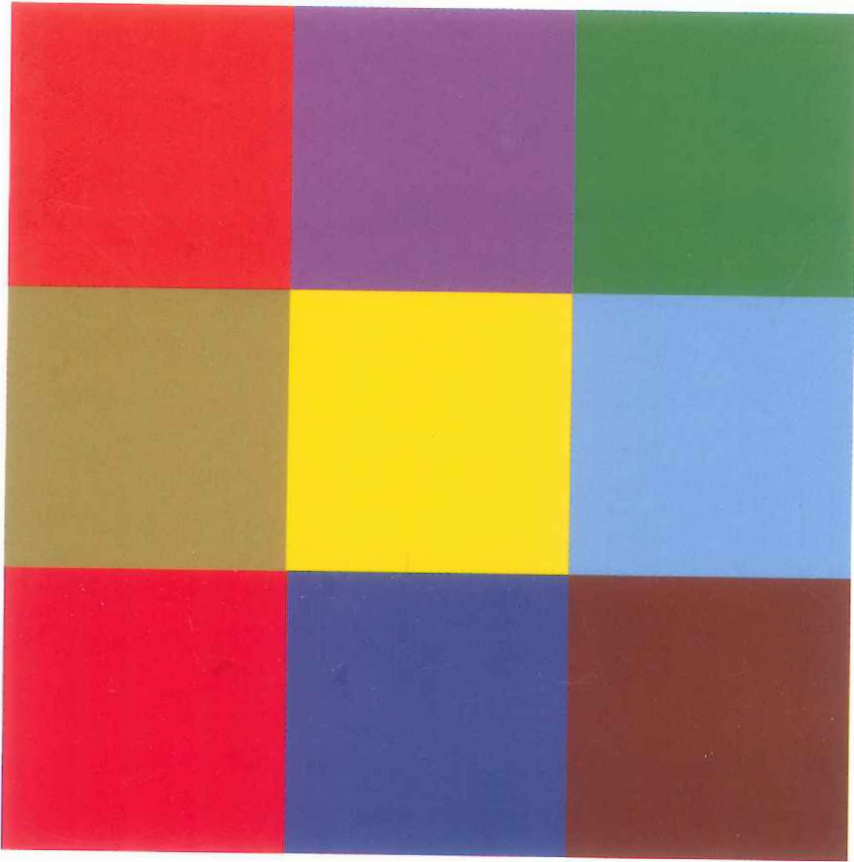# KÜLTÜRLERİN BAĞLANTISI

Başlangıcından Roma Dönemi Sonuna Kadar Eski
Yakın Doğuda Ticaret ve Bölgelerarası İlişkiler

CONNECTING CULTURES

Trade and Interconnections in the Ancient Near East
from the Beginning until the End of the Roman Period

Ek Dizi I.4

ANADOLU
ANATOLIA

Supplement Series I.4

Vasıf ŞAHOĞLU - Müge ŞEVKETOĞLU - Yiğit H. ERBİL

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ANCIENT MARITIME DYNAMICS:
TEXTUAL AND ARCHAEOLOGICAL *MARIA*
OF THE EASTERN MEDITERRANEAN

Matthew Harpster

Özet

2015 yılında tamamlanan ERC Marie Curie inisiyatifi MISAMS (Antik Akdeniz'in Yerleşim Mekanları Modellemesi), yüzlerce yıllık bir ölçekte Akdeniz'in kullanımının ve yerleşim mekanlarının değişken düzenini modellemek için deniz arkeolojisi verisini kullanan yeni bir CBS protokolü oluşturmuştur. Denizin kültürel coğrafyasını şekillendirmek için yazılı veriler ve epigrafik bilgiler kullanmak yerine arkeolojik verilerle önemli yeni sonuçlar ve karşılaştırmalar üretmektedir. Geçmişte, örneğin Doğu Akdeniz'in Roma İmparatorluğu dönemindeki kültürel organizasyonu hakkında en iyi bilgi kaynağı Strabon'un Coğrafya'sı ve Büyük Plinius'un Doğa Tarihi'ydi. Oysa şimdi bu yazarların ve diğerlerinin algılarını, arkeolojik verilerle üretilen modellerle karşılaştırmak mümkündür. Bu, Akdeniz toplumundaki zengin, okuryazar sınıfının üyelerinin denizcilerin çok kültürlü yerel pratiklerini ve inançlarını kendi çalışmalarına nasıl dahil ettiklerini, bu algıların onların ölümünden sonra ne derece anlamlı olduğunu ve bu yazarların Maria ve Pelagoi'larının neyi temsil ettiğini belirlemek için bir fırsattır. Bu denizcilik yerleri yazarların deneyimleri tarafından mı belirleniyordu? İdari kolaylıklar mı yoksa sadece edebi araçlar mıydı? Bu karşılaştırmayı gerçekleştiren bu ilk çalışma, Doğu Akdeniz'in hem içinde hem de bir yakadan diğerine gerçekleşen etkileşim hakkında yeni fikirler ve modellemeler ortaya koymaktadır.

