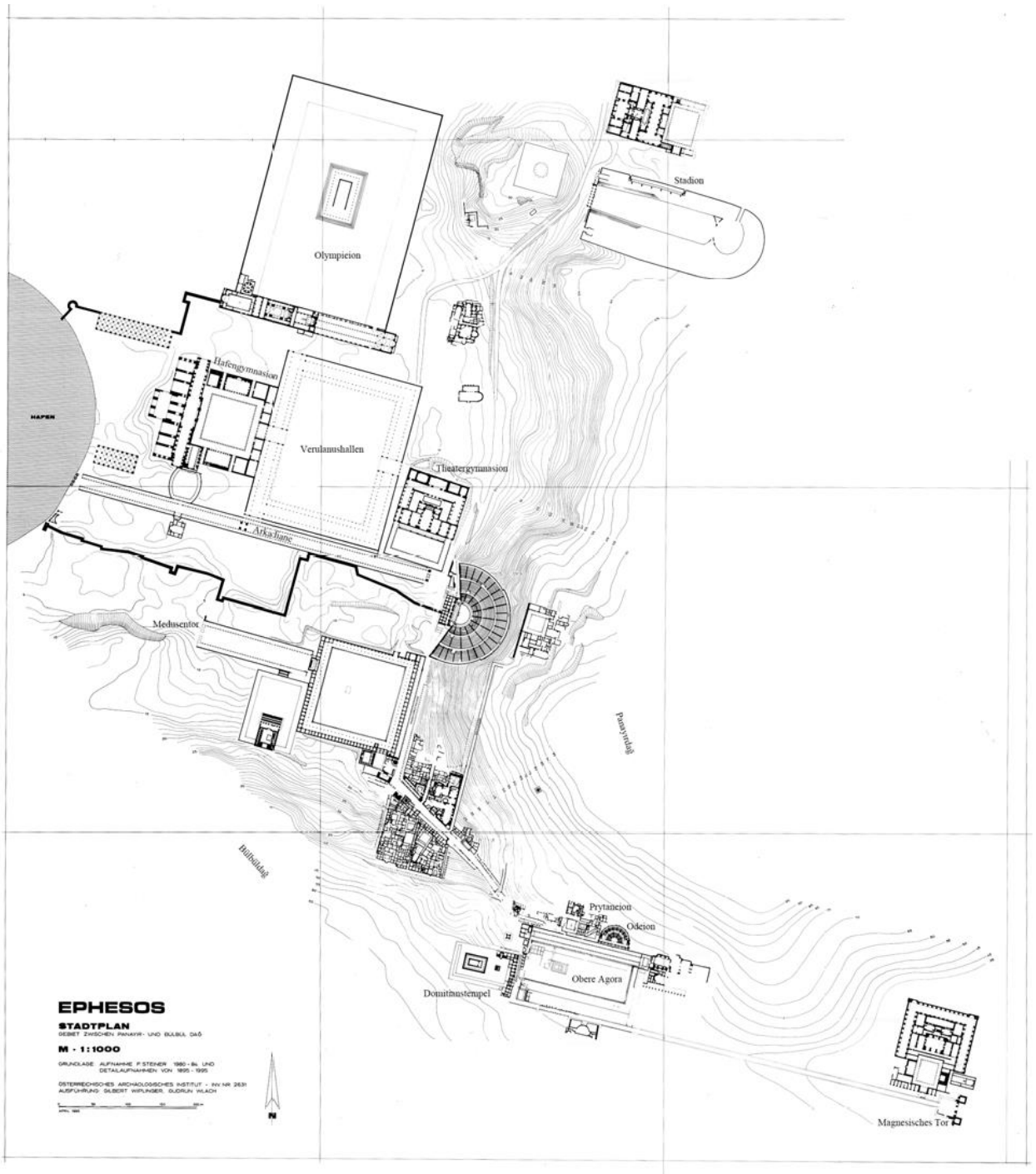
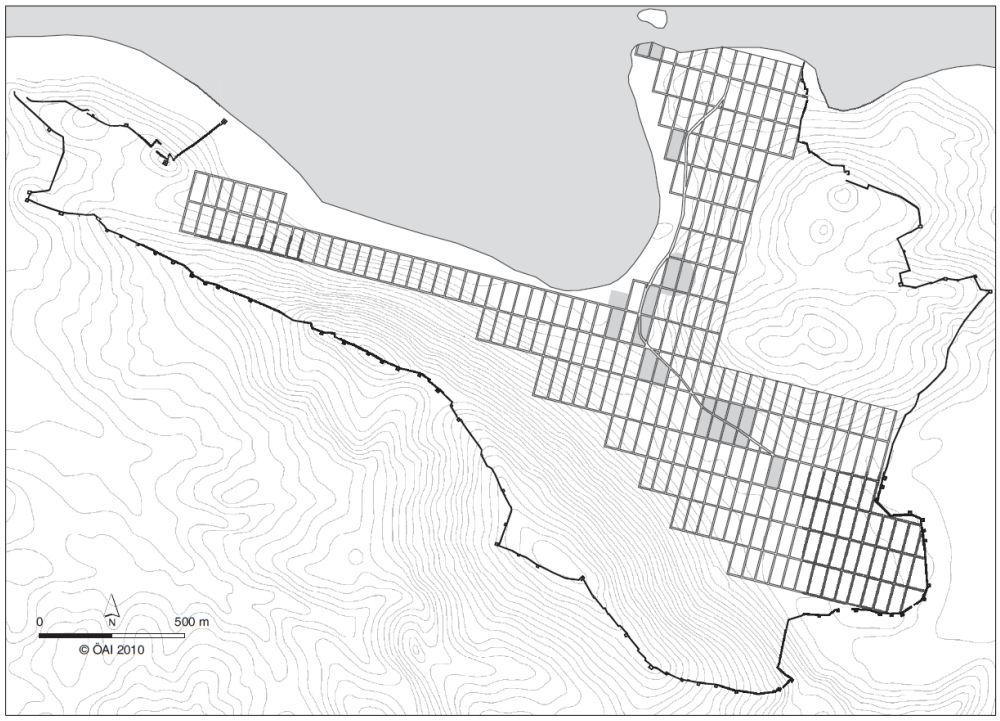


Figure 19 – Archaeological plan of the upper and lower cities of Hellenistic and Roman Ephesus. (Feuser 2020, 132 fig. 59).



1

2

Figure 20 – "Reconstructed layout of Hellenistic (1) and Roman (2) Ephesus." The changing shape of the harbor and the advance of construction along the new land is clear between the two plans. (Groh 2012, 69 fig. 7.6).

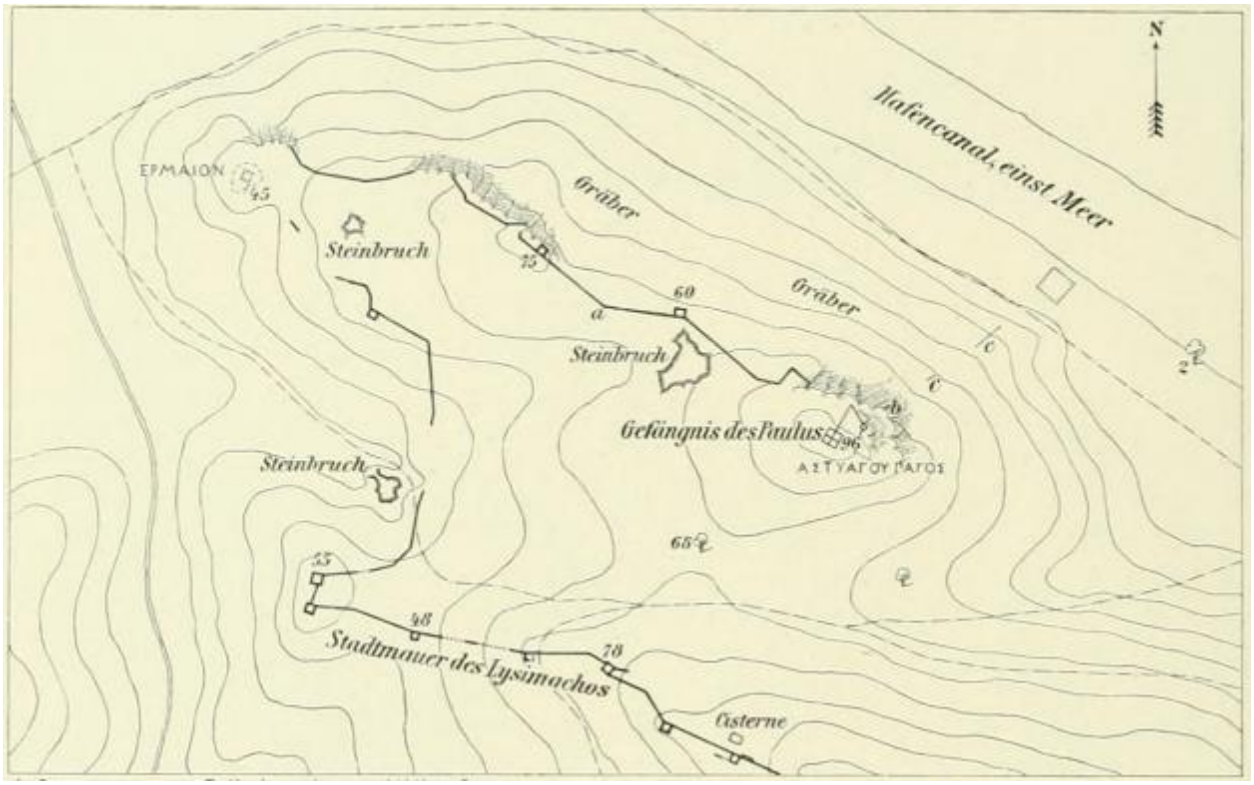


Figure 21 – The westernmost point of the walled portion of Ephesus at Kaleburun Tepe. (Benndorf 1899, 20 fig. 3).

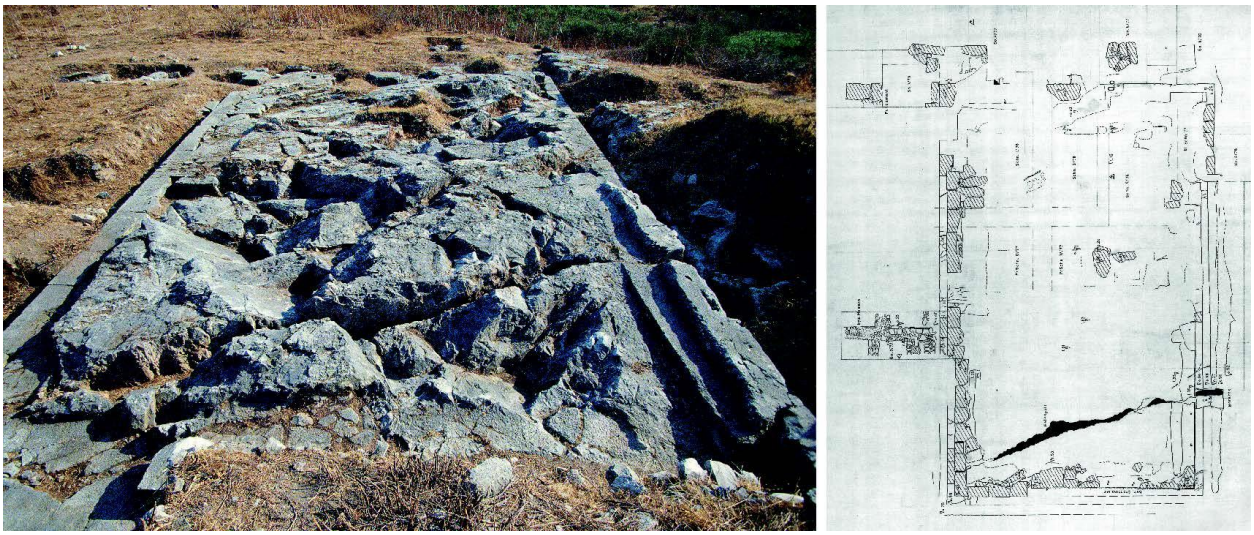


Figure 22 – The remains and archaeological plan of the Felsspalttempel at Ephesus. (Ladstätter 2016, 258 fig. 20)

14 In den Plan von A. Schindler eingearbeiteter Küstenverlauf des 2. Jtsds. v. Chr. mit Markierung der historischen Hafenbuchten: I – Stadthafen beim Artemision; II – Koressos-Hafen; III – Hafenbucht von Smyrna, später der hellenistisch-römischen Stadt; IV – Mündungsbucht des Tales von Arvalya, oft als Hafen Panormos angesprochen; V – Außenhafen Panormos (?), wohl bis an das Ende der Seldschukenzeit benutzt

Figure 23 – Plan of the location of the various proposed harbors of Ephesus by Scherrer, modification of an 1897 plan of the site. (Scherrer 2007, 343 fig. 14).

Figure 24 – A photo from above Panayırdağ looking west over Ephesus towards the coast, overlaid with proposed water extent during the Archaic through Early Hellenistic period according to Scherrer. (Scherrer 2007, 337 fig. 10).

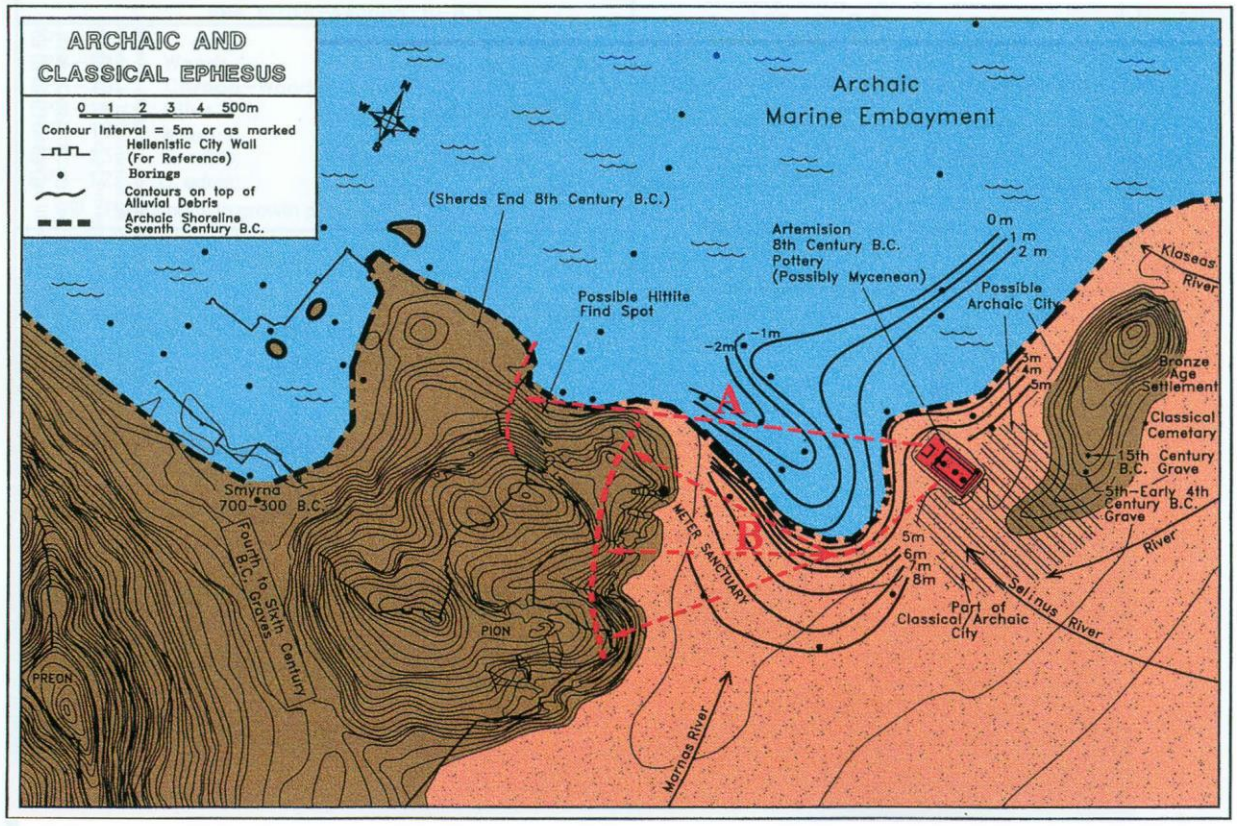


Figure 25 – The shoreline at Ephesus during the Archaic and Classical periods. The dashed lines A & B represent seven stades distance from the Artemision, A in a direct line, B a direct walking path. (Kraft et al. 2000, 209 fig. 6).

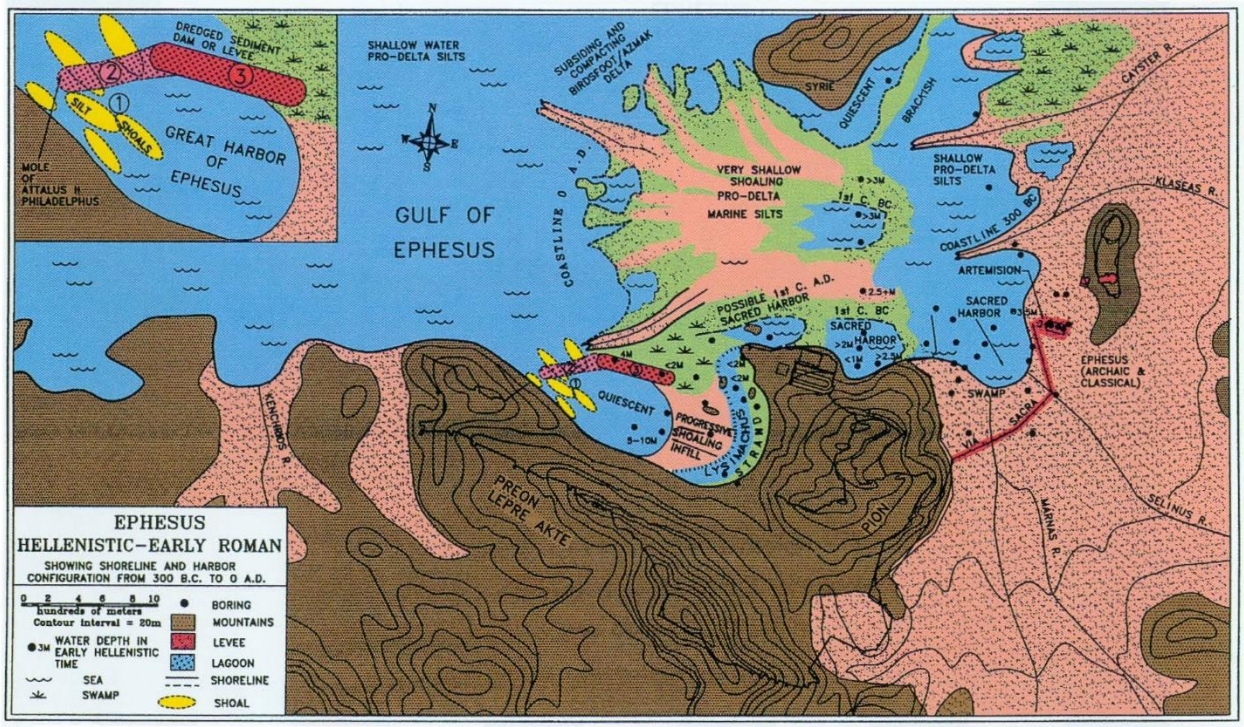


Figure 26 – The shoreline advance at Ephesus throughout the Hellenistic and Early Roman period (300 BCE – 0 CE). (Kraft et al. 2000, 217 fig. 10).

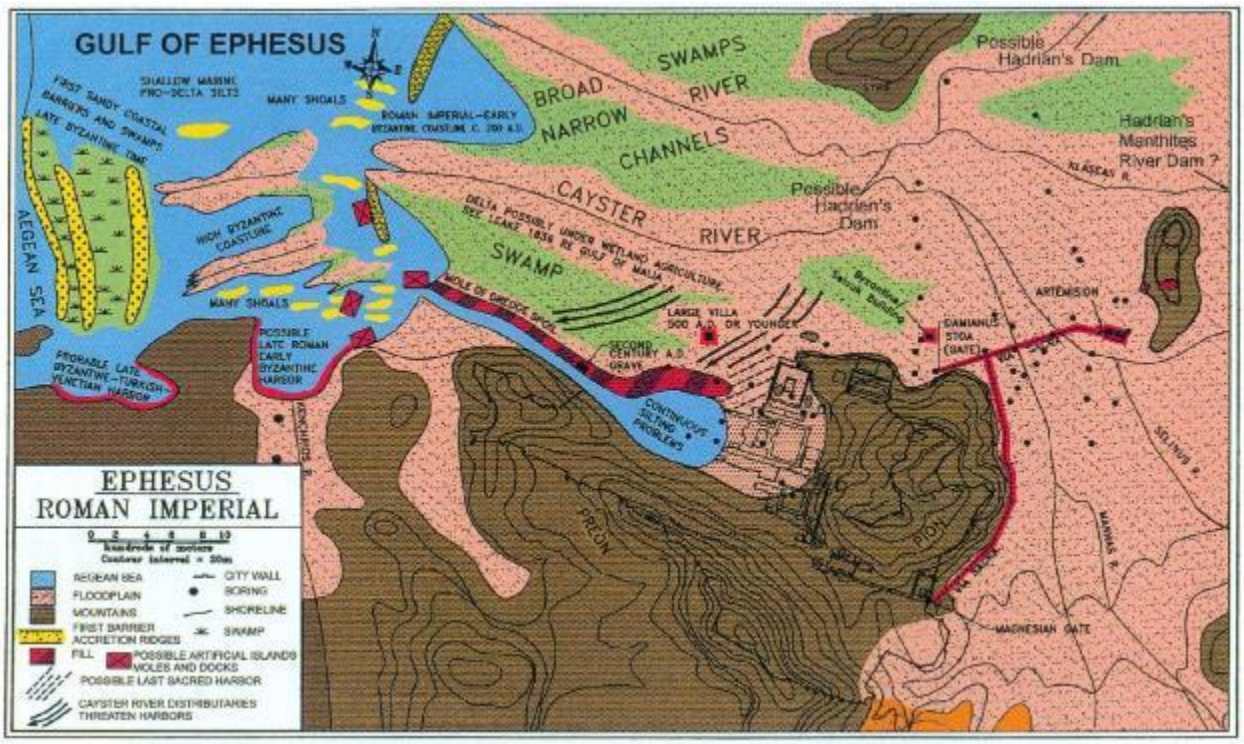


Figure 27 – The shoreline at Ephesus throughout the Roman Imperial period. (Kraft et al. 2000, 227 fig. 15).

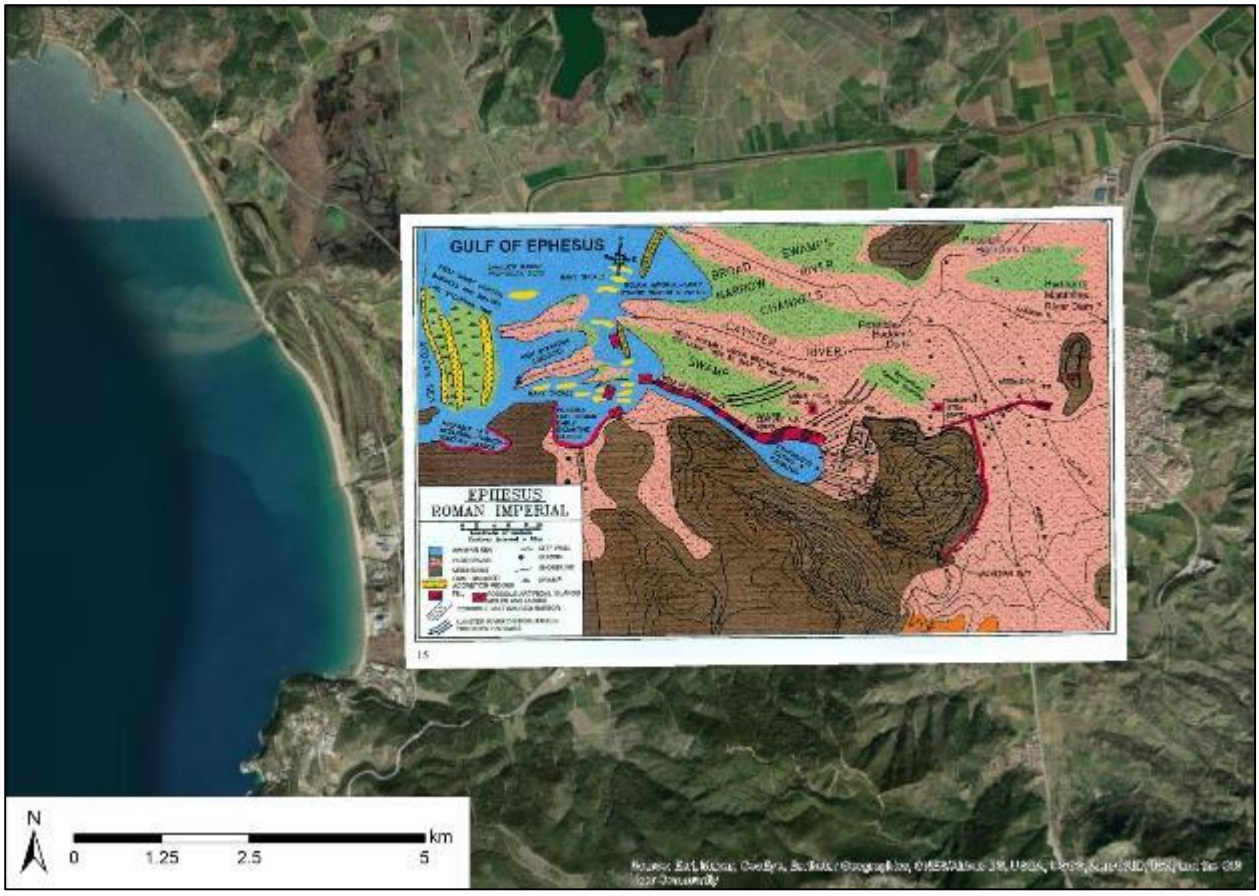


Figure 28 – Kraft et al.'s plan of the coastline of Roman Imperial Ephesus (2000, 227 fig. 15) overlaid on satellite imagery of the area around Ephesus, showing the relationship with the modern coastline. (Image by author).

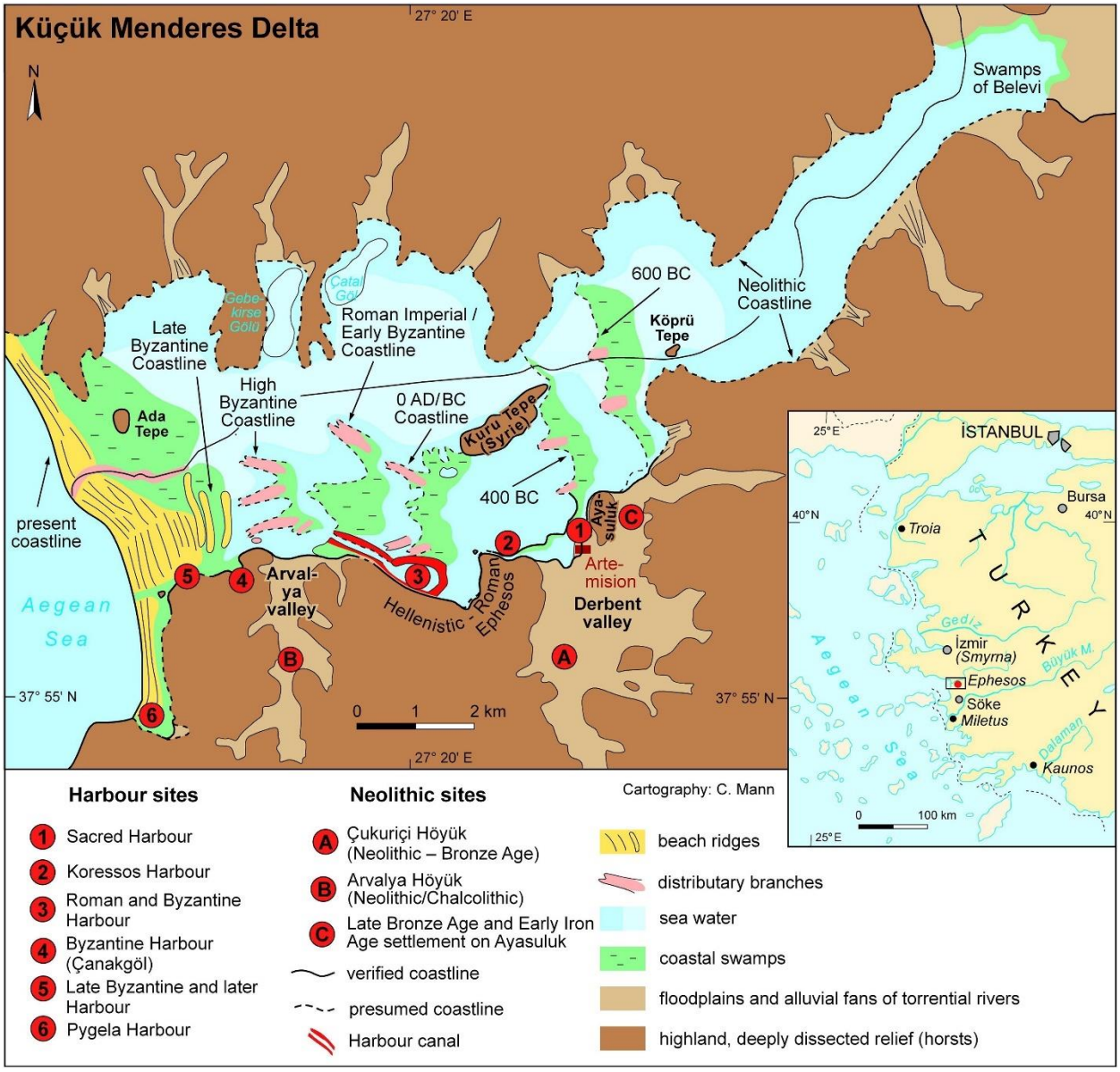


Figure 29 – Map showing the advancing shoreline around the city of Ephesus. (Brückner et al. 2017, 888 fig. 10).

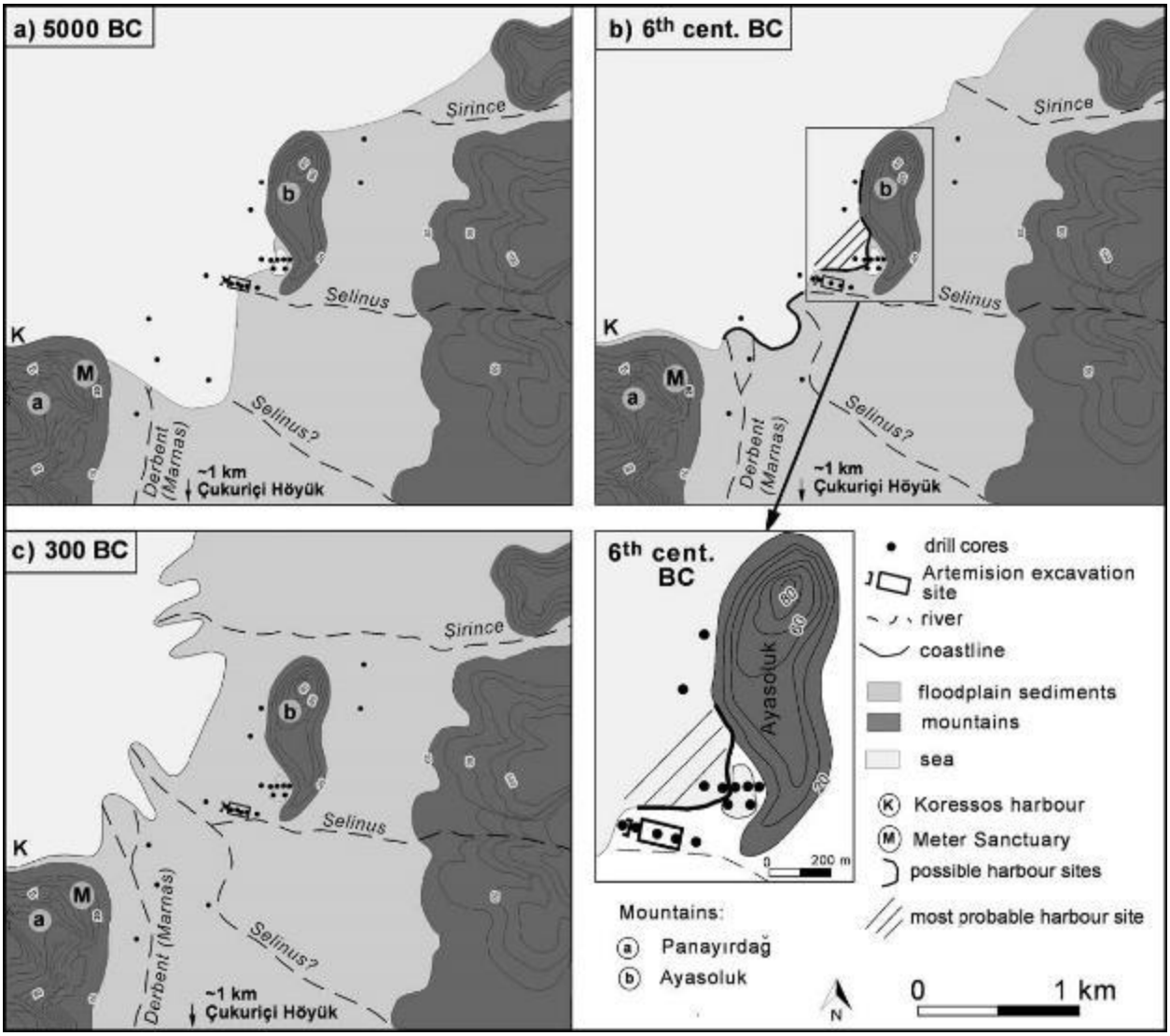


Figure 30 – Shoreline advance due to sedimentary processes around the Artemision at Ephesus. By 300 BCE the Artemision would have been hundreds of meters from the shore. (Stock et al. 2014, 50 fig. 7).

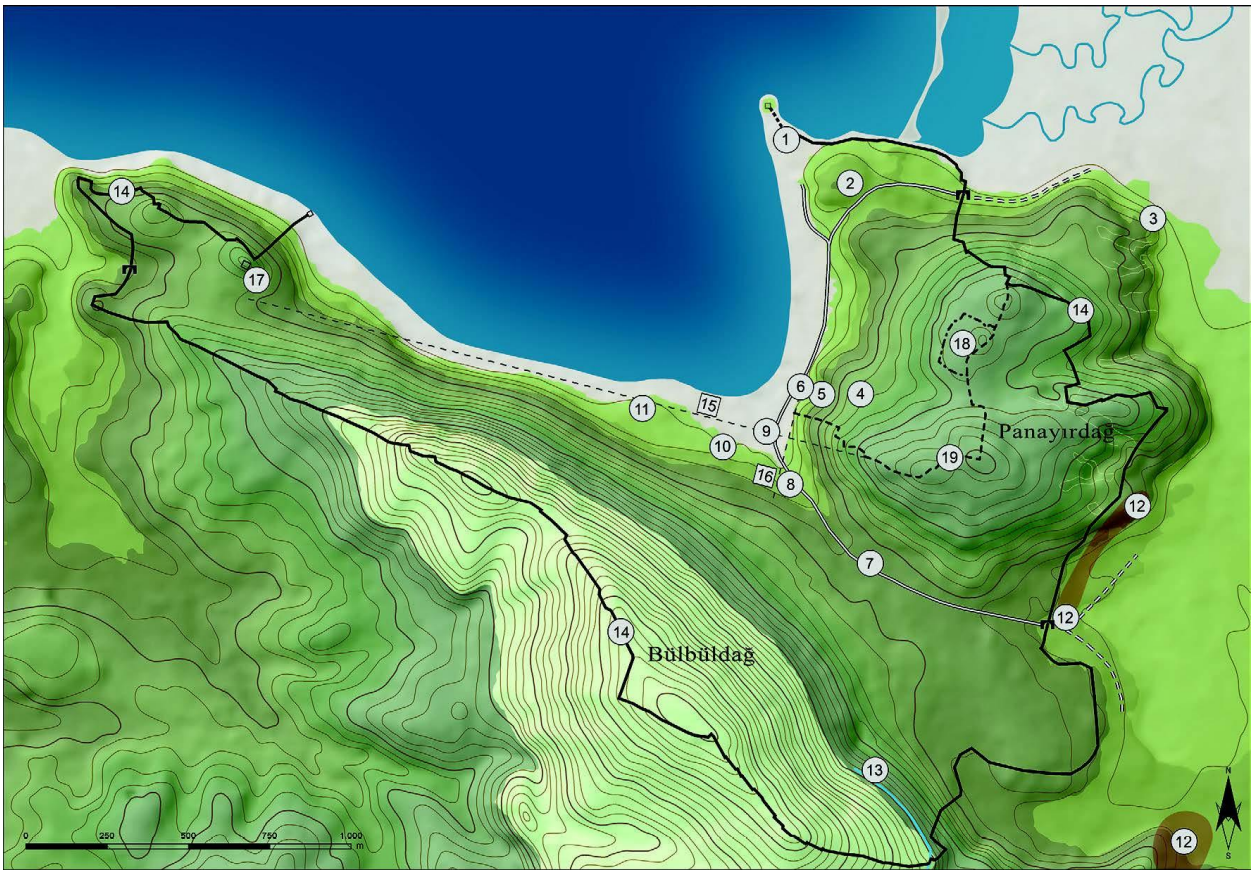


Figure 31 – The Hellenistic landscape of Ephesus, with the coastline, city walls, and main roads/thoroughfares of the city indicated. (Ladstätter 2016, 238 fig. 2).

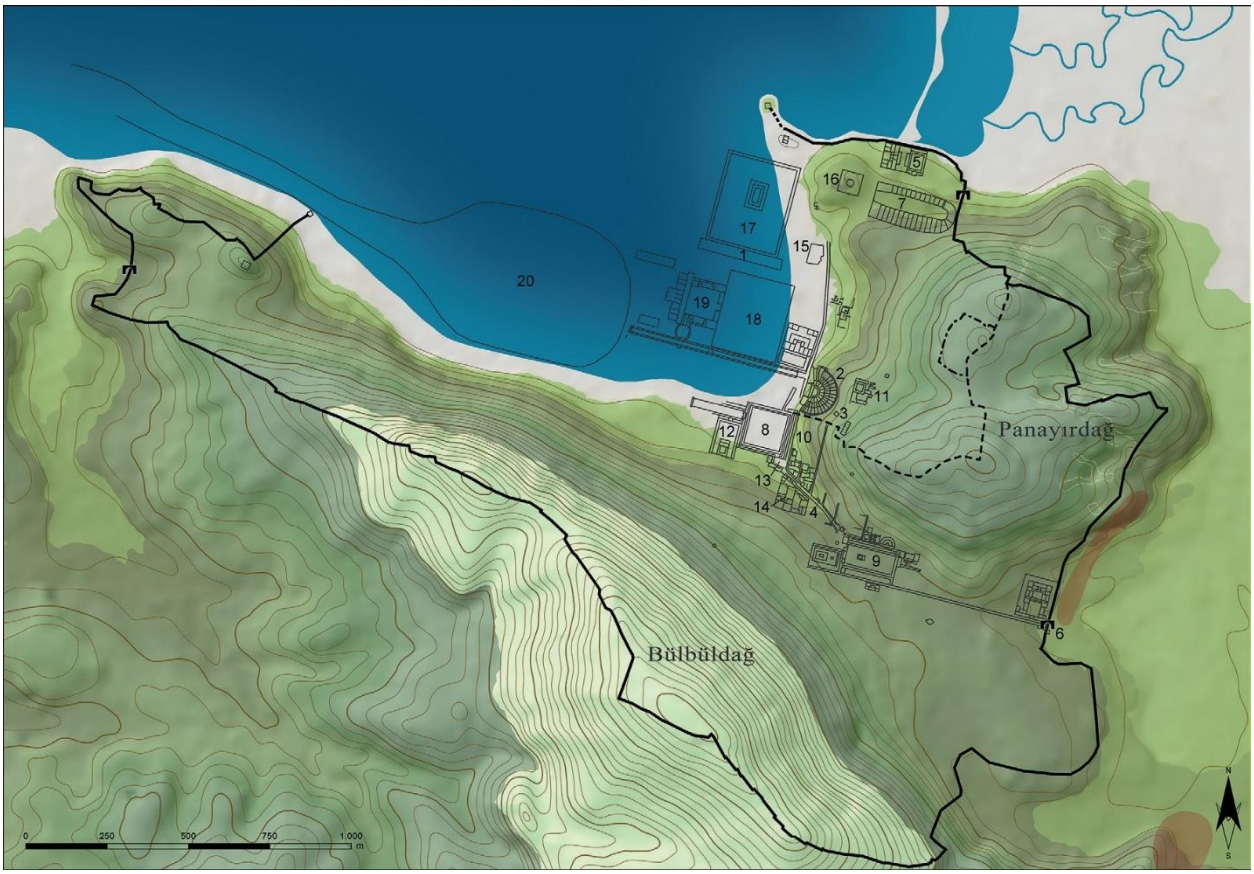


Figure 32 – The Hellenistic shoreline at Ephesus with the architectural developments from the later Roman periods overlaid to show the advancement of the city into the former marine area. (Ladstätter 2016, 263 fig. 22).

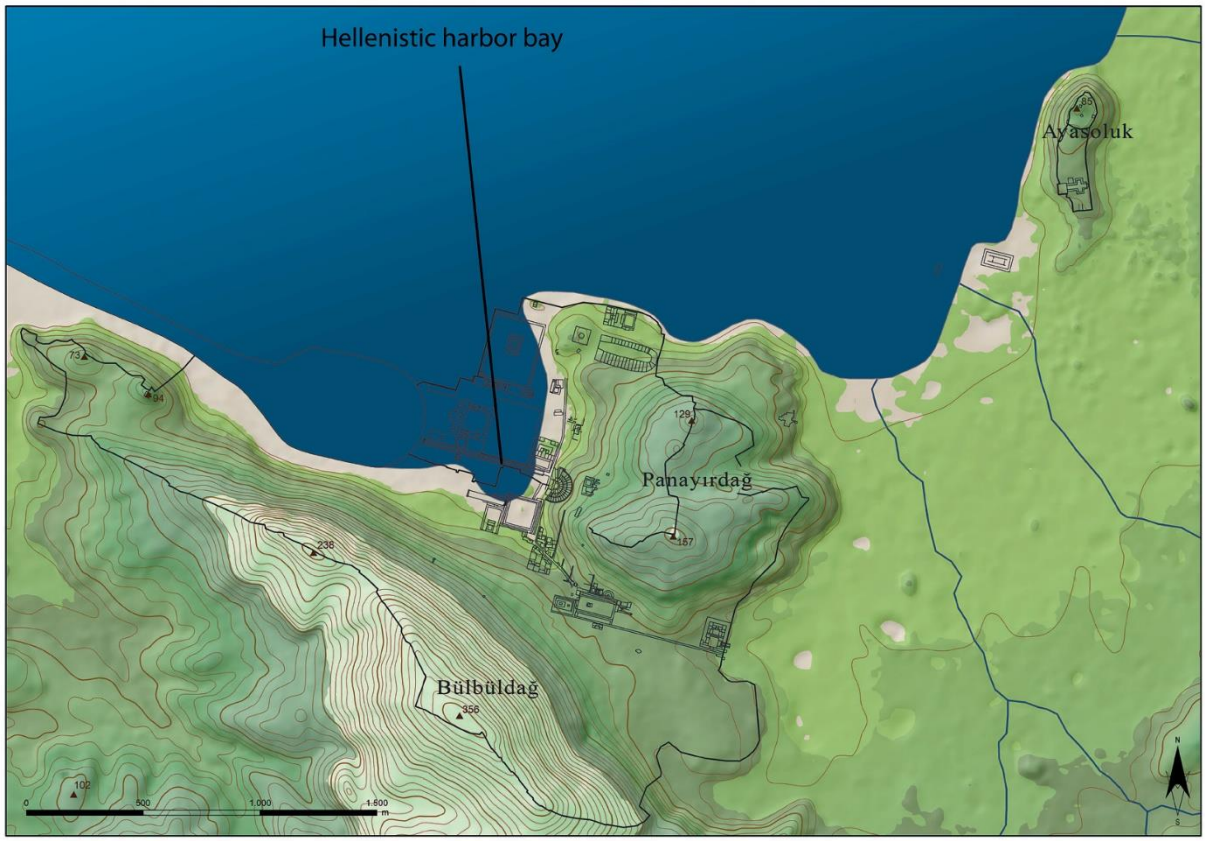


Figure 33 – The Archaic coastline at Ephesus, showing the Artemision in the upper right, with the later developments of the city overlaid to show the dramatic changes to the landscape throughout the Hellenistic and Roman periods. (Steskal 2014, 333 fig. 10).

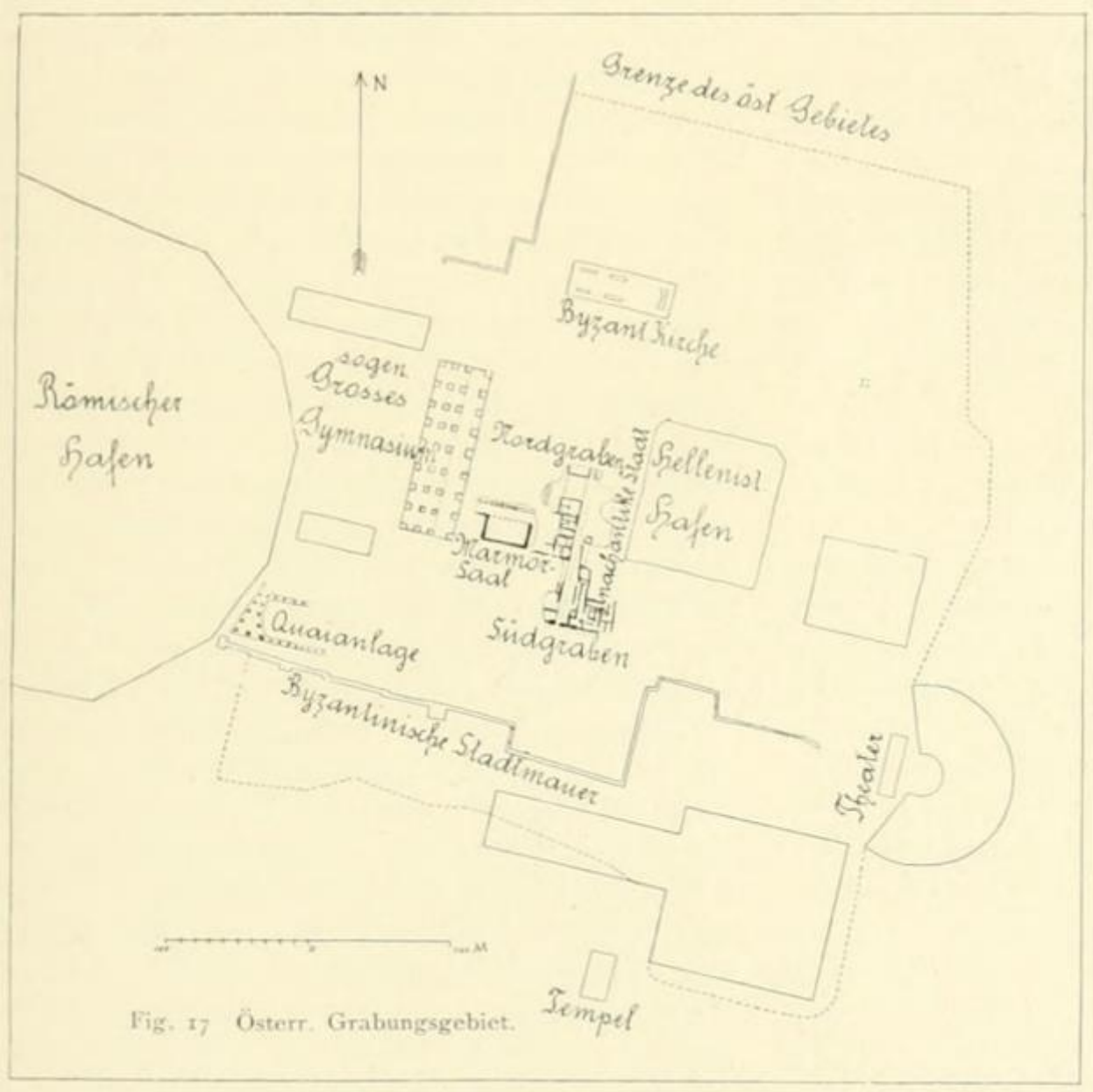


Fig. 17 Österr. Grabungsgebiet.

Figure 34 – Plan of the lower city of Ephesus showing the quay building, just inside the Byzantine city wall. (Benndorf 1898a, 61-62 fig. 17).

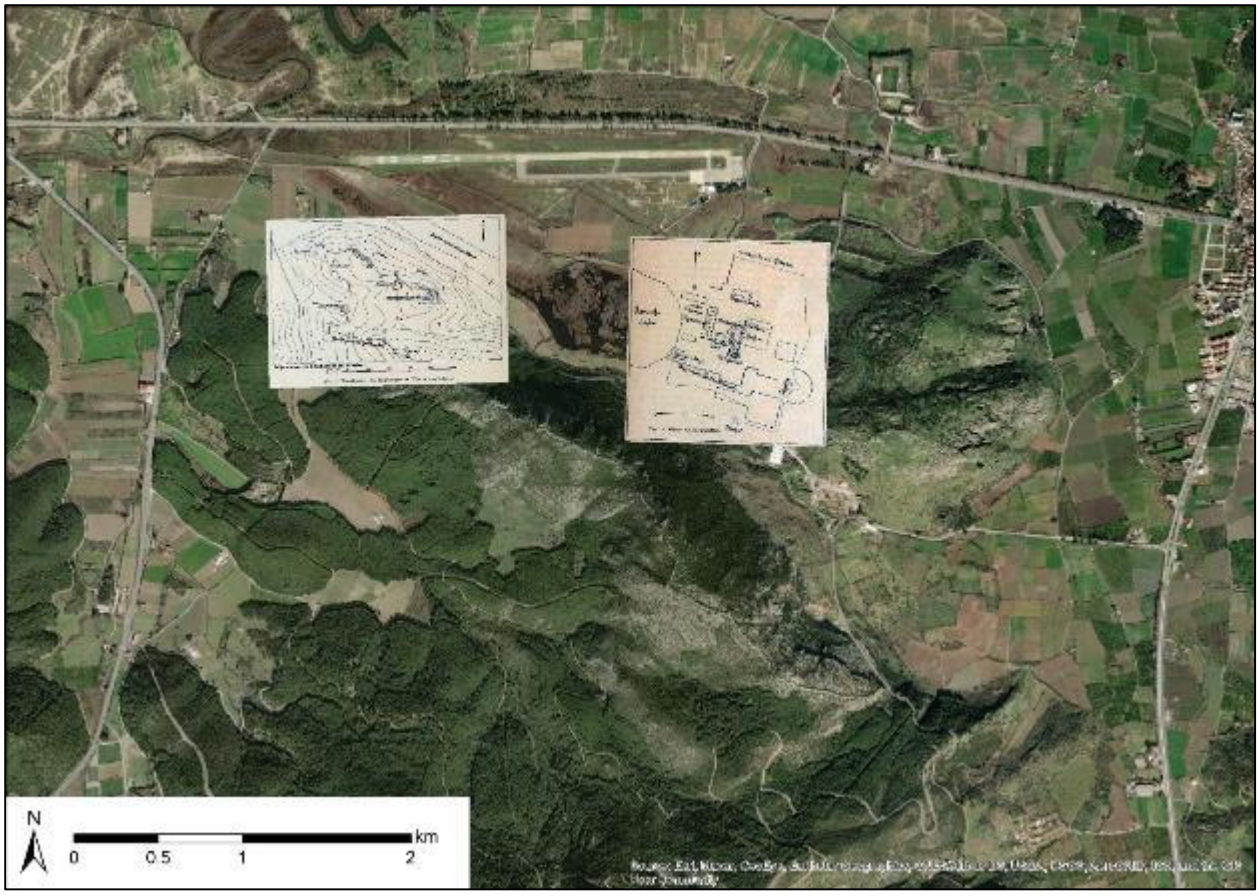


Figure 35 – Benndorf's plans of Kalaburun (1899, 20 fig. 3) and the lower city of Ephesus (1898a, 61-61 fig. 17) overlaid on satellite imagery of the site, with the Imperial harbor basin and the canal still clearly visible in the landscape.

Figure 36 – View of the excavations of the Roman harbor basin at Ephesus in 1988, photo from the south. (Langmann 1989, 8 fig. 3).

Figure 37 – Results of geophysical prospection around the Roman harbor at Ephesus. Magnetometry and GPR survey from 2004-2006. (Thomas 2020, 184 fig. 10.4).

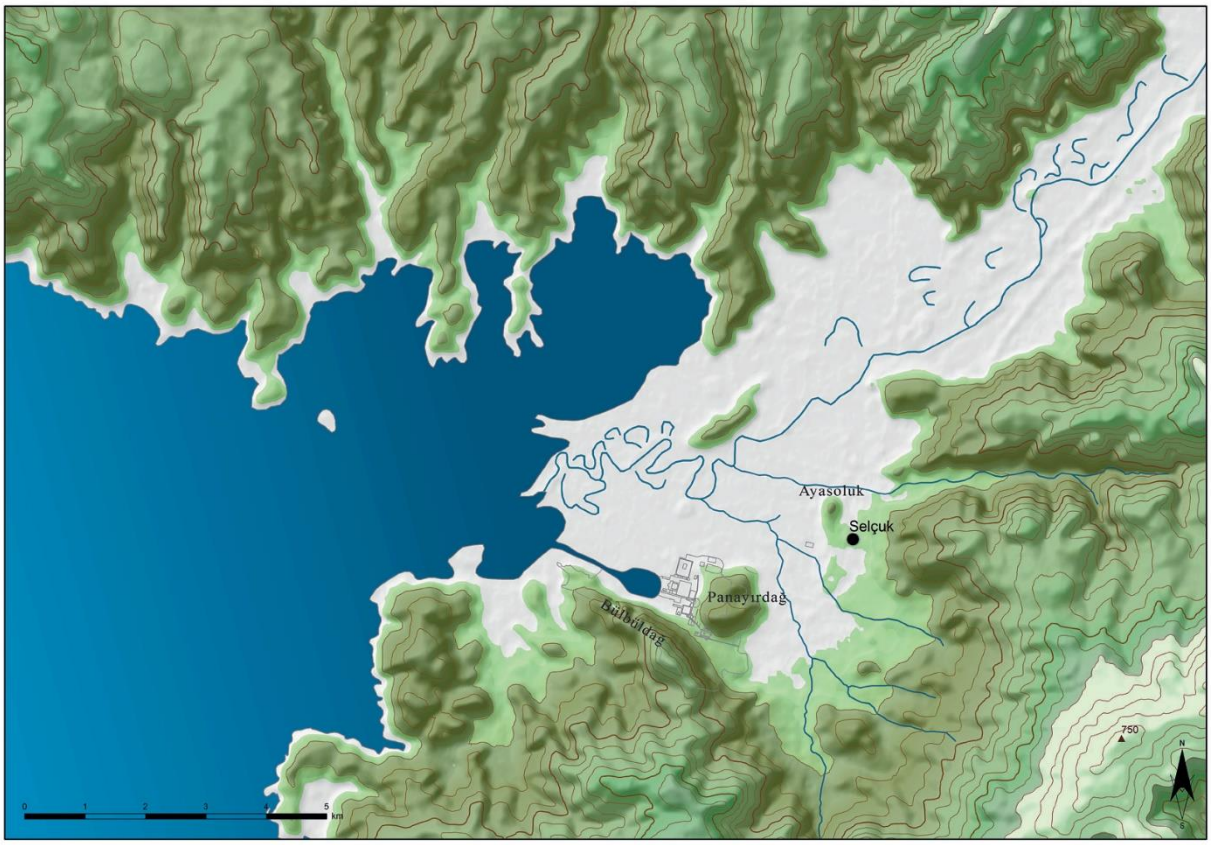


Figure 38 - The Roman coastline in the area around Ephesus, including the Imperial basin and the long canal. (Steskal 2014, 335 fig. 12).

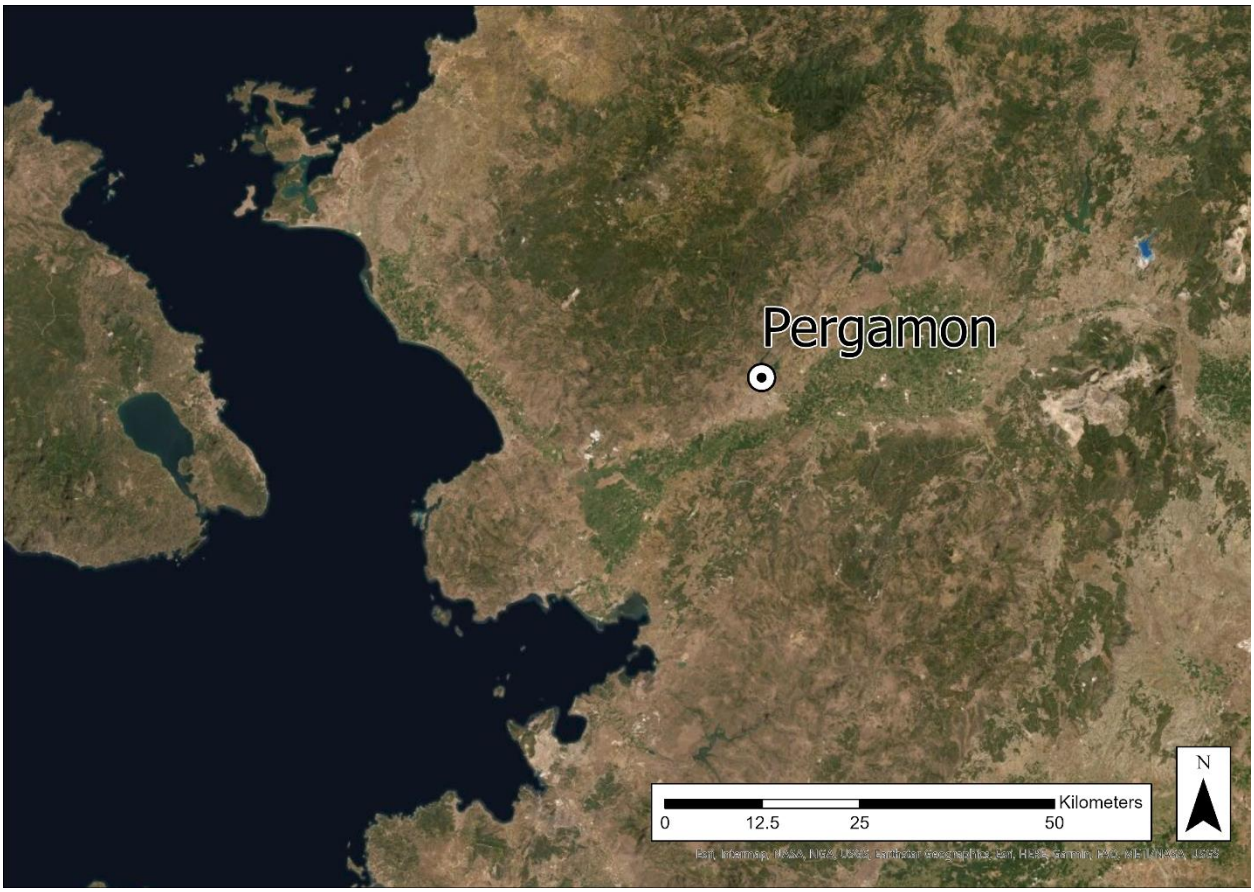


Figure 39 – The location of Pergamon on modern satellite imagery.

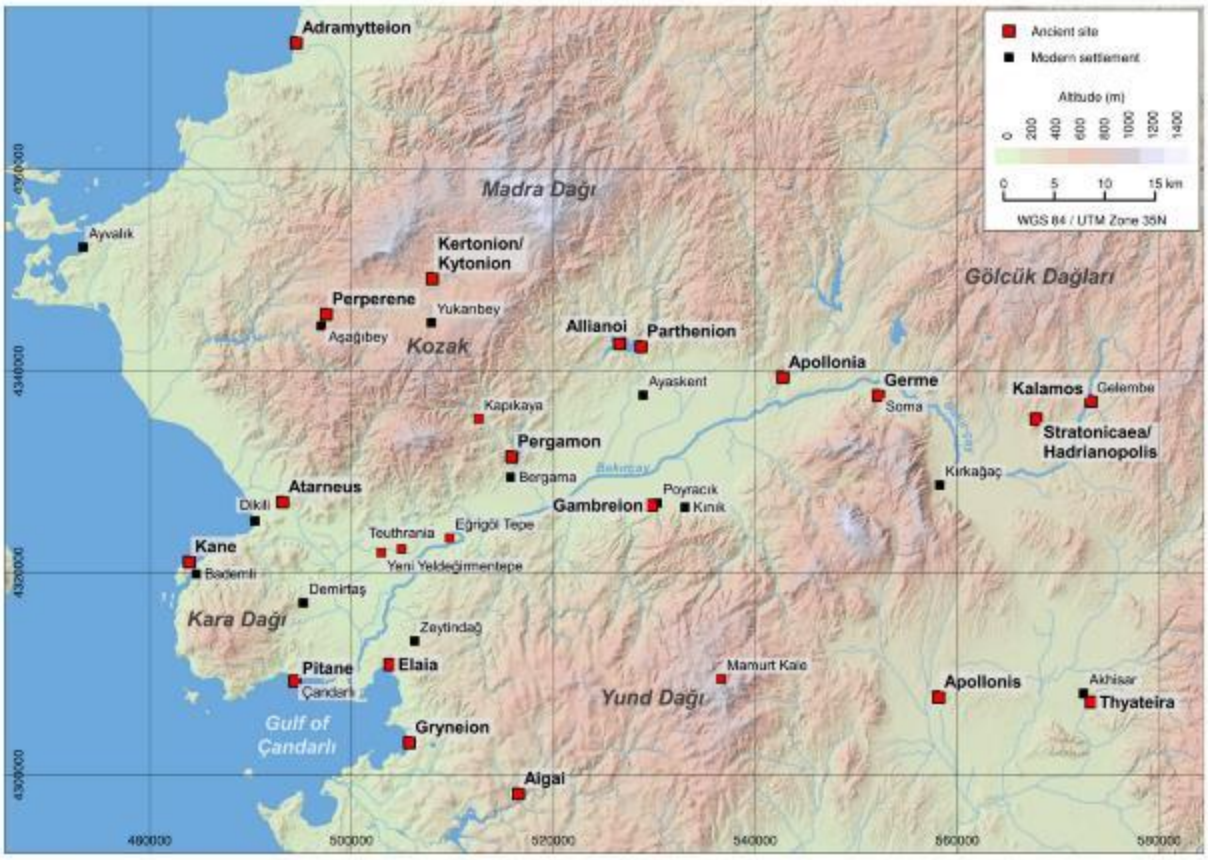


Figure 40 – The study area for a project by Ludwig (2020) on routes in the region around Pergamon. Pergamon can be seen in the center left and the sites discussed in this thesis in the lower left of the map. (Ludwig 2020, fig. 1).

Figure 41 – The coastal area around Pergmon, with Elaia in focus. Inset map shows western Asia Minor. (Seeliger et al. 2013, 71 fig. 1).

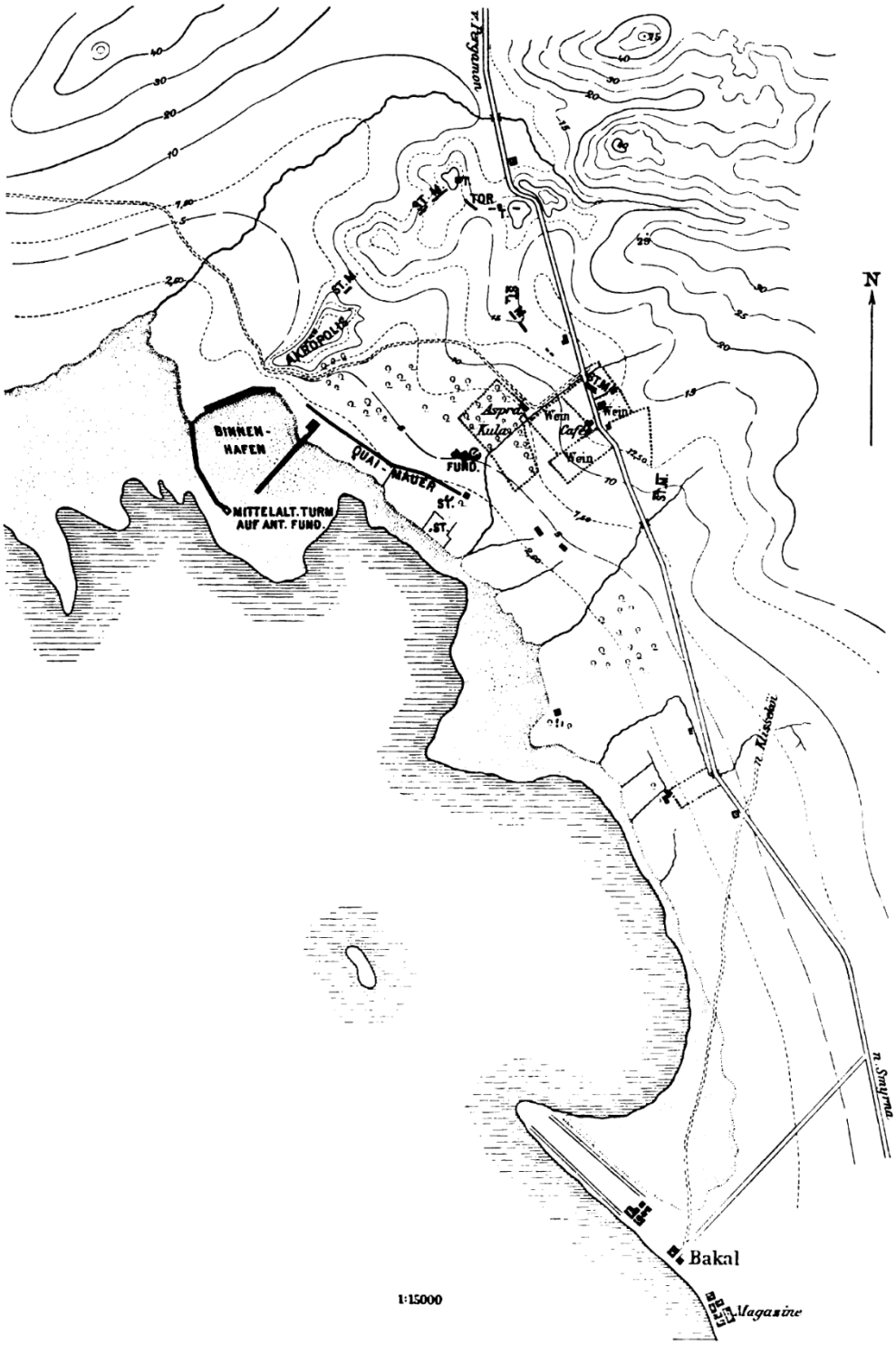


Figure 42 – Schuchhardt's 1912 plan of Elaia, with the acropolis, closed harbor, and quay wall clearly labeled. (Schuchhardt 1912, 112).

Figure 43 – View of the harbor zones of Elaia looking to the northeast across the city and towards Pergamon. (Ludwig 2020, fig. 10).

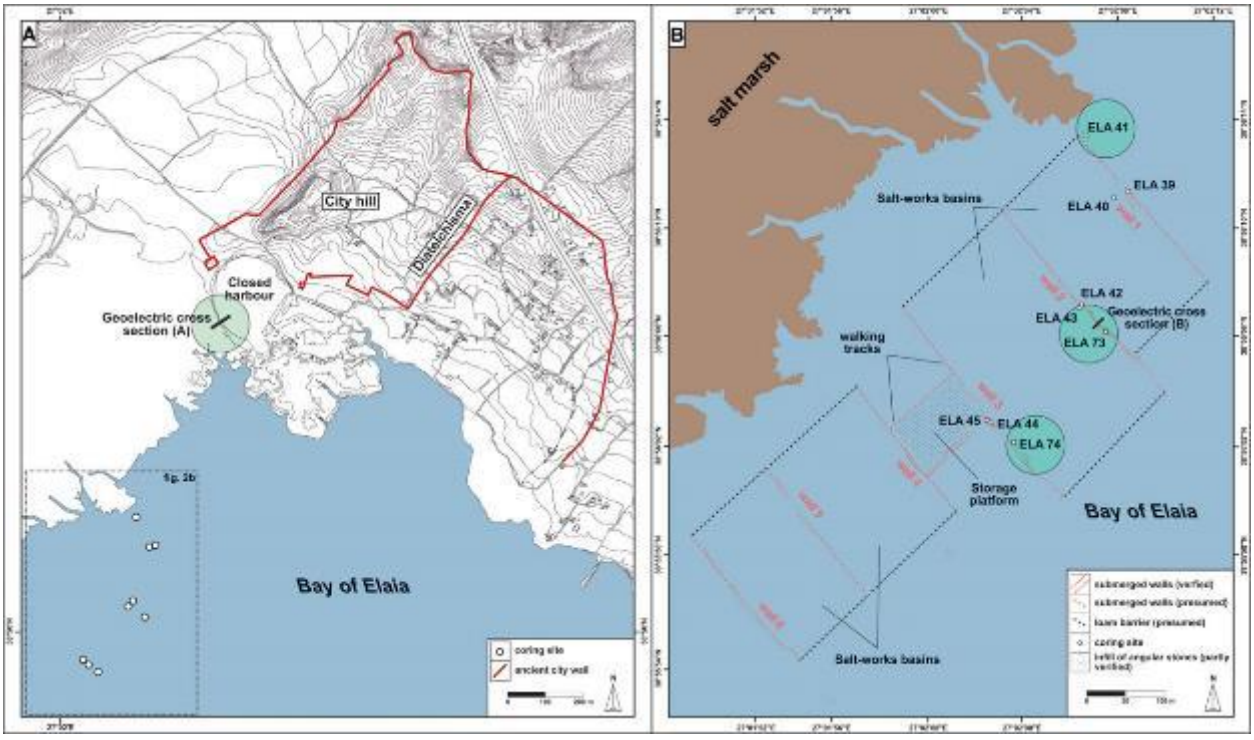


Figure 44 – Plan of the walls and harbor of Elaia (left) and the underwater walls discovered to the southwest of the site (right) along with the location of the geoarchaeological investigations including cores and geoelectric survey. (Seeliger et al. 2014, 140 fig. 2).

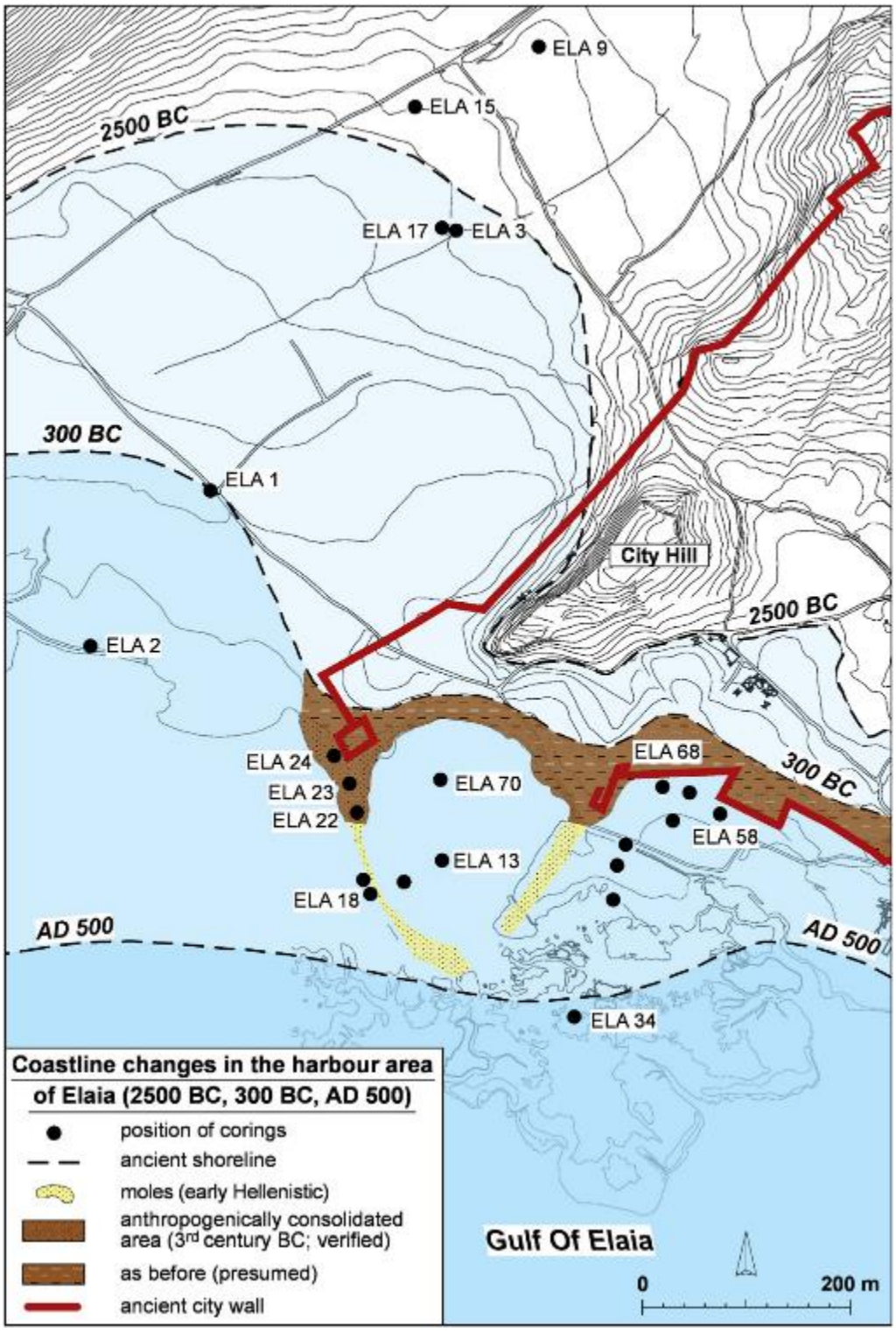


Figure 45 – Plot of the rapidly advancing coastline around Elaia in antiquity, along with the location of the geoarchaeological core samples taken by Seeliger et al. (Seeliger et al. 2013, 81 fig. 10).

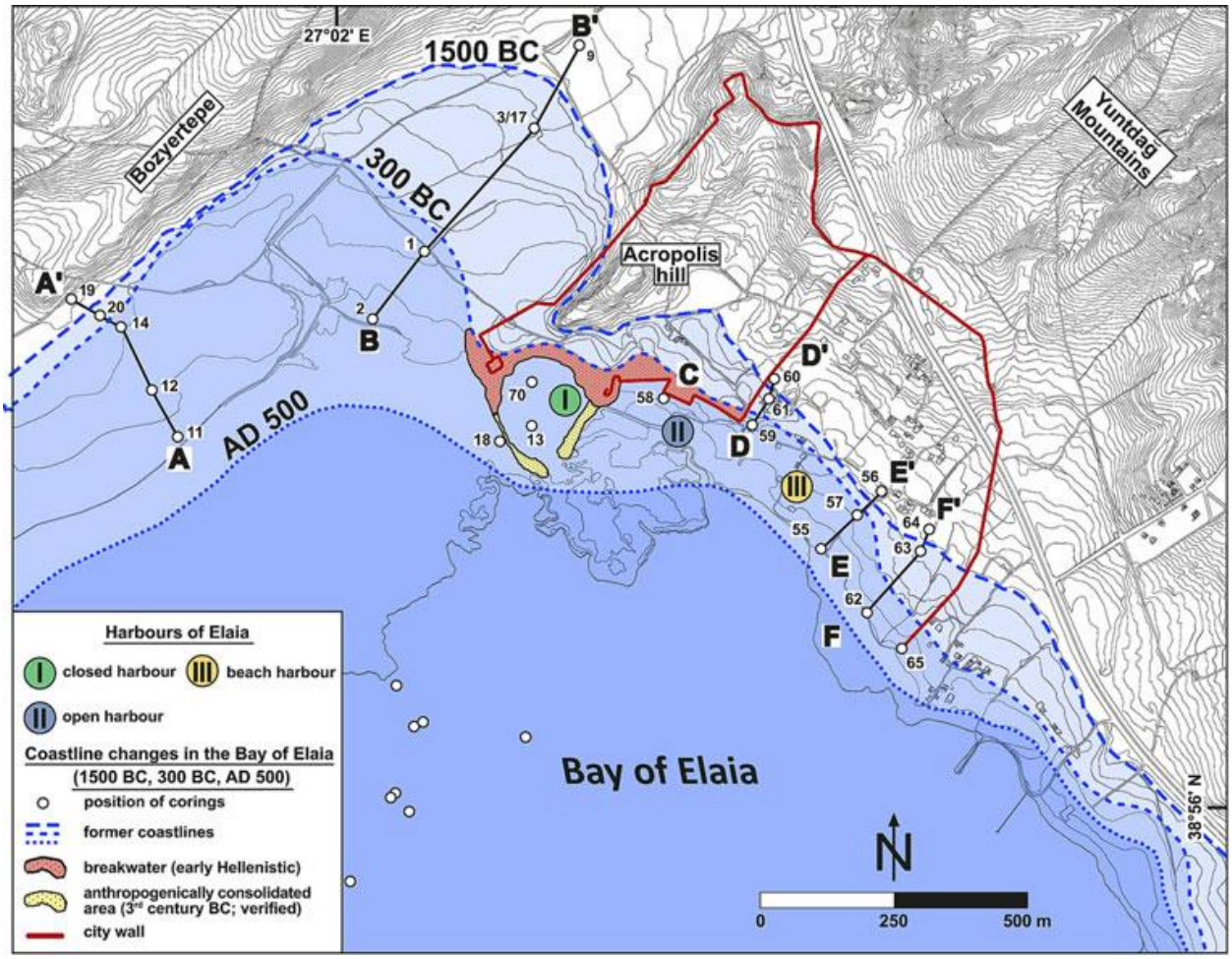


Figure 46 – The harbors of Elaia with three stages of coastline evolution at the site. (Seeliger et al. 2019, 239 fig. 9).

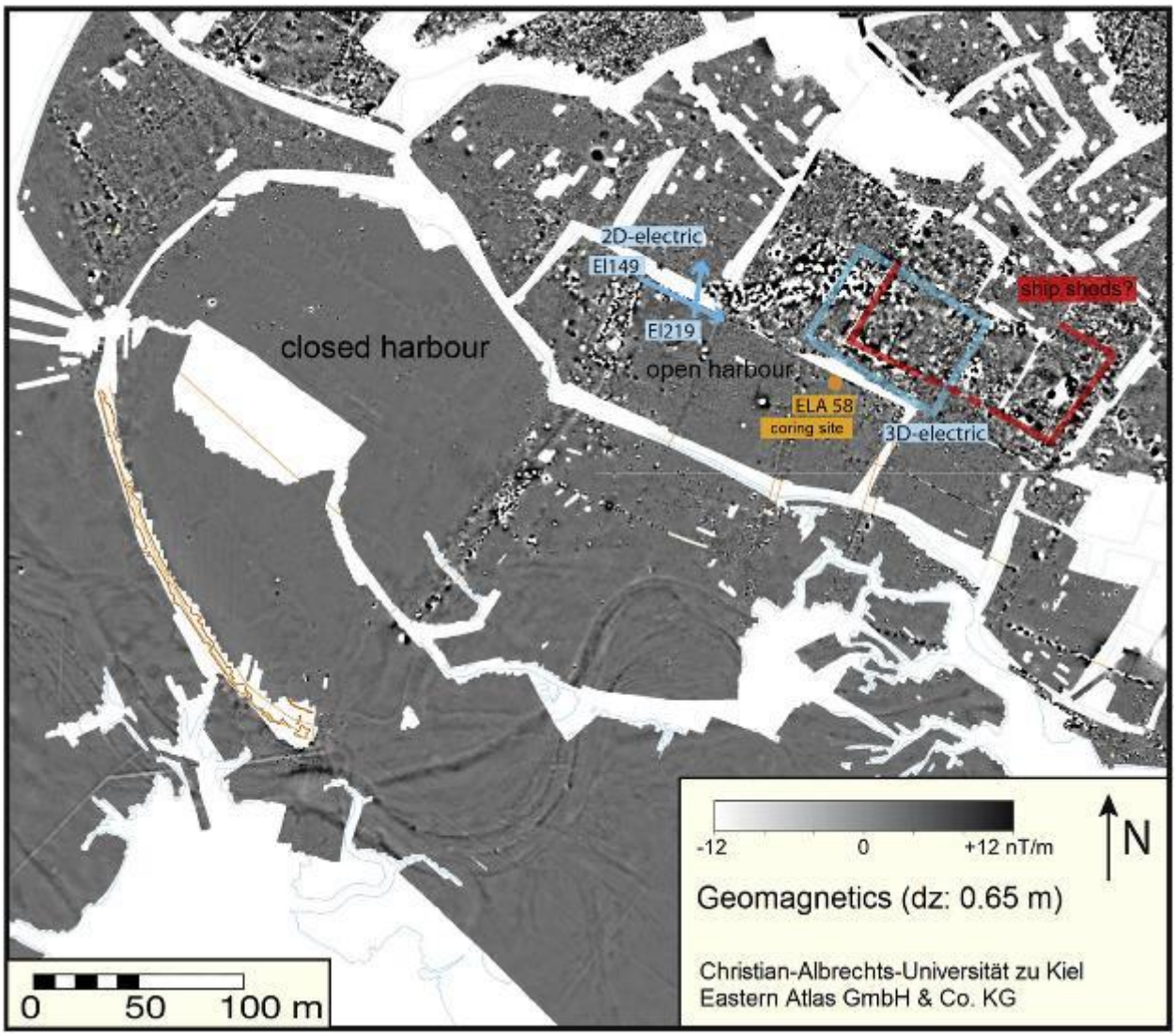


Figure 47 - Geomagnetic survey data at Elaia with interpretation of general functional areas. (Pint et al. 2015, fig. 4).

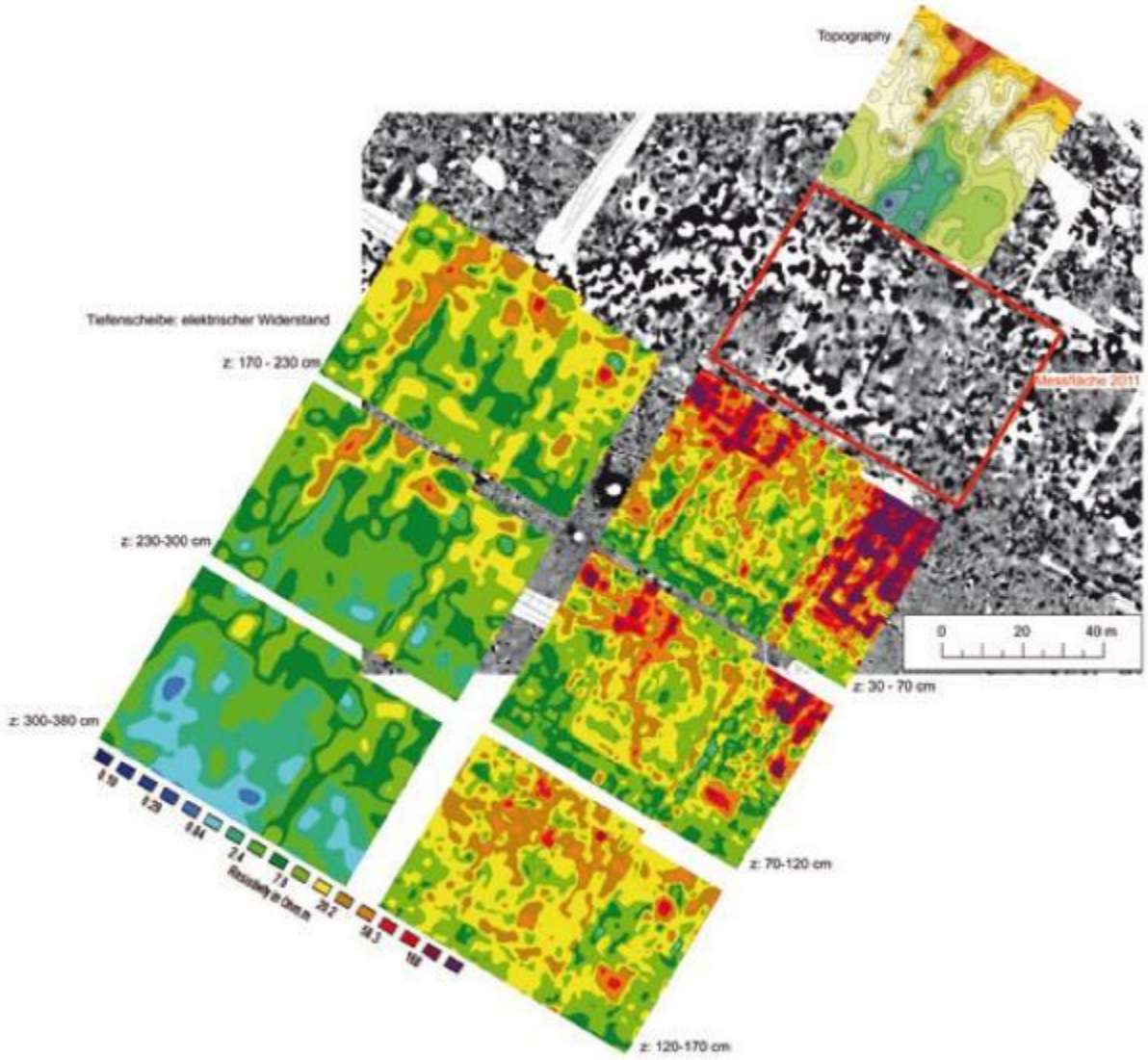


Figure 48 – Focus on the geophysical survey results of the area interpreted as shipsheds at Elaia (the GPR data are presented in a stretched color scale overlaid on the greyscale magnetic results). (Pirson 2012, 229 fig. 63).

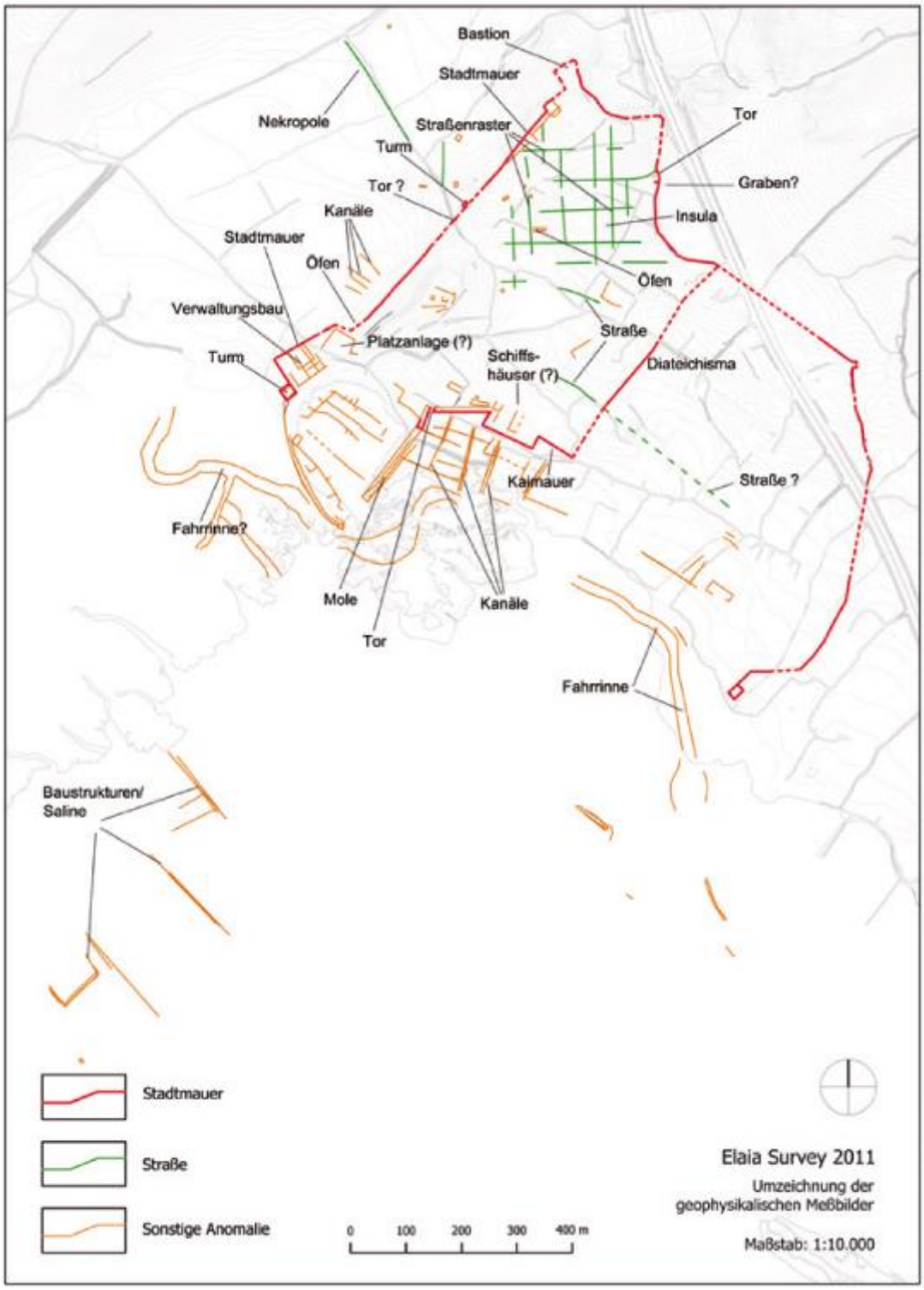


Figure 49 – Interpretation of the overall geophysical prospection campaign at Elaia. (Pirson 2012, 228 fig. 62).

Figure 50 – Looking West towards Atarneus and the modern coastline, with the modern development of Dikili on the left of the image. (Ludwig 2020, fig, 13).

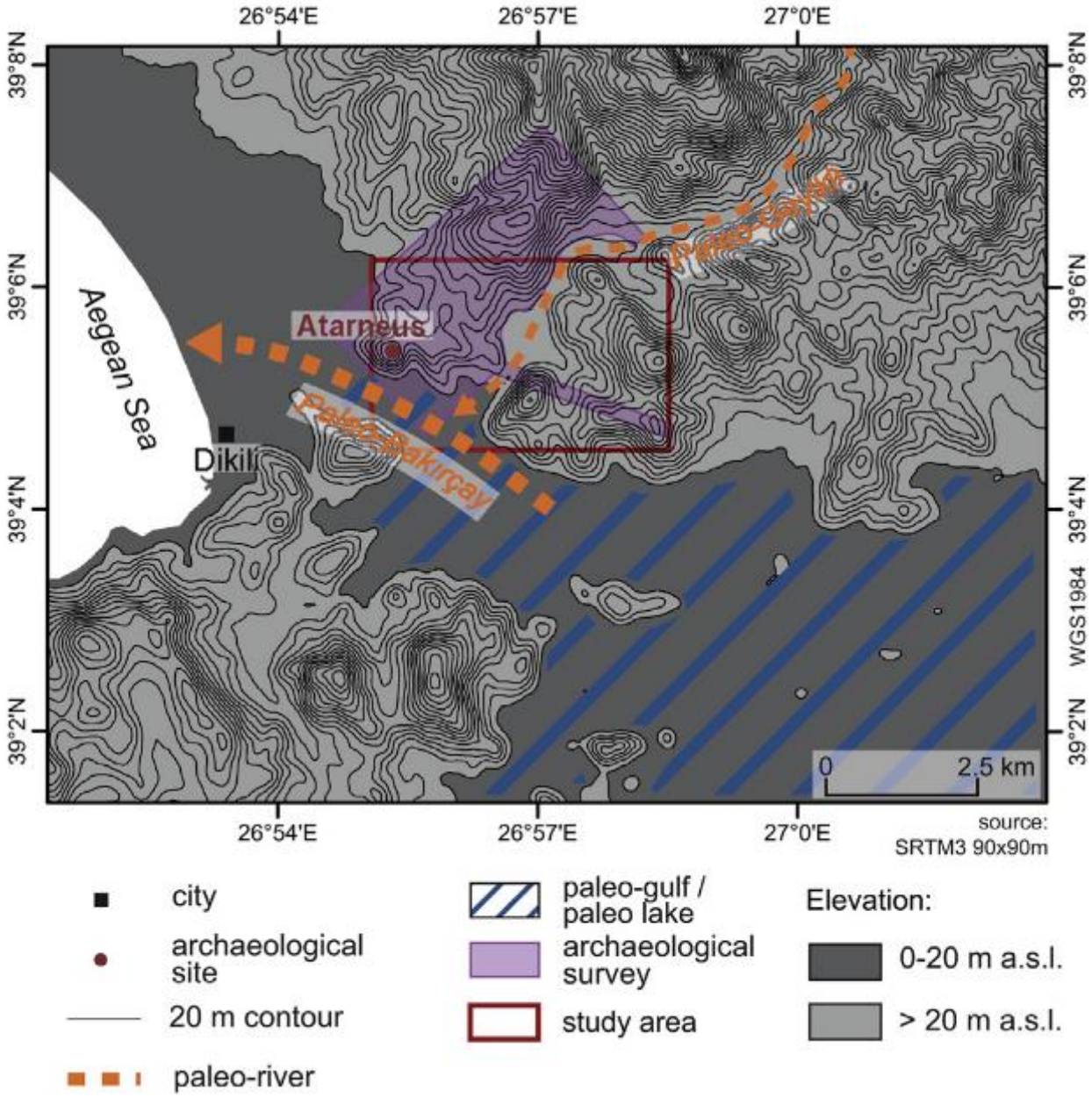


Figure 51 – Plan of the local area around Artaneus, demonstrating the advancing coastline in antiquity. (Schneider et al. 2013, 85 fig. 1B).

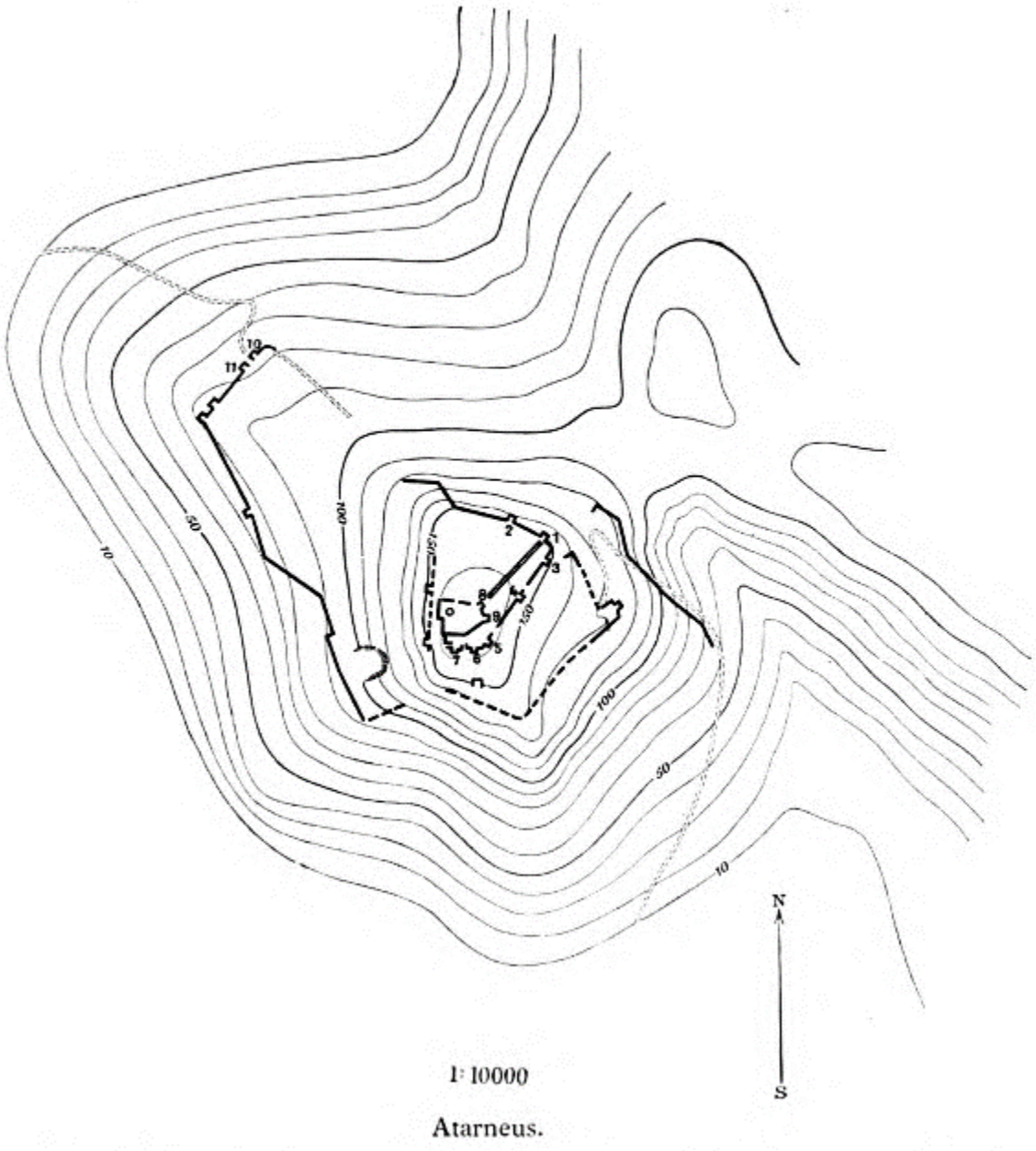


Figure 52 – 1912 plan of Atarneus. (Schuchhardt 1912, 120).

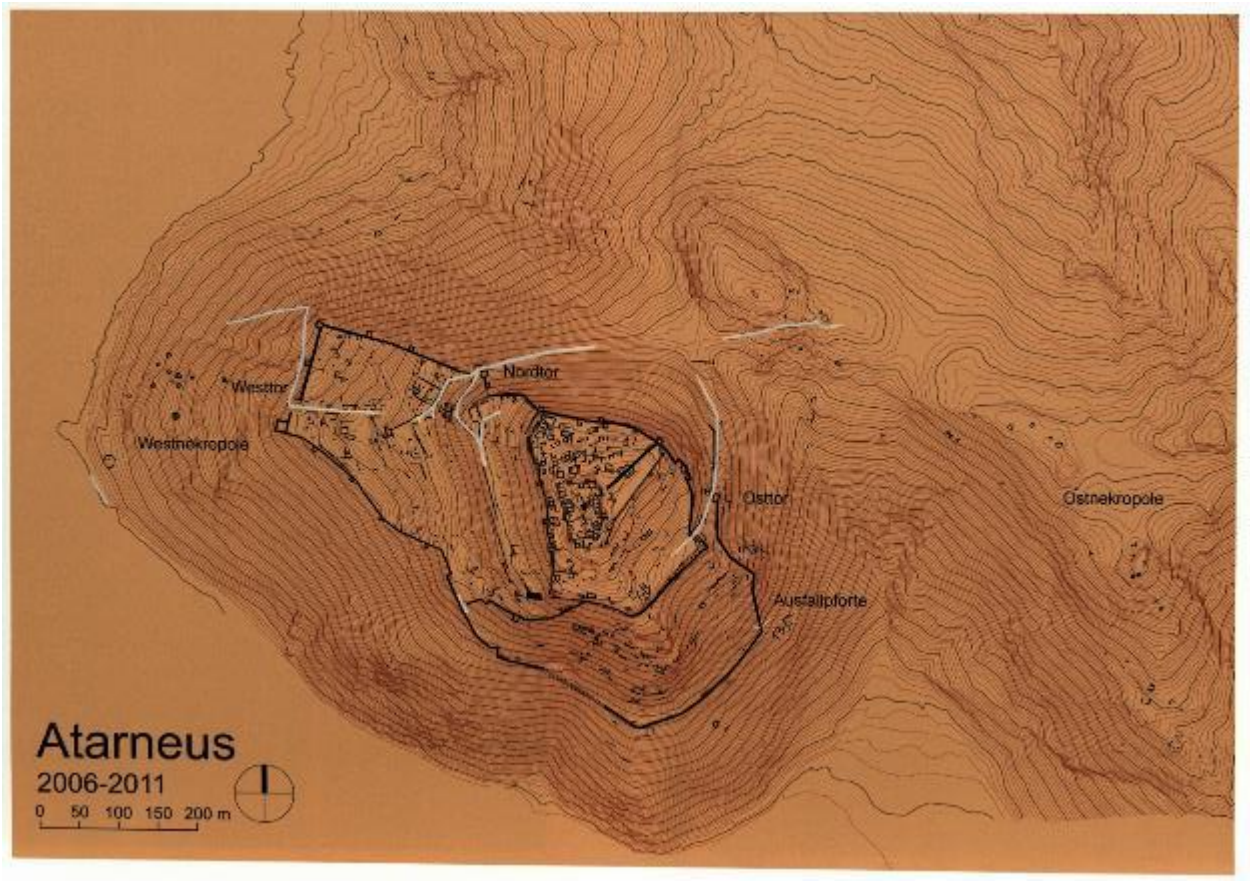


Figure 53 – Plan of the recent excavations at Atarneus. (Zimmerman et al. 2015, 220 fig. 3).

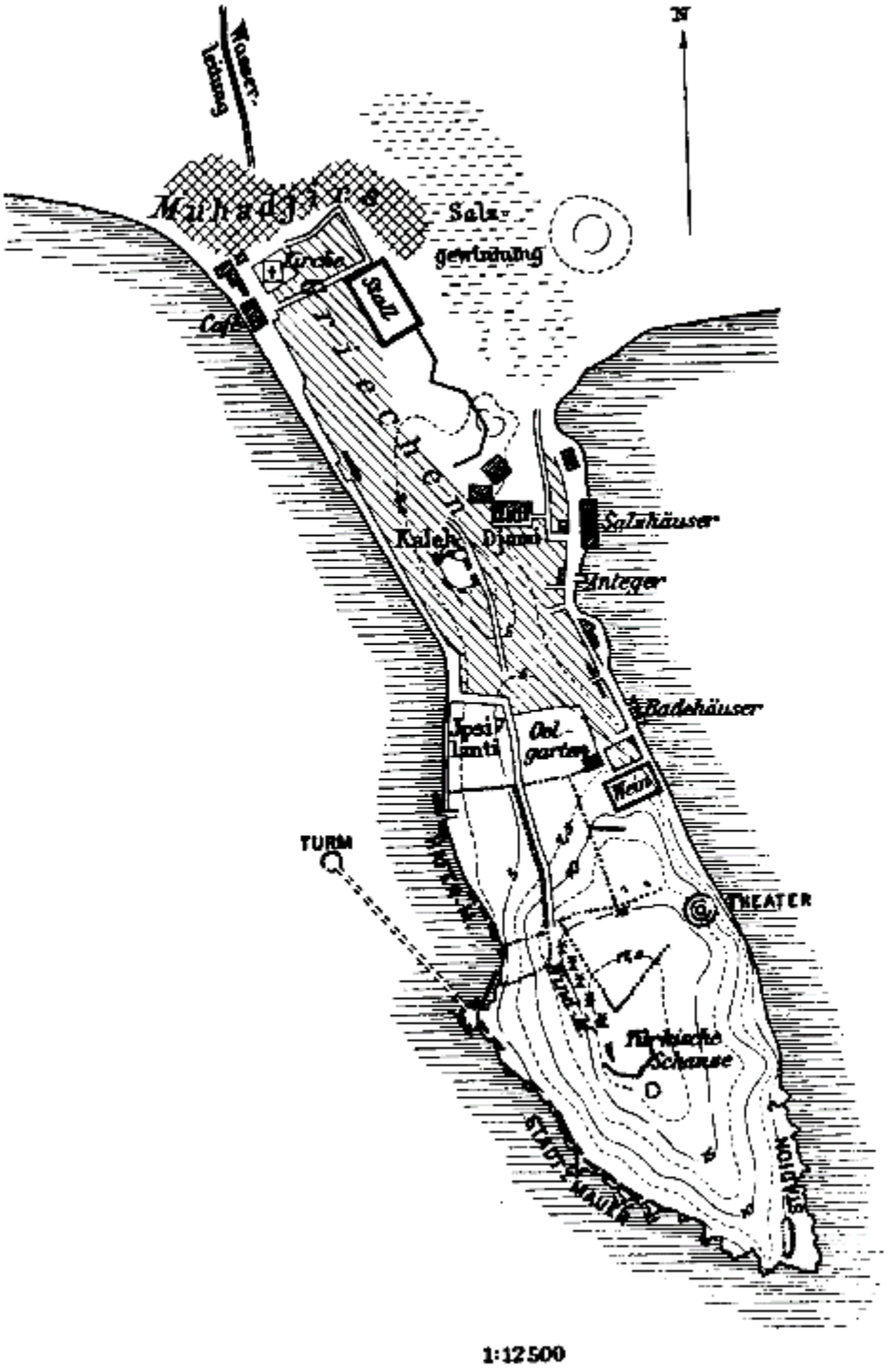


Figure 54 – Plan of Pitane from 1912. (Schuchhardt 1912, 99).

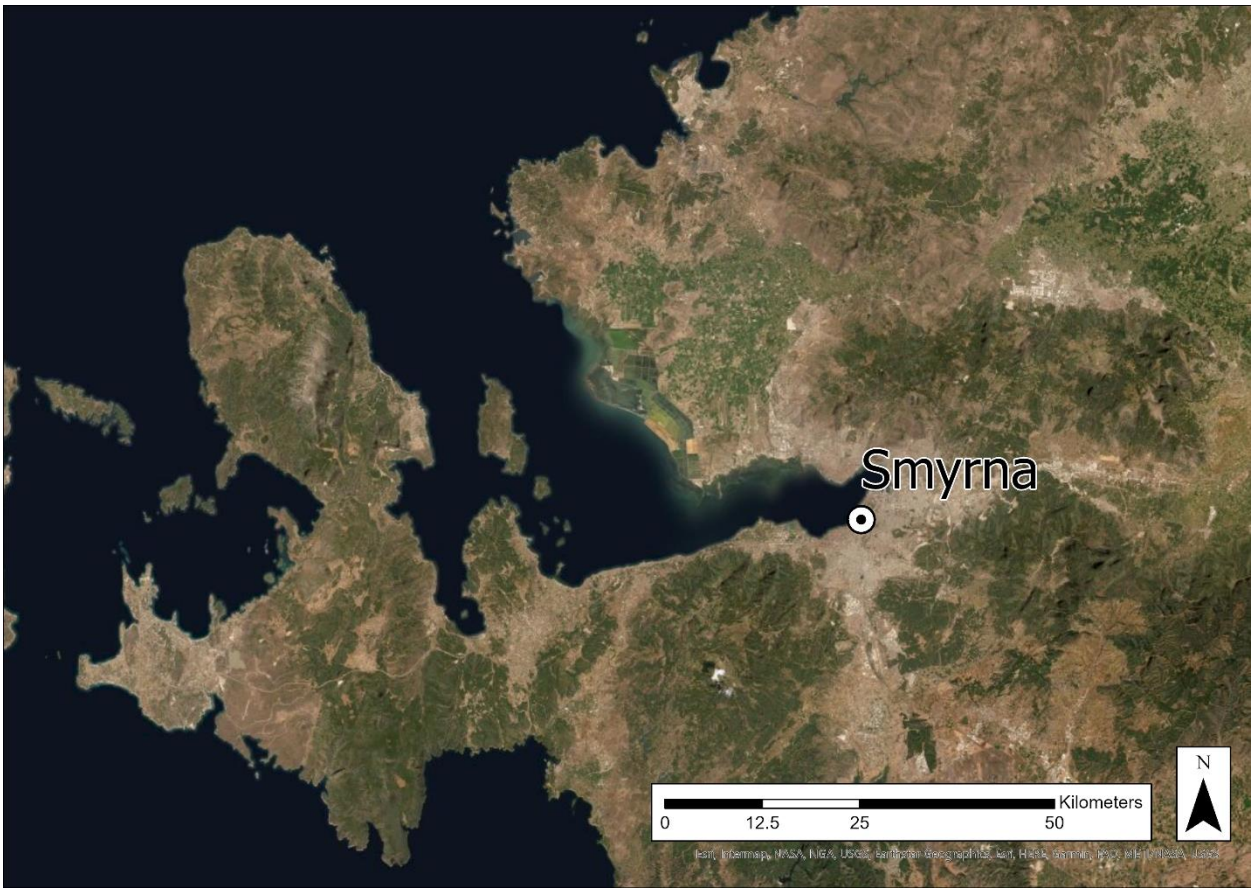


Figure 55 – The location of Smyrna on modern satellite imagery.

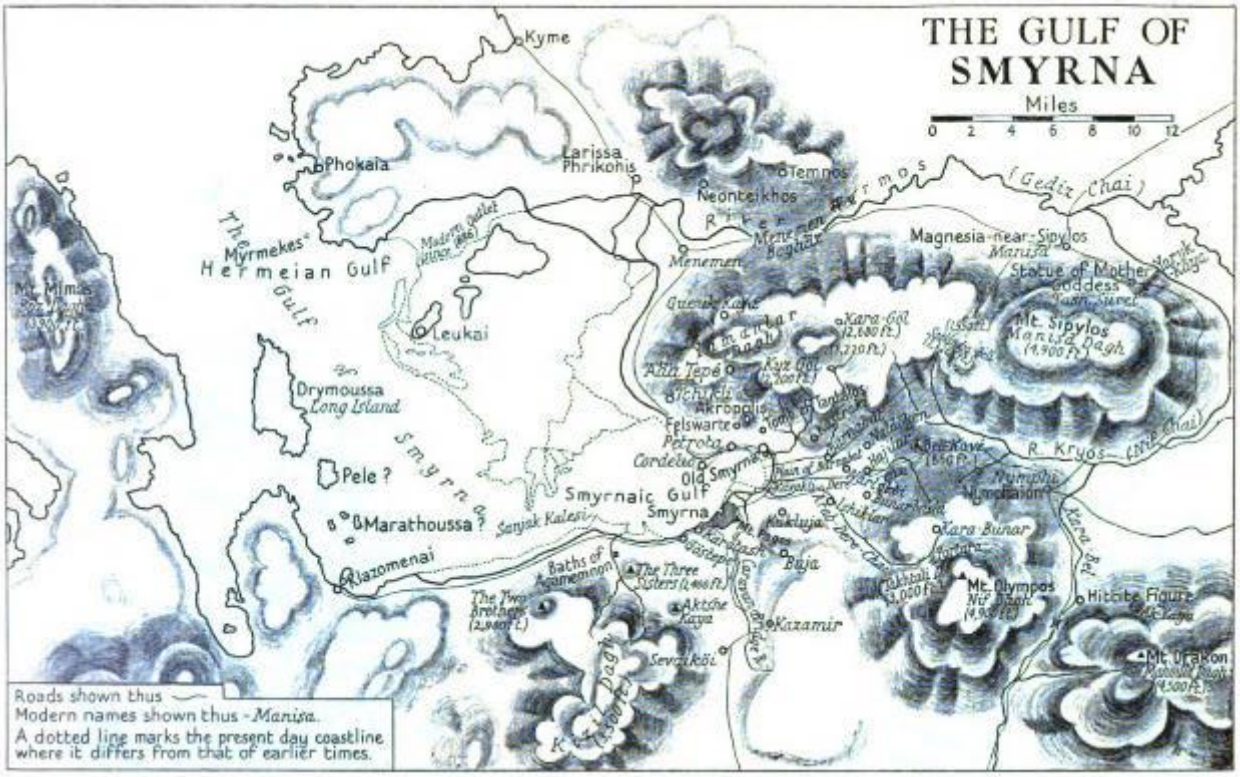


Figure 56 – Map of "The Gulf of Smyrna" from 1938. (Cadoux 1938, map 2).

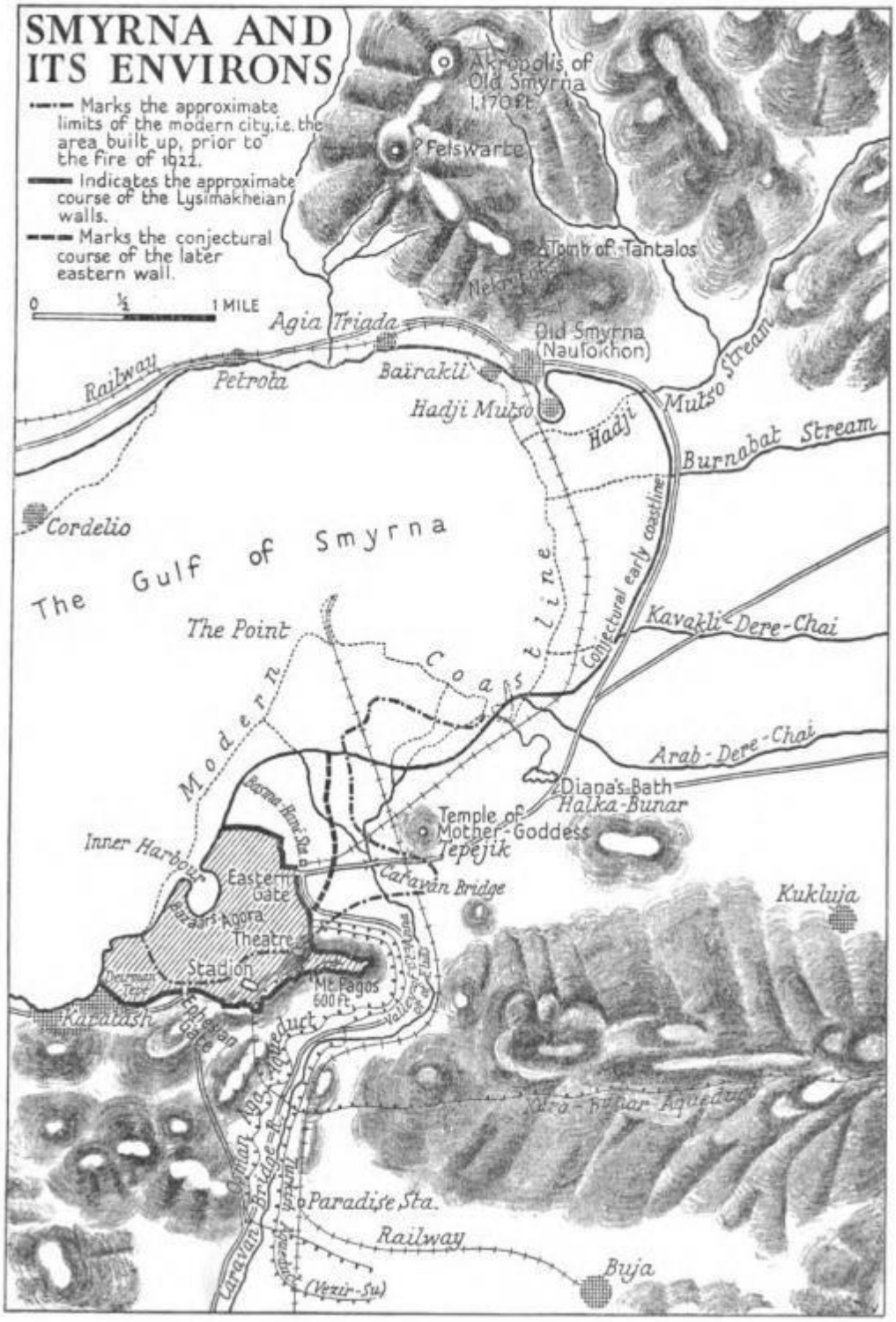


Figure 57 – Map of "Smyrna and its Environs" from 1938. (Cadoux 1938, map 3).

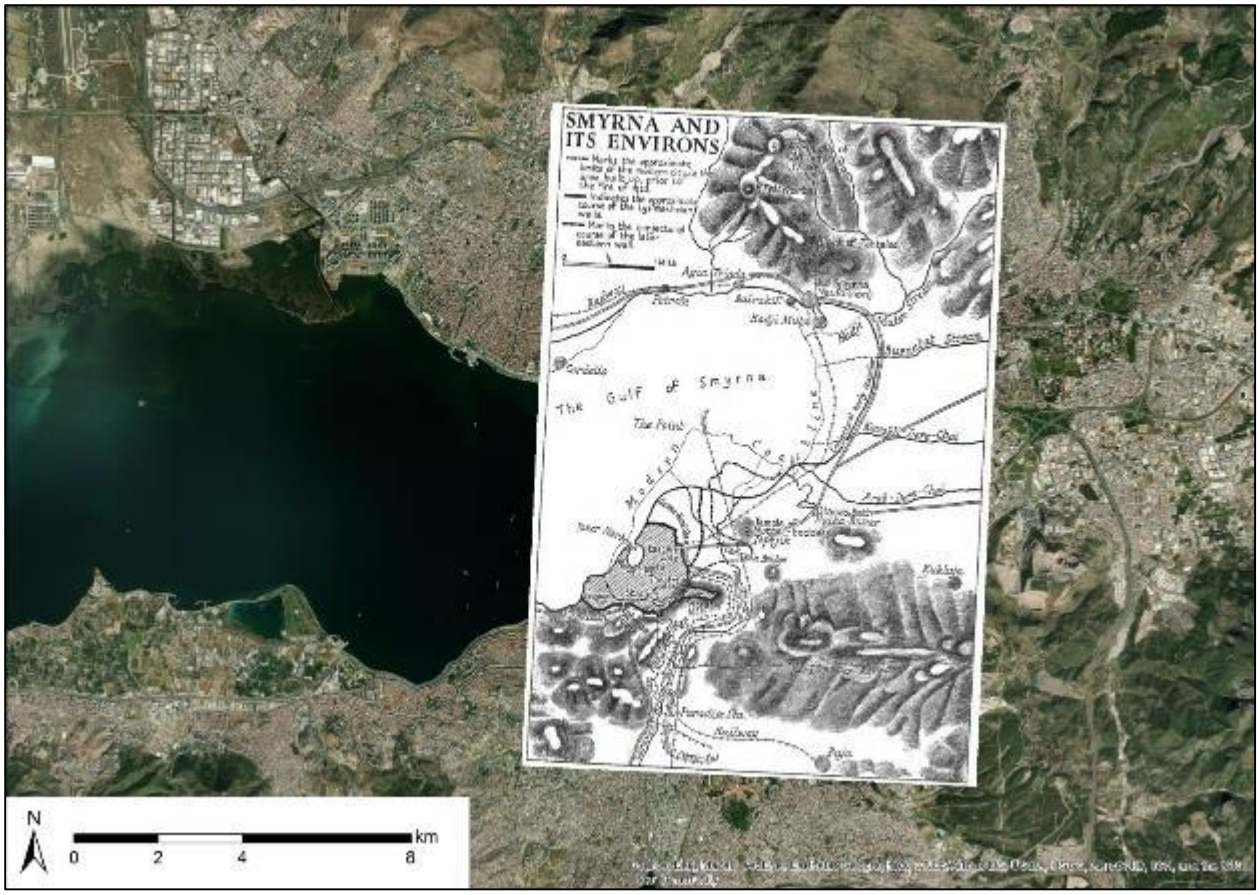


Figure 58 - Cadoux's map of Smyrna (1938, map 3) overlaid on satellite imagery of the area. (Image by author).

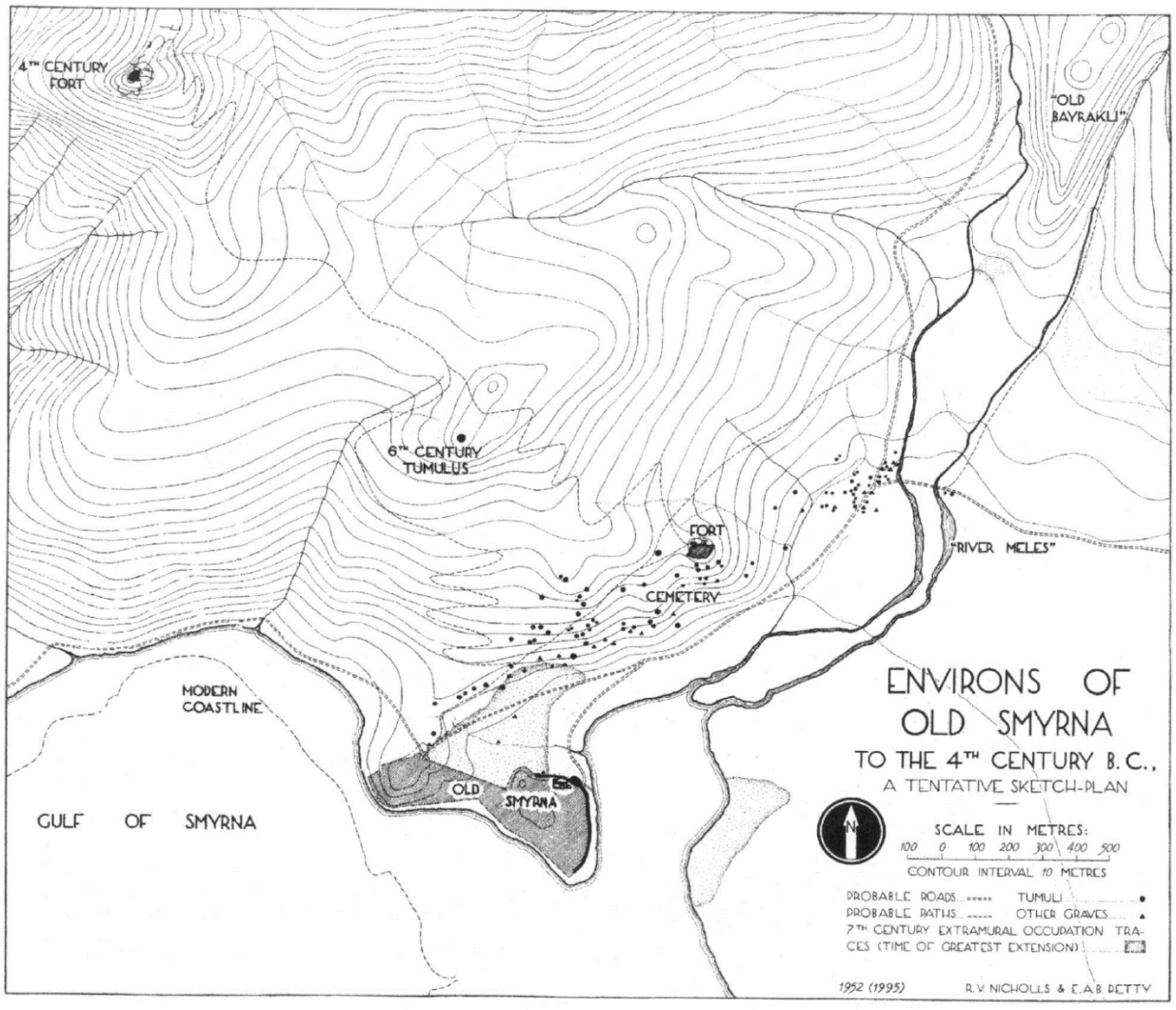


Figure 59 – Plan of the area around Old Smyrna, including the tumulus and the necropolis. (Cook et al. 1998, XX fig. 1).

Figure 60 - A view of Smyrna from the bay of Izmir in the 17th century. (de Bruyn 1702, 16-19 pl. 4).

Figure 61 – A view of Smyrna from the open water approaching the city in the late 1600s, highlighting the citadel but also the entrance to the enclosed harbor. (Tournefort 1718, 332 fig. 140).

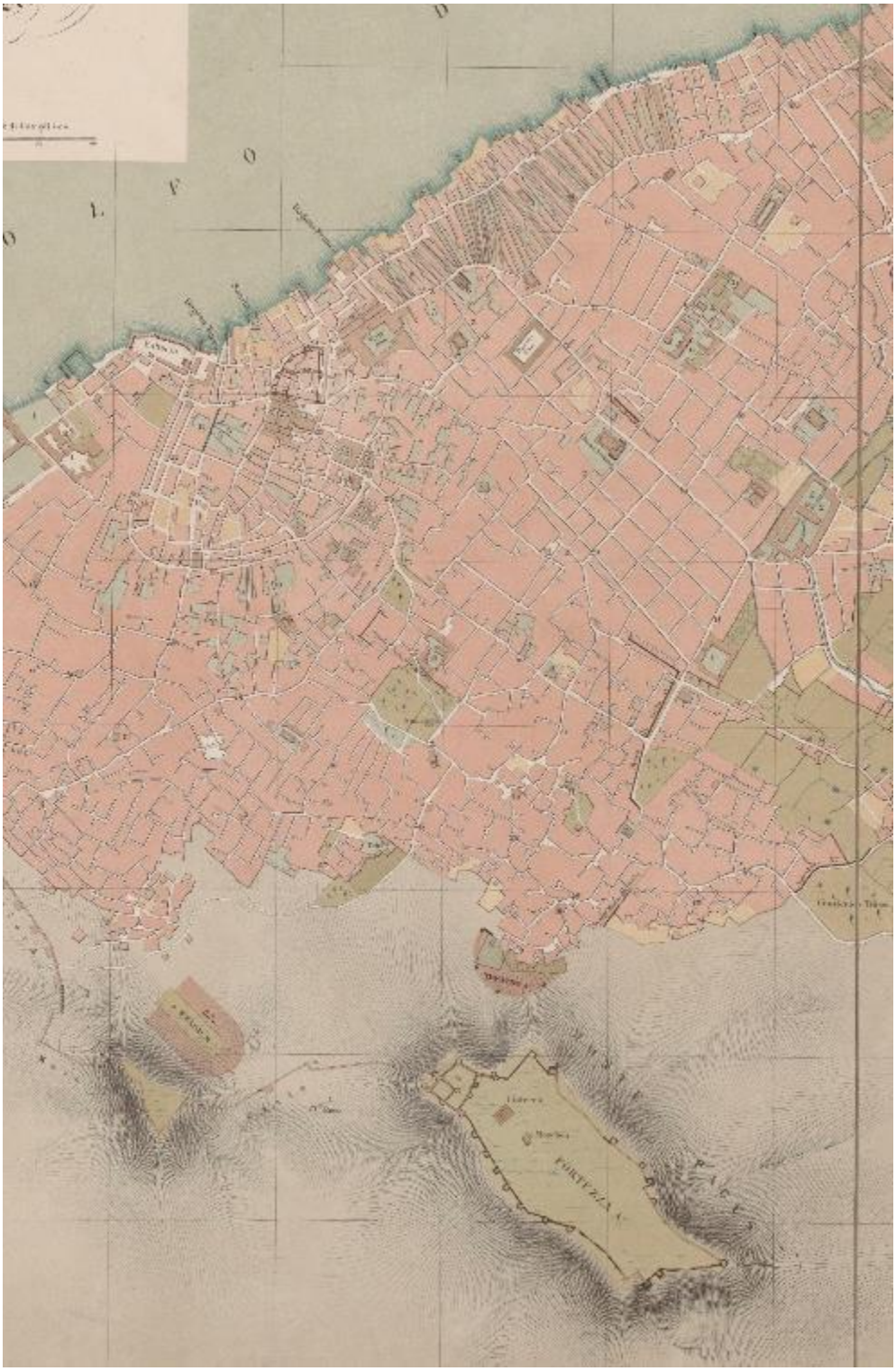


Figure 62 – Extract from Storari's 1856 plan of Smyrna with a focus on the area interpreted as the ancient harbor and the acropolis. (Storari 1856).

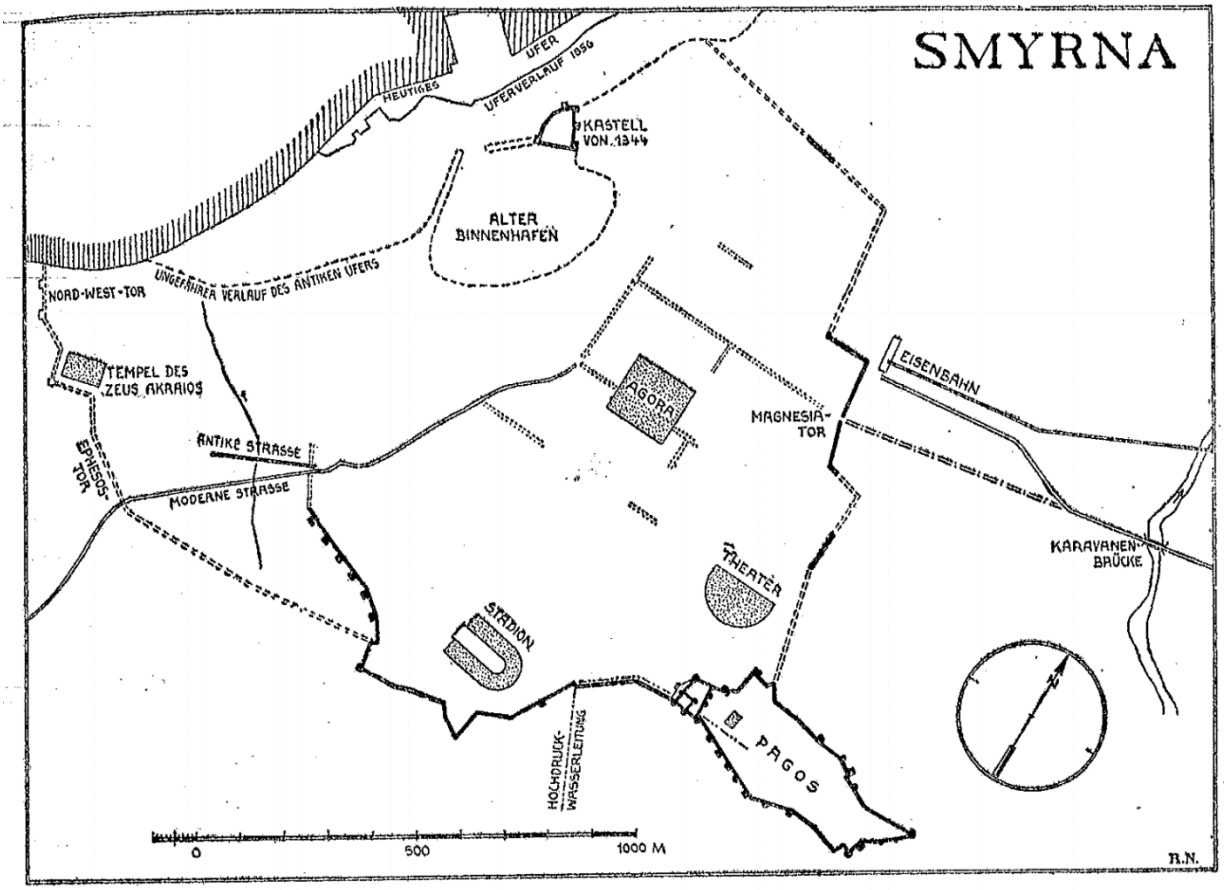


Figure 63 - Plan of the remains of ancient Smyrna as known in 1950. (Naumann and Kantar 1950, 71 fig. 1).

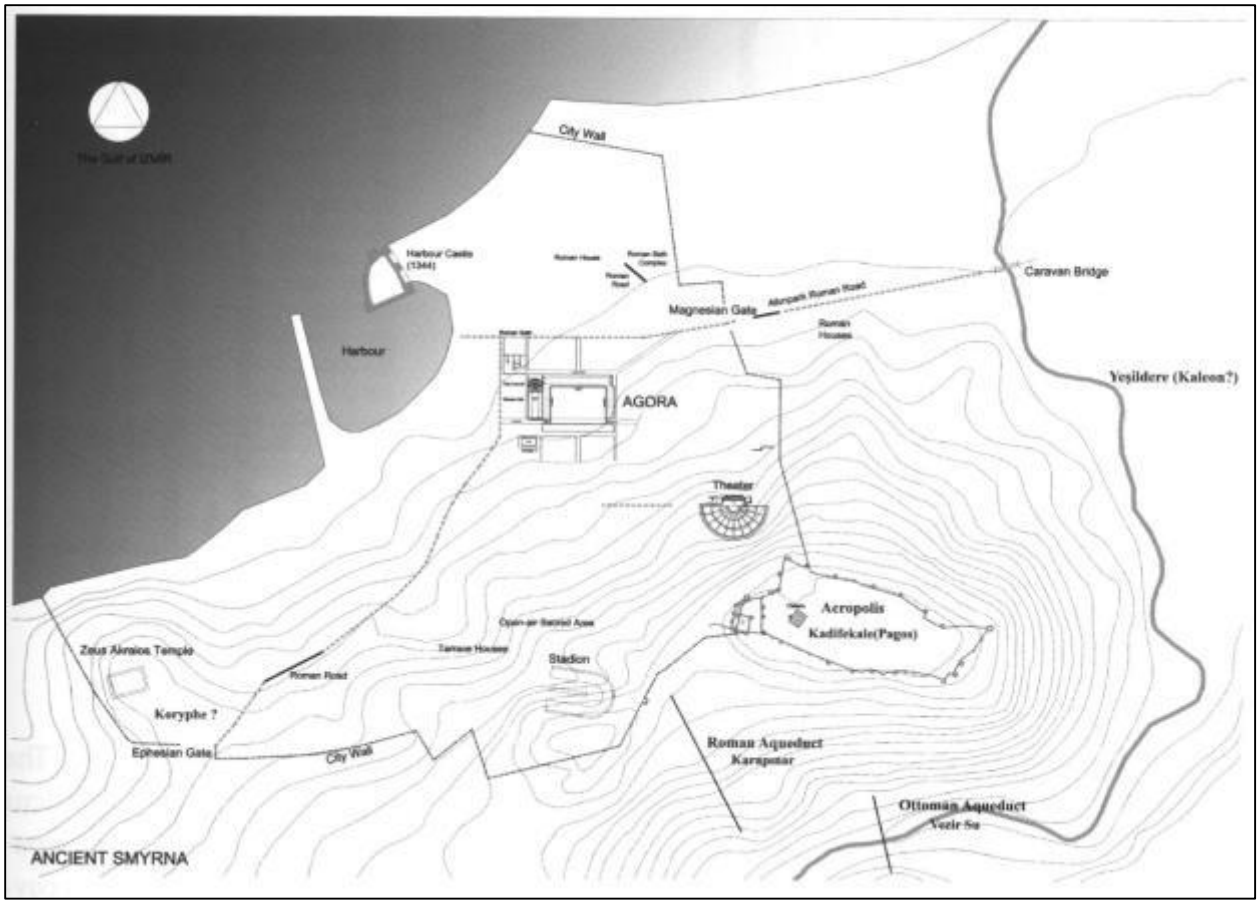


Figure 64 – Plan of the remains of ancient Smyrna as known in 2016. (Ersoy 2016, 3 fig. 2).

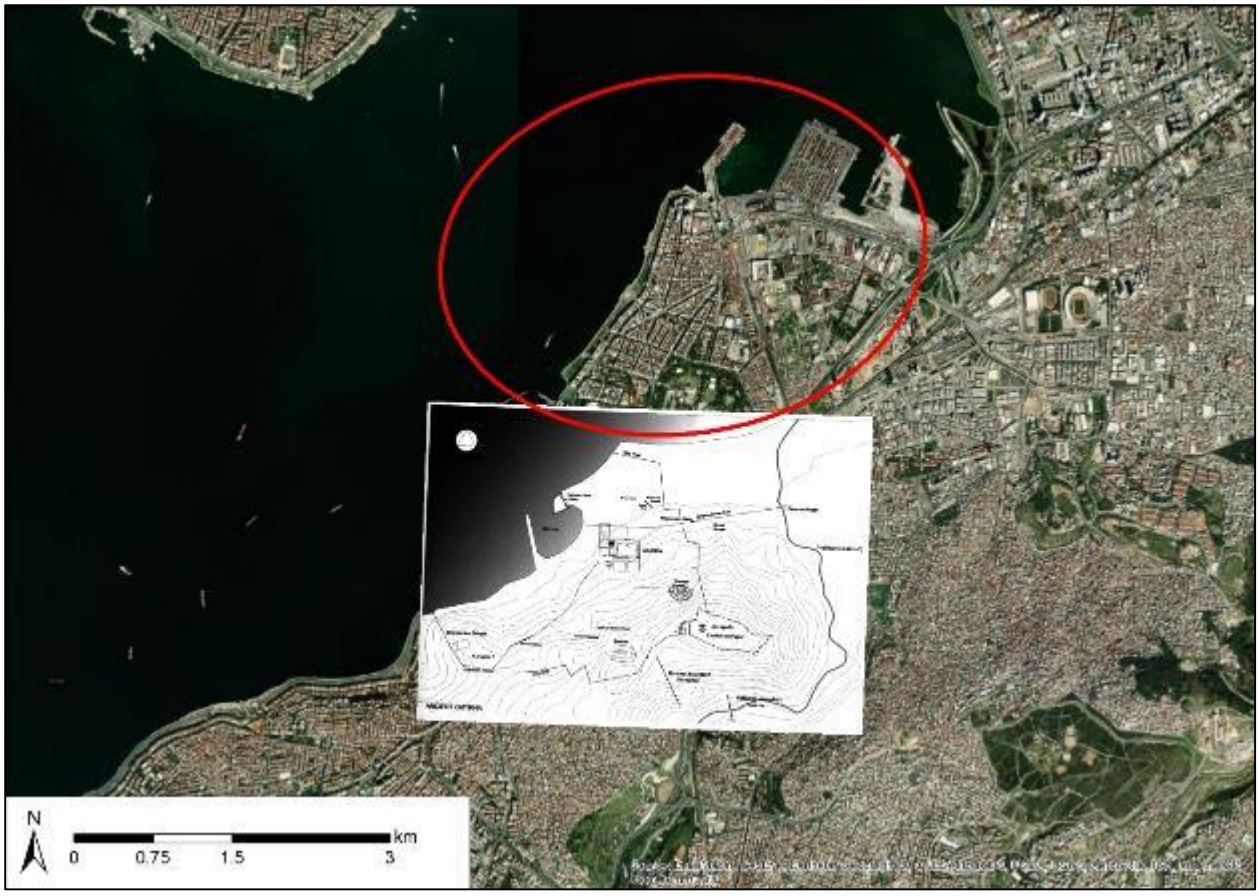


Figure 65 – Ersoy's plan of the remains of Smyrna (2016, 3 fig. 2) overlaid on satellite imagery of modern Izmir. The area outlined in red is reclaimed land post antiquity according to Ersoy's plan. (Image by author).

Figure 66 – The location of Rhodes on modern satellite imagery.

Figure 67 – The closest point of Rhodes to the mainland is approximately 18km.

Figure 68 – Satellite imagery of the modern city of Rhodes. The harbors on the eastern coastline are still visible and correspond generally to the ancient harbors. (Image by author).

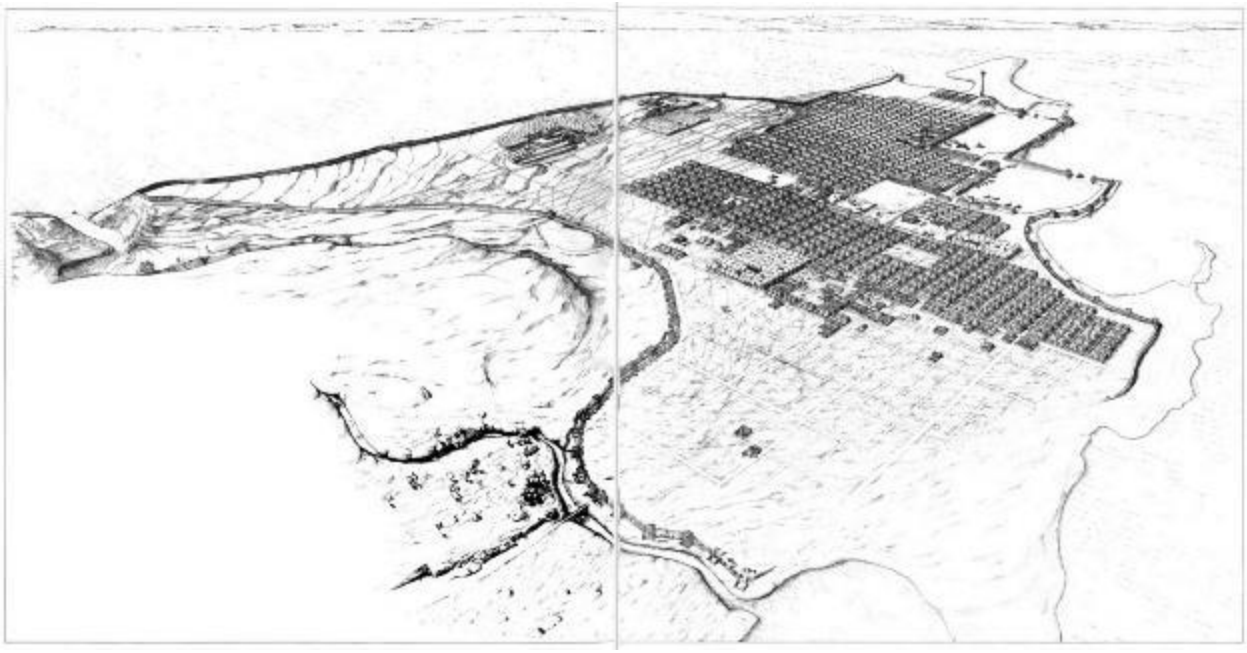


Figure 69 – Reconstruction of Rhodes approximately 100 years after its founding. View from the Southwest, with the main habors in the distance. (Hoepfner 2003, 21-22 fig. 30).

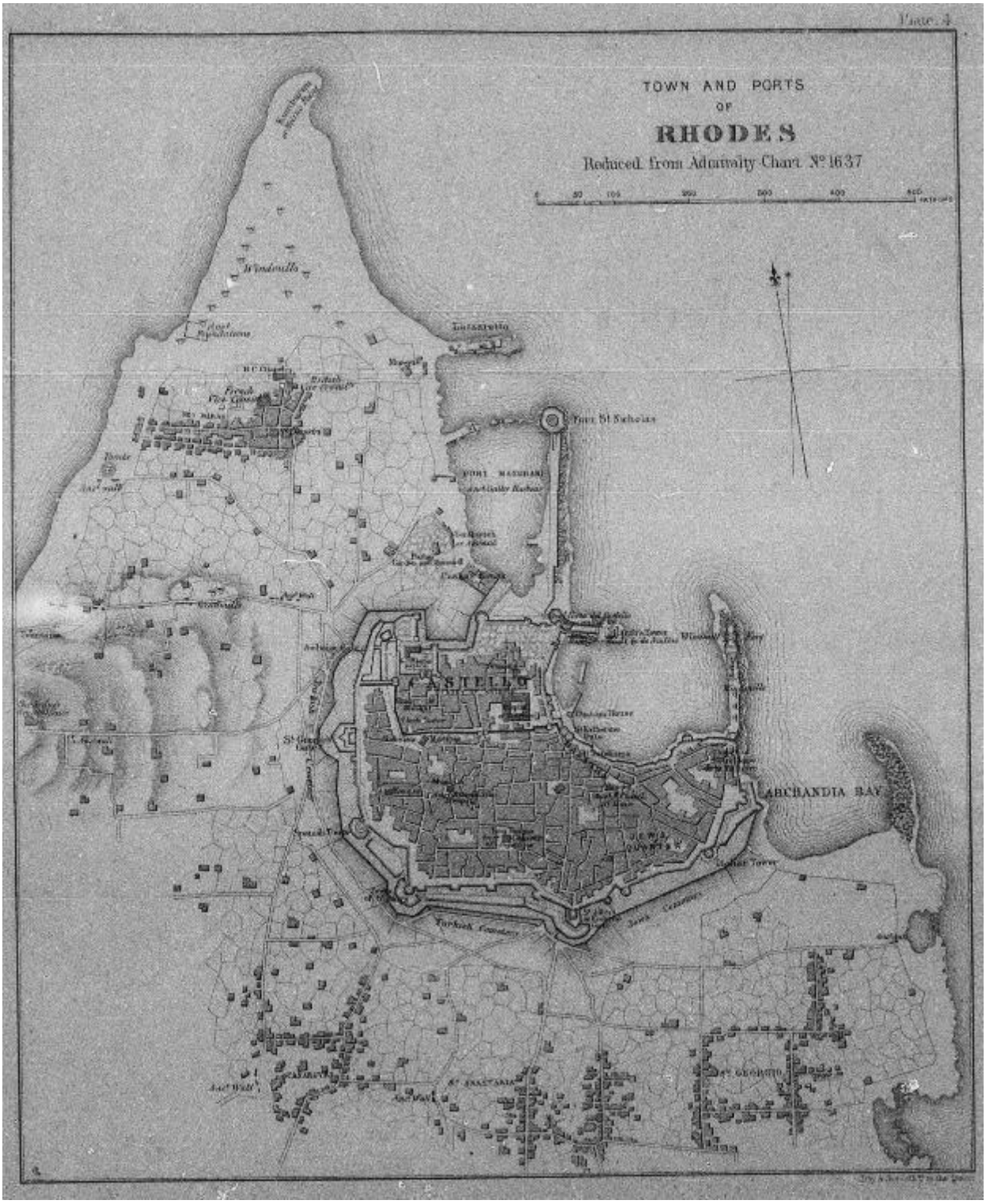


Figure 70 – Plan of the town and ports of Rhodes. (Newton 1865, pl. 4).

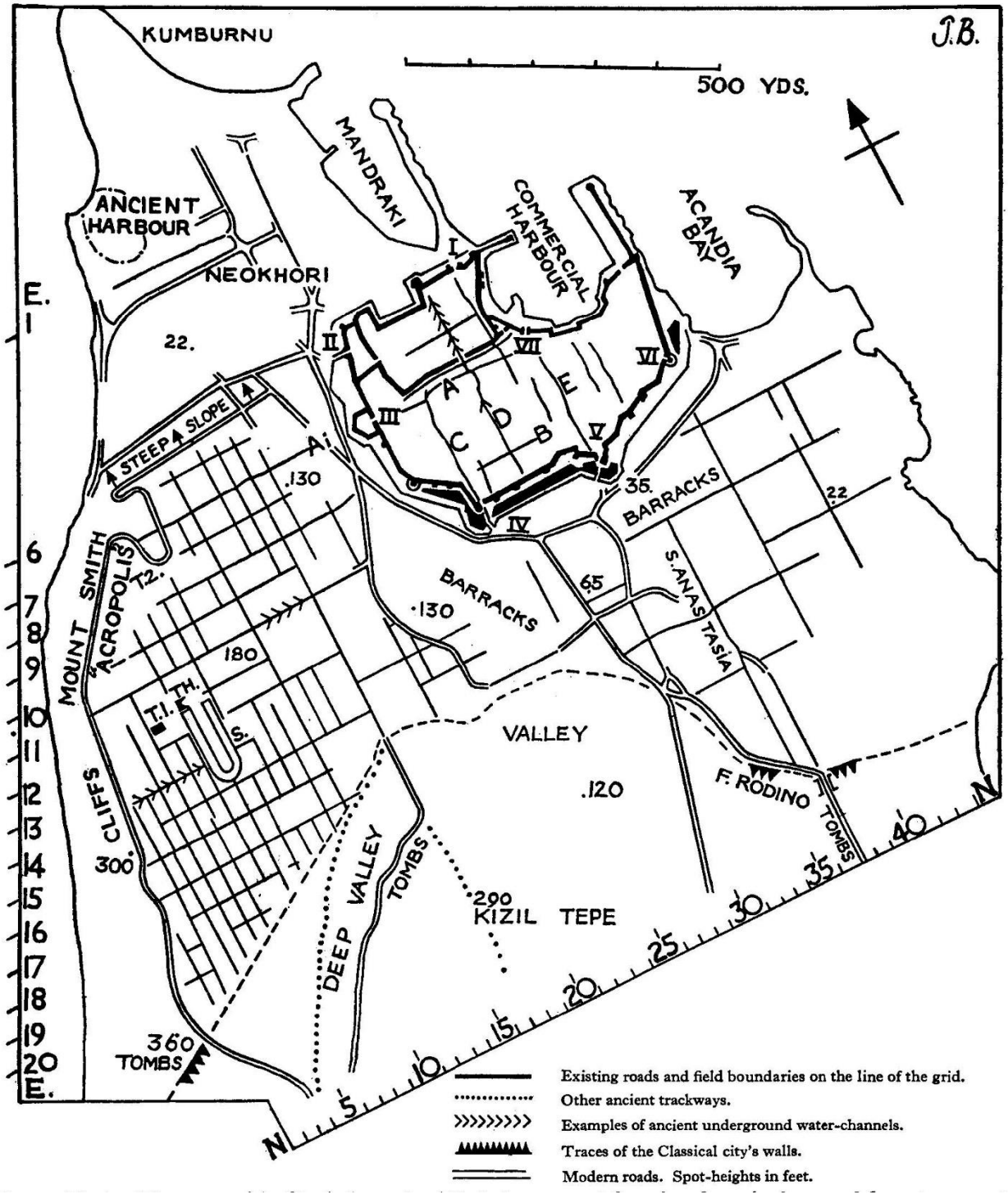


Figure 71 – Interpretation of the grid plan of Classical Rhodes. (Bradford 1956, 59 fig. 1).

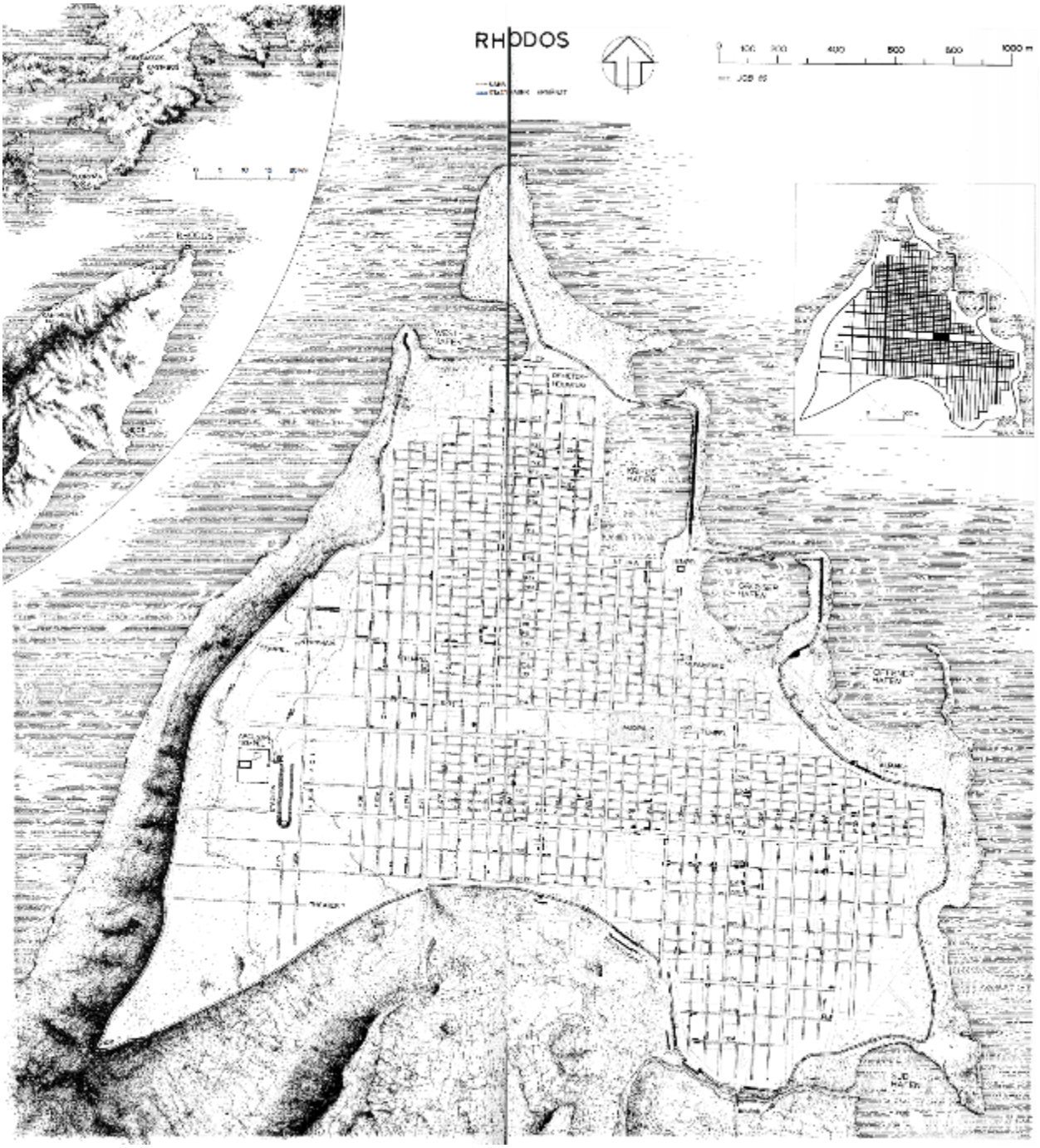


Figure 72 – Plan of the ancient city of Rhodes. (Hoepfner and Schwandner 1986, 22-23 fig. 16).

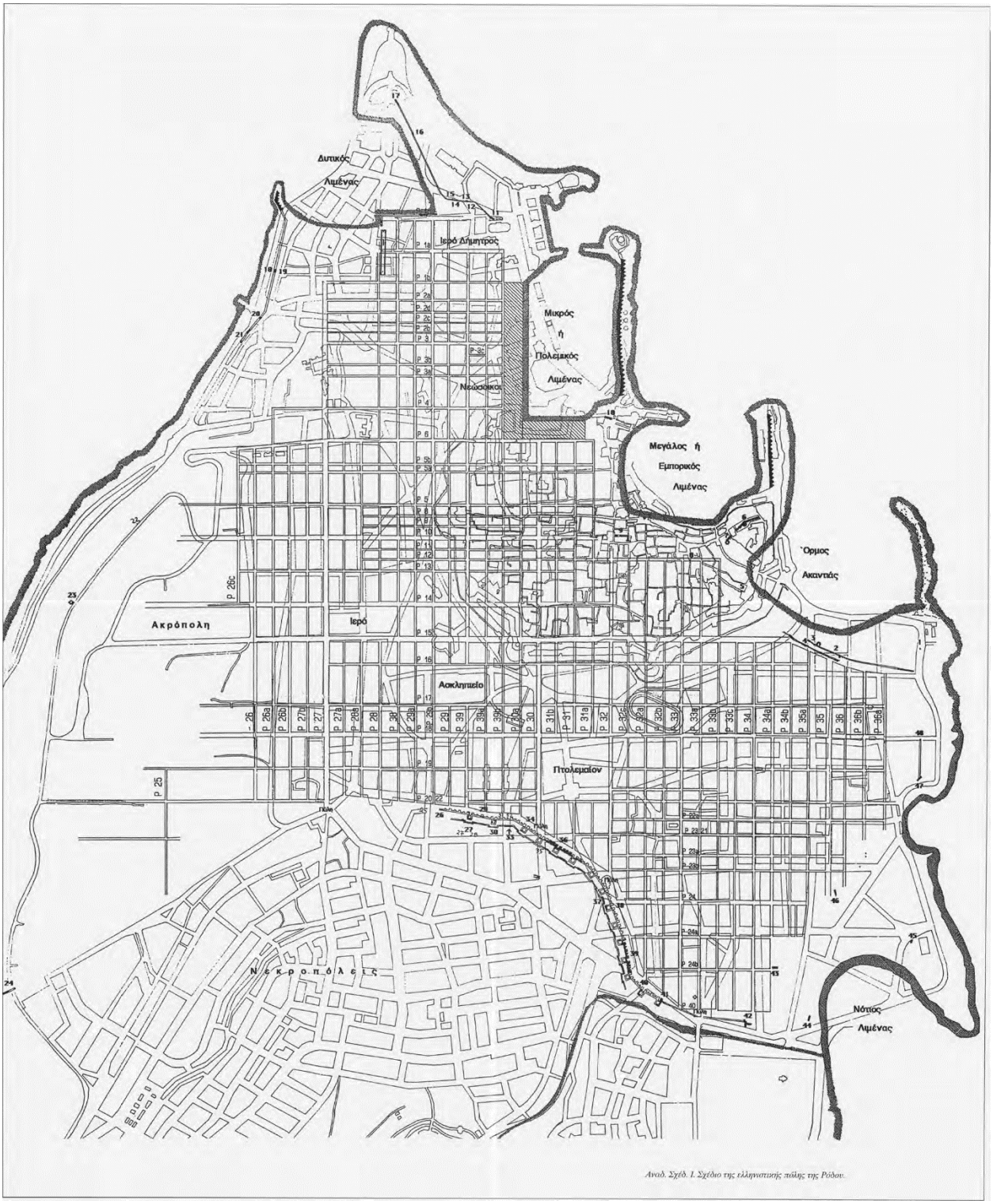


Figure 73 – Plan of the city of Rhodes with indication of the known course of the city walls and some of the major monuments marked. (Filimonos-Tsopotou 2004, plan 1).

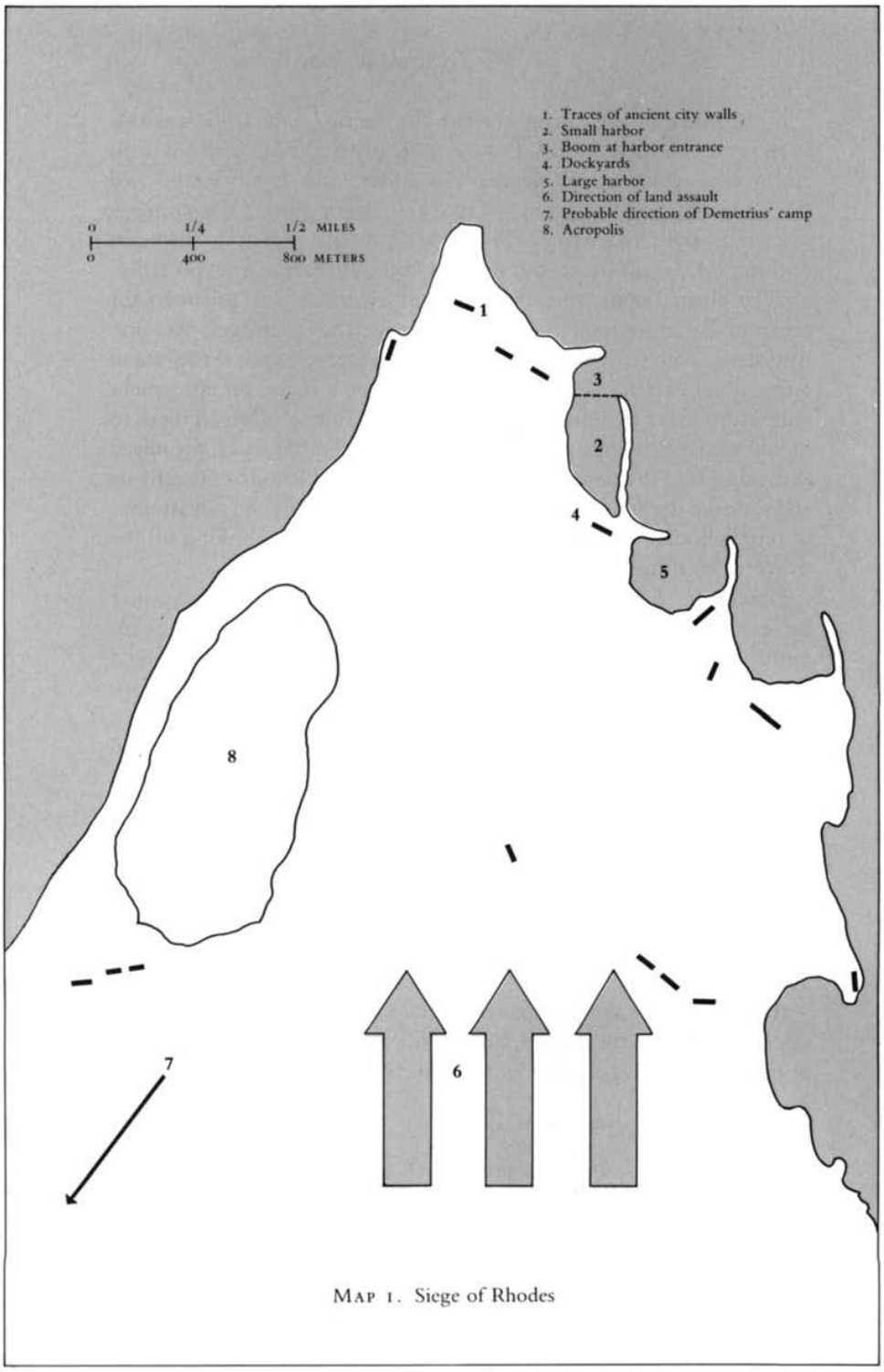


Figure 74 – Map of Rhodes showing the principal harbors and the general direction of Demetrius' siege of the city. (Berthold 1984, 70 map 1).

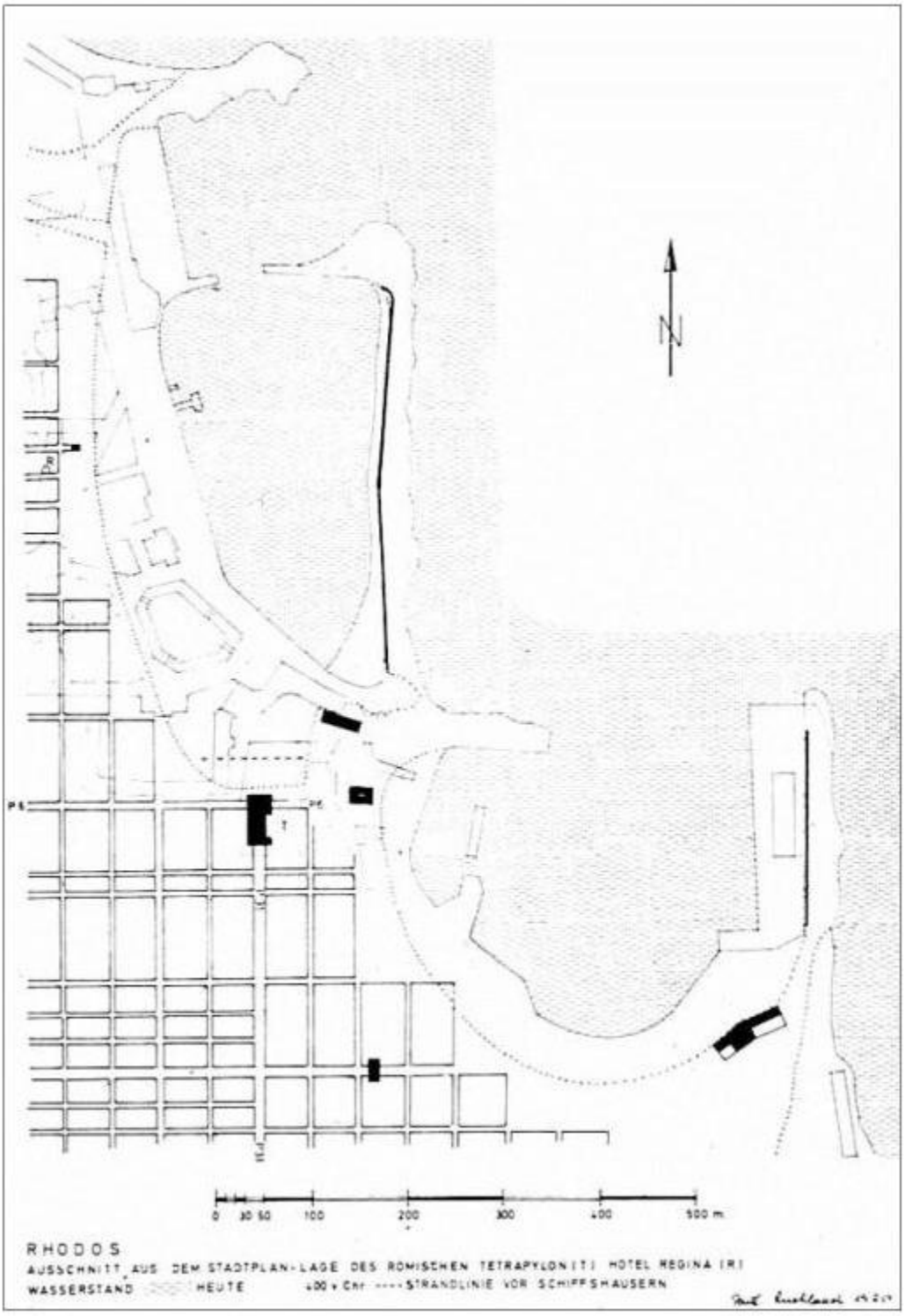


Figure 75 - "The military and commercial harbors of Rhodes", showing the Mandraki harbor in the upper left and the "Great Harbor" in the lower right. (Blackman 2010, fig. 1).

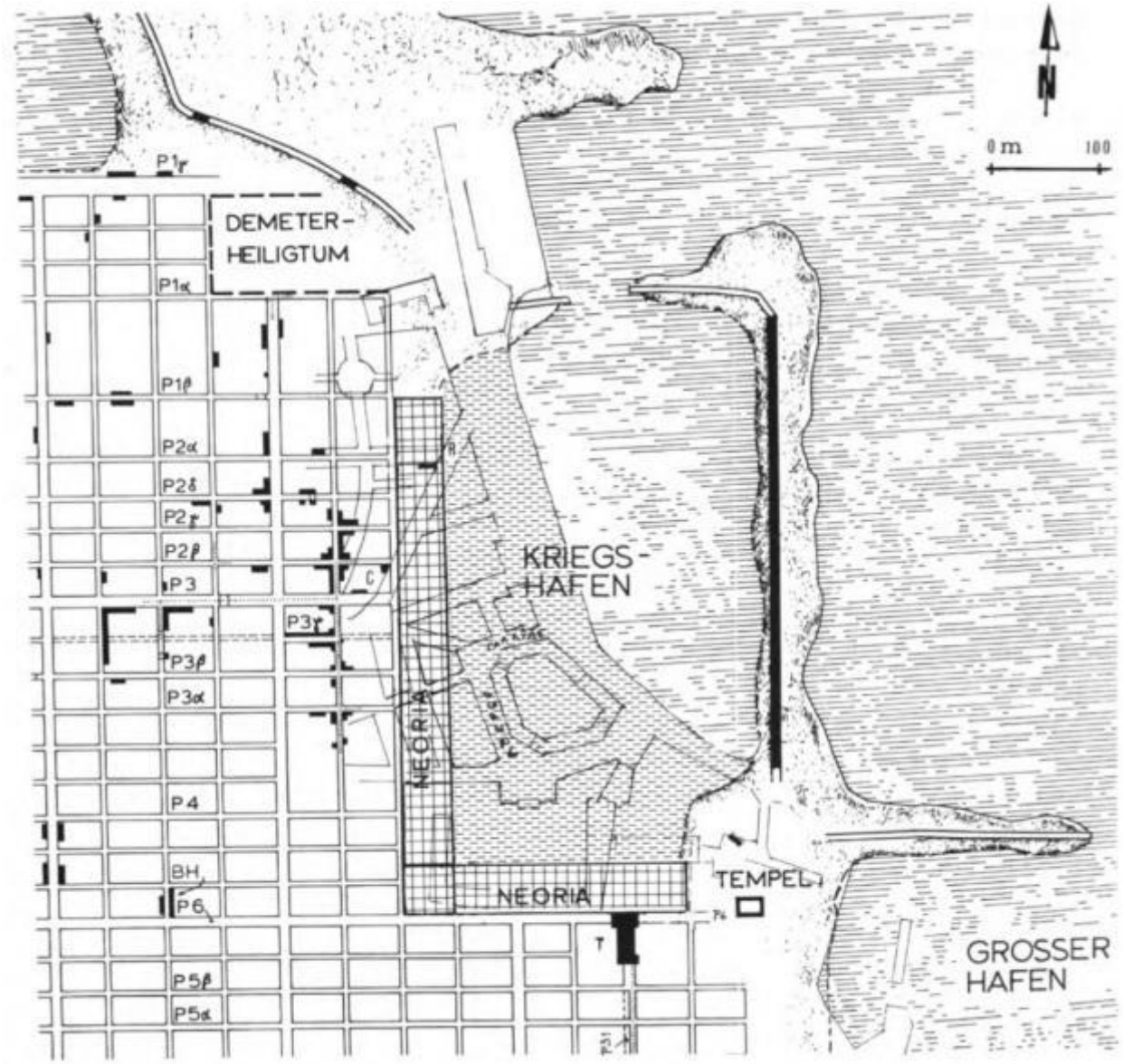


Figure 76 – Detail of the Mandraki harbor at Rhodes, showing the original shape of the harbor under the modern street plan, with the location of the neoria on the south and west indicating the limits of the Hellenistic and Early Roman harbor. To the south a black outline marked with a "T" is the location of the Tetrapylon. (Blackman et al. 1996, 374 fig. 1).

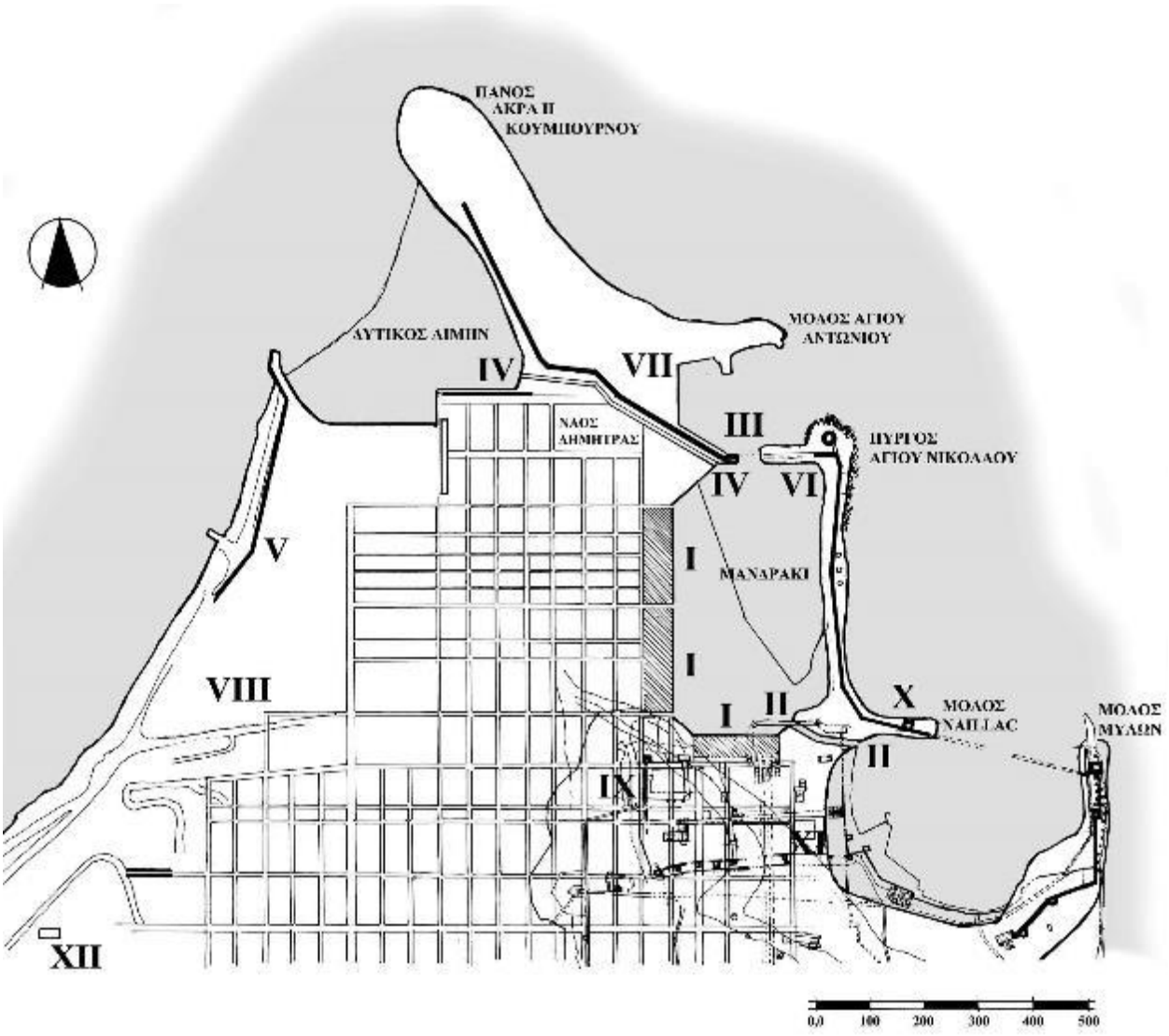


Figure 77 – General layout of the northern point of Rhodes with a focus on the late Antique and Medieval developments in the city. The neoria are labeled with I, a course of the ancient wall with V, and the acropolis with XII. (Manoussou-Ntella 2014, 23 fig. 1).

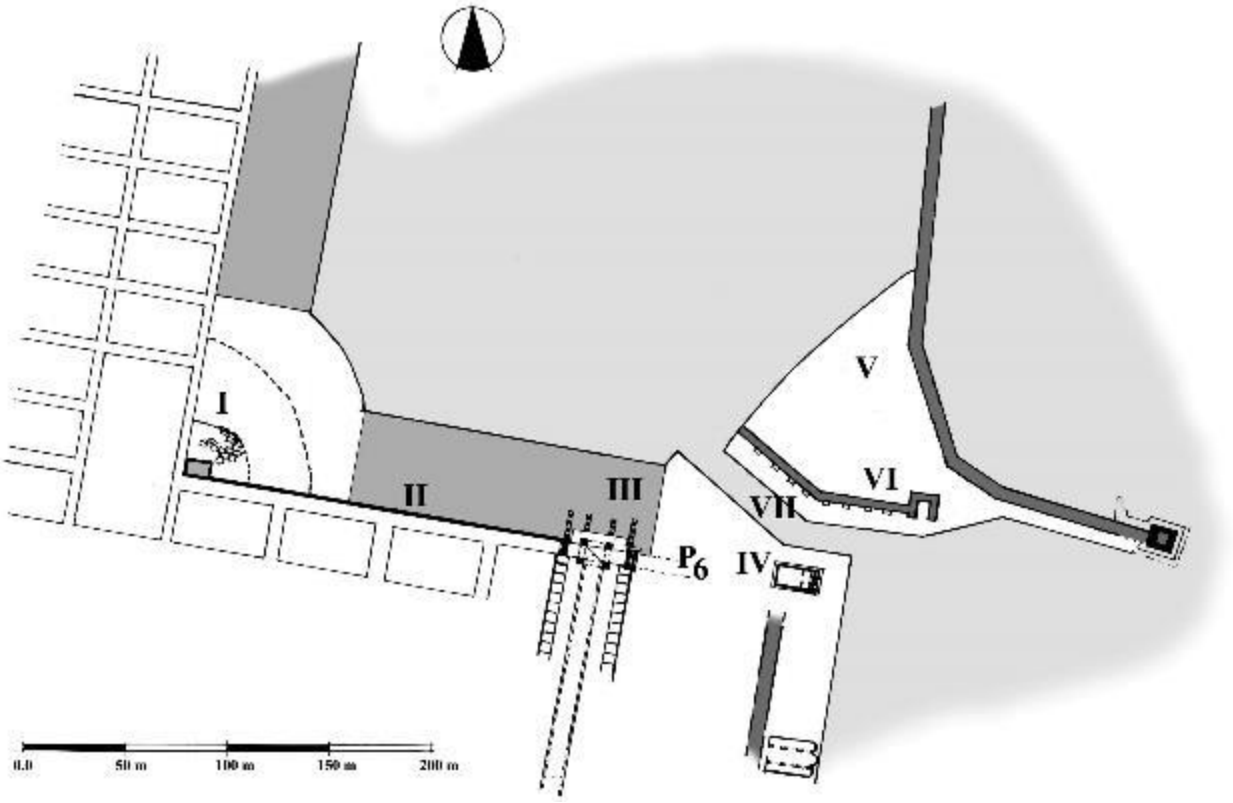


Figure 78 – The southern edge of the Mandraki harbor at Rhodes. An ancient dividing wall is labeled with II, the Roman tetrapylon is labeled with III, and the Temple of Aphrodite with IV. (Manoussou-Ntella 2014, 25 fig. 3).

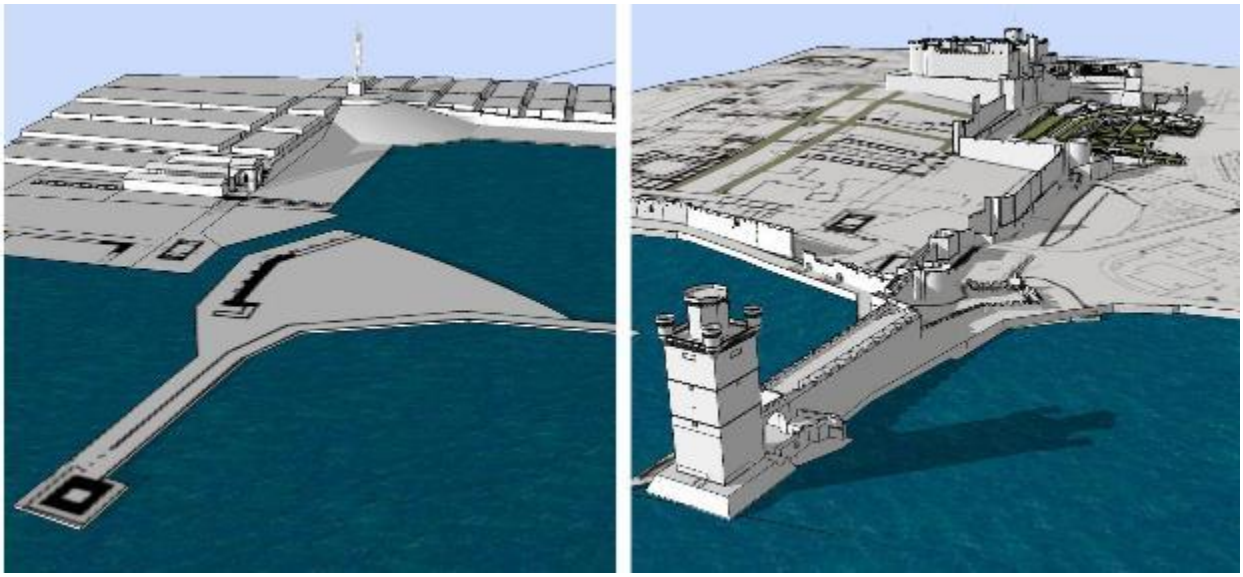


Figure 79 – Reconstruction of the area between Mandraki harbor and the Great Harbor at Rhodes in the late Antique period (left) and Medieval period (right). (Manoussou-Ntella *forthcoming*, 5 fig. 5).

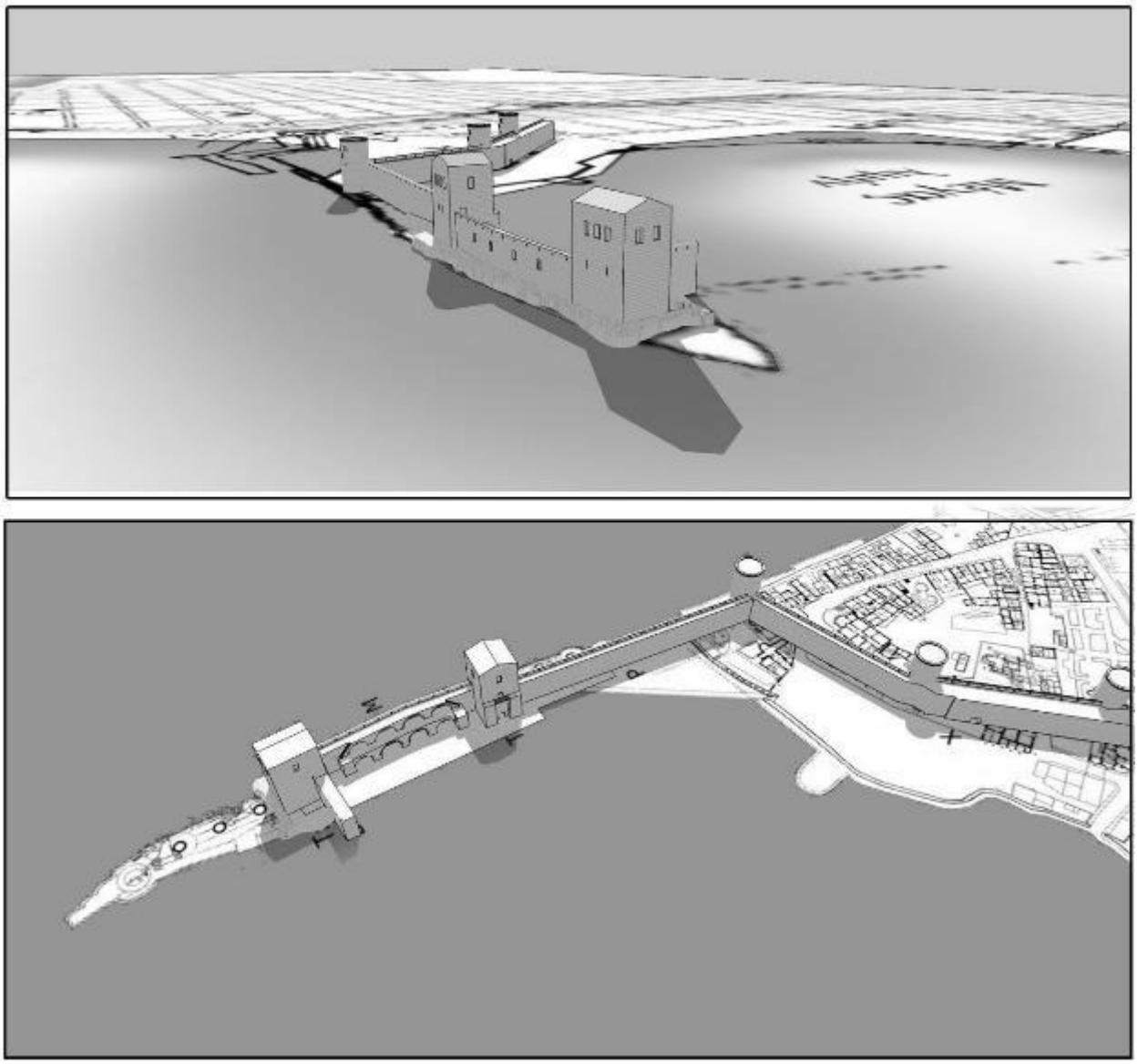


Figure 80 – Reconstruction of the Hellenistic fortifications on the eastern mole of the Great Harbor. (Manoussou-Ntella *forthcoming*, 4 fig. 4).

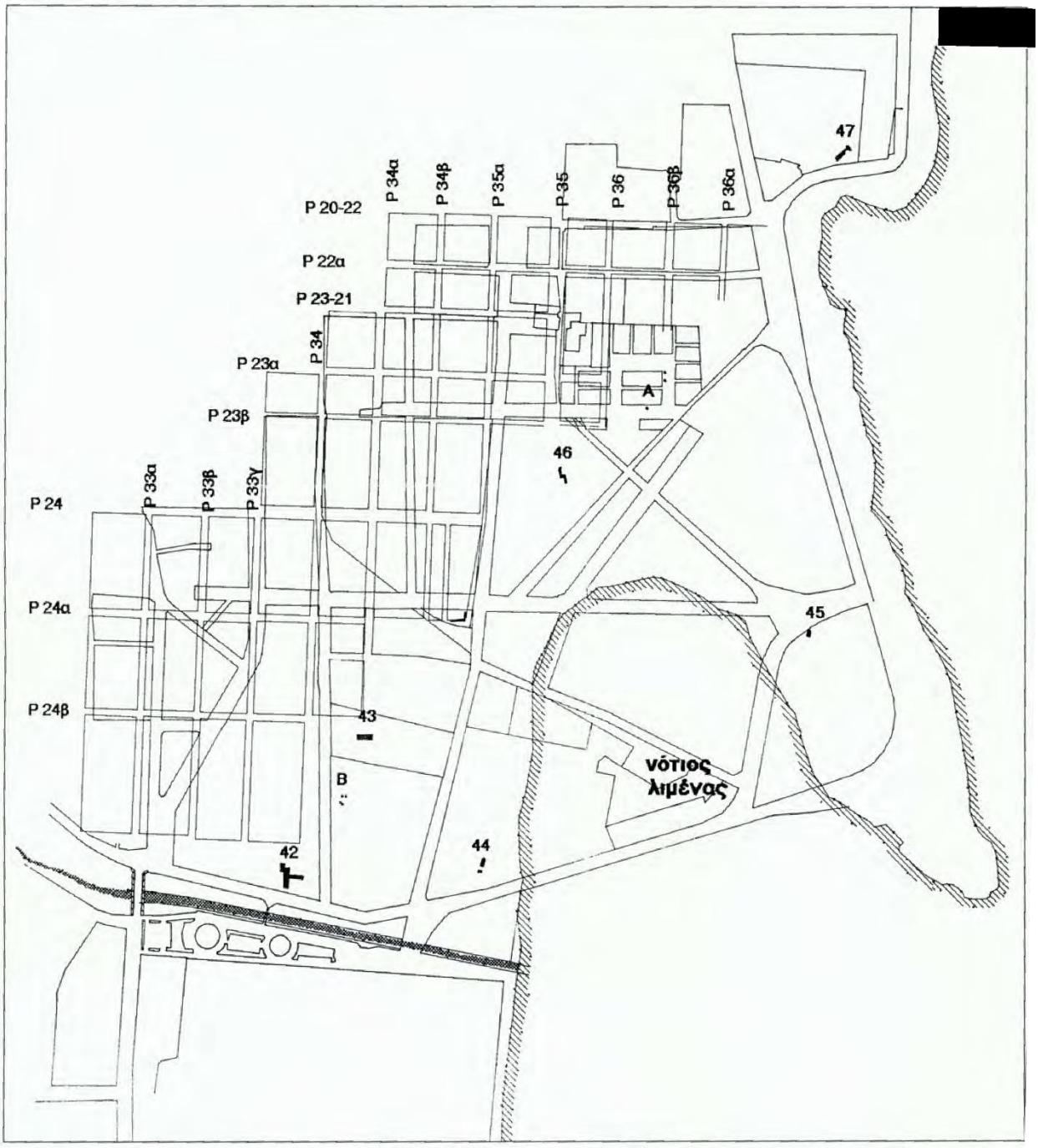


Figure 81 – Reconstruction of the South Eastern harbor at Rhodes, overlaid onto a plot of later developments of the city. (Filimonos-Tsopotou 2004, 68 fig. 15).

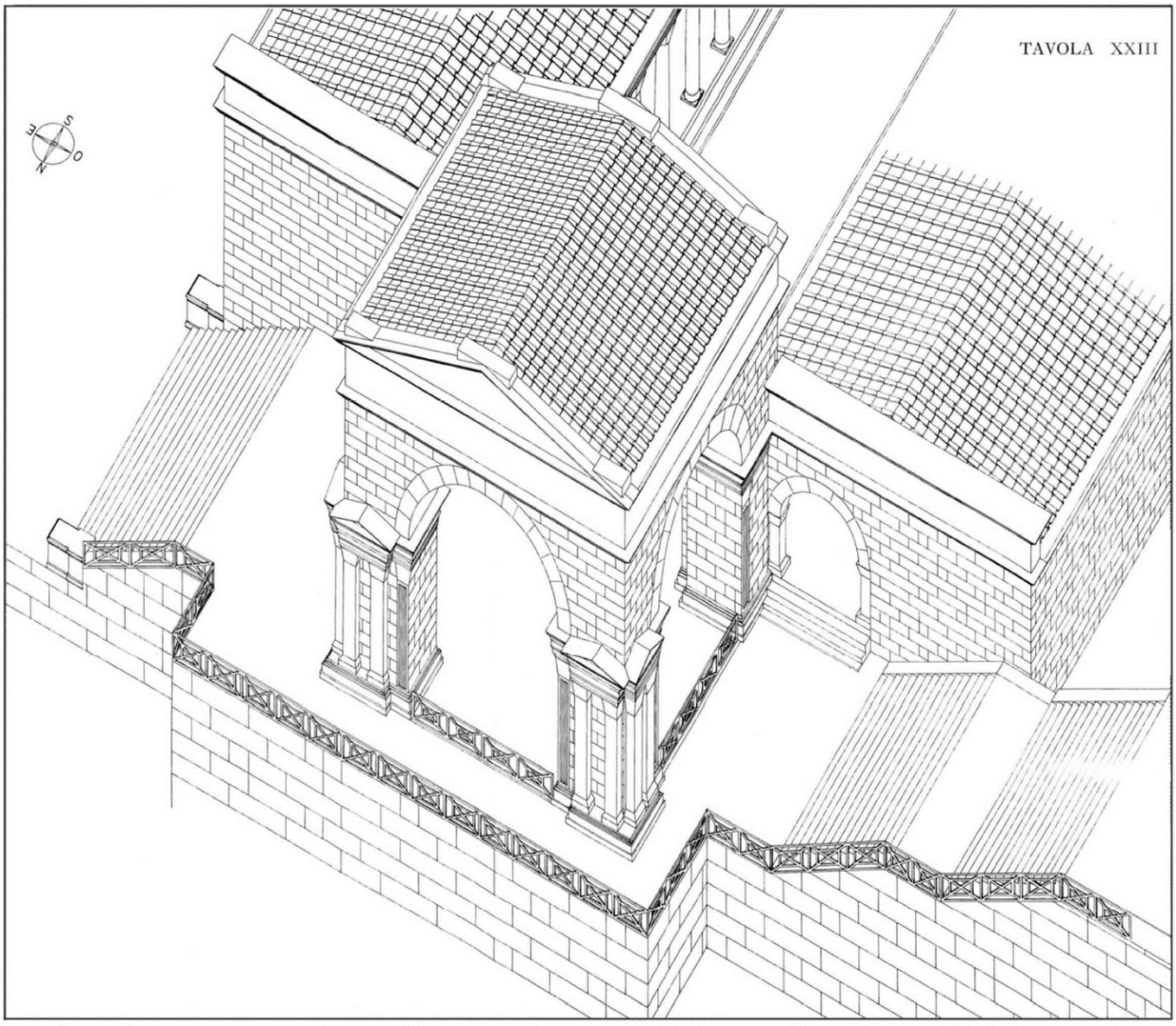


Figure 82 – Perspective reconstruction of the Roman Tetrapylon at Rhodes, the harbor would have extended out of the bottom left of the image. (Cante 1991, pl. 23).

Figure 83 – The Cayster River valley viewed from the west, facing towards the site of Ephesus. The light blue overlay is the projected coastline in the Archaic through Classical periods as projected by the author using the information and plans from Brückner et al. (2017), Stock et al. (2014), and Kraft et al. (2000). The site of the Artemision is indicated by an arrow, with the reconstruction from the Late Classical era temple and altar in light green, but hardly visible from this perspective. The background is modern satellite imagery provided by Esri.

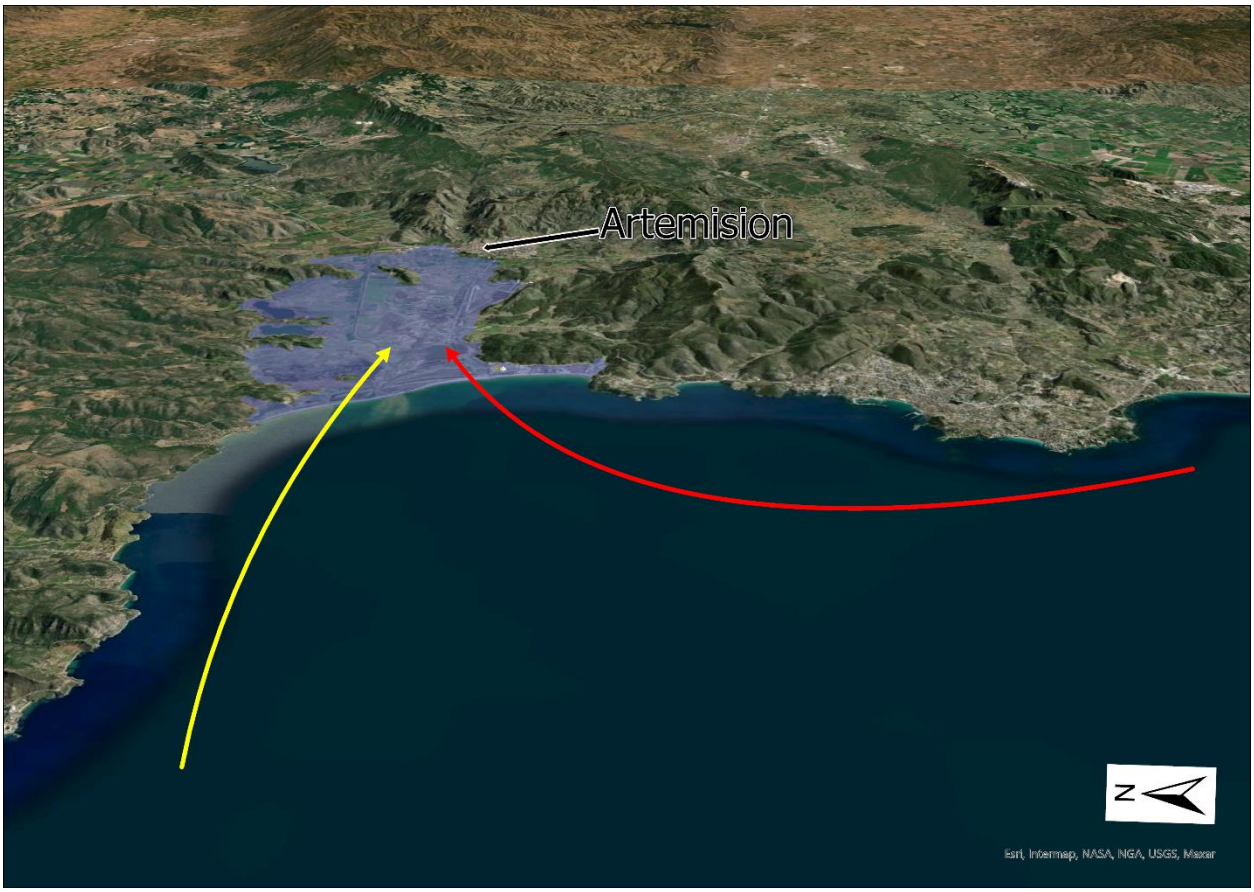


Figure 84 – Perspective view from the west of two potential approaches to Ephesus, as ships would have entered the Cayster River valley, with the Late Classical water extent indicated in light blue. Both are projected as generally staying closer to the coastline, and one, from the south and described by Strabo (*Geog.* 14.1.20), is highlighted in red, and one from the west, passing Notion, is highlighted in yellow.

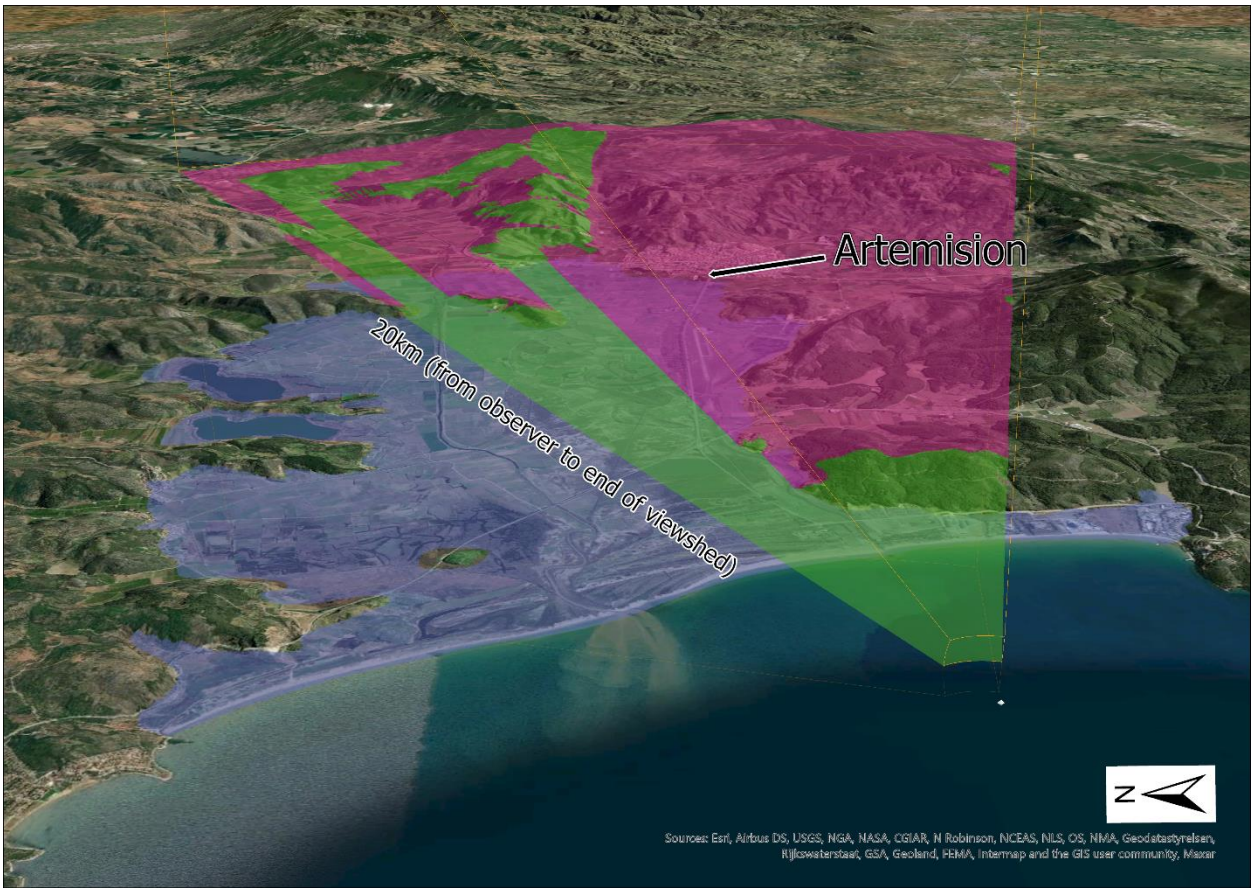


Figure 85 – Perspective view of the Cayster River valley, modeled in its state in approximately the Late Classical period, showing a viewshed plot of an observer off-shore, about to turn and enter the river valley from the southern approach as described by Strabo (14.1.20). What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

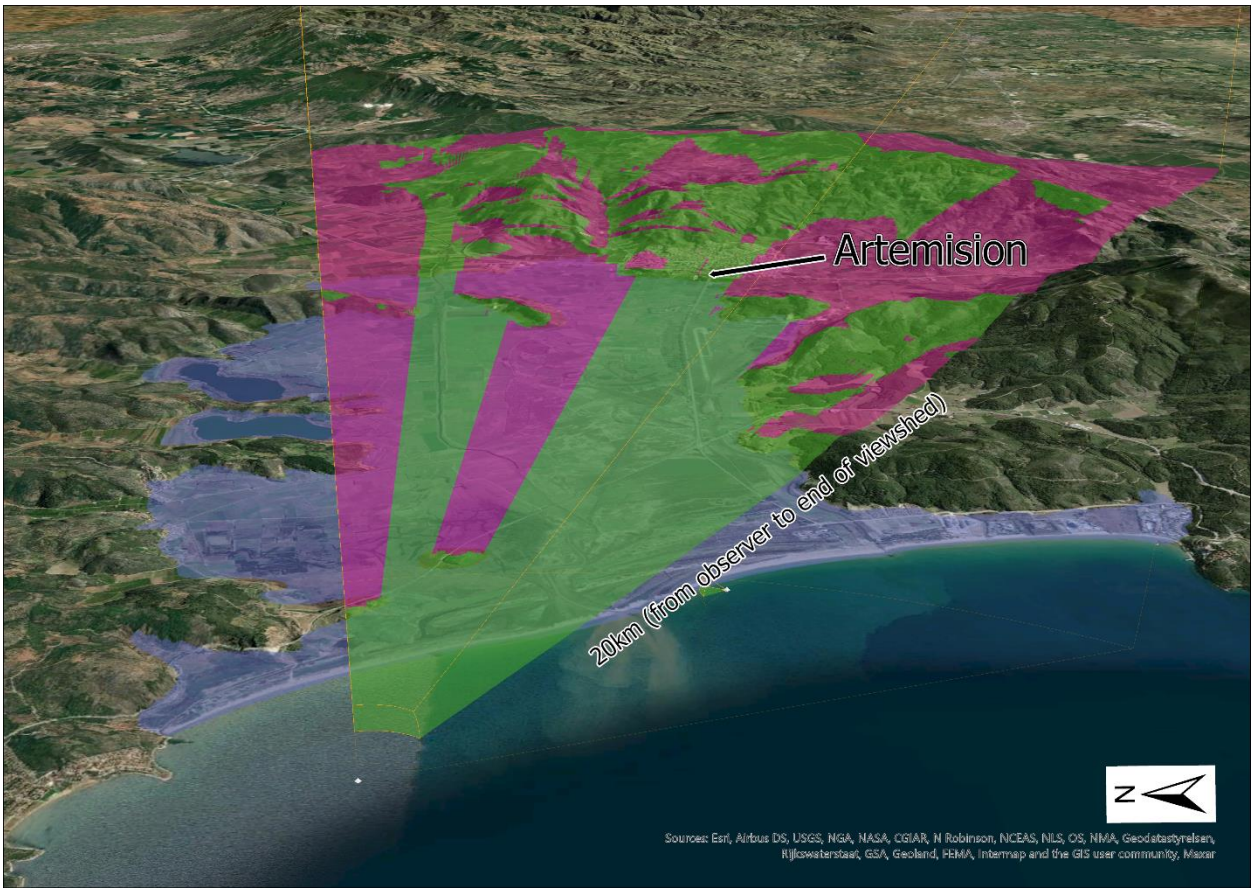


Figure 86 - Perspective view of the Cayster River valley, modeled in its state in approximately the Late Classical period, showing a viewshed plot of an observer off-shore, about to enter the river valley from the western approach (after passing Notion). What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

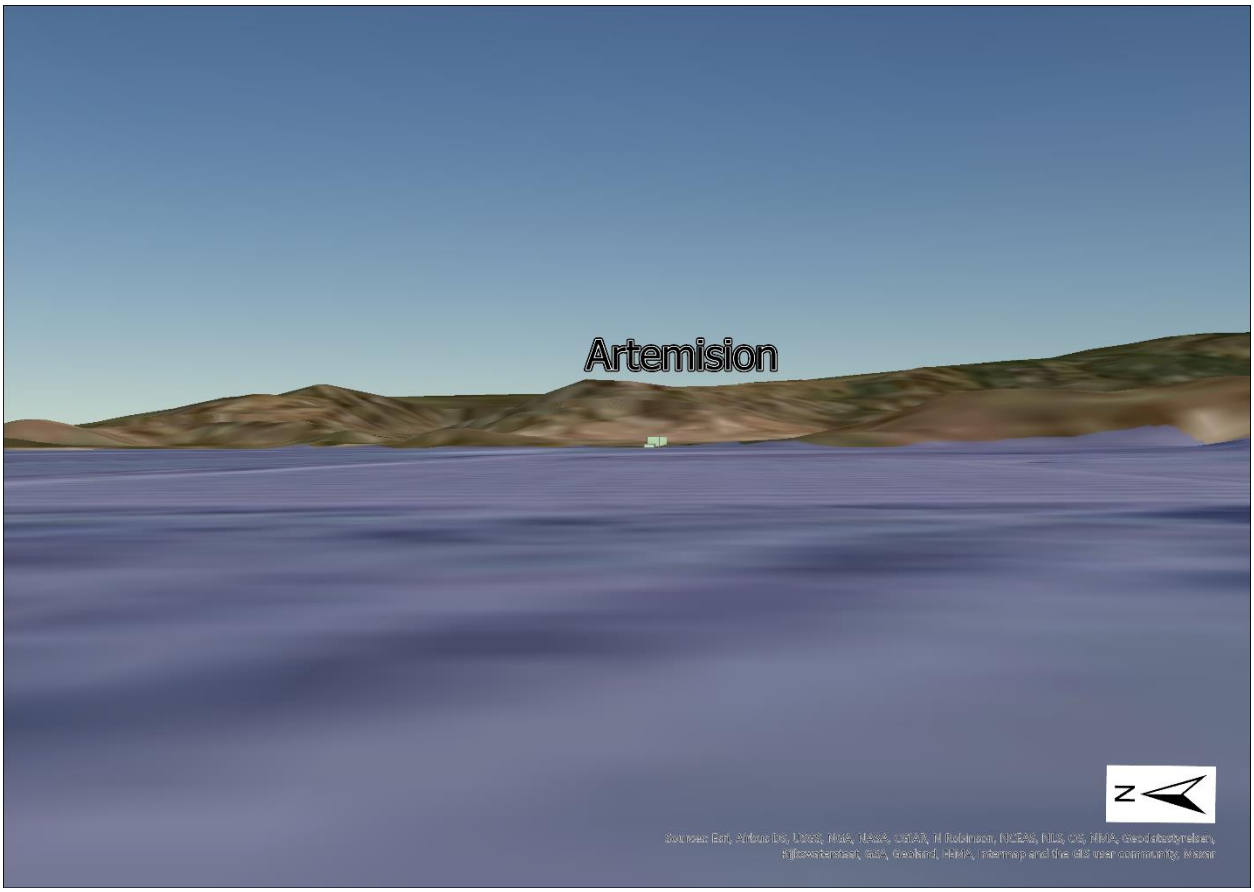


Figure 87 – View of the Artemision at Ephesus during the Late Classical period from approximately 5km away, at the location of the later entrance to the Roman harbor canal, from 2m about ground/water level. The basemap does not render in high resolution at this perspective at this elevation, but the general form of the landscape behind the Artemision, as well as its position as the only prominent architecture that we can see is clear.

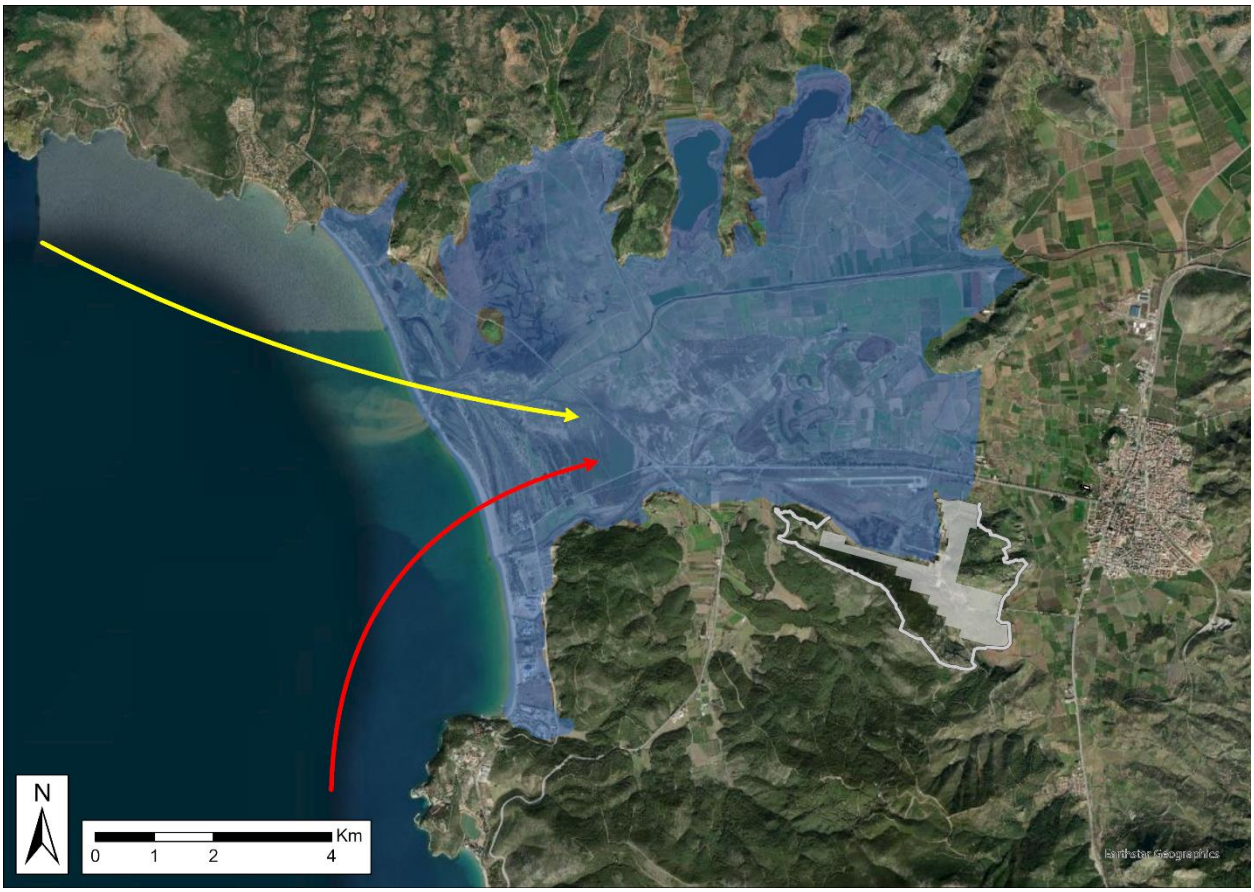


Figure 88 – The extent of the coastline around Ephesus during the Hellenistic period at Ephesus in light blue. The city's fortifications are traced by a grey line while the area considered developed by Groh (2012) in this time is highlighted in white. The southern approach to the city, as described by Strabo (14.1.20) is given by the red arrow, and a western approach, passing by Notion, is indicated with the yellow arrow.

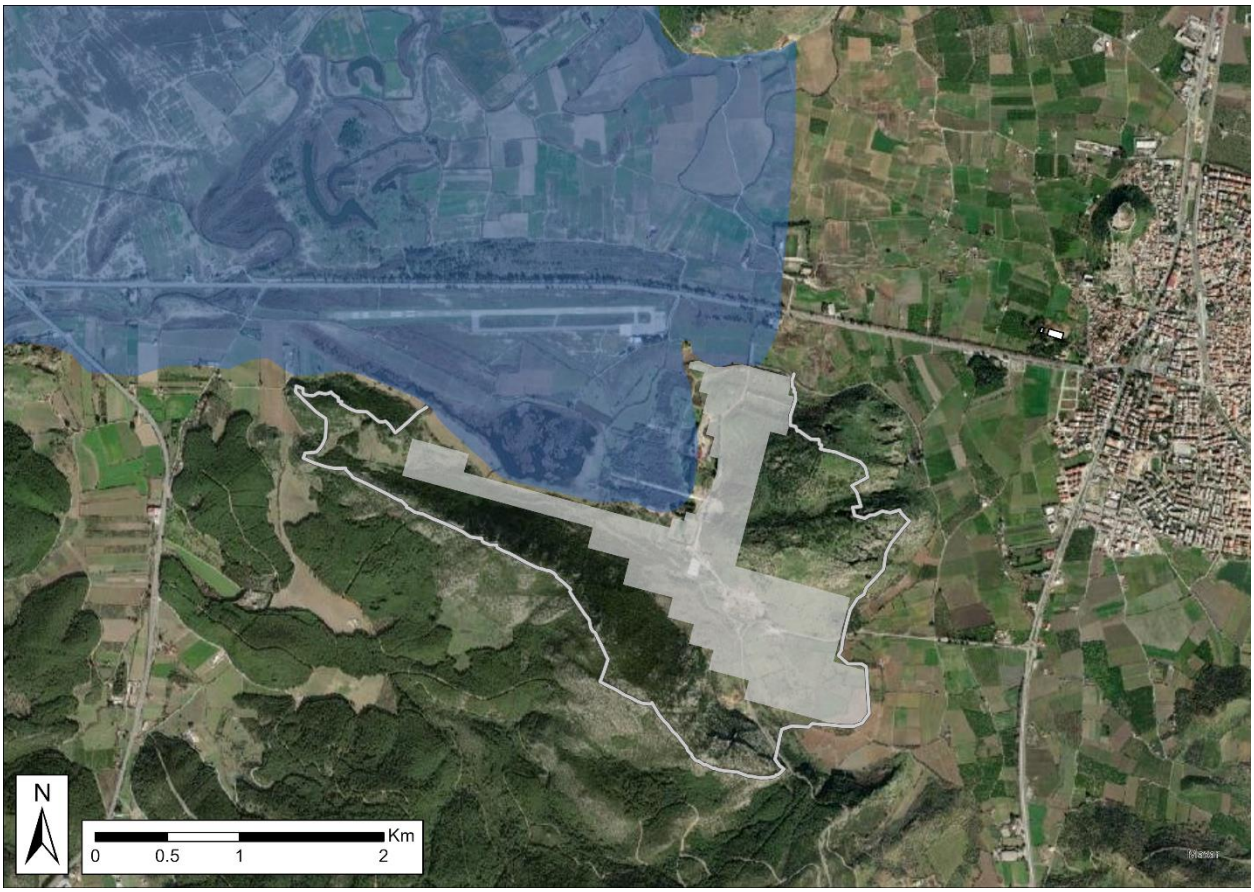


Figure 89 – Close up of Ephesus, showing the extent of the coastline around Ephesus during the Hellenistic period in light blue. The city's fortifications are traced by a grey line while the area considered developed by Groh (2012) in this time is highlighted in white.

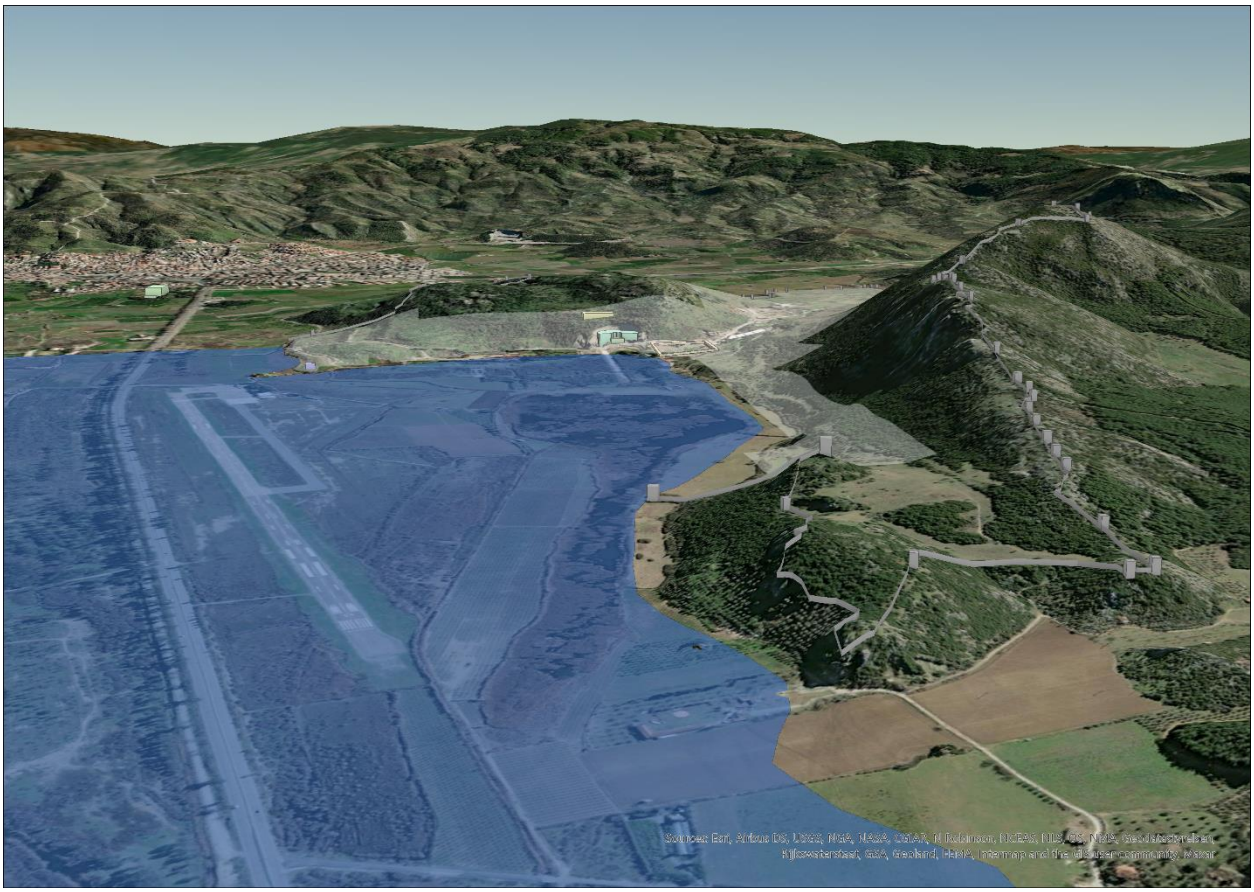


Figure 90 – Overview of the model of Ephesus during the Hellenistic period, showing the approximate shoreline in in light blue, the developed area according to Groh (2012) in white, the city fortifications in grey, and the other major monuments with visual connections to the sea.

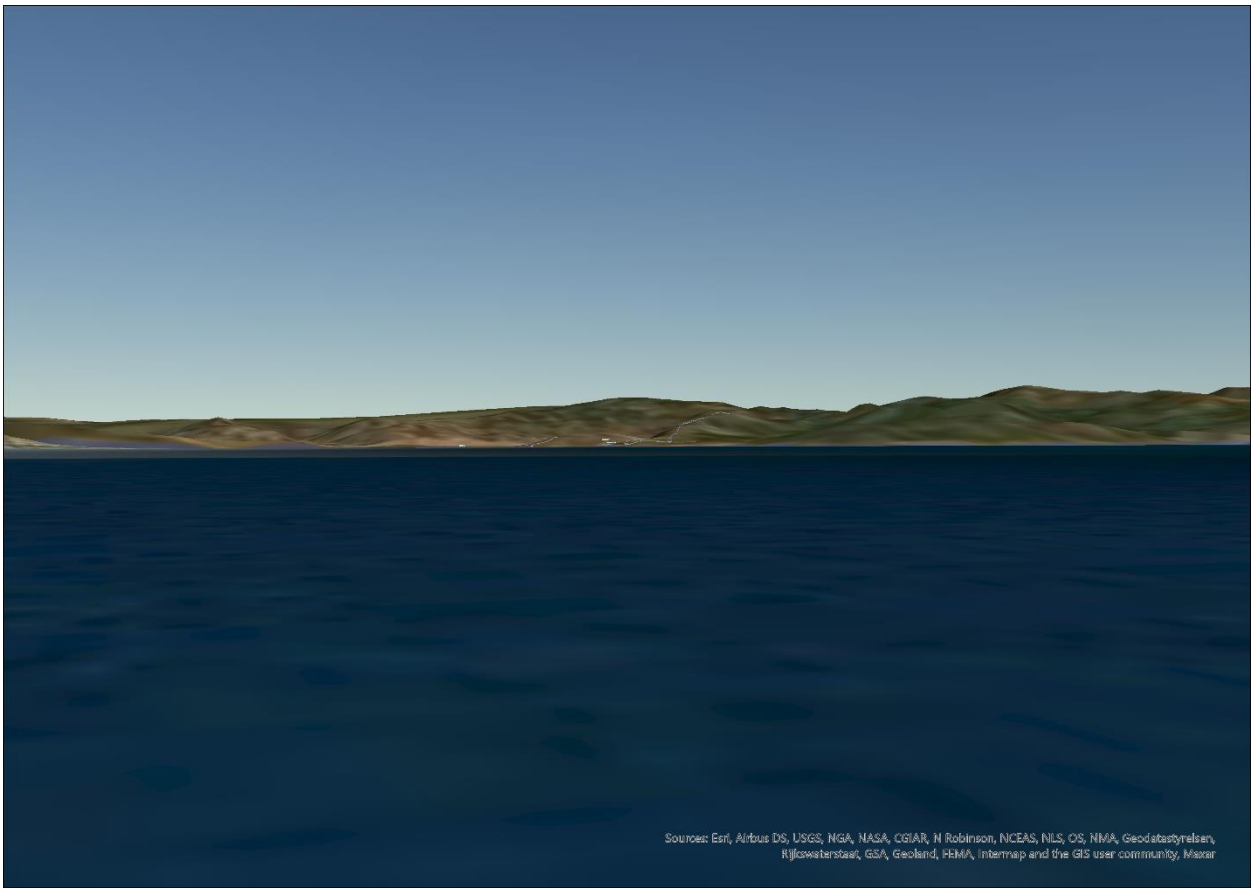


Figure 91 – View towards Hellenistic Ephesus from the west by a viewer 2m above sea level, from approximately 13km away from the lower city, at sea near the site of Notion.

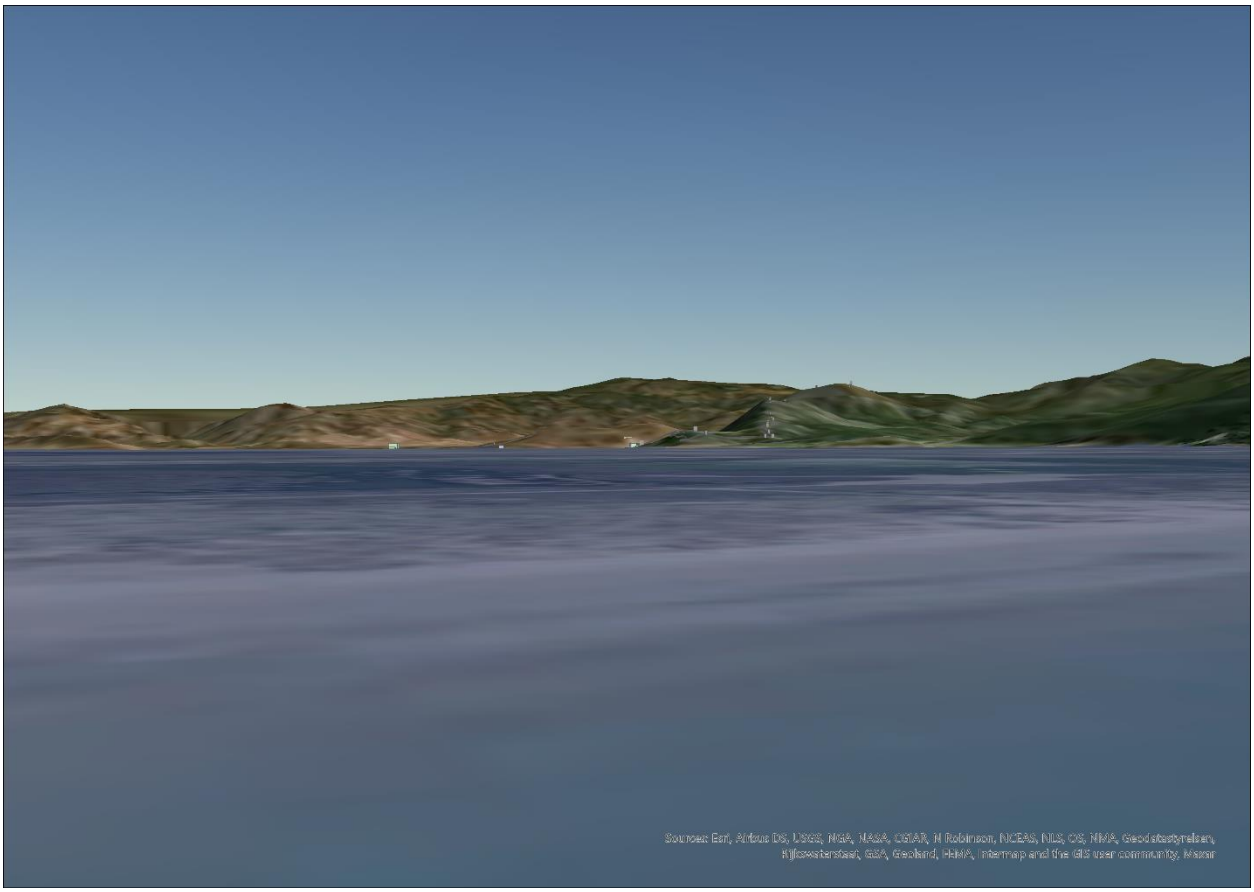


Figure 92 - View towards Hellenistic Ephesus from the west by a viewer 2m above sea level, from approximately 7km away from the lower city, at the entrance to the Cayster River valley.

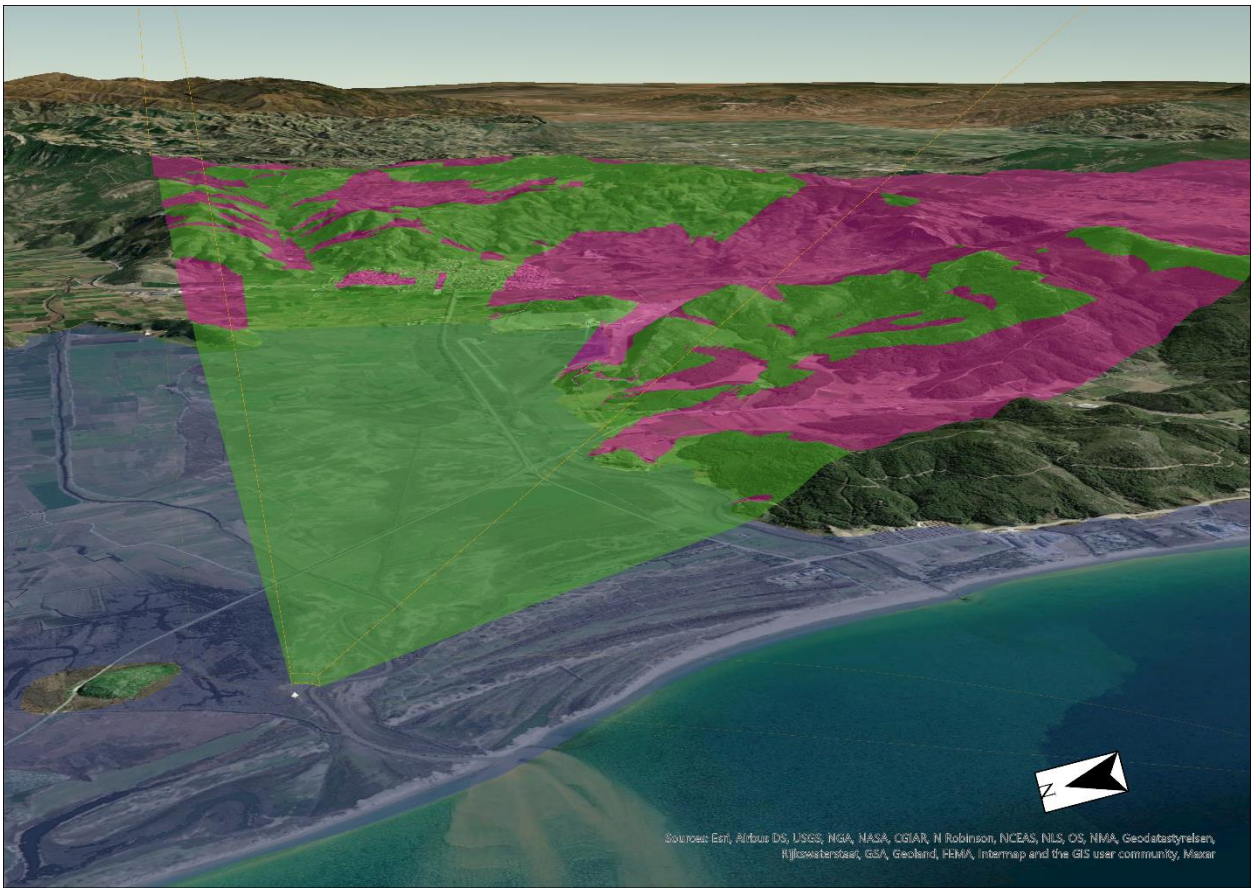


Figure 93 - Perspective view of the Cayster River valley, modeled in its state in Hellenistic period, showing a viewshed plot of an observer off-shore, entering the river valley from the western approach, at the approximate location of Figure 92. What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

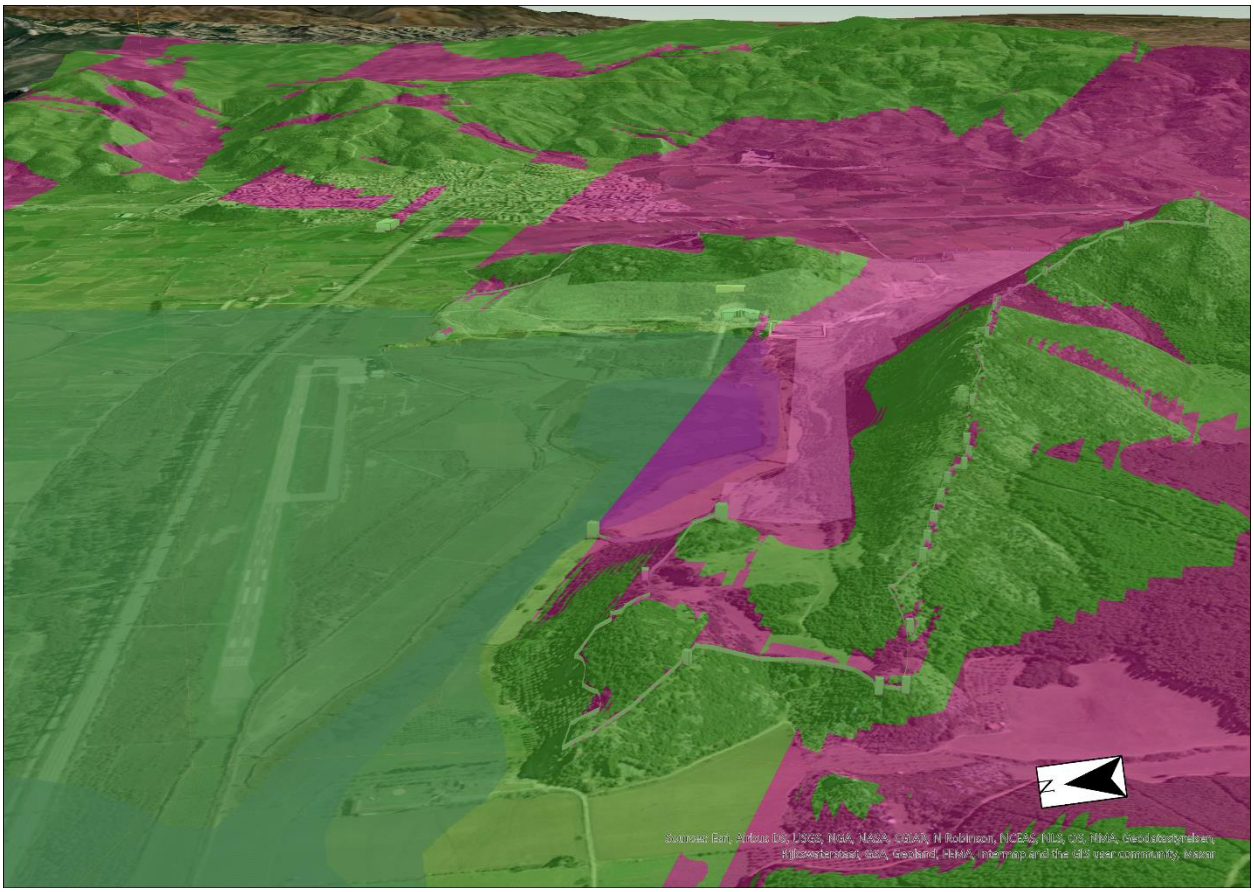


Figure 94 – A close up of Ephesus, with the viewshed plot from Figure 93.

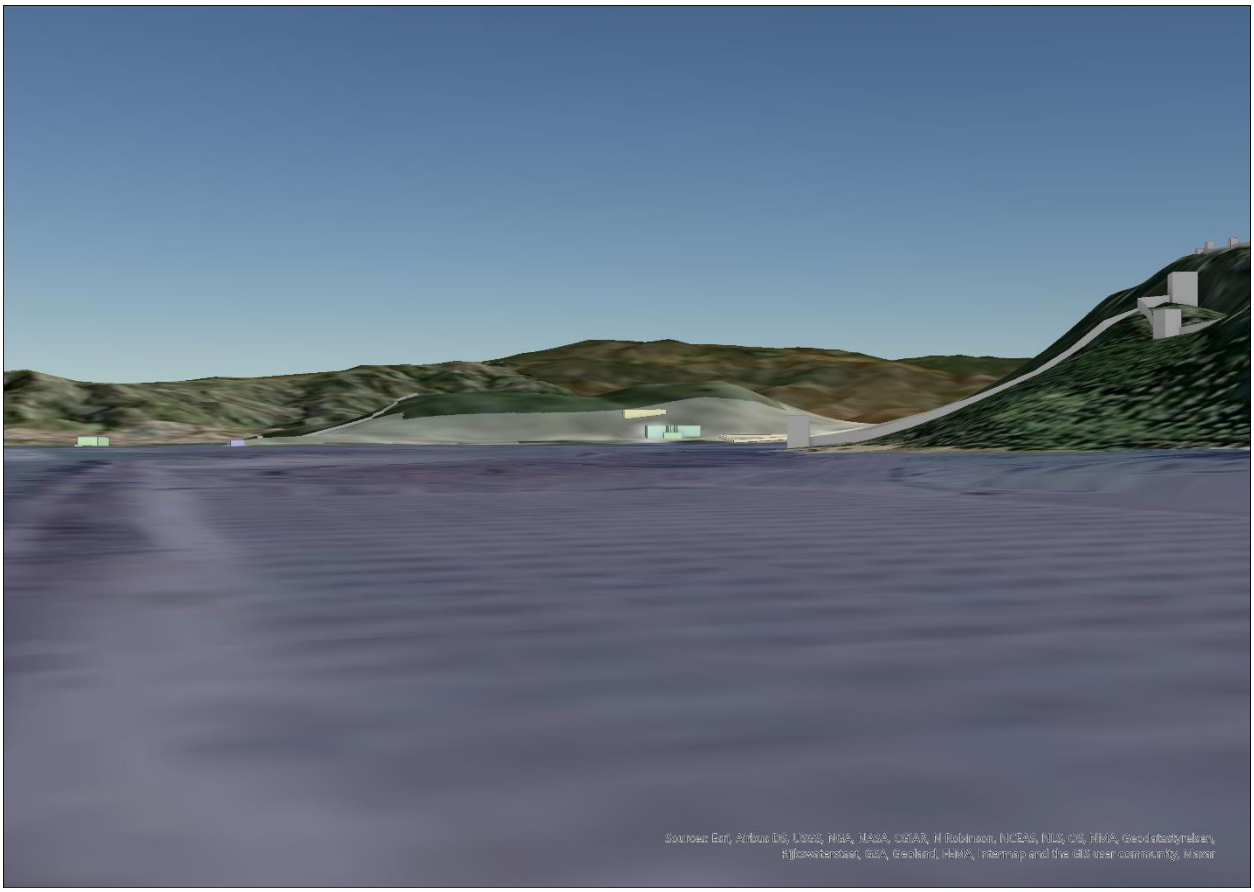


Figure 95 – View of Ephesus during the Hellenistic period by a viewer 2m above sea level at approximately the point the later Roman canal would have begun.

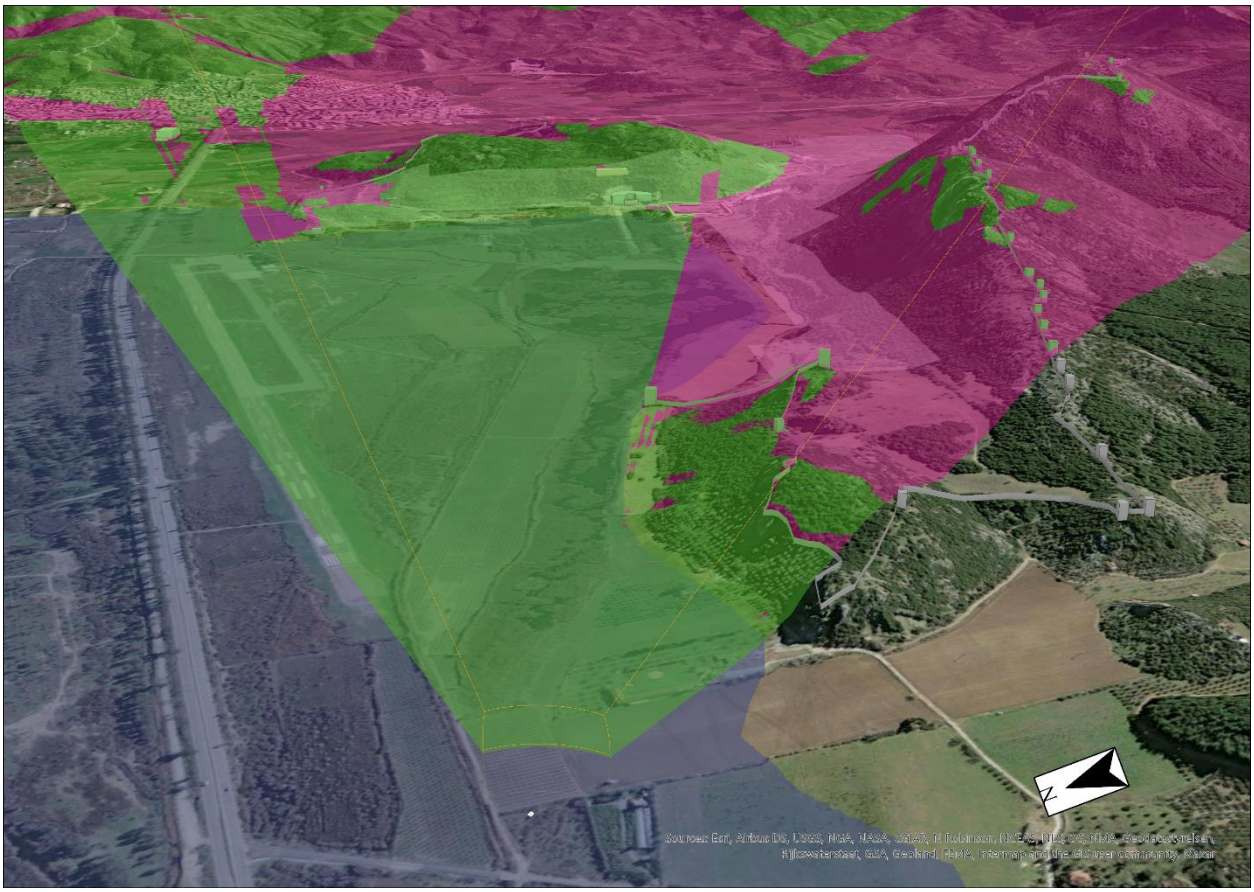


Figure 96 - Perspective view of the site of Ephesus, modeled in its state in Hellenistic period, showing a viewshed plot of an observer off-shore, about to arrive at the city, at the approximate location of Figure 95. What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

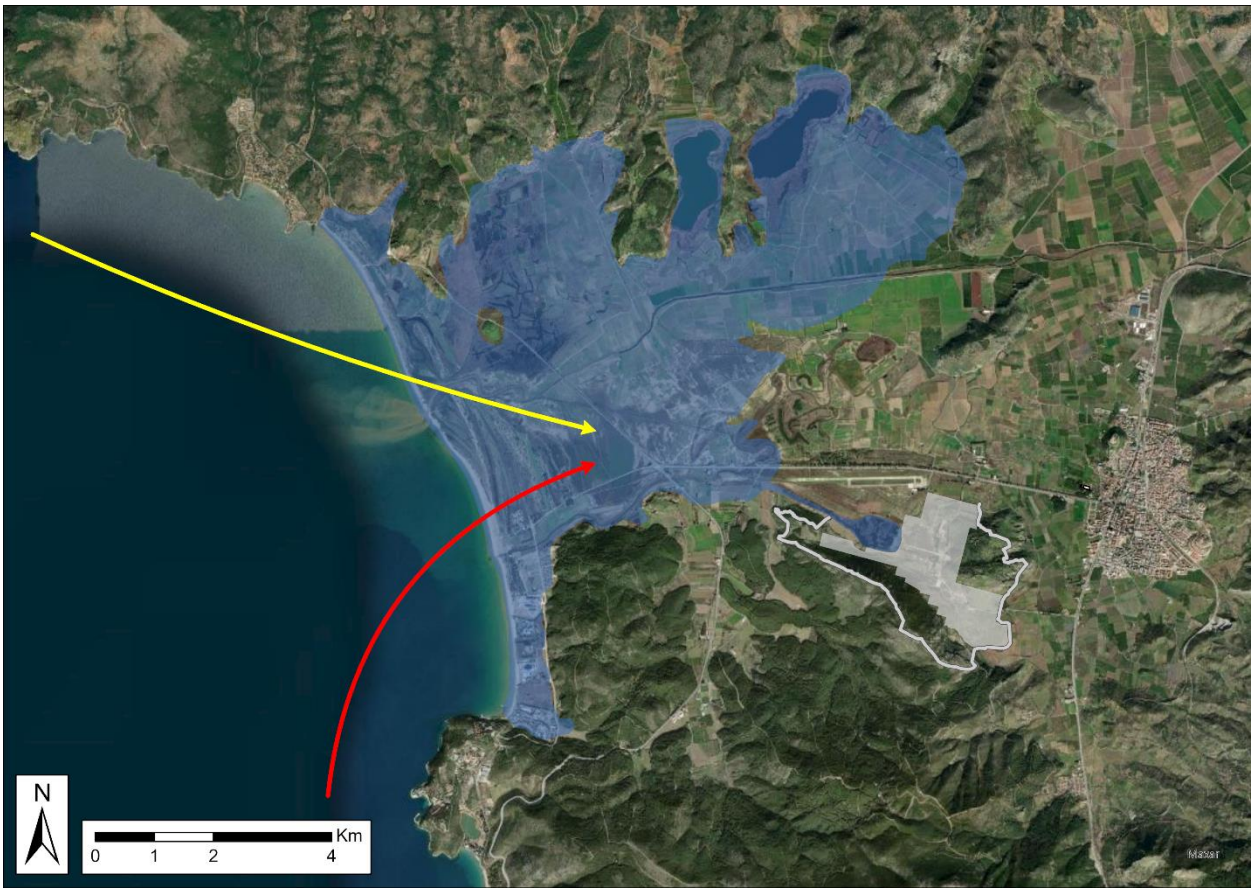


Figure 97 – The extent of the coastline around Ephesus during the Roman Imperial period in light blue. The city's fortifications are traced by a grey line while the area considered developed by Groh (2012) in this time is highlighted in white. The southern approach to the city, as described by Strabo (14.1.20) is given by the red arrow, and a western approach, passing by Notion, is indicated with the yellow arrow.

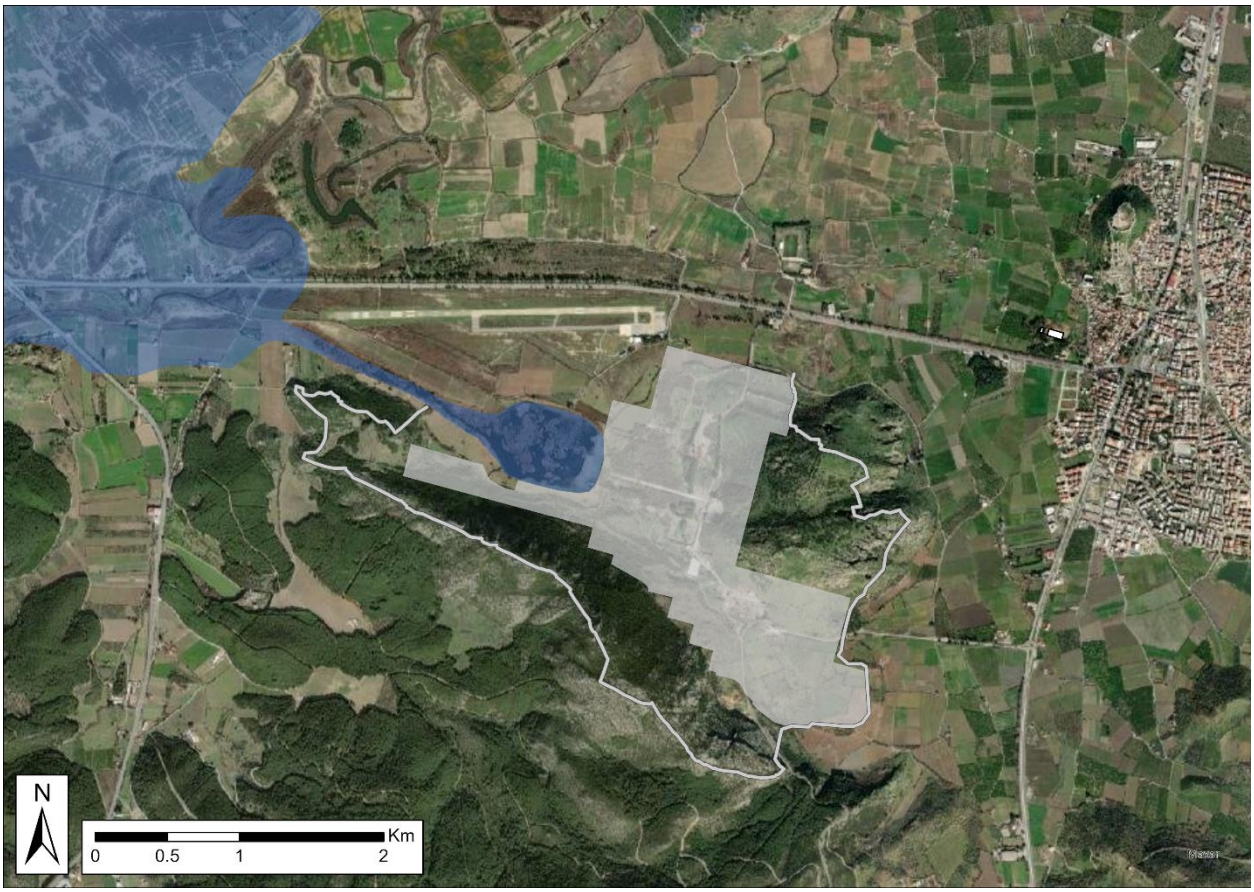


Figure 98 – Close up of Ephesus, showing the extent of the coastline around Ephesus during the Roman Imperial period at Ephesus in light blue. The city's fortifications are traced by a grey line while the area considered developed by Groh (2012) in this time is highlighted in white.

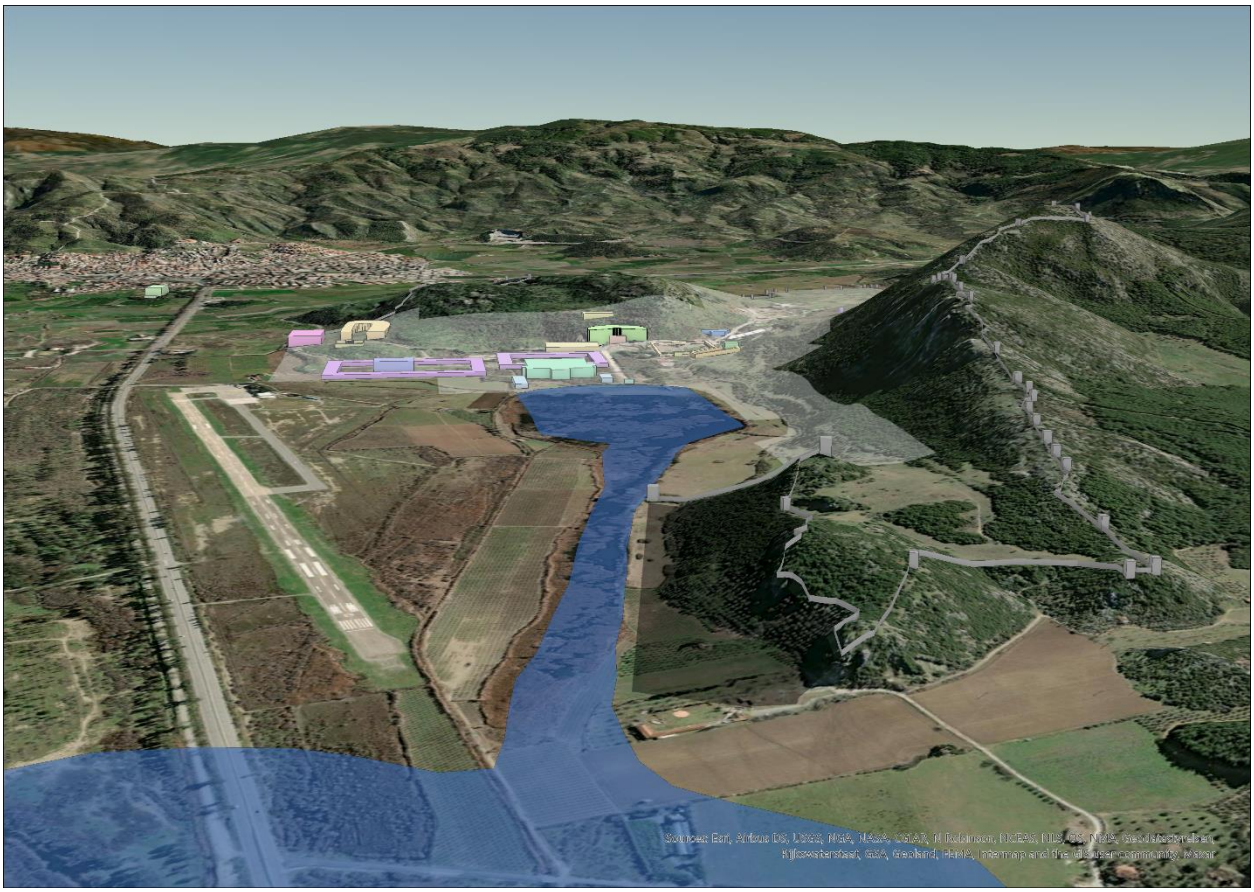


Figure 99 - Overview of the model of Ephesus during the Roman period, showing the approximate shoreline in in light blue, the developed area according to Groh (2012) in white, the city fortifications in grey, the canal necropolis in translucent black, and the other major monuments with visual connections to the sea.

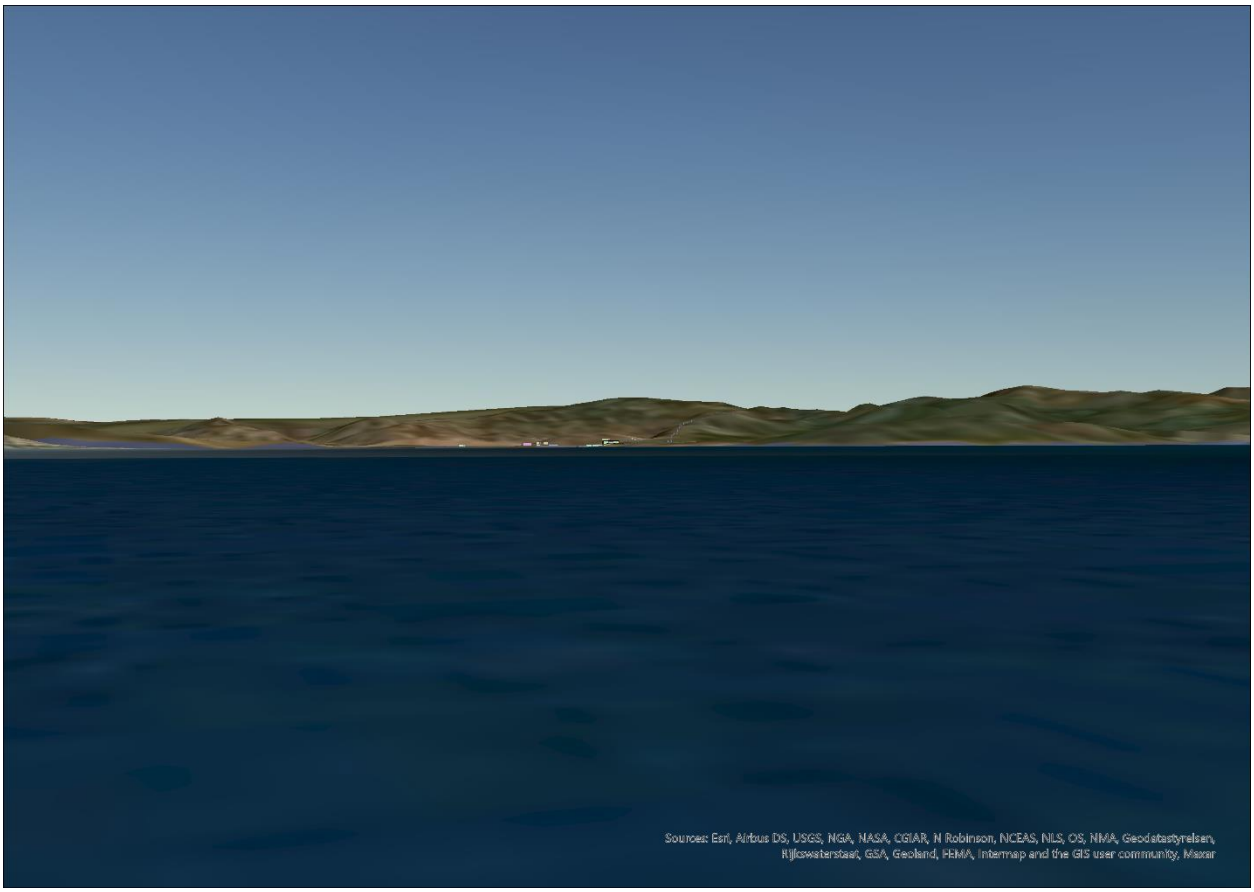


Figure 100 - View towards Roman Ephesus from the west by a viewer 2m above sea level, from approximately 13km away from the lower city, at sea near the site of Notion.

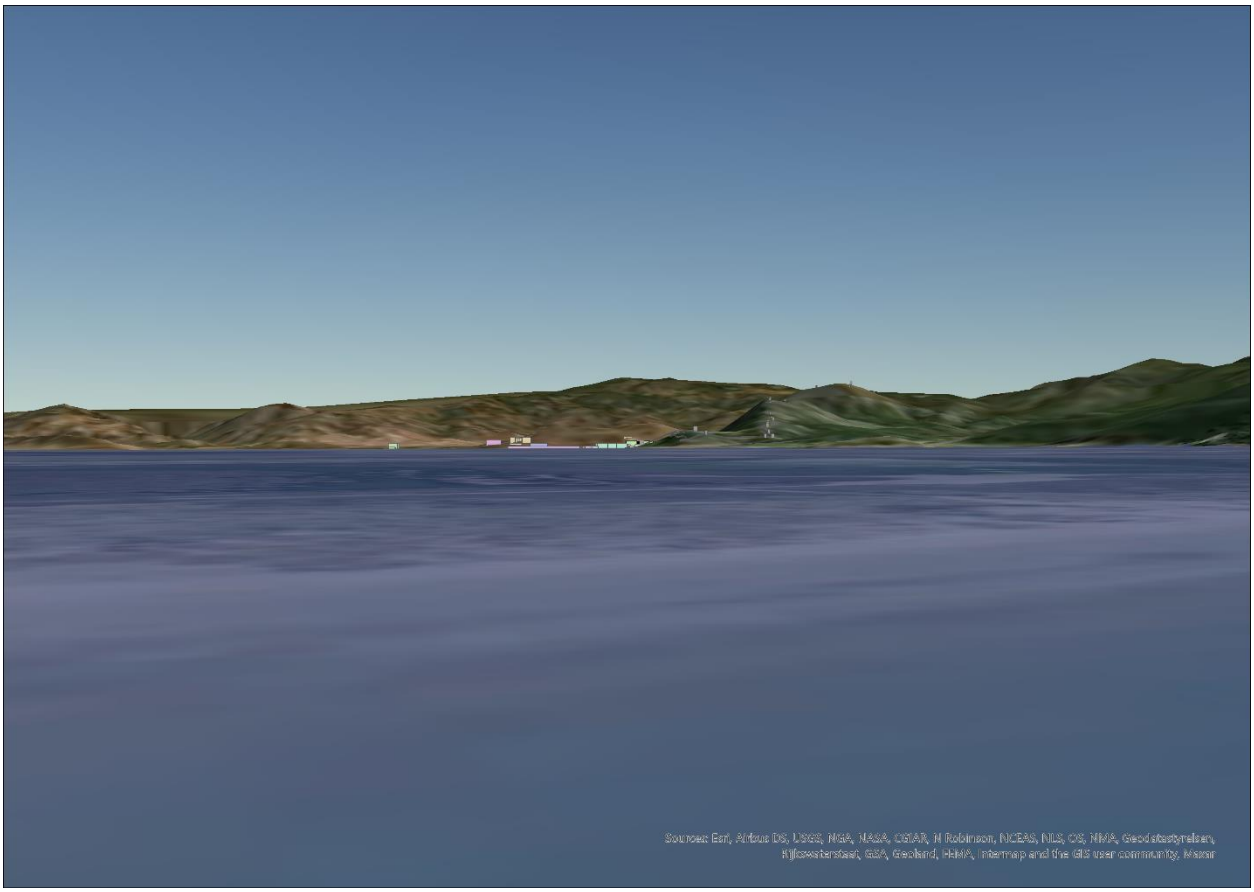


Figure 101 - View towards Roman Ephesus from the west by a viewer 2m above sea level, from approximately 7km away from the lower city, at the entrance to the Cayster River valley.

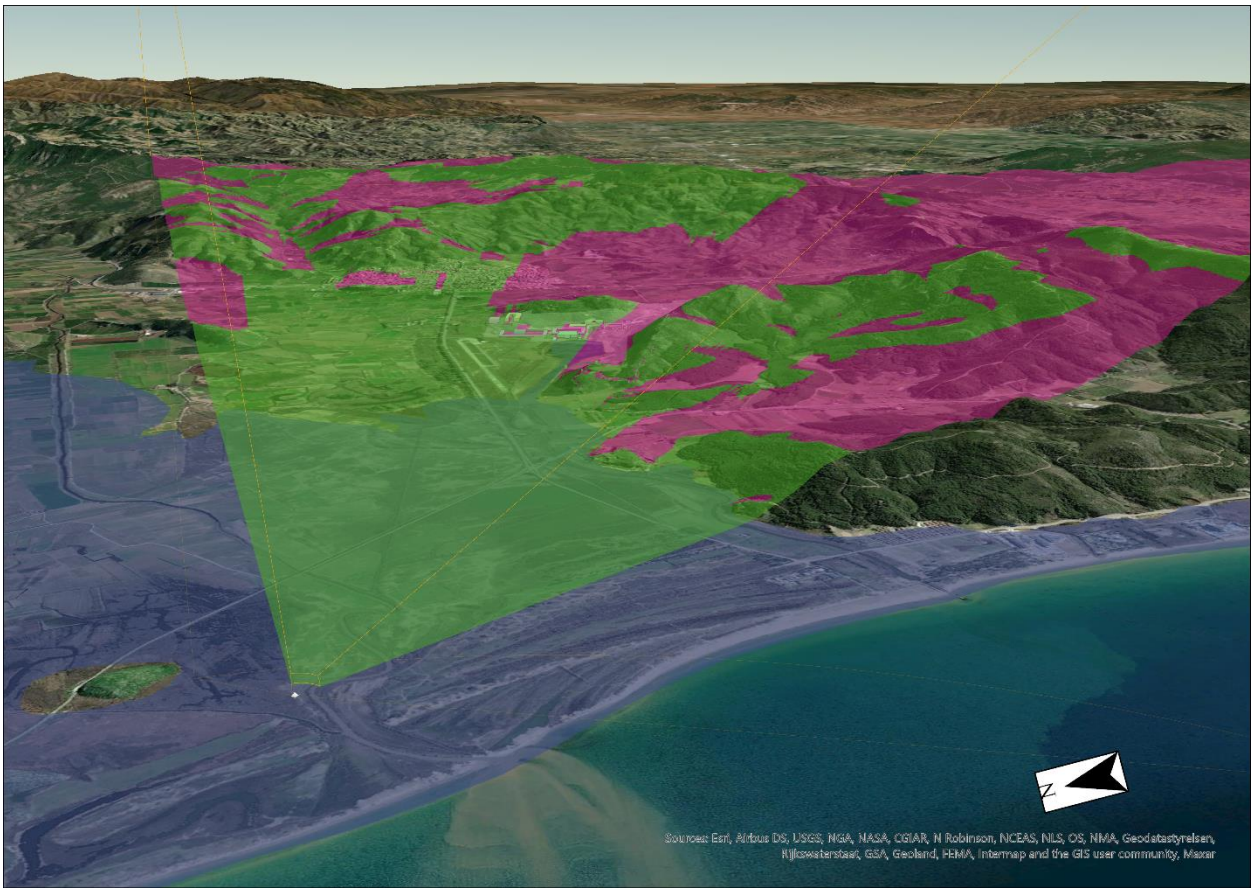


Figure 102 - Perspective view of the Cayster River valley, modeled in its state in Roman period, showing a viewshed plot of an observer off-shore, entering the river valley from the western approach, at the approximate location of Figure 101. What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

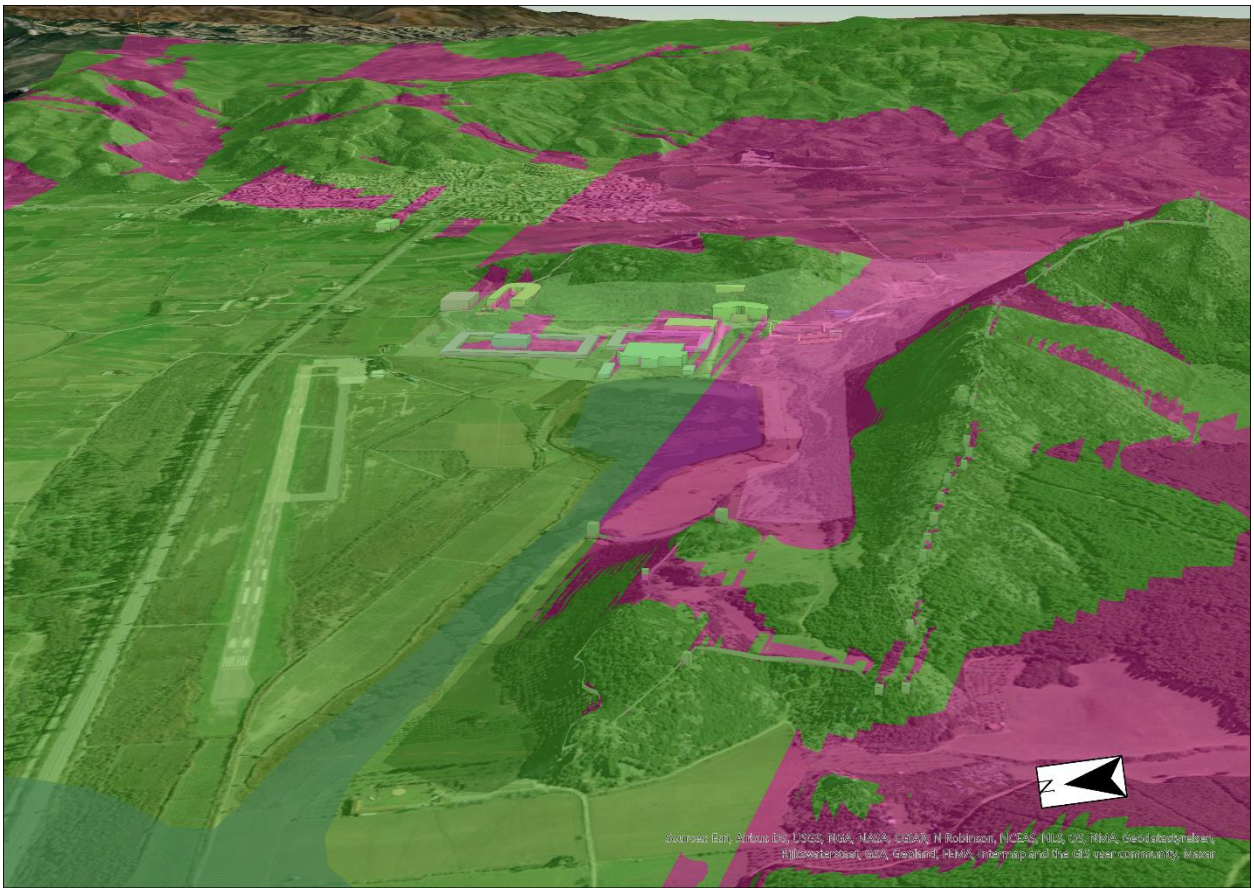


Figure 103 - A close up of Ephesus, with the viewshed plot from Figure 102.

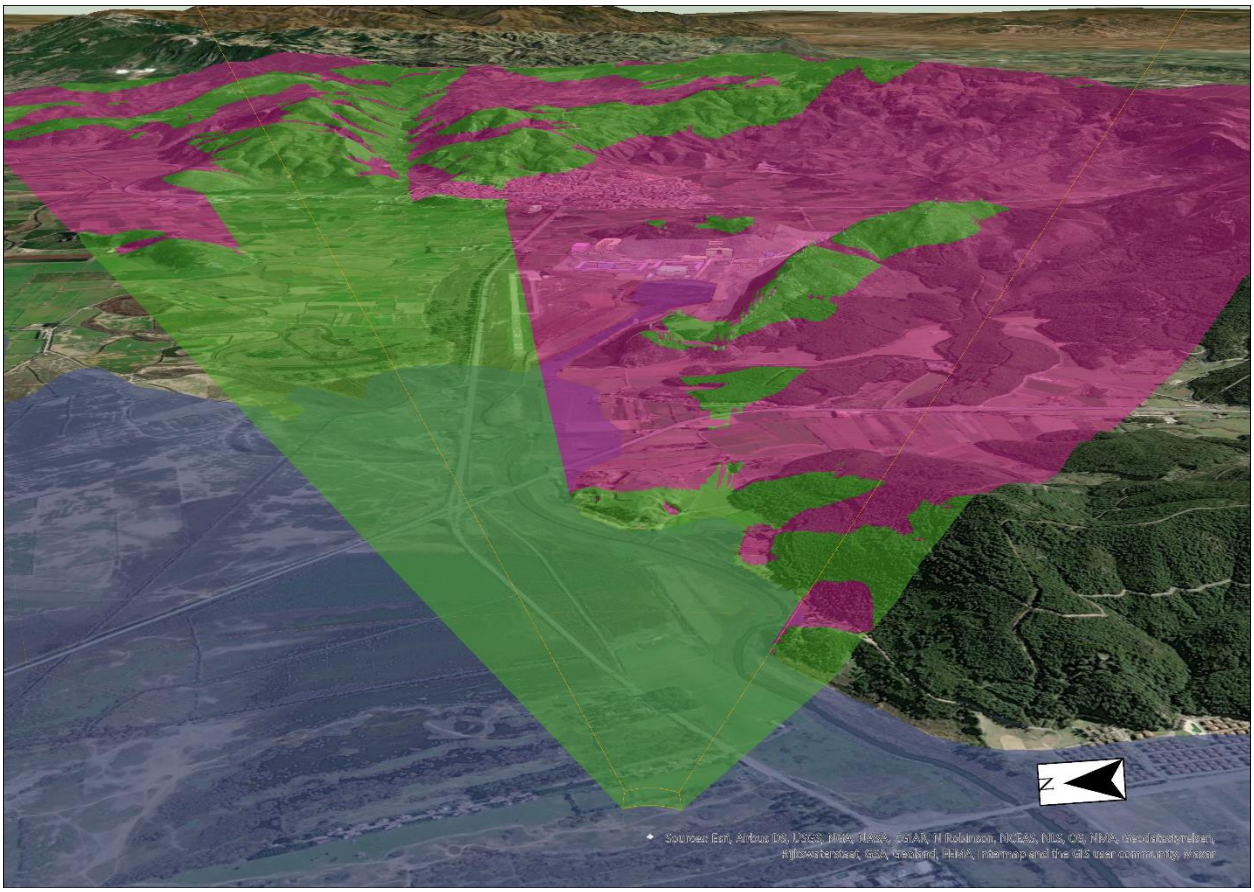


Figure 104 - Perspective view of the Cayster River valley, modeled in its state in Roman period, showing a viewshed plot of an observer off-shore, entering the river valley from the southern approach. What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

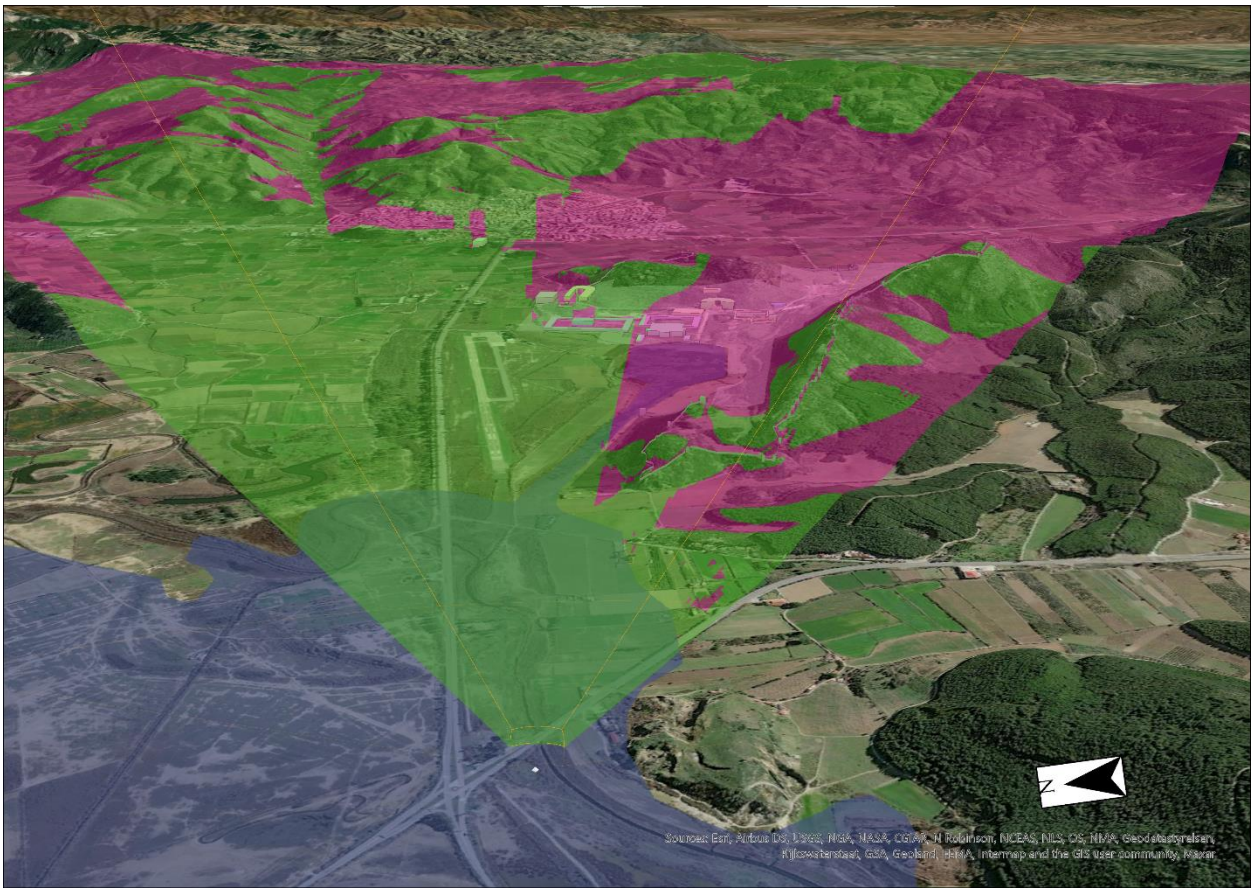


Figure 105 - Perspective view of the Cayster River valley, modeled in its state in Roman period, showing a viewshed plot of an observer off-shore, approaching the entrance to the harbor canal from the southern approach. What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

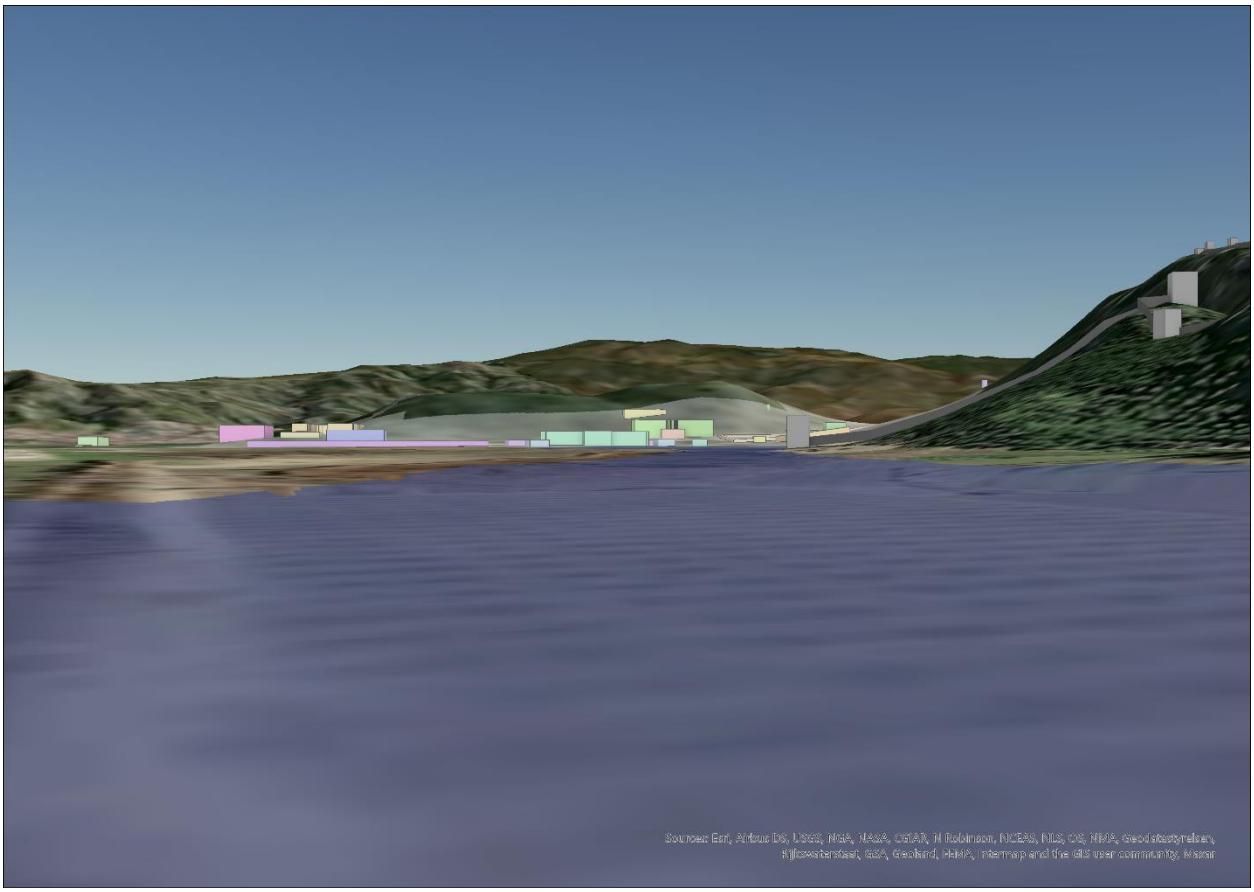


Figure 106 - View of Ephesus during the Roman period by a viewer 2m above sea level at approximately the point the Roman canal would have begun.

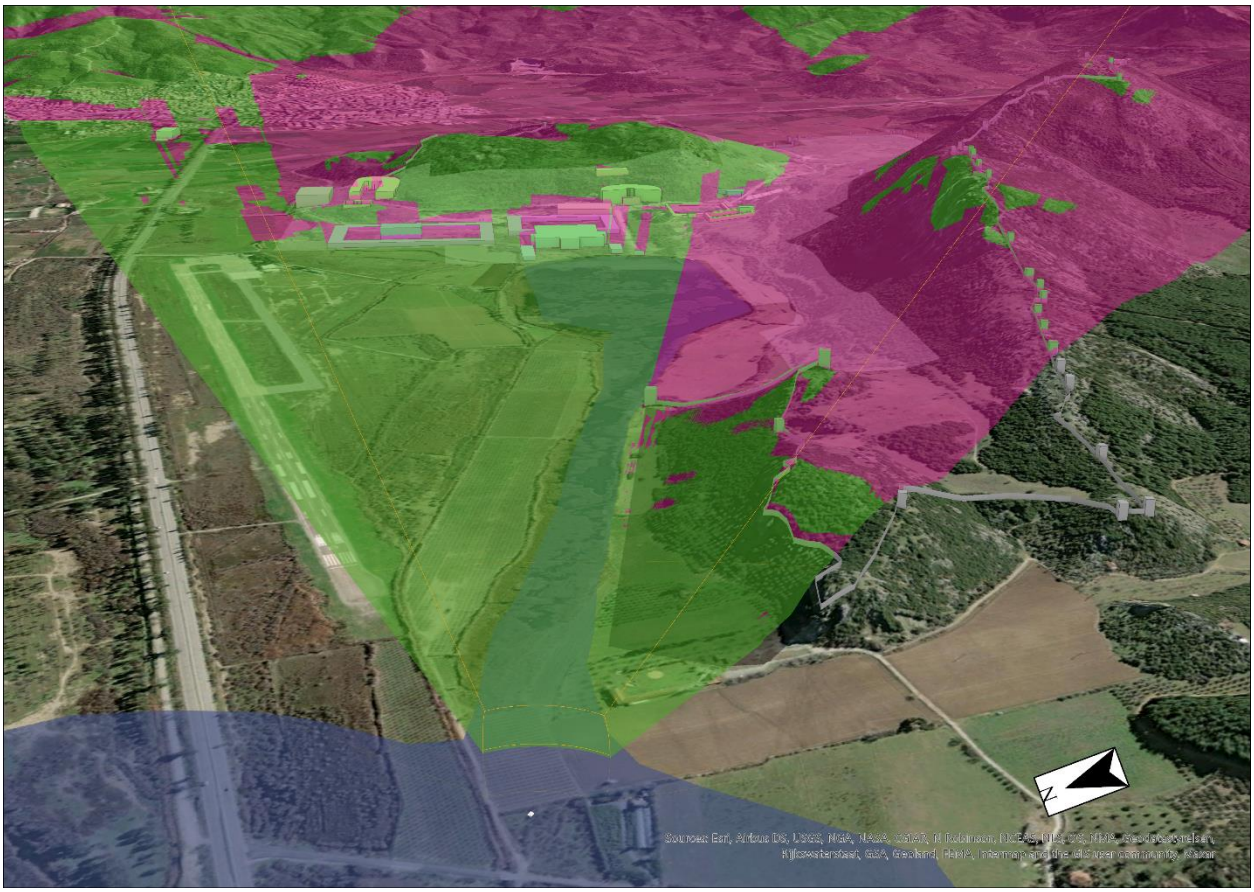


Figure 107 - Perspective view of the site of Ephesus, modeled in its state in Roman period, showing a viewshed plot of an observer off-shore, about to arrive at the city, at the approximate location of Figure 106. What they would be able to see while facing towards Ephesus is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

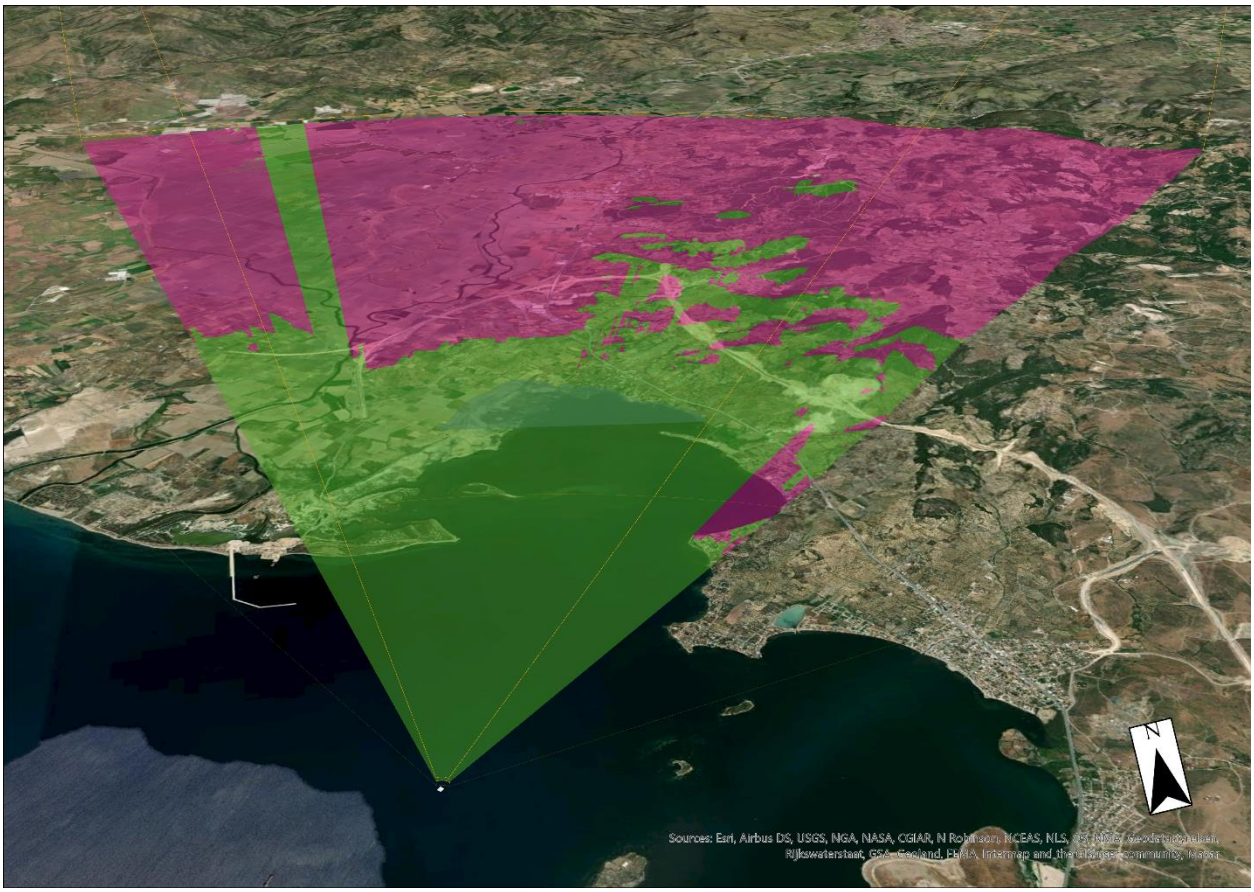


Figure 108 – Perspective view of the Bay of Elaia, with the city walls of Elaia modeled in their state during the Hellenistic and Roman periods, showing a viewshed plot of an observer off-shore, about to arrive at the city. What they would be able to see while facing towards Elaia is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

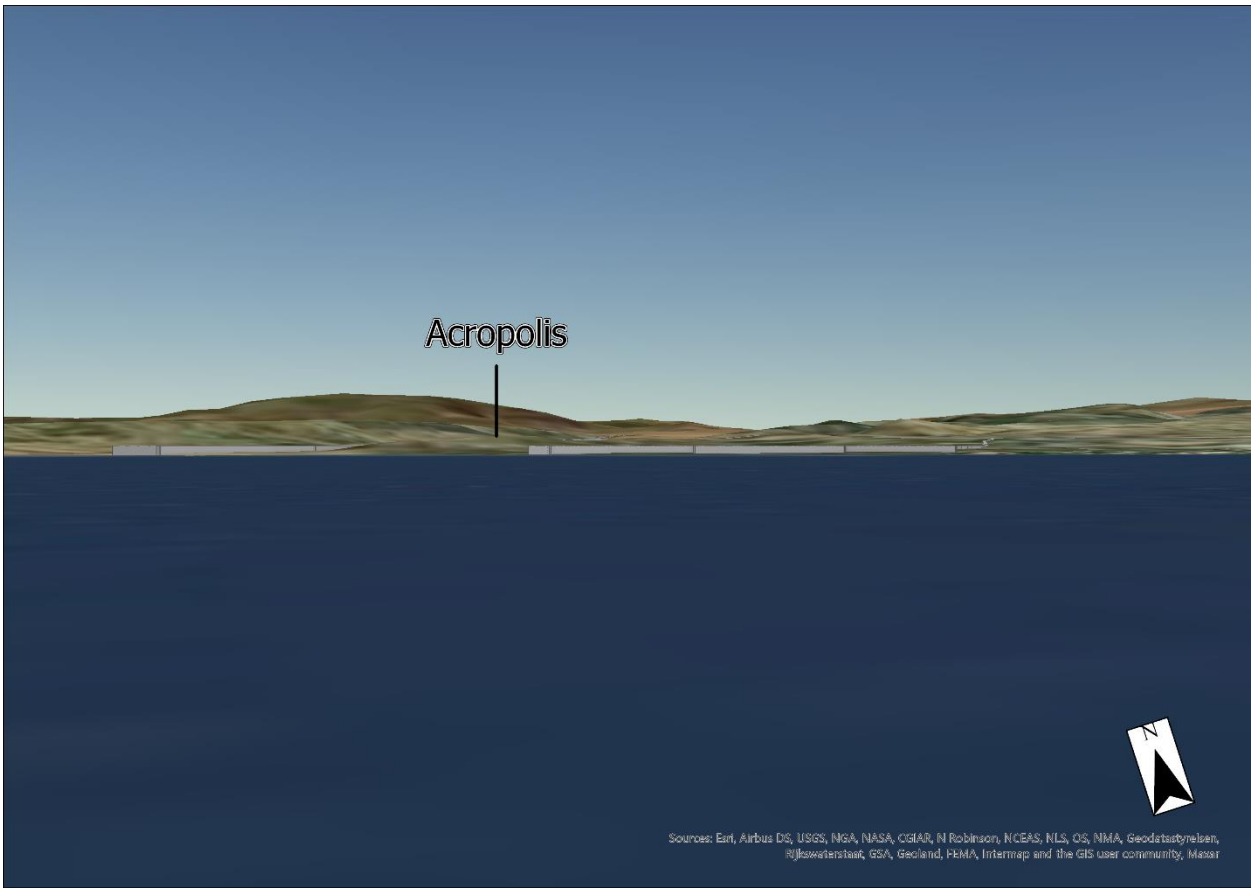


Figure 109 – View of Elaia during the Hellenistic and Roman periods by a viewer 2m above sea level at approximately 2km from the city.

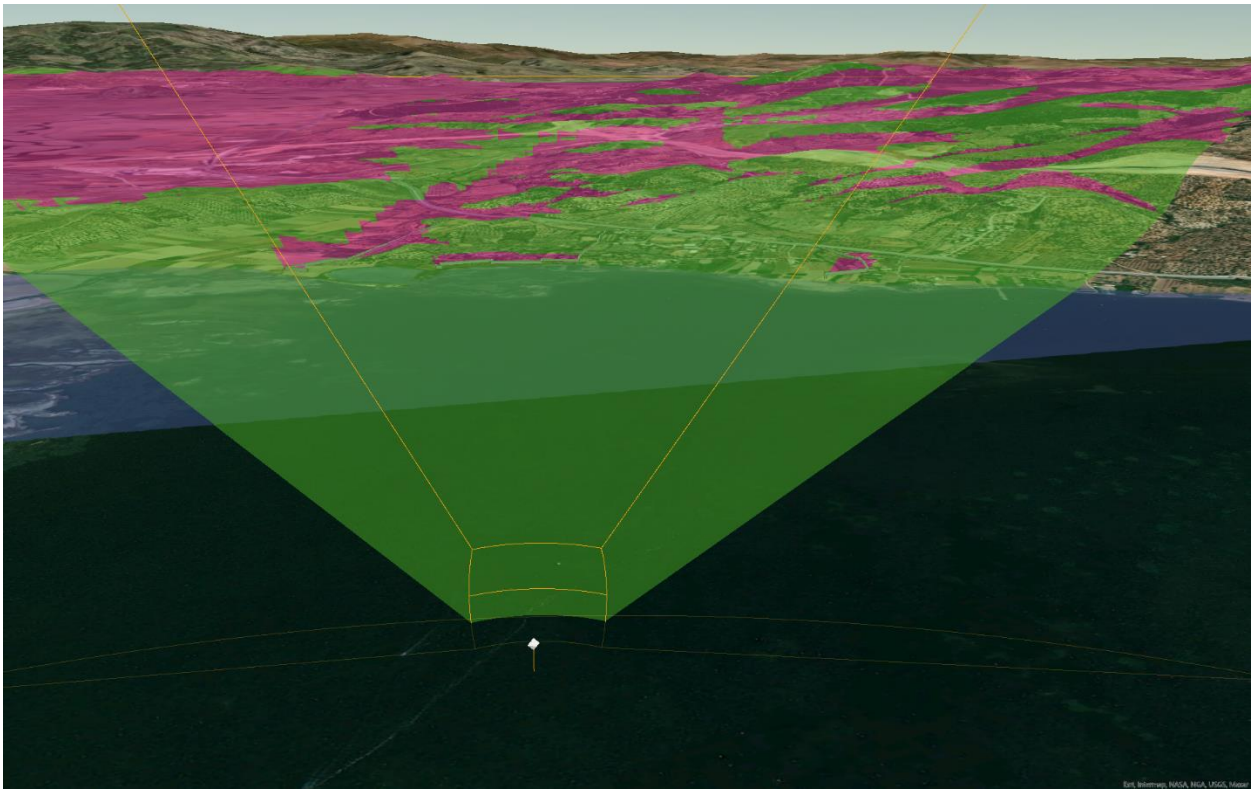


Figure 110 - Perspective view of the Bay of Elaia, with the city walls of Elaia modeled in their state during the Hellenistic and Roman periods, showing a viewshed plot of an observer approximately 2km off-shore, about to arrive at the city in the same location as Figure 109. What they would be able to see while facing towards Elaia is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

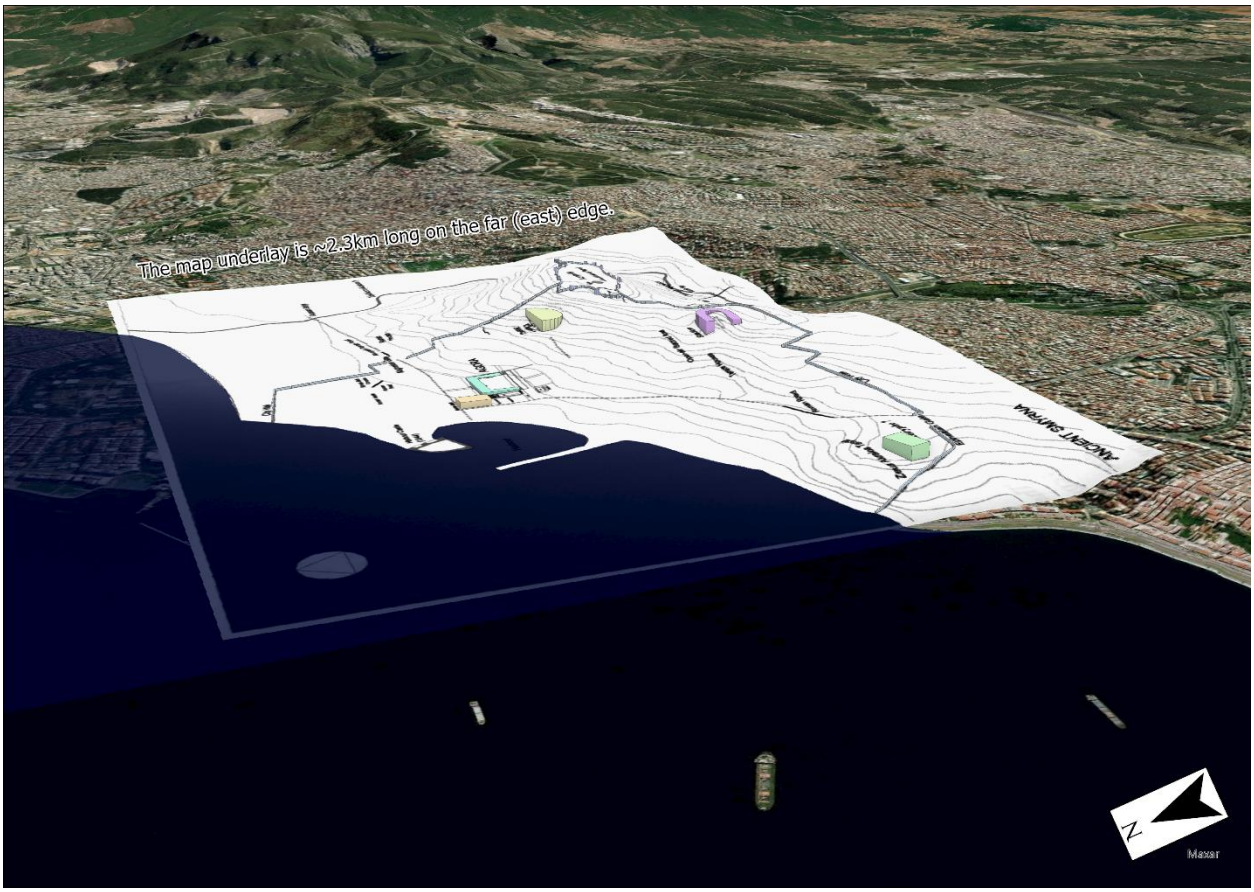


Figure 111 – A perspective view towards the city of Smyrna, with Ersoy's (2016, 3 fig. 2) plan of the city and the monuments of the Roman period modeled. The ships in the water and the modern development of the city are from the satellite imagery provided by ESRI and thus the image underlay helps offer a clearer picture of the shape of ancient Smyrna.

Figure 112 – Figure 111 without the city plan underlay.

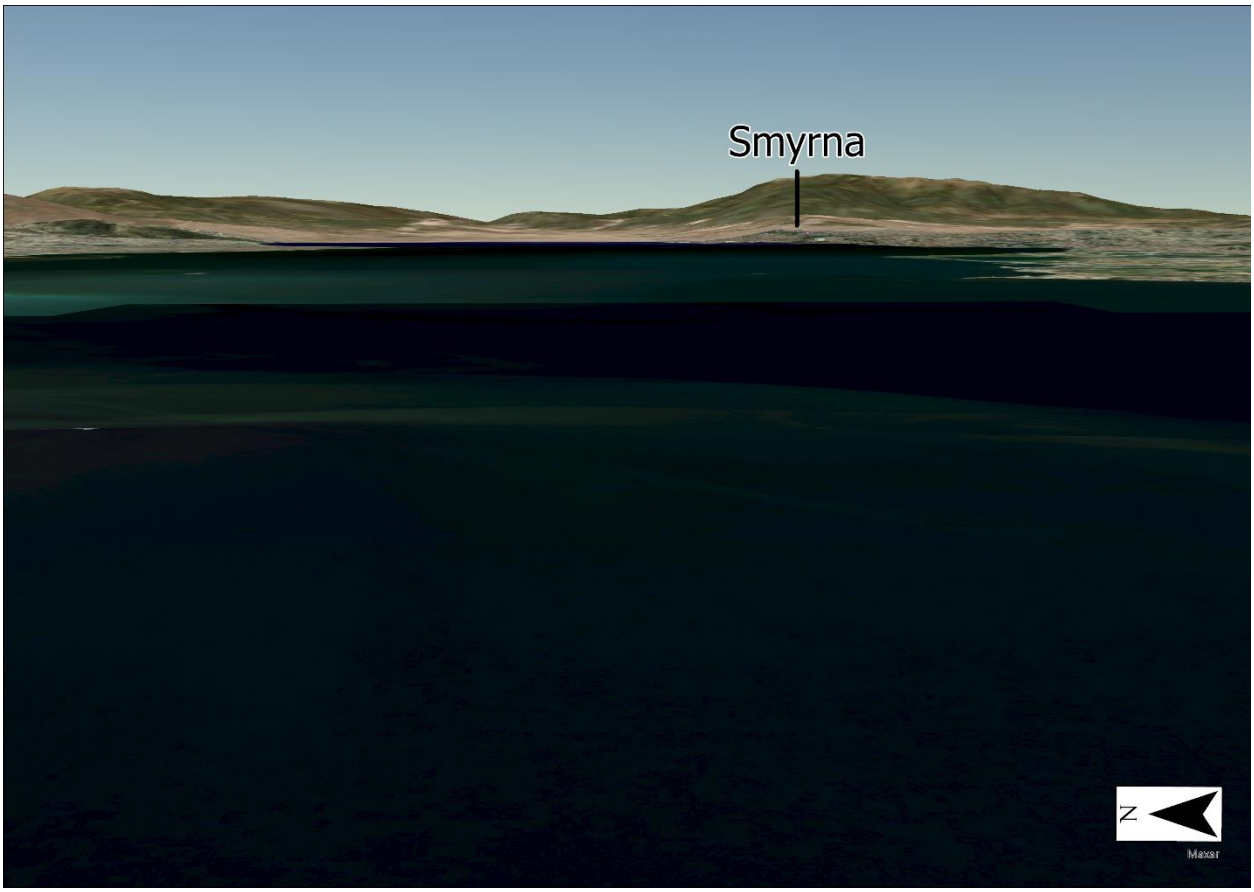


Figure 113 – View of Smyrna during the Roman period by a viewer 2m above sea level at approximately 15km from the city.

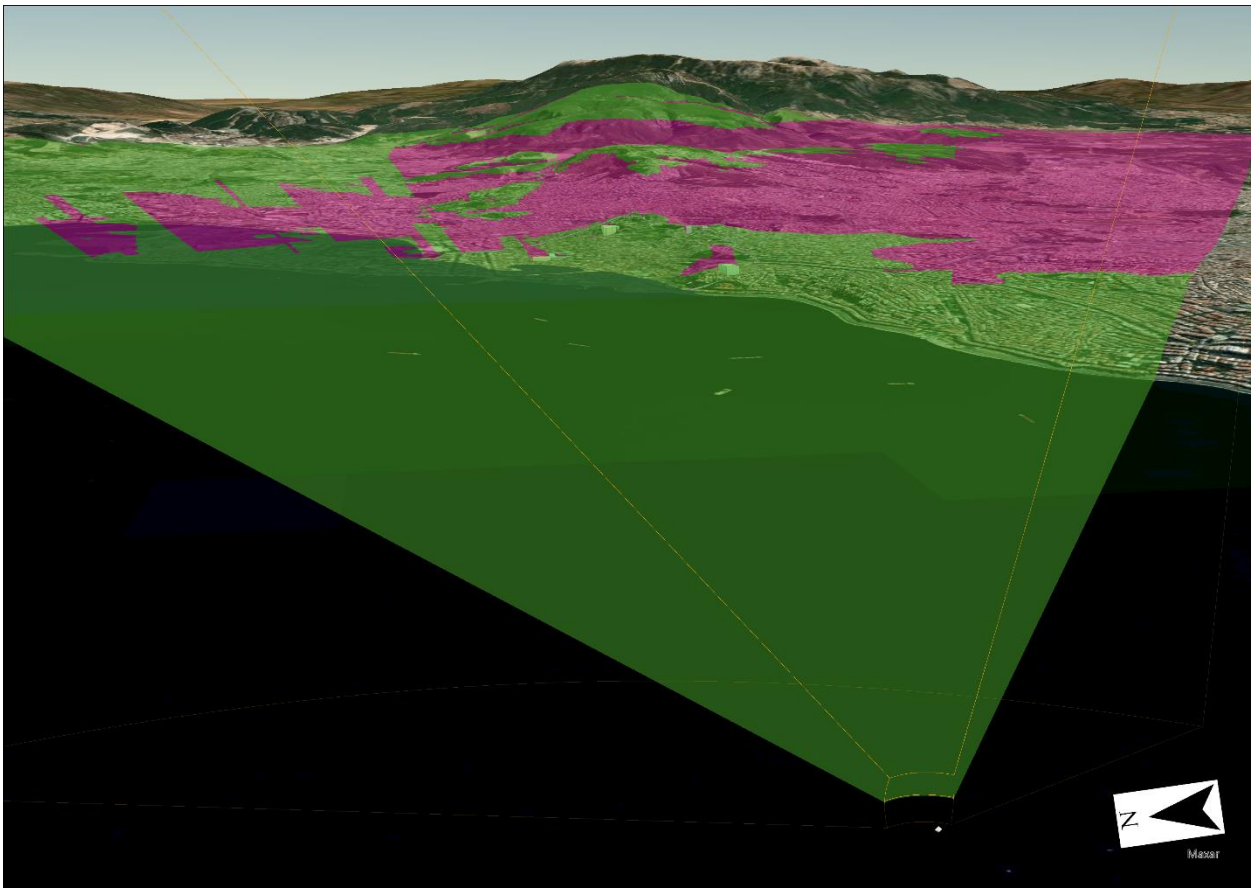


Figure 114 - Perspective view of the Bay of Smyrna, with Smyrna modeled in its state during the Roman period, showing a viewshed plot of an observer off-shore, about to arrive at the city. What they would be able to see while facing towards Smyrna is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

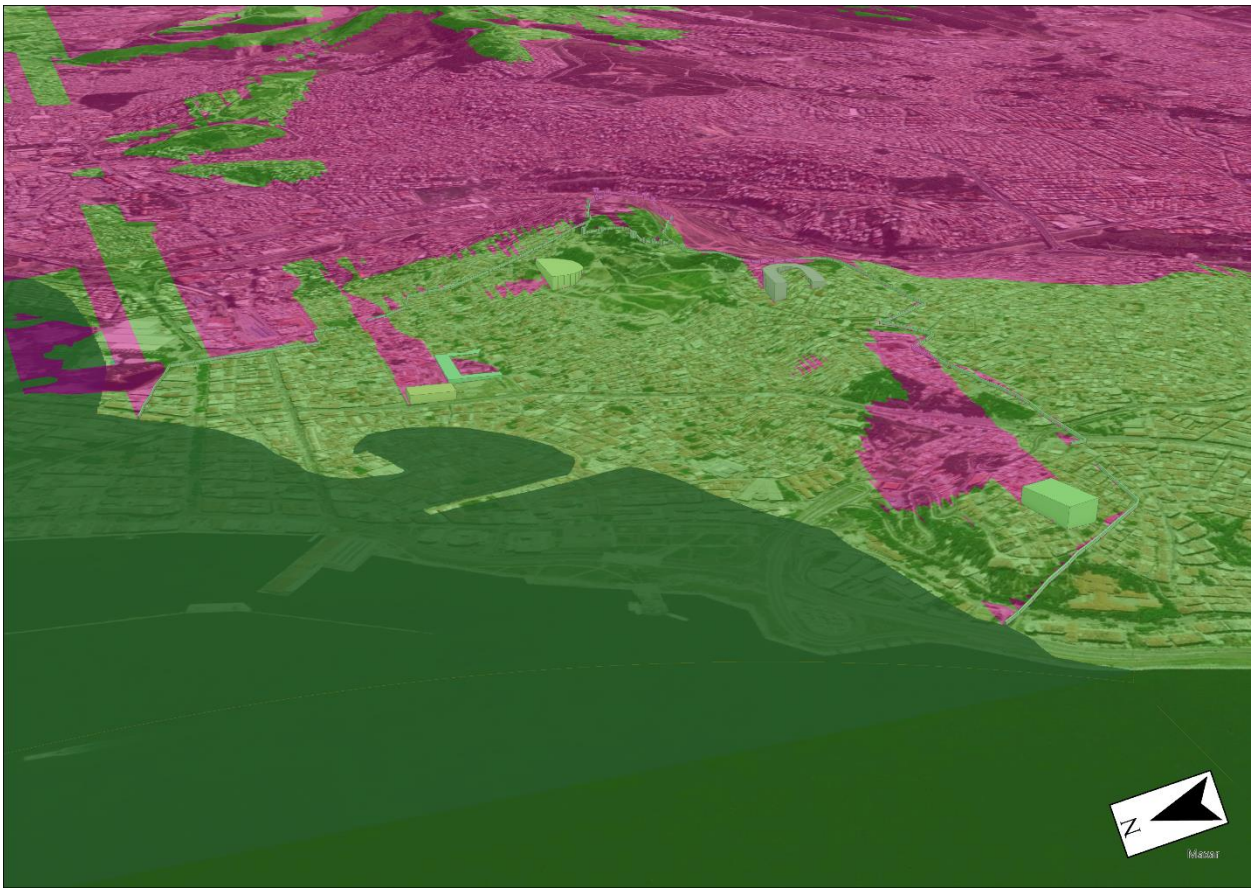


Figure 115 - A close up of Smyrna, with the viewshed plot from Figure 114.

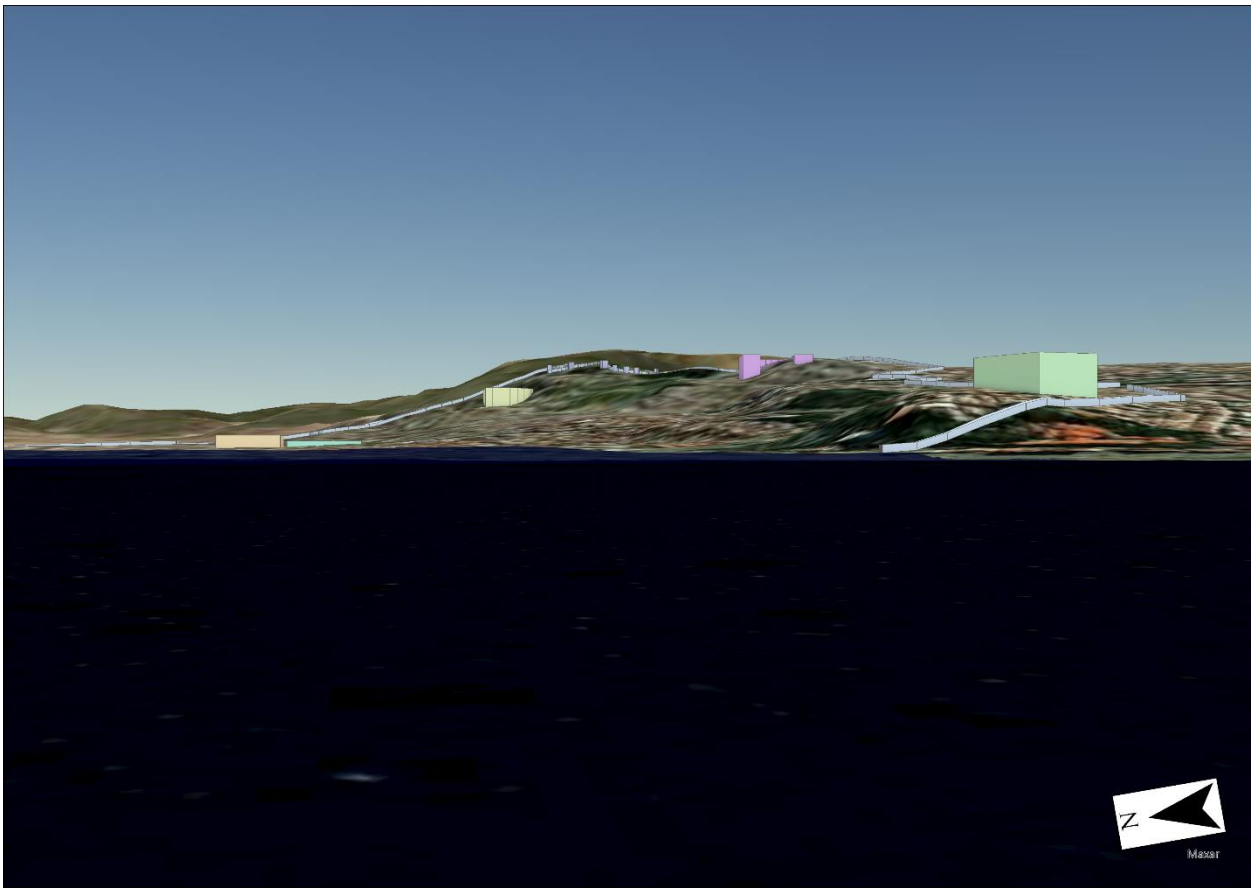


Figure 116 - View of Smyrna during the Roman period by a viewer 2m above sea level at approximately 2km from the city.

Figure 117 - A perspective view towards the city of Rhodes, with Filimonos-Tsopotou's (2004, plan 1) plan of the city (measuring 3km on the short side) and the monuments of the Roman period modeled. The modern development of the city is from the satellite imagery provided by ESRI and thus the image underlay helps offer a clearer picture of the shape of ancient Smyrna.

Figure 118 – Figure 117 without the map overlay.

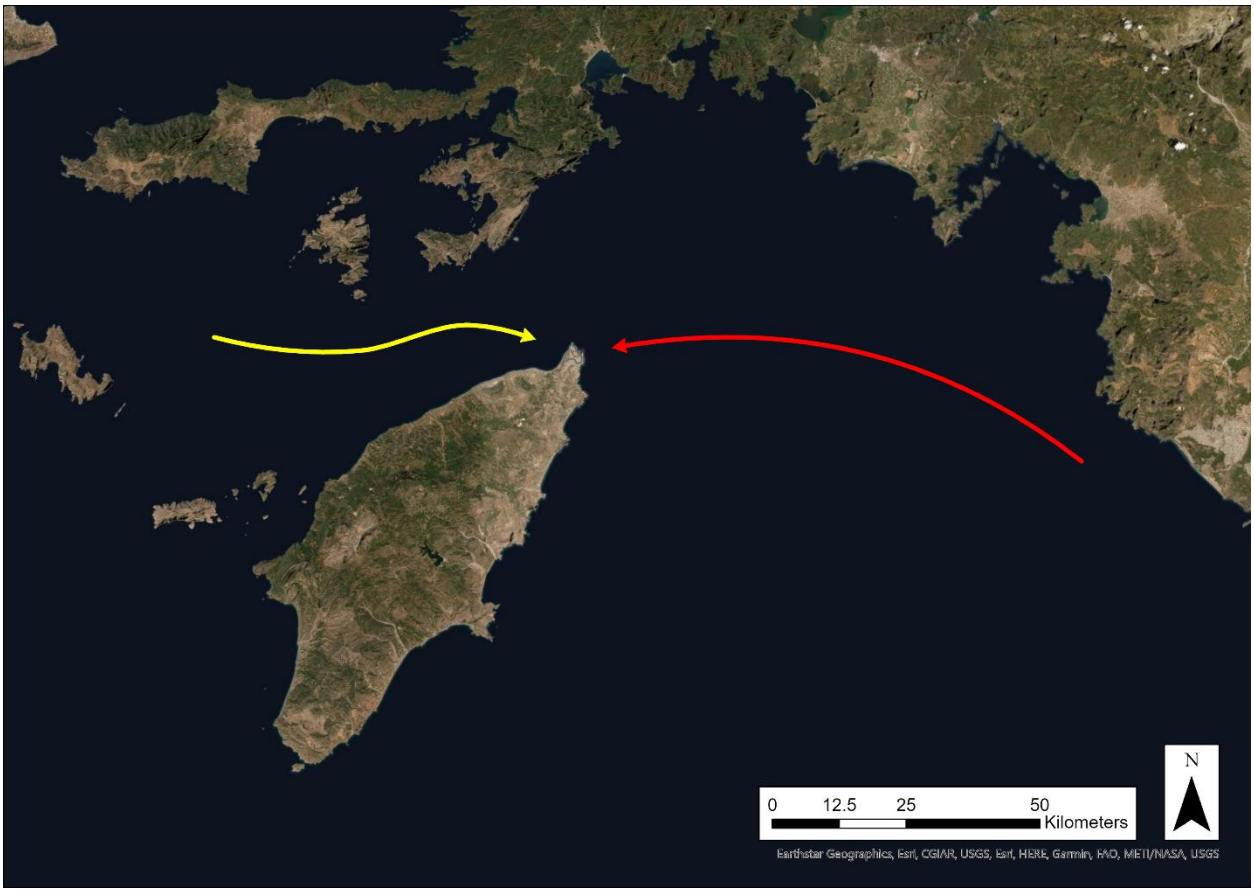


Figure 119 - Two potential approaches to Rhodes, as ships would have travelled the coast of Asia Minor. One, from the east, would have followed the counter-clockwise mode of travel and long distance trade networks in the Mediterranean and is highlighted in red, and one from the west, is highlighted in yellow.

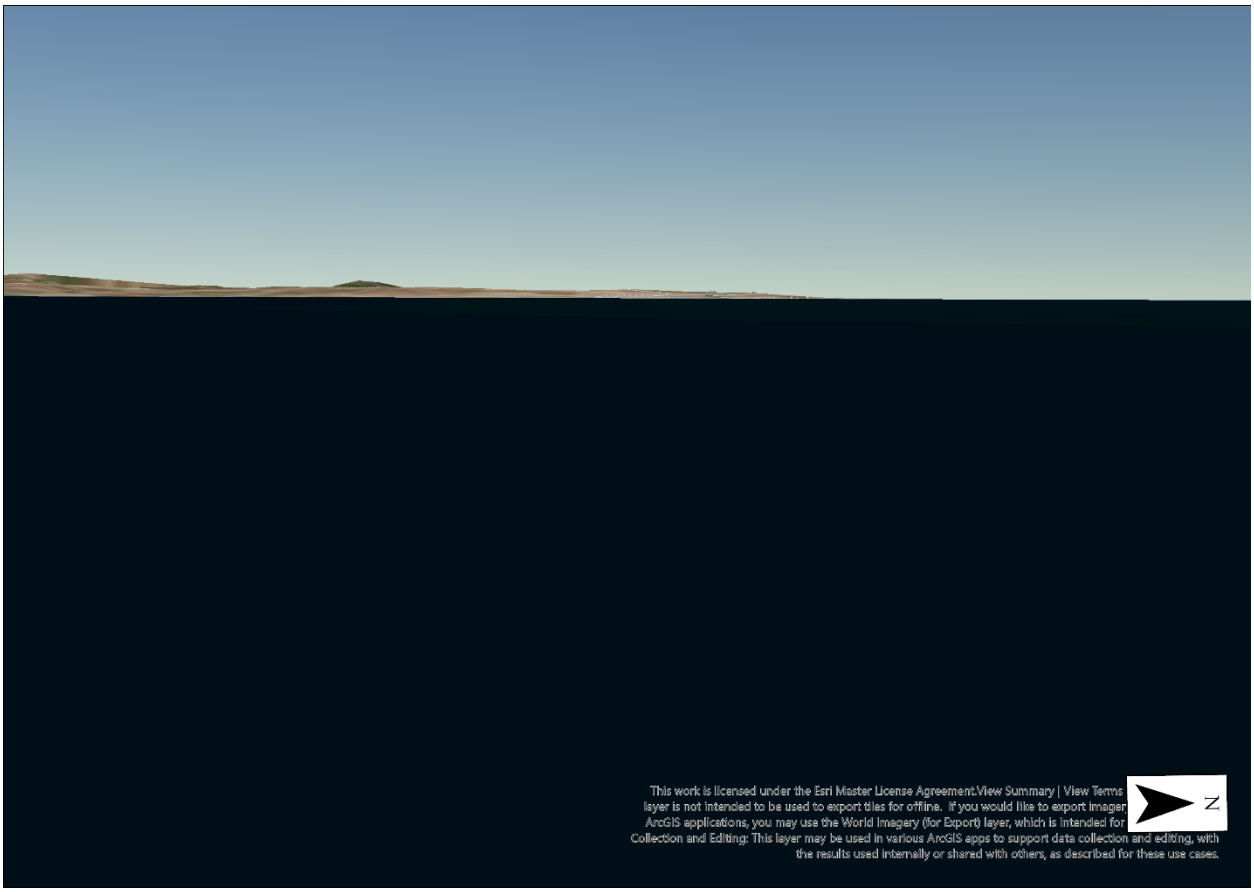


Figure 120 - View of Rhodes during the Roman period by a viewer 2m above sea level at approximately 13km from arrival via the eastern route.

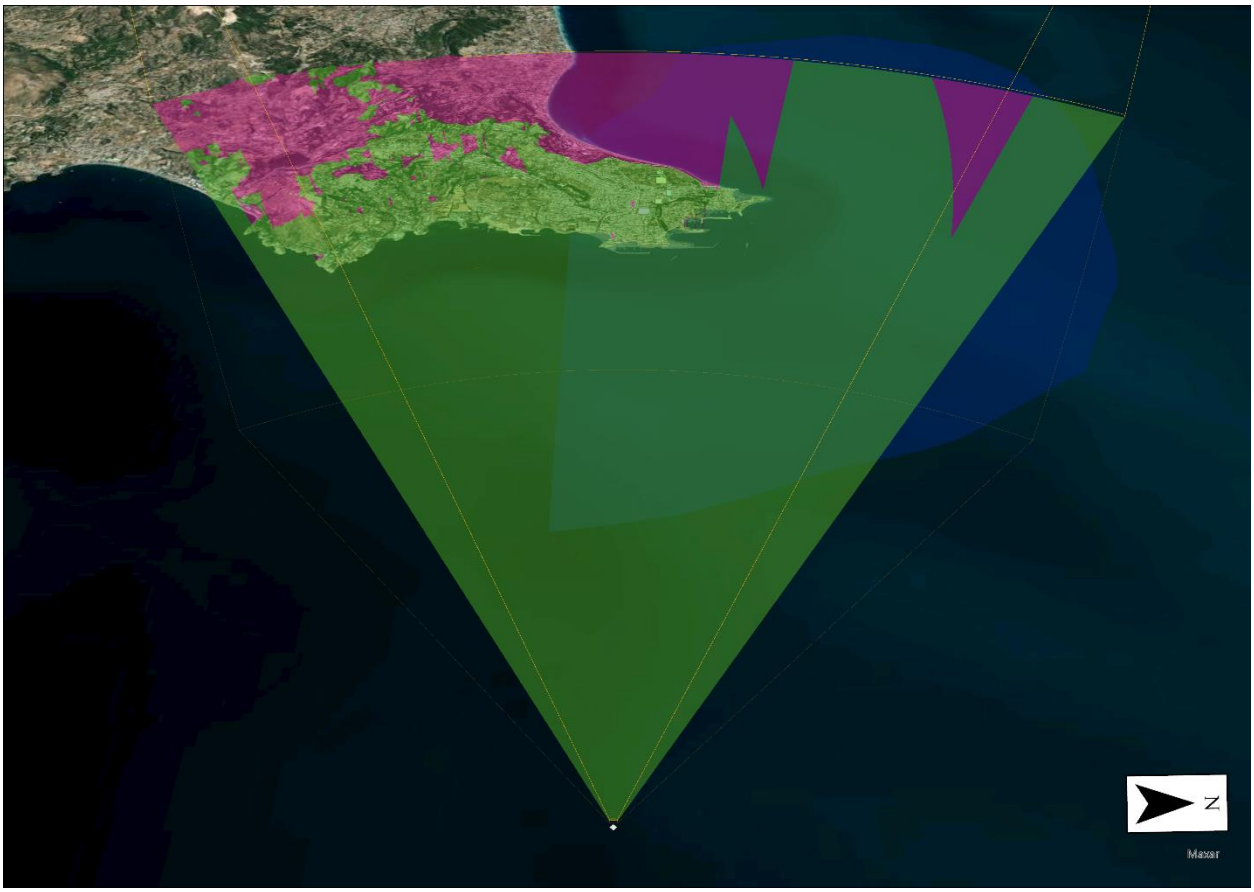


Figure 121 - Perspective view of Rhodes, modeled in its state during the Roman period, showing a viewshed plot of an observer off-shore, approximately 13km from arrival via the eastern route. What they would be able to see while facing towards Rhodes is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

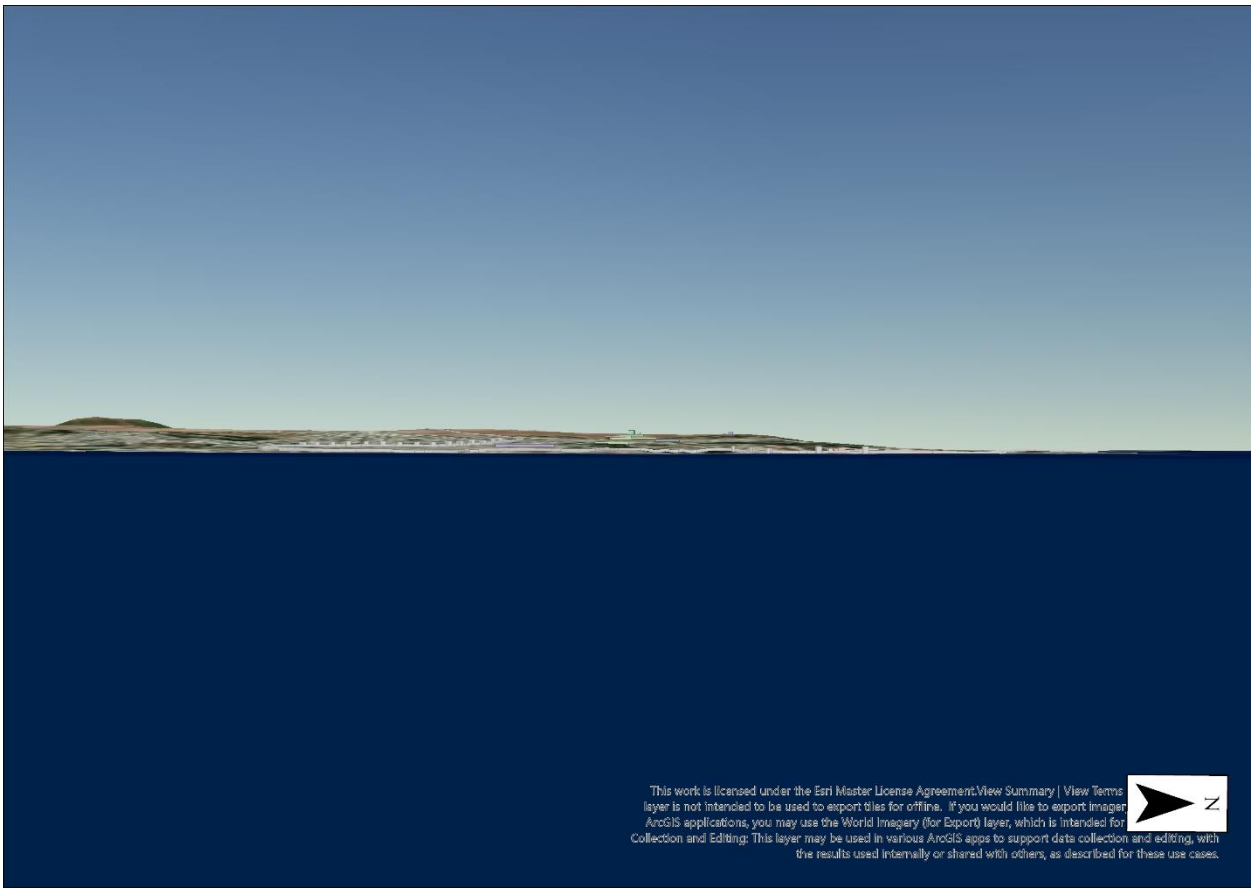


Figure 122 - View of Rhodes during the Roman period by a viewer 2m above sea level at approximately 4km from arrival via the eastern route.

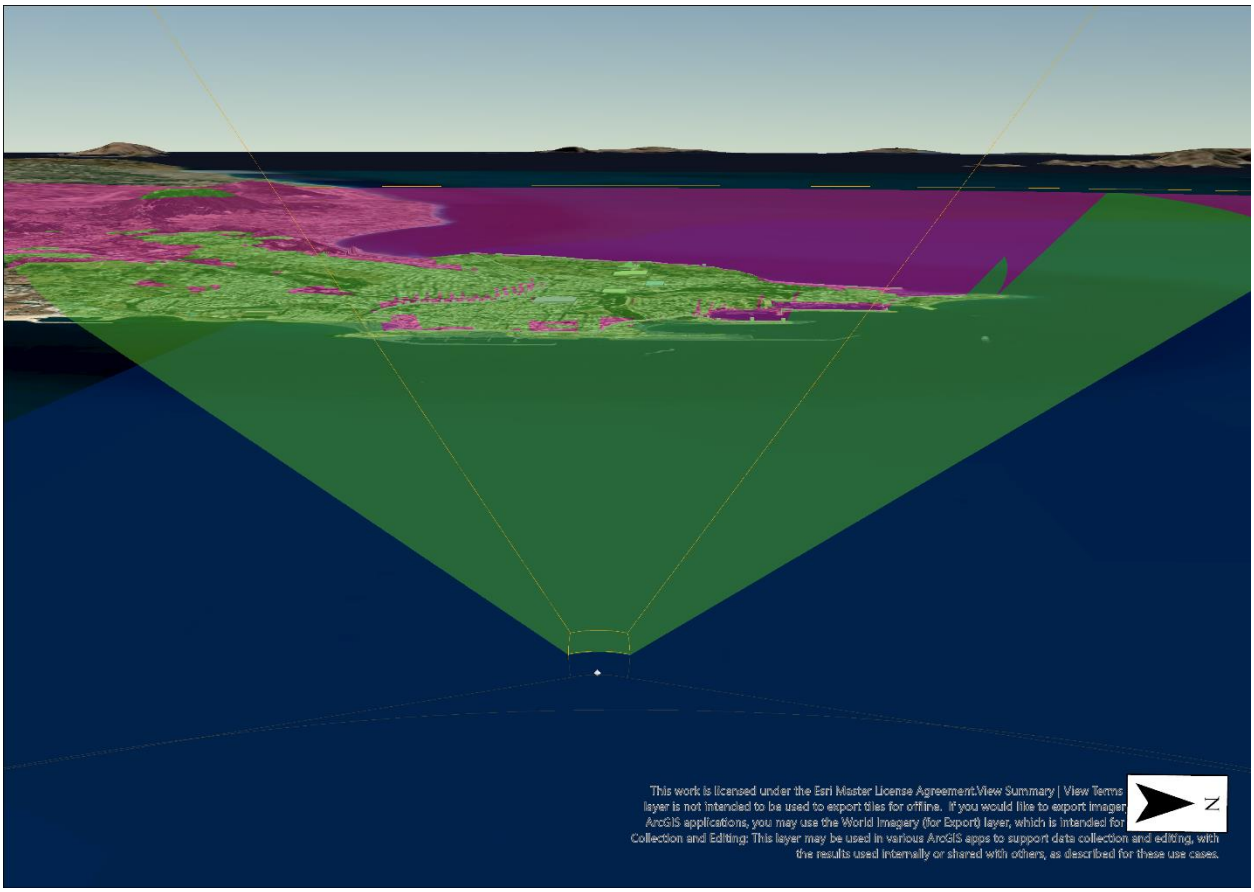


Figure 123 - Perspective view of Rhodes, modeled in its state during the Hellenistic period, showing a viewshed plot of an observer off-shore, approximately 4km from arrival via the eastern route. What they would be able to see while facing towards Rhodes is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

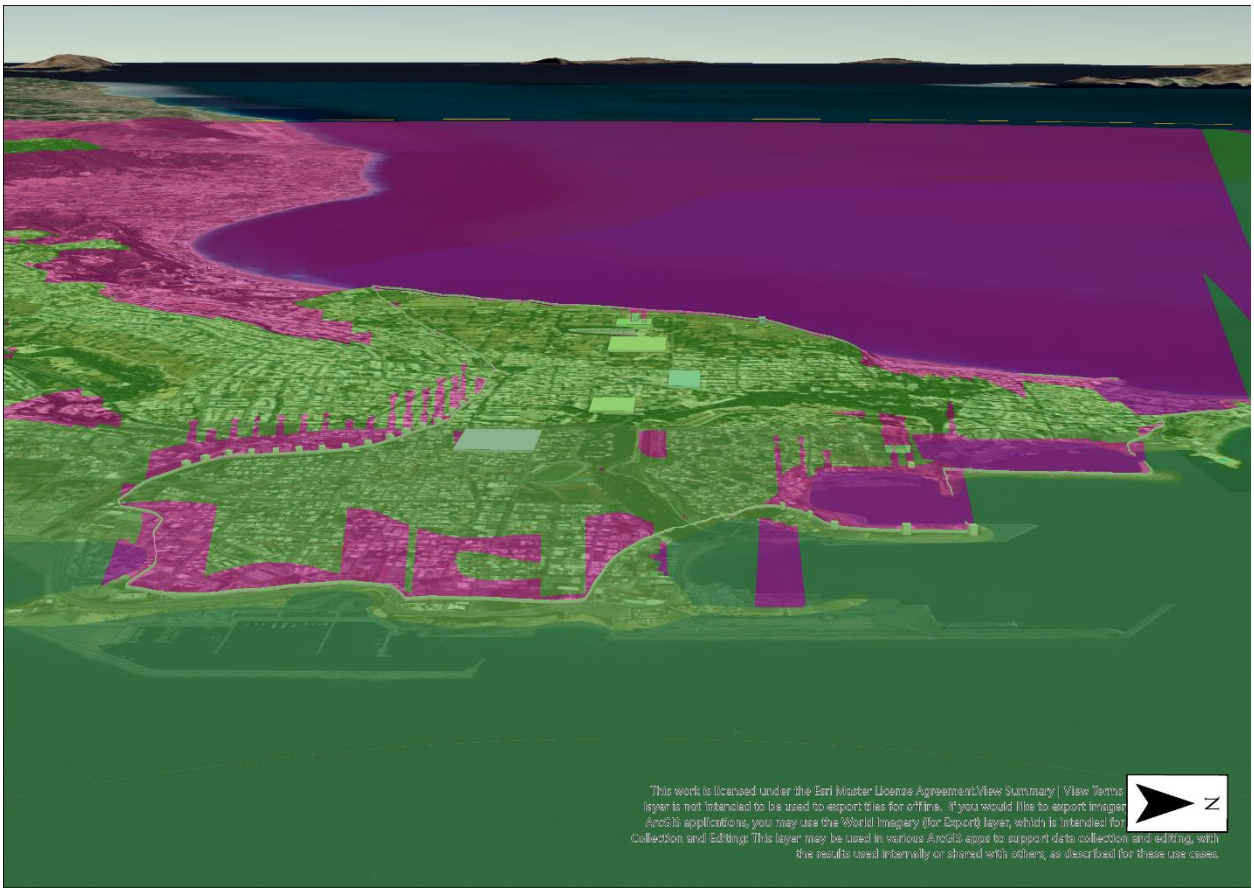


Figure 124 - A close up of Rhodes, with the viewshed plot from Figure 123.

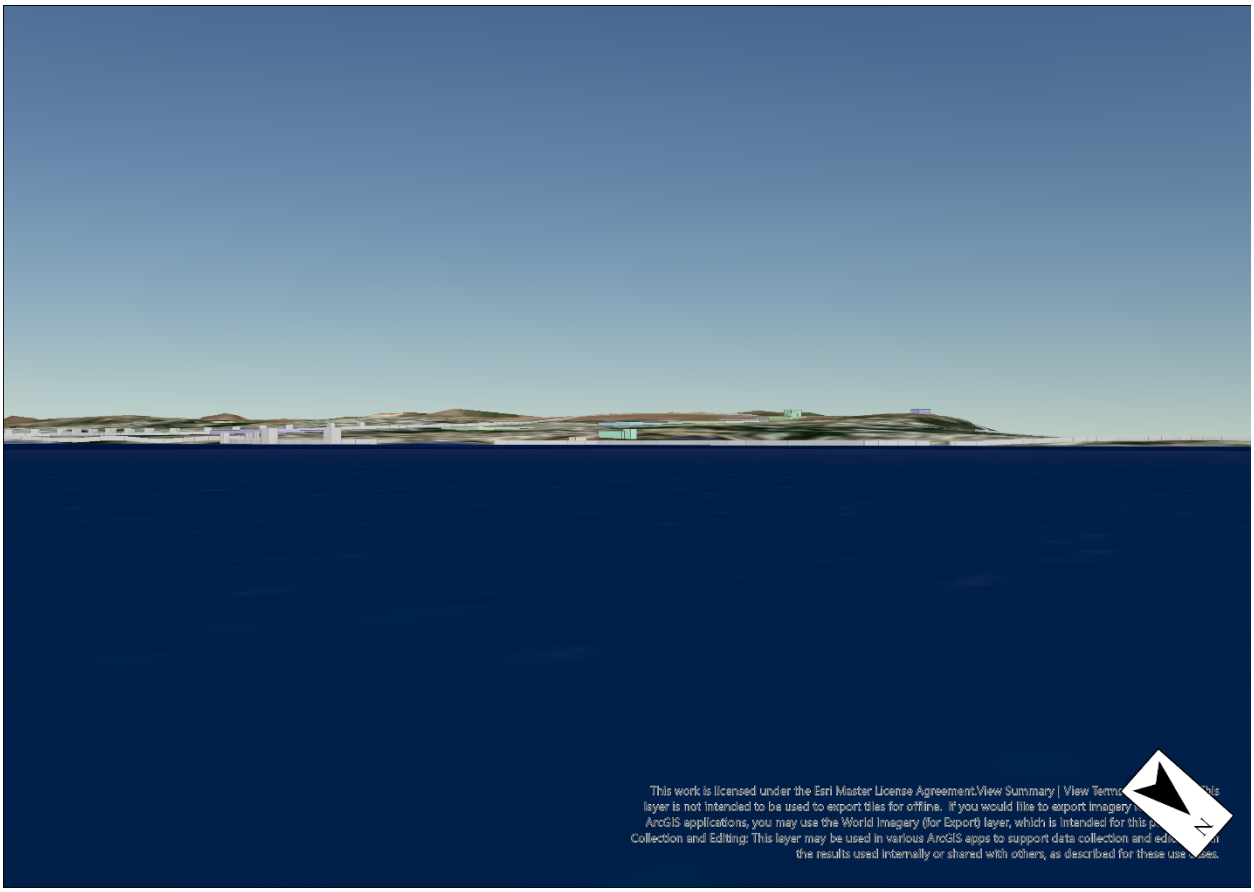


Figure 125 - View of Rhodes during the Roman period by a viewer 2m above sea level at approximately 2km from arrival from the northeast.

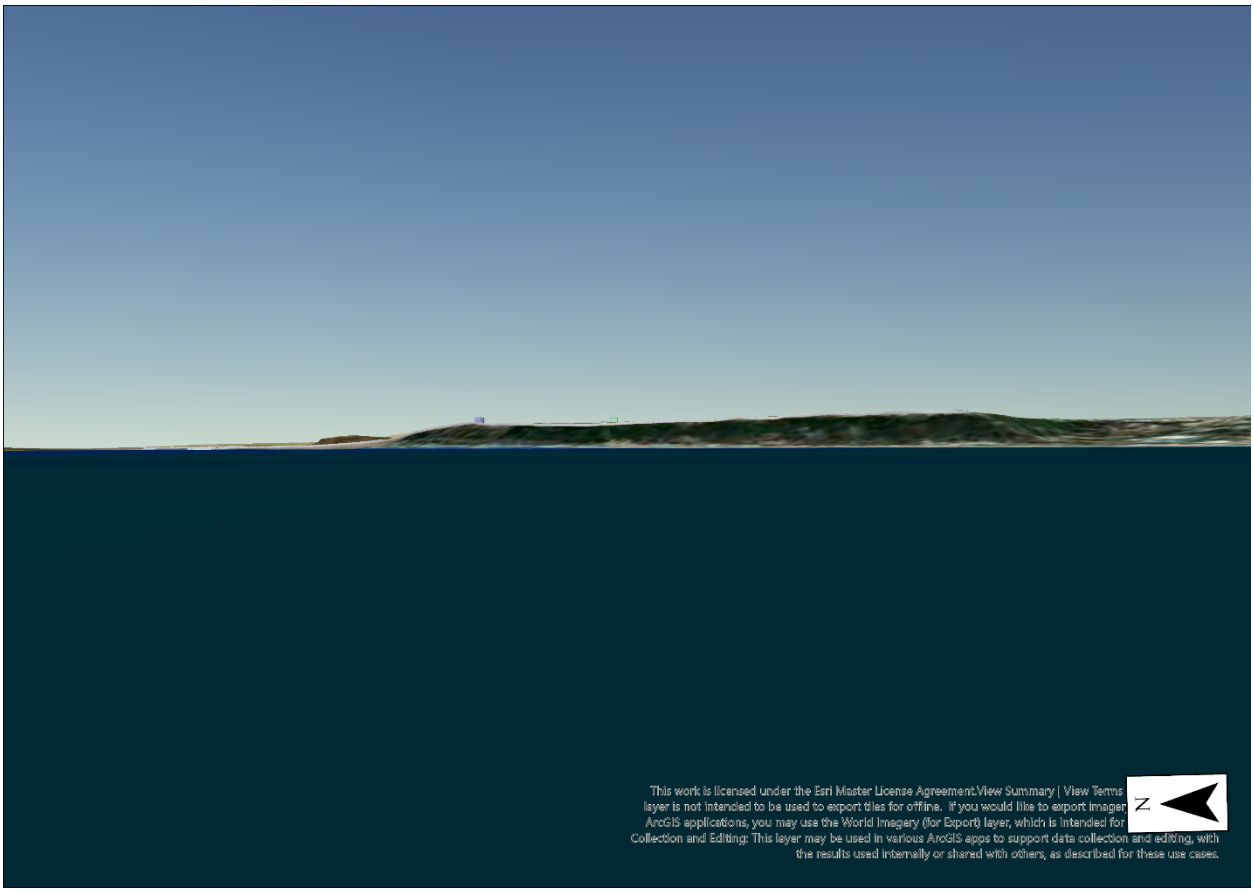


Figure 126 - View of Rhodes during the Roman period by a viewer 2m above sea level at approximately 4km from arrival via the western route.

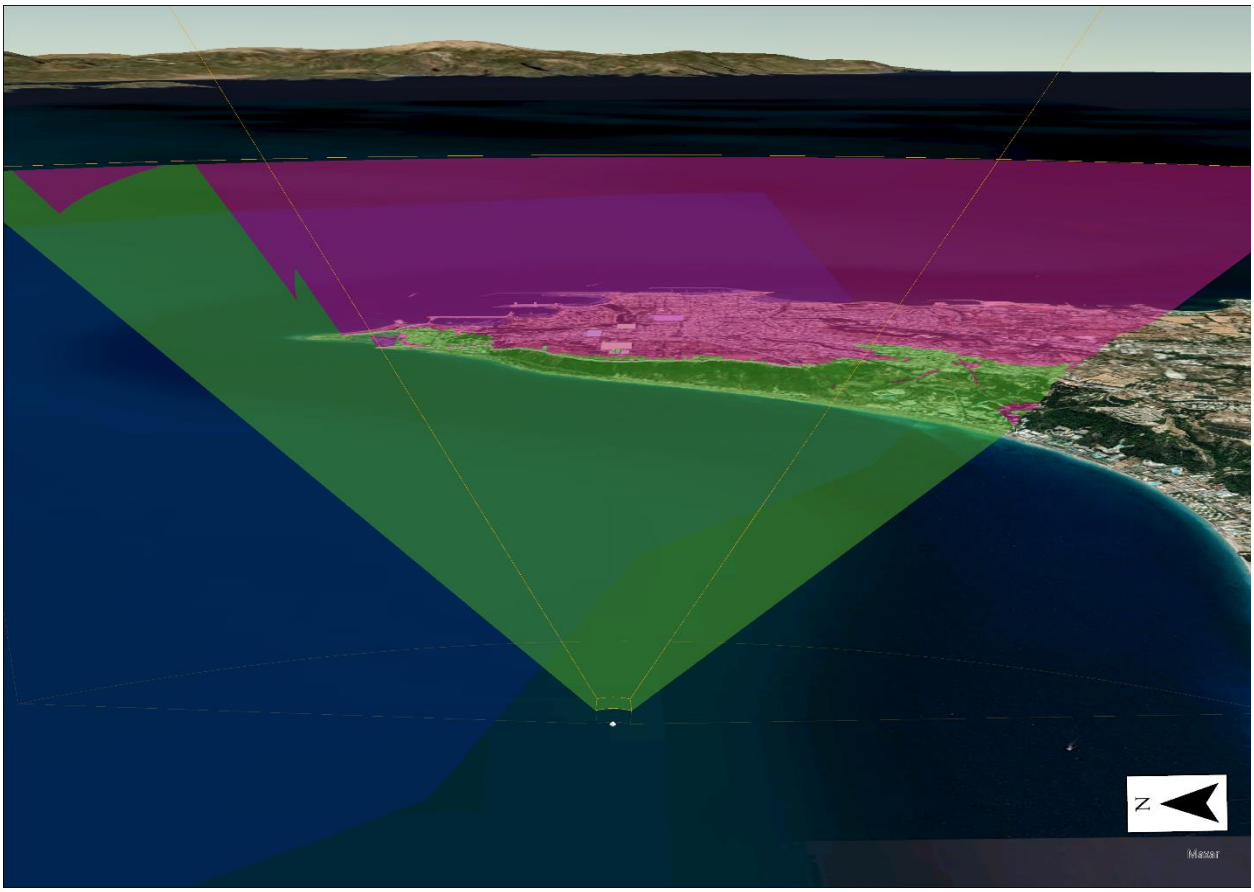


Figure 127 - Perspective view of Rhodes, modeled in its state during the Roman period, showing a viewshed plot of an observer off-shore, approximately 4km from arrival via the western route. What they would be able to see while facing towards Rhodes is highlighted in green in the image, what is not visible is in magenta. The length of the viewshed has been restricted to 20km.

Figure 128 - A close up of Rhodes, with the viewshed plot from Figure 127.

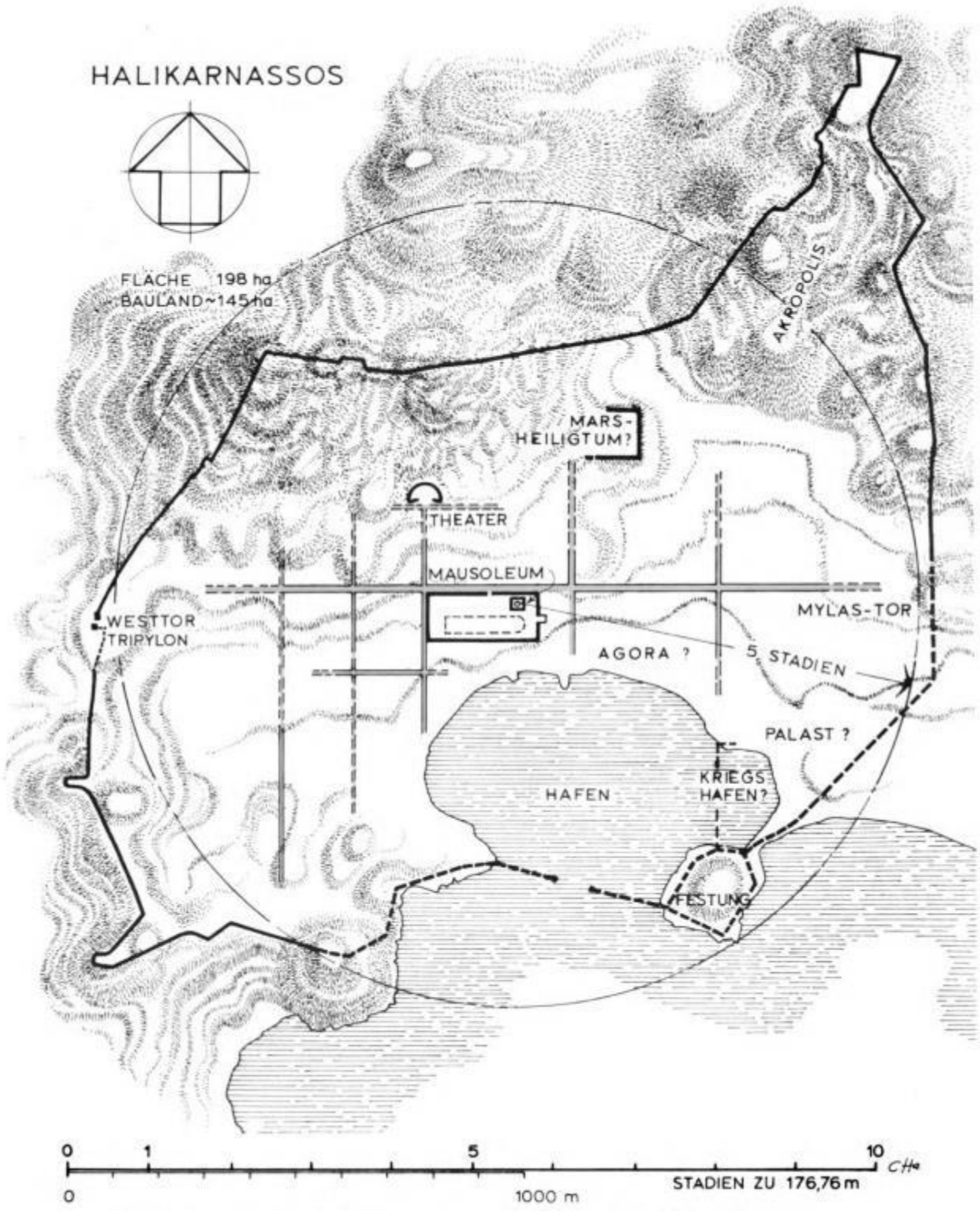


Figure 129 – Plan of Halicarnassus in ~375 BCE. (Hoepfner and Schwandner 1986, 188 fig. 187).

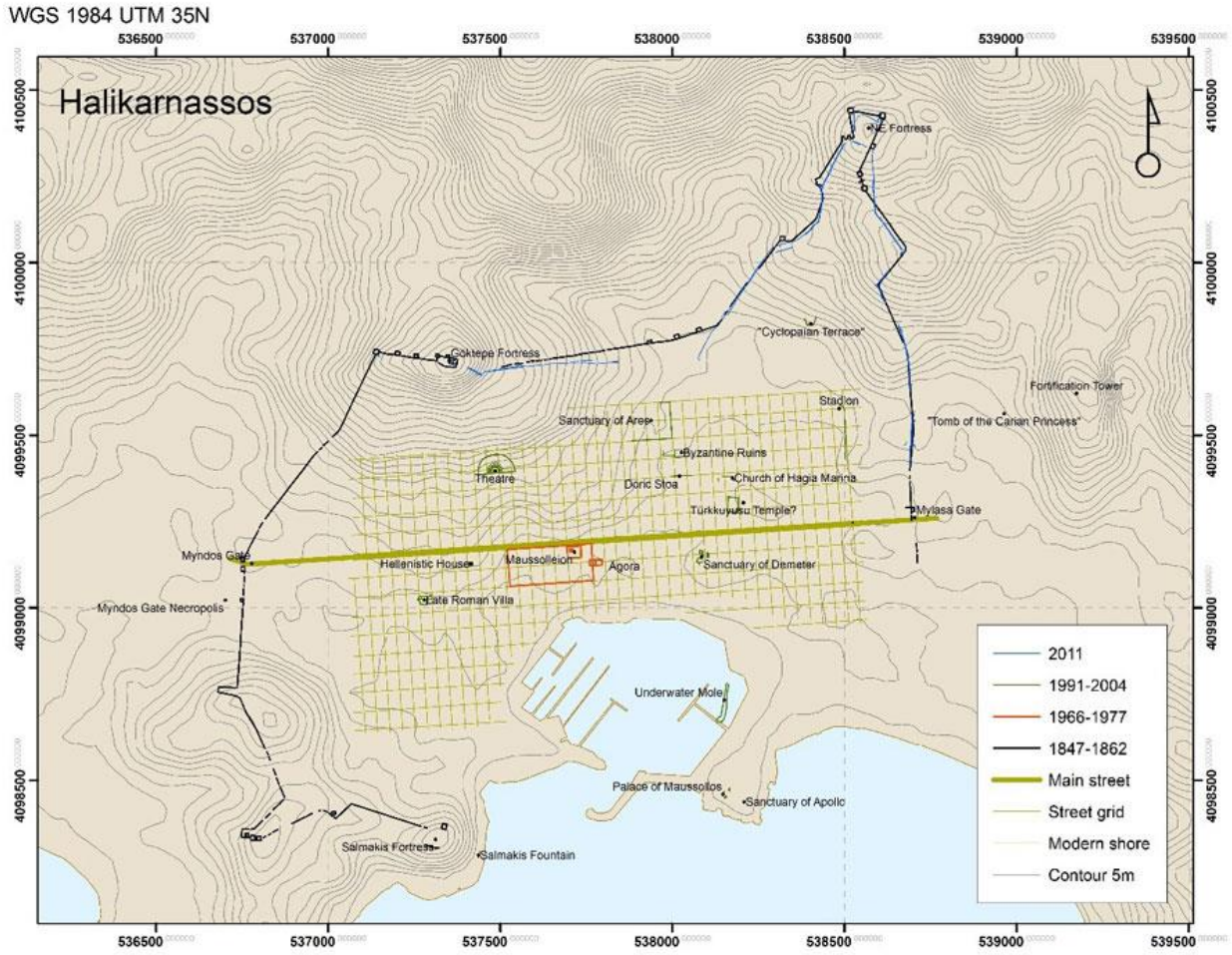


Figure 130 – Plan of the remains of Halicarnassus by the Danish Halikarnassos Project. (Pedersen 2016, fig. 4).

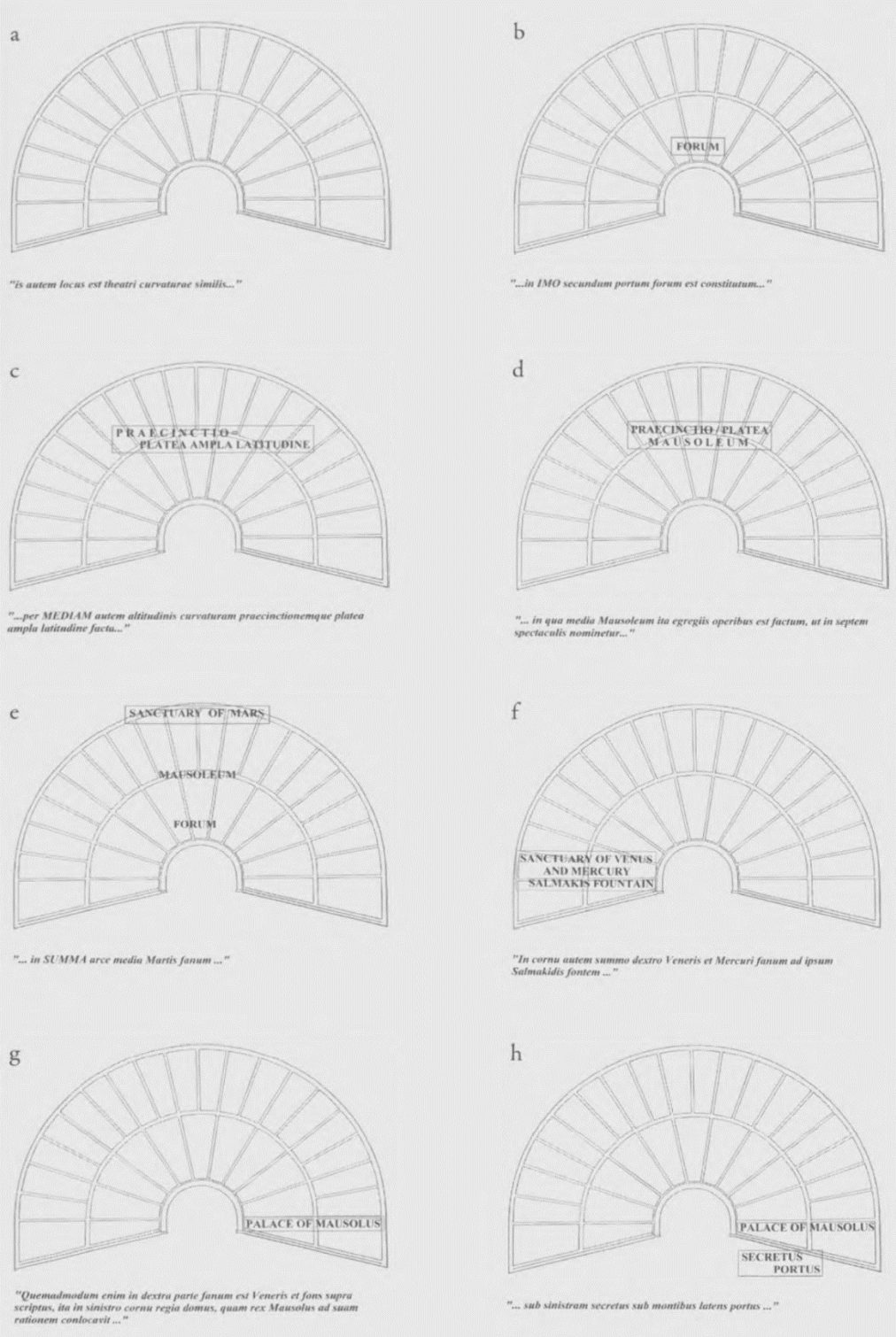


Figure 131 – A hypothetical visualization of Vitruvius' description of Halicarnassus with the locations mentioned plotted on a theater backdrop. (Pedersen 2018, 95 fig. 5a-h).

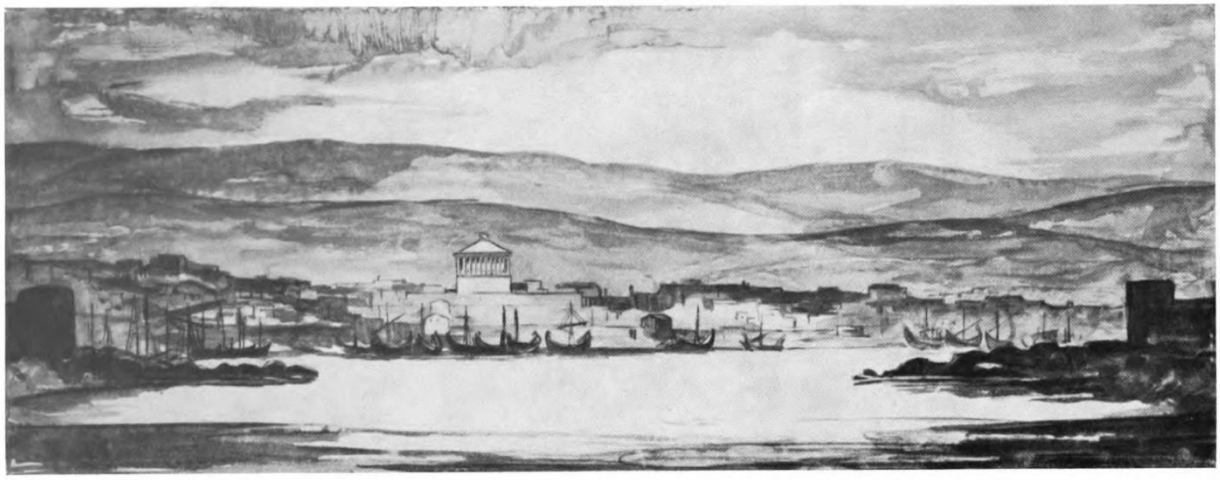


Figure 132 – Reconstruction view of Halicarnassos just before entering the harbor. Pedersen (2018, 105) comments that "Full length of the *Maussolleion* terrace, Temple and terrace of Mars and ancient theatre would have added considerably to Krischens masterly image of ancient Halikarnassos". (Krischen 1956, pl. 25).

Figure 133 – The location of Halicarnassus and Cos on modern satellite imagery.

Figure 134 – Plan of the ancient city of Cos. (Livadiotti 2018, 42 fig. 2).

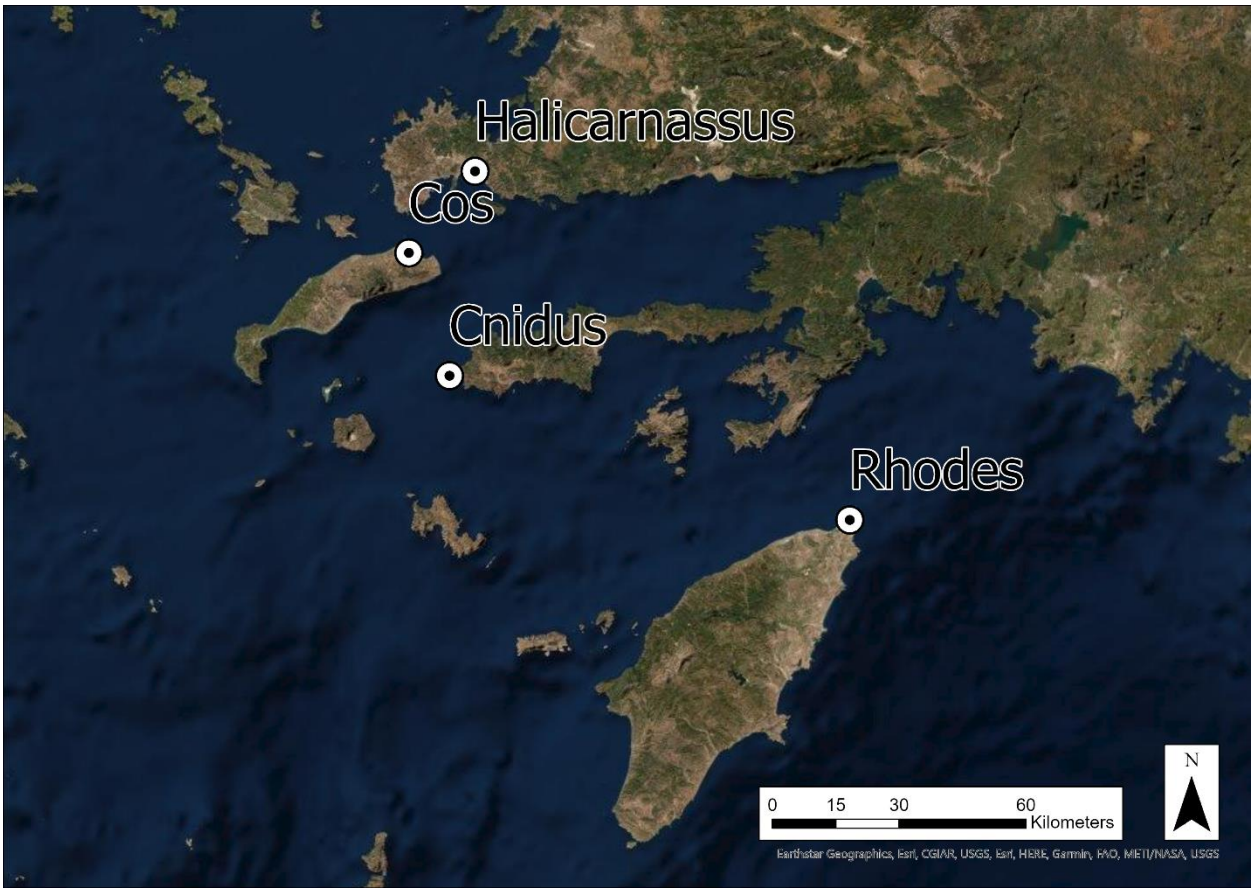


Figure 135 – The location of Cnidus in relation to other sites mentioned in the text, overlaid on modern satellite imagery.

Figure 136 – Plan of the ancient site of Cnidus, showing the two harbor basins. (Bruns-Özgan 2004, fig. 1. Image obtained from https://www.theatrum.de/661.html).

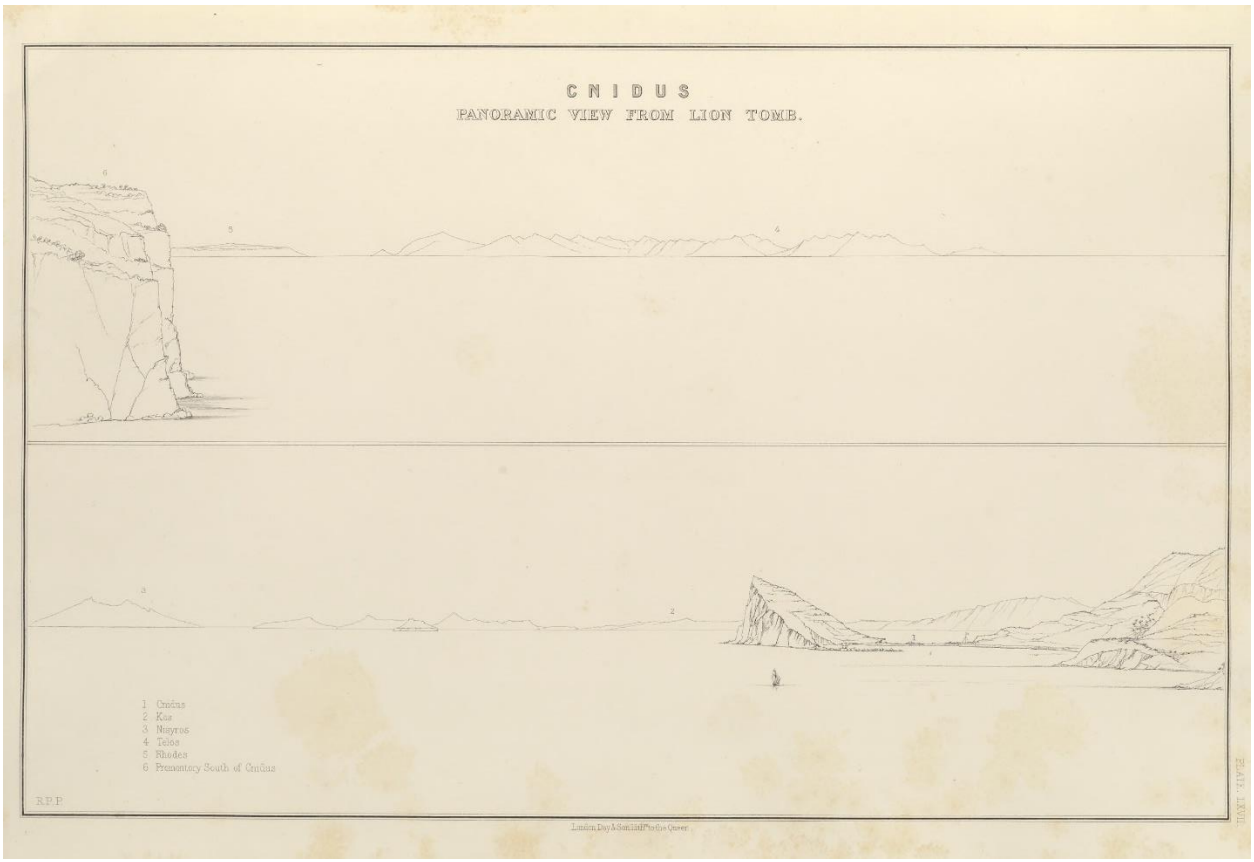


Figure 137 – A view from the Lion's Tomb at Cnidus, looking east along the coast (above), and then west towards the city of Cnidus (below).

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