

Tios/Tieion on the Southern Black Sea in the Broader Context of  
Pontic Archaeology





# Tios/Tieion on the Southern Black Sea in the Broader Context of Pontic Archaeology

Edited by

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## Preface and Acknowledgments

This was to have been the proceedings of a conference held at Filyos (ancient Tios/Tieion) in 2020. In common with other events it had to be cancelled, though with the hope that it might take place eventually, a hope undermined by the sad, sudden and premature death of my dear co-editor, the distinguished Black Sea scholar and colonisation specialist Gocha Tsetskhladze, whom we mourn. James Hargrave has stepped into the breach to assist with the final editing.

Instead, we have a volume of 'Precedings', written when thoughts of the conference had not yet been abandoned. Several of the papers focus on aspects of Tios itself, an emerging chrysalis, others on the immediate and greater region, moving on and outwards to the eastern, western and northern shores of the Black Sea, their inhabitants and hinterlands. Overall, there are 21 chapters and 27 authors, drawn from Turkey, Russia, Georgia, Bulgaria and beyond.

It is appropriate that the volume ends in Pichvnari on the Georgian Black Sea coast, close to where Gocha grew up and where his archaeological life began.

In connection with our plans and the publication, we are grateful above all to Hilmi Uzun (Mayor of Filyos until 2009). For providing us with working facilities and assistance we thank Bülent Kantarcı (Mayor of Çaycuma since 2014), Ömer Ünal (Mayor of Filyos since 2009), the successive governors of Zonguldak (Yavuz Erkmen, Erdal Ata, Erol Ayyıldız, Ali Kaban, Ahmet Çinar, Mustafa Tutulmaz and Erdoğan Bektaş), the Ministry of Culture's Directors of Tourism in Zonguldak (Zekai Kasap, Kürşat Çoşgun and Yalçın Aslan), and Ahmet Mercan, Ünver Göçen and Onur Aslan of Karadeniz Ereğli Museum.

We should like to thank David Davison and his team at Archaeopress for accepting the volume and publishing it expeditiously.

Lacking Gocha's expertise, we have accepted transliterations from Cyrillic and Georgian that he might have rejected. We ask his forgiveness.

Şahin Yıldırım





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# Introduction: Tios (Tieion) in the Context of Black Sea Colonisation\*

Gocha R. Tsetsckhladze (†)  
(with Şahin Yıldırım)

Greek colonies and settlements of varying size and status are speckled across all shores of the Black Sea (Figure 1), some better explored or excavated than others. Finally, the southern coast and its hinterland are beginning to yield the sort of evidence long wished for and long expected, but hitherto sparse (Figure 2).<sup>1</sup> The only site not heavily overbuilt by modern urban developments is ancient Tios (Tieion) at modern Filyos, in the western part of the southern coast, though most of the land being in private hands is a hindrance to full excavation (it is presumed that the city's residential areas were on the now privately-owned slopes). Work here started in 2006, until when it was among the least known sites historically as well as archaeologically, and continues;<sup>2</sup> that of the first ten years has recently been published, revealing the acropolis, where much work has been done from the beginning, a Hellenistic temple, a Roman street, a theatre (Figure 3), *nymphaeum*, aqueduct (Figures 4–5) and two baths, a cistern, etc.<sup>3</sup> There is a convenient harbour with sea walls (Figure 6). Work continues at the acropolis, a Roman temple (badly damaged by construction of the Byzantine church atop it) and the Roman port have been excavated, and underwater explorations undertaken (since 2017, discovering 11 shipwrecks of Roman, Byzantine and Seljuk date inside and outside the ancient harbour). The Eastern Necropolis has been excavated since 2021 to reveal chamber tombs and sarcophagi of very high quality.<sup>4</sup>

As S. Atasoy, the first director of the current excavations (2006–12), has already noted: ‘without the Tios excavation, it is impossible to understand southern

Black Sea archaeology and the relationship of the south coast of the Black Sea with the Greeks and other Black Sea areas.’<sup>5</sup> The importance of the archaeological remains is such that they were given legal protection as an archaeological preserve. Atasoy was succeeded in 2013 by his former assistant, Ş. Yıldırım.