Introduction

Key to the progress of the Ancient Maritime Dynamics (AMD) project is the novel interpretive methodology that emerged from the MISAMS (Modeling Inhabited Spaces of the Ancient Mediterranean Sea) project conducted at the University of Birmingham, England, between 2013 and 2015. MISAMS was built upon two premises. First, that the corpus of maritime archaeological data in the Mediterranean Sea is now large enough to generate its own interpretive context. Rather than relying on conventional historical narratives to generate meaning, a practice still prevalent in the discipline, MISAMS was influenced by approaches common in prehistoric archaeology and analyzed the maritime archaeological corpus independently of textual or epigraphic sources; meaning thus arose from the contextual chain created by archaeological data alone. Second, by decoupling these wreck sites from conventional narratives, ships are no longer perceived as fixed, historical phenomena tied to essentialist identities such as 'Roman' or 'Egyptian', but as mobile phenomena representing the interests and needs of a heterogeneous community of people inhabiting and constructing a maritime landscape around themselves.

With these two premises in the MISAMS project, and a dataset of approximately 870 assemblages, site catchment analysis was applied to the sources of items in a single assemblage – not only the 'cargo' – to project a polygon representing the *most likely* area of that ship's

activity as those items were collected. Repeating this process across the entire dataset, and interpolating the resulting collection of superimposed polygons with a unique GIS algorithm, a series of color-coded models arose that demonstrated, at centennial intervals, gradually fluctuating zones of inter-regional and 'localized' activity. Fundamentally, these are models of the varying density of maritime activity across the Mediterranean Sea. As this method is scalable and the varying densities of the polygons may be measured, patterns of maritime life within parts of the sea may be modeled as well; this was the foundation for a comparison between these textual and archaeological geographies of the eastern Mediterranean basin.

Data Collection

With the completion of the MISAMS project in September of 2015, there were 871 assemblages available for analysis within the associated dataset. The majority of this data was gleaned from A.J. Parker's *Ancient Shipwrecks of the Mediterranean and Roman Provinces* (1992), although some came from sources published after 1990. By Spring of 2016, and the implementation of this study within the AMD project, the dataset had increased to 912 assemblages. By February of 2017, and the completion of this effort focusing on the eastern basin, data from over 1000 assemblages had been collected and was available for analysis. This additional data compiled between 2016 and 2017 was collected by searching through studies published in 44 peer-reviewed journals and eight monographs or volumes in four research libraries: the Cyprus American Archaeological Research Institute (CAARI), the Albright Institute of Archaeological Research (AIAR), the Ankara branch of the American Research Institute Turkey (ARIT), and the Bodrum Research Center of the Institute of Nautical Archaeology.

Importantly, the emphasis in this study – and throughout AMD – is to collect data that meet two criteria. First, the published information must have been professionally vetted in some fashion; most commonly through a formal peer-review process and, less commonly, through a professional editorial process only. Information published in newspapers or on the internet is not used. Second, as a variant of site catchment analysis is a key component of AMD's modeling, information for each assemblage must contain a date for the deposition of the material, the location of the assemblage, and the source or typological style of items in the assemblage.

Modifications

As this study focusing on the eastern Mediterranean proceeded to analyze the collected data, however, a geographic skew arose due to considerably more data from the coasts of Cyprus and Israel. Presumably, this geographic concentration of data could generate models with significantly higher concentrations of activity along these two coastlines. Other coasts, in turn, would have no representative maritime activity and the ability to compare reliably the archaeological and textual geographies would be hampered. Cognizant of this potential

bias on the resulting models, no effort was made to compensate for this bias during the first phase of analysis, although such compensation would occur if necessary. If the emerging models clearly manifested this bias, for example, then alterations would occur in a second phase of modeling.

A chronological skew in the data arose as well, because the greatest amount of new information was from the 4th to 6th centuries AD. Rather than attempting to compensate for this bias within the dataset with awkward statistical methods, however, it was easier simply to expand the chronological scope of the comparative process. Whereas it was originally planned to focus only on Strabo and Pliny the Elder, from the 1st centuries BC and AD, the final list of authors and texts used was:

- Eratosthenes (3rd to 2nd century BC): *Geographika*
- Polybius (2nd century BC): *Historiai*
- Strabo (1st BC to 1st century AD): *Geographika*
- Pomponius Mela (1st century AD): *Chorography*
- Pliny the Elder (1st century AD): *Naturalis historia*
- Appian (1st to 2nd century AD): *Historia Romana*
- Saint Orosius (5th century AD): *Historiae adversus paganos*
- Isidore of Seville (7th century AD): *Etymologiae (Origines)*

Results

Regardless of this expansion in the structure, many of the project's original questions could still be addressed. In addition to assessing the scalability of the GIS protocol, the other questions revolved around a basic hypothesis: If these writers' maritime geographies embody the everyday use and inhabitation of maritime space, then the places they recognize and name in their texts should coordinate with the concentrations of maritime activity emerging from the archaeological models. After all, inherent to the ongoing use of the sea is its structuration by the people that used it. In contrast, if the two geographies do not coordinate, then perhaps they are portraying different phenomena.

What is immediately clear is that despite the almost continual presence of maritime activity in the eastern Mediterranean in this dataset, these eight authors' geographies portray the eastern basin as relatively empty of any cultural constructs like gulfs (*kolpoi* or *sinus*) or seas (*pelagoi* or *maria*). Polybius, in fact, writes of no seas or gulfs in the eastern basin although he, like Eratosthenes and Strabo, was from the Aegean region. In particular, Eratosthenes served as the head librarian in Alexandria until his death. Equally, Latin authors could be ignorant of the area until after the 1st century BC and Cilicia's conquest by Pompey the Great, but Pomponius Mela and Appian still provide very little information more than

a century after the Roman incorporation of the area. This broad discontinuity between the archaeological and textual geographies of the eastern Mediterranean basin is a reminder that these authors' primary goal may not have been a didactic geography, but also suggests that these authors' views were not built upon their immediate knowledge of seafaring in the region or patterns of maritime activity. Indeed, the unique amount detail available in Pliny's work is most likely representative of his seafaring background as an admiral in the Roman navy.

Nevertheless, the eastern basin is not devoid of stable geographic constructs in these texts. Either one or both the Egyptian Sea and the Issian Gulf (the present Gulf of Iskenderun) are present in works by seven of the eight authors. One interpretation is that these elements – unlike the others – are perhaps representative of concentrations of maritime activity[1]. The port of Alexandria certainly remained a focus of activity, and even if most of the Egyptian coastline is lacking in landmarks, Alexandria and the Nile Delta stand out and easily signify the presence of Egypt and its associated waters. The port city is prominent in Strabo's work, for example, and it loosely represents the western extent of Asia's presence on the southern coastline[2]. The Issian Gulf, described by Pomponius Mela as 'the deepest recess', was only 120 kilometers from the Cilician Gates – the lowest mountain pass that funneled armies, goods, migrants, and pilgrims through the Taurus mountains that otherwise hindered movement between Asia Minor from the Near East[3]. This gulf, and the ports within it, played a key role maintaining this activity.

Simultaneously, however, these authors do not portray the Issian Gulf or the Egyptian Sea within a context of maritime activity. Instead, the gulf is often a fixed spatial referent used to measure the world around it. For Eratosthenes, Strabo, and Pliny, the gulf defined the eastern-most extent of the Mediterranean Sea, or the shape and extent of the Asian landmass[4]. Orosius and Isidore, in contrast, use the gulf to clarify the location of Cyprus in the eastern basin[5]. In turn, only in the 1st century BC is there an apparent concentration of maritime activity in the gulf to coordinate with the writers' perceptions of the space. The repeated presence of this feature in these texts, then, may not have been prompted by its importance to a maritime community. Moreover, the Egyptian Sea is defined by the places around it, such as Alexandria, Cyprus, or Phoenicia[6]. This space, then, may have been a center of maritime activity in antiquity – the 7th-century AD model seems to reinforce that –

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1   For the Egyptian Sea, see Eratosthenes (quoted in Strabo) I.2.22-24, VII.3.6-7; Strabo II.5.20, II.5.24, XIV.6.1; Pliny V.10-12, V.28; Appian II.5; Isidore XIV.iii.38. For the Issian Gulf, see Eratosthenes (quoted in Strabo) I.3.1-2, II.1.1-3, II.5.14; Strabo II.4.3, II.5.24-25, XI.11.7, XIV.6.1; Pomponius I.70; Pliny II.112, V.18, V.22, VI.2, VI.8, VI.12, VI.38; Orosius XLIX; Isidore XIV.iv.14, XIV.vi.15.

2   Strabo II.5.24.

3   Pomponius I.70.

4   Eratosthenes (quoted in Strabo) II.5.25; Strabo II.4.3, II.5.24, XI.11.7, XIV.6.1; Pliny II.112, VI.2, VI.38.

5   Orosius XLIX; Isidore XIV.iii.45.

6   Strabo II.5.24, XIV.6.1; Pliny V.11, V.28.

but its presence in these geographies seems, too, not to be a manifestation of its importance to a maritime community.

Perhaps more telling, then, is the apparent spatial and chronological coordination between these models and the other elements of the eastern basin as described by these writers. The concentration of activity north of Cyprus coordinates well with the presence of the Pamphylian Sea, the Issian Sea, and the Cilician Sea or Gulf, as evident in texts by Strabo, Pliny, Appian, Orosius, and Isidore, whereas the halo of activity near or around Rhodes in the 1st centuries BC and AD may represent Strabo's Glaukian Gulf or Pliny's Lycian Gulf. The Phoenician Sea, as recognized by Pliny and Orosius, is manifested in the 1st century AD, and less so in the 5th century AD. These elements may be transitory but, unlike the Issian Gulf and the Egyptian Sea, they seem to have a stronger relationship with the levels and concentrations of activity in the eastern Mediterranean basin. For these seven features, a stronger argument may be made that they are emblematic of maritime activity and, moreover, that the geographies of these writers were influenced by the structuration of the sea by a maritime community.

The mutual affirmation of these two sets of data suggests that each is portraying the same construction of maritime space. As the maritime community in the eastern basin used the sea, their patterns of activity in particular centuries generated *places* within their landscape. In turn, when Eratosthenes or Orosius wrote about the geography of the sea, they understood how this community shaped their landscape and their texts embodied those patterns. The maritime archaeological record generates a spatial pattern emblematic of this past activity because it is the material remnant of this community's use and construction of the space around them.

The similarities between these two models is compelling, but it nevertheless needs to be remembered that both the archaeological and textual models are not complete, and embody very human biases and interests. The geographic and chronological skews in the archaeological dataset emerge from varying levels of archaeological activity as well as differing levels of political stability and funding priorities. Similarly, Strabo, Pomponius Mela, Pliny, and Appian each wrote about the same space in the 1st century AD, but their descriptions differ. After all, among all the authors, only Pomponius Mela set out to create a true geography for his readers whereas the other texts were topographic contexts for events[7]. Strabo's and Pliny's texts are examples of Roman triumphalism, equating the glory of the new empire with its physical expanse, whereas Orosius' study is Christian triumphalism that documents the present and eventual extent of the Christian world[8]. As a part of an encyclopedic tradition, Isidore's work included geography within a range of topics: warfare,

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7   Romer 1998, 4-9.

8   Strabo I.2.1, XI.6.4; Pliny 14.2; Dueck 2000, 107, 110; Murphy 2004, 5, 130; Koelsch 2004; Merrills 2005, 37-39.

shipbuilding, the cosmos, geology, and vocabulary[9]. Equally emblematic of the priorities among these authors, and in contrast to a maritime community, is a key spatial division. Seven of the eight authors relied on a traditional division between Europe and Asia along a corridor between the Black Sea and the Aegean[10]. To them, this physical divide was also a cultural and ethnic division yet, within the seafaring community, this distinction seems irrelevant. Instead, the pan-Mediterranean archaeological models within MISAMS propose that the most important gradient was approximately 1300 kilometers away at Sicily, which repeatedly distinguished the localized western activity from other loci of maritime activity farther to the east.

Conclusions

Two clear results emerged from this investigation. In relation to MISAMS' methodology and its further application within the AMD program, it is clear that as the models are built upon published data, the presence or absence of that data – for whatever reason – will have a direct impact upon the models themselves. As obvious as this is, it is important to remember both for this project and for related efforts modeling other types of activity in the Mediterranean; we may perceive a preponderance of trade connections between southern Cyprus and Israel simply because that is the data available. Further field work in Egypt, Syria, Lebanon and northern Cyprus is thus necessary simply to counter this bias.

Secondly, only portions of archaeological and textual geographies of the eastern Mediterranean basin coordinate well. This may be attributed to a variety of reasons. Perhaps the Issian Gulf and the Egyptian Sea were toponyms simply copied from earlier texts, for example, but the most compelling is that the studies created by past historians and clergy did not entirely incorporate the geography of the sea created by the community that used it. To varying degrees, these individuals from the upper, literate classes in Mediterranean society seemingly used only used information and knowledge generated by the people that worked and inhabited the sea on an intermittent basis. This is an important conclusion because it not only gauges the overall accuracy and usefulness of these textual sources for our understanding of the sea's use (Pliny the Elder is the most helpful), it also counters previous studies that used generalized textual models of the sea's toponyms as contexts for the interpretation of archaeological data.

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9   Barney et al. 2006.

10   Polybius III.36, IV.43; Strabo VII.1, VII.4.5; Pomponius I.7-9; Pliny III.1.5, VI.1; Appian IV.87, as Brutus and Cassius arrive in Sestus on the Hellespont; Isidore, the transition from Book XIV.iii to XIV. iv; Merrills 2005, Appendix Part II. Eratosthenes may have also perceived this division, but as his text is now incomplete, this perception may only be inferred.

Acknowledgements

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Orosius   Orosius, *Seven Books of History against the Pagans* (trans. A.T. Fear) (2010).

Pliny   Pliny the Elder, *Natural History* (trans. H. Rackham) (2004).

Polybius   Polybius, *The Histories* (trans. W.R. Paton) (2005).

Pomponius   Pomponius Mela, *Chorography* (trans. F.E. Romer) (1998).

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Strabo   Strabo, *The Geography of Strabo* (trans. H.L. Jones) (1949).

List of Illustrations:

Different densities of activity are represented by different shades of blue. Darker blue represents a higher density of activity.
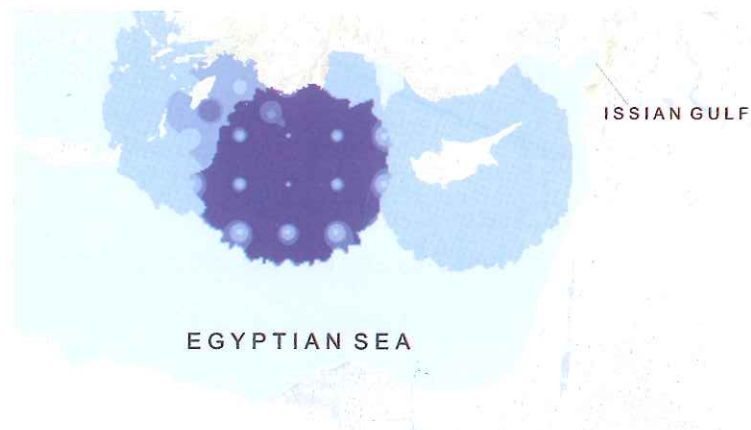

Figure 1. Eratosthenes' *Geographika* was either compiled and distributed at once, in the 2nd century BC, or over time, from the late 3rd to early 2nd centuries BC. As a result, his geography of the eastern basin is compared to the AMD density models of the basin in the 3rd and 2nd centuries BC. Figure 1 is the 3rd century BC, and figure 2 is the 2nd century.

Figure 2. A comparison of Eratosthenes' geography of the eastern basin to the archaeological model of the 2nd century BC.
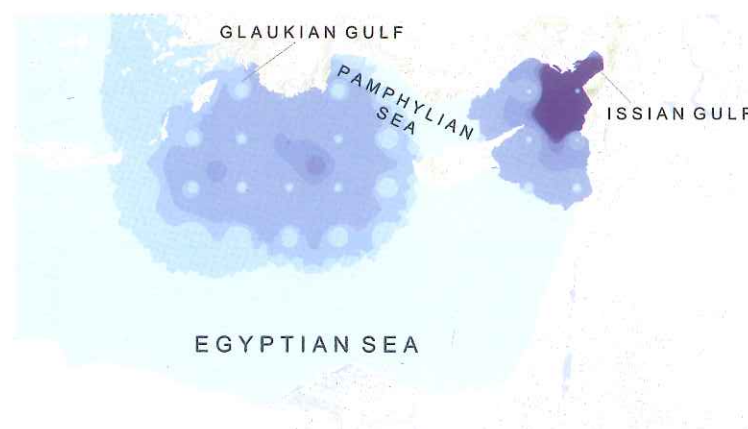

Figure 3. Like Eratosthenes, Strabo's *Geographika* was either distributed over time, starting in the 1st century BC, or released in one volume, in the 1st century AD. As a result, his geography is compared to models of the 1st century BC, in figure 3, and the 1st century AD in figure 4.
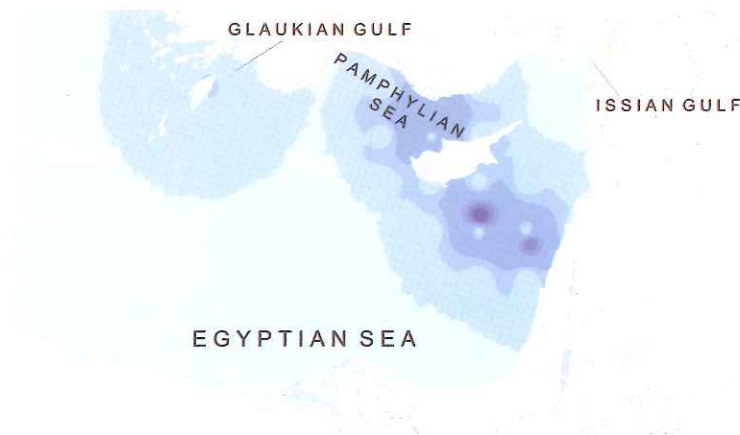
Figure 4. A comparison of Strabo's geography of the eastern basin to the archaeological model of the 1st century AD.
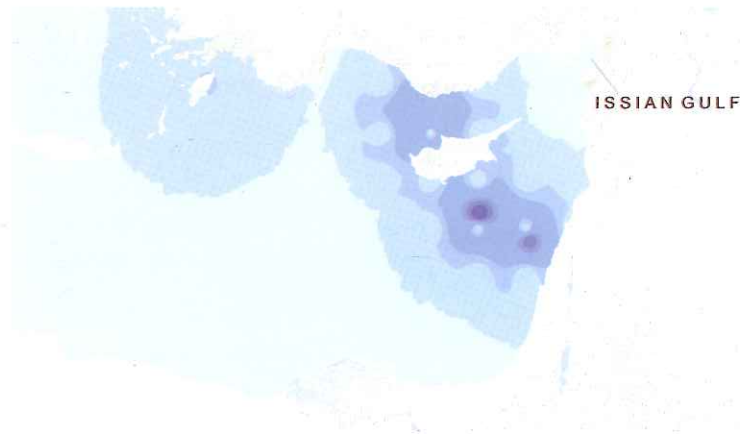

Figure 5. Pomponius Mela's 1st century AD maritime geography of the eastern basin, in comparison to the 1st century AD model of activity.

Figure 6. Pliny the Elder's 1st-century AD geography of the eastern basin, superimposed over AMD's model of 1st-century AD activity.

Figure 7. Appian's maritime geography of the eastern basin in the 1st century AD superimposed over AMD's model of activity.
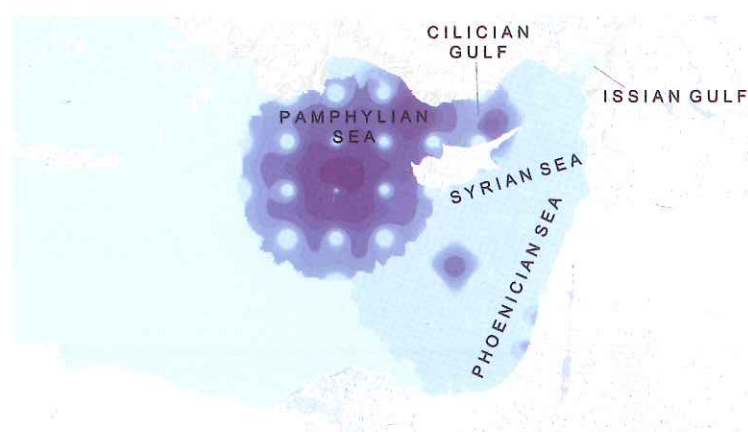

Figure 8. Orosious 5th-century AD geography of the eastern basin in compared to AMD's model of activity.

Figure 9. Isidore of Seville's 7th-century AD geography of the eastern basin in comparison to AMD's model of activity.