## Foundation and Site

Tios/Tieion was probably founded by Miletus (together with Phocaea?) in the late 7th/beginning of the 6th century BC.<sup>6</sup> Though we still know little if anything about the site's early history from archaeology, we can summarise the written evidence and the position before the current excavations commenced: Tieion<sup>7</sup> lay at the mouth of the Billaios (Filyos-Çayı) in the territory of the local Caucones (Strabo 12. 3. 5, who remarked that it was ‘a city that has nothing worthy of mention’),<sup>8</sup> some 20 km from the River Parthenios; it was called a *polis Hellenis* in the urban sense by Ps.-Scylax 90 and was one of four settlements brought together in a new foundation, Amastris, by the former wife of Dionysios, tyrant of Heraclea and latterly wife of Lysimachus ca. 300–290 (Strabo 12. 3. 10); the synoecised communities are called *poleis* and attributed to Miletus by Ps.-Scymnus (1005, Diller), probably referring to the time of foundation – unknown; Poponius Mela (1. 104) also states that Tios was Milesian. The collective city-ethnic is attested internally on coins; the external individual use is found in three sepulchral inscriptions from Athens (IG II<sup>2</sup> 10468 (Τῆιον) and 10449 of the mid-4th century and 10450 of the late 5th. Soon after the synoecism, Tios became independent again from the *koinonia* (Strabo 12. 3. 10) (as reflected in bronze coinage of the late 4th/

\* The paper was left as an incomplete draft at the time of the author's death. It has been tidied up and filled out, but is left unfinished as a monument to Gocha Tsetsckhladze, a great Black Sea scholar and a dear friend [ŞY].

<sup>1</sup> For previous summaries, see Tsetsckhladze 2007; Kassab Tezgör 2013. For discoveries of 7th–6th-century BC Greek pottery and other material from Yenikapı and Üsküder (possibly ancient Chrysopolis) in Istanbul, see Tsetsckhladze 2012, 235 (with bibliography). See also Günsenin 2010; Kocabaş and Kocabaş 2010. For the latest on Enez (Ainos), see Başaran n.d.; Yeşil *et al.* 2013. And see Manoledakis 2015.

<sup>2</sup> See Akyürek Şahin and Uyar 2009; Atasoy 2012; 2013a; 2013b; Baran 2013; Gökyıldırım 2013; Öztürk 2013a; 2013b.

<sup>3</sup> Atasoy and Yıldırım 2015a; Yıldırım 2017a, 219–24.

<sup>4</sup> I am grateful to Ş. Yıldırım for this information.

<sup>5</sup> Atasoy 2022, 51.

<sup>6</sup> For Miletus' leadership Greek colonisation of the southern Black Sea during the third quarter of the 7th century BC, see Boardman 1991; 1999, 245–67; Tsetsckhladze 1994, 123–26; 1998, 19; 2011, 96. Finds gathered from the Halys Basin indicate that the Greeks may have had some relations with the Black Sea even before the 7th century BC: Manoledakis 2018; Summerer 2008, 262–67; 2009, 188.

<sup>7</sup> The toponym is Tiveion, tov (Ps.-Scylax 90; Strabo 12. 3. 10, 12. 4. 7). Alternative forms are Tivoç, h (Memnon *FGH* 434) or Tivon, tov (Aelianus NA 15. 5; Ptolemy *Geography* 5. 1. 3).

<sup>8</sup> The Byzantine author Eustathius (*ad* 2. 2 855) wrote that Tios was their capital.

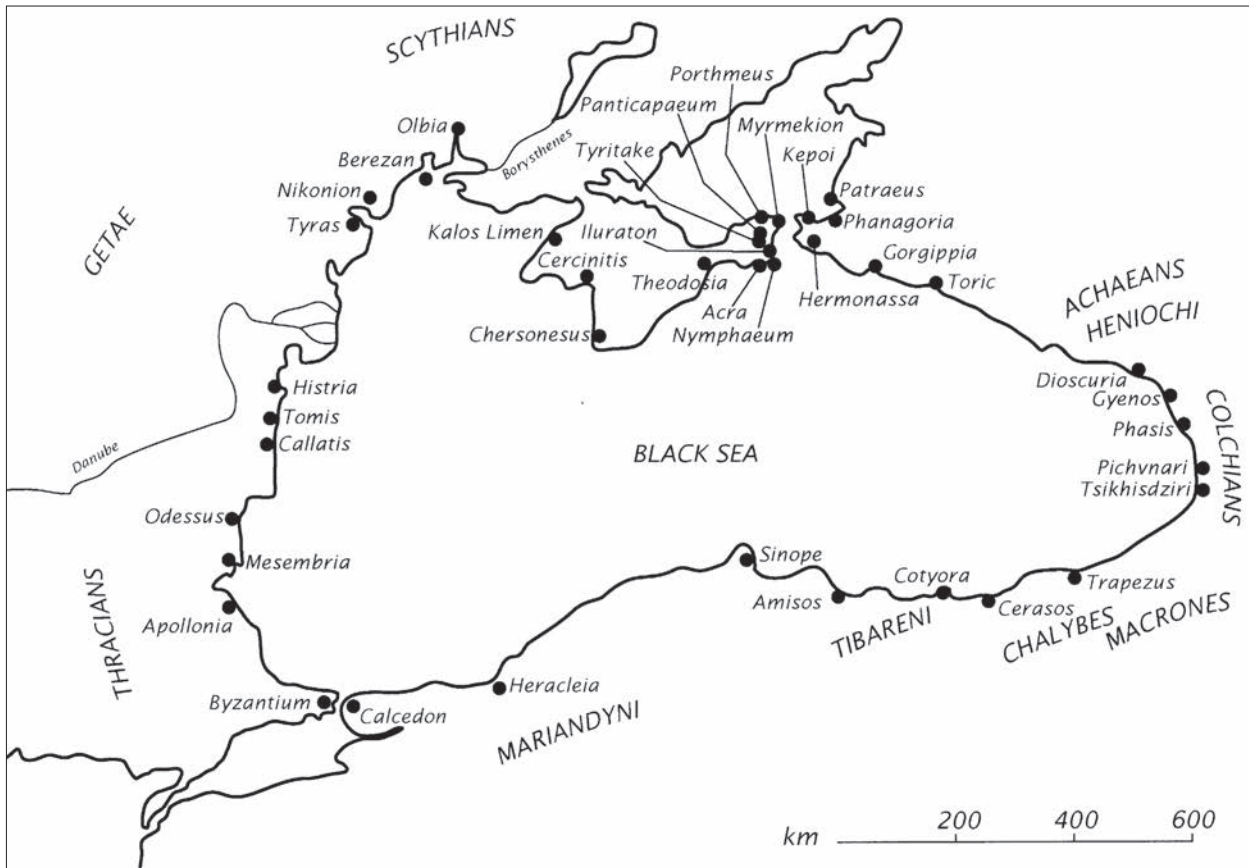


Figure 1. Map of the Black Sea showing major Greek cities and local peoples (map. G.R. Tsetskhladze).

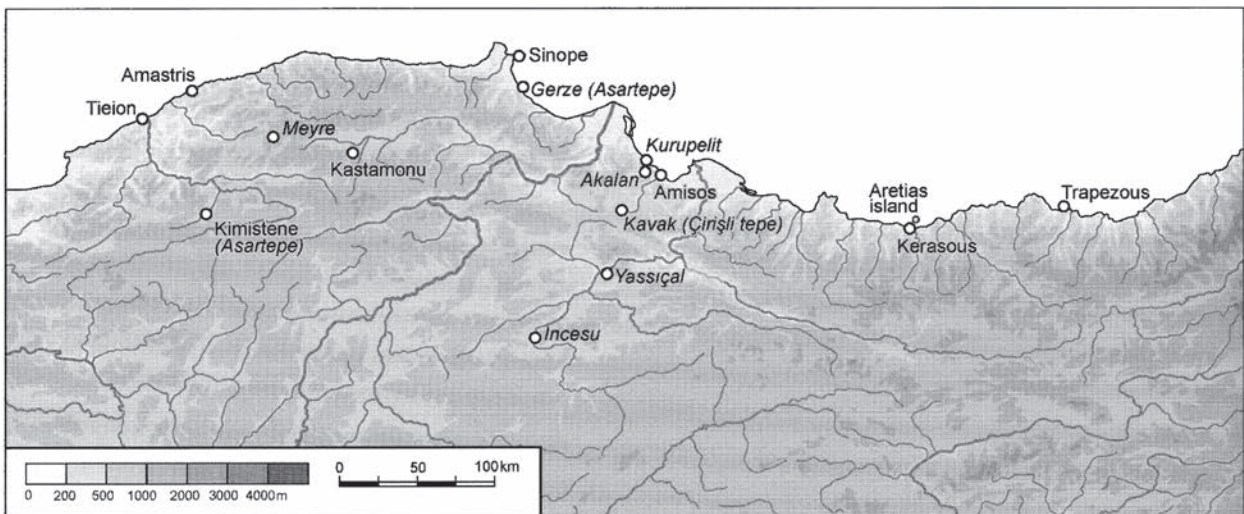


Figure 2. Map of northern Anatolia (after Summerer 2014, 190, fig. 1).

early 3rd century BC, inscribed ΕΛΕΥΘΕΡΙΑ). Nothing of Classical date was known from the site, except for its general layout. Foundation legends sought heroic connection: Dionysos is κτίστης on coins of Roman date; Tios, a Milesian priest, was the founder, according to Philon (Stephanus of Byzantium 624. 20–21); one Pataros took the land of Paphlagonia and named it Δία ἐκ τοῦ τιμᾶν τὸν Δία (Demsothenes' *Bythyniaka* at Stephanus of

Byzantium 624. 21–23). It struck bronze coins in the late 4th/early 3rd century BC. Types: obverse Head of Zeus, reverse eagle, legend: ΤΙΑΝΩΝ; or obverse female head in *stephane* and *sphendone*, legend ΤΙΑΝΟΣ, and reverse Eleutheria seated, legend ΕΛΕΥΘΕΡΙΑ.<sup>9</sup>

<sup>9</sup> Avram et al. 2004, 963–64. On the establishment dates of Greek Black Sea colonies, see now Tsetskhladze 2019.



Figure 3. Roman theatre  
(photograph courtesy  
of Ş. Yıldırım).



Figure 4. Aqueduct  
(photograph courtesy  
of Ş. Yıldırım).

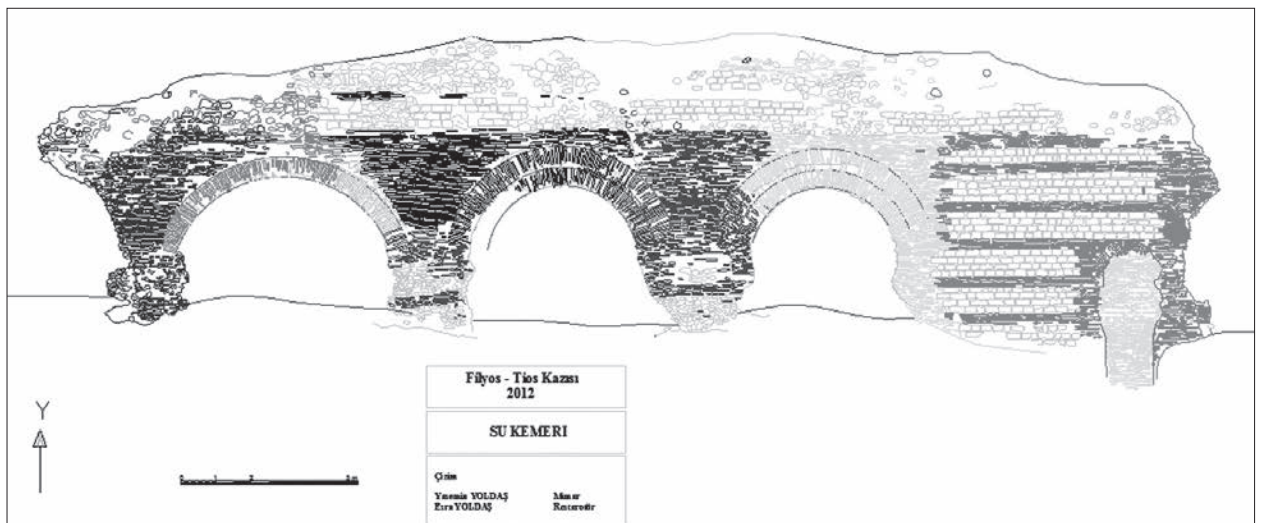


Figure 5. Aqueduct (drawing courtesy of Ş. Yıldırım).





Figure 6. Roman port, dock and sea walls (photograph courtesy of Ş. Yıldırım).

According to the geographer Marcian, the Billaios constituted a border between the regions of Bithynia and Paphlagonia and the city of Tios was (like many Greek colonial settlements) built upon a peninsula. Pliny the Elder (*NH* 6. 2. 5) wrote that the western border of Paphlagonia started with the Billaios, whereas Arrian (*Periplus Ponti Euxini* 13. 5. 5) states that about 20 stadia lay between Tios and the Billaios.

Inevitably ancient authors have hitherto been our primary source regarding the formation of the city. On the city's Milesian origins both modern and ancient sources generally concur.<sup>10</sup> Athenaeus is one ancient source that refers to Tios as a Greek colony, founded by Miletus (*Deipnosophistae* 8. 331); another is Arrian (*Periplus Ponti Euxini* 13. 5. 5), who describes Tios as 'a Greek city with Ionian origins' and a 'colony of the Milesian people'.<sup>11</sup>

The Billaios, originating near Kreteia/Flaviopolis, was an important conduit of commerce with the hinterland,<sup>12</sup> just one example of Greek commercial use of waterways to trade with the interior: the majority of Black Sea coastal cities were similarly located (near the Sangarios, Halys, Iris, etc.), with protected natural harbours, at geopolitically strategic points or where easy communication with the hinterland was possible. Architectural and archaeological proof of river

commerce in the Roman period has been found only by the Billaios.<sup>13</sup>

Ancient Tios consisted of two sections: the Upper City (acropolis) and Lower City. The former is on a peak and contains archaeological strata from the city's foundation period. According to the finds, the city was first established on the acropolis and expanded slowly to cover an area of 60 ha. The Lower City is chiefly Roman and Byzantine, including coastal fortifications.

The acropolis, about 400 x 100 m (Figures 7–11), juts out from east to west, consisting of four terraces, rising from west to east up to 75 m.<sup>14</sup> Archaeological evidence of the foundation of the city is found mainly on the east terrace, an area regarded as the first acropolis. Excavation since 2006 has yielded remains that date back to the 7th and 6th centuries BC. These show that colonial-period settlements were limited to the terraces of the acropolis, starting to expand in Late Classical period on the first terrace, though growth of the city began in the Hellenistic period and reached a peak in the Roman. Archaeological and architectural data show that the acropolis and its surroundings started to change function in the Late Archaic period, with military and civil functions displaced by religious structures. Religious architectural elements, observable in every corner of the acropolis, offering bowls and ceramic figurines show that the first and second

<sup>10</sup> Atasoy 2008, 91; 2015; Öztürk 2008, 63–65; 2012; 2013a, 147; Robert 1937, 270; Yıldırım 2015, 271; 2017a, 210; etc.

<sup>11</sup> Öztürk 2008, 64.

<sup>12</sup> Öztürk 2012, 96; Robert 1937, 180.

<sup>13</sup> Yıldırım 2017a, 210–13.

<sup>14</sup> Yıldırım 2017a, 216.



Figure 7. Acropolis of Tios (photograph courtesy of Ş. Yıldırım).



Figure 8. Acropolis of Tios (photograph courtesy of Ş. Yıldırım).

Figure 9. Acropolis of Tios (photograph courtesy of S. Atasoy).







Figure 10. Acropolis of Tios (after Yildirim 2022, 858, fig. 2).



Figure 11. Excavation area on the acropolis of Tios (photograph courtesy of Ş. Yildirim).

terraces had architecture of a religious nature from the Archaic period until the Roman.<sup>15</sup>

The acropolis has yielded not only a Byzantine church but, beneath it, a 2nd-century AD prostyle Corinthian temple (16 x 8 m) on a high podium (Figures 12–15).<sup>16</sup> A dedication to Aphrodite Euploia has tentatively been suggested, but there is no dedication or other evidence so far to support this.<sup>17</sup> Recently, the remains of a shipwreck of the Roman period were discovered, and

investigation of the city's rural territory is underway.<sup>18</sup> Of 73 pieces of Archaic and Classical Greek pottery found at this site (on the acropolis), four are East Greek pieces of the very end of the 7th/early 6th century BC<sup>19</sup> (Figure 16) and all the rest are Attic from the first half of the 6th century to the end of the 4th century BC (Figures 17–19).<sup>20</sup> Pottery of the 5th century BC is present in substantial quantities.<sup>21</sup> Attic pottery in both red- and black-figure techniques and, especially, Ionian

<sup>15</sup> Yildirim 2017a, 216–17; 2022, 217–18; Atasoy and Yildirim 2015a.

<sup>16</sup> Baran 2013; Summerer 2014, 197–99.

<sup>17</sup> Baran 2013.

<sup>18</sup> See Atasoy and Yildirim 2015b.

<sup>19</sup> A joint Turko-Russian project to study the Greek pottery started in 2019 between Ş. Yildirim and M. Vakhtina.

<sup>20</sup> Atasoy and Erpehlivan 2012.

<sup>21</sup> Atasoy 2016; 2018.



Figure 12. Roman temple (photograph courtesy of Ş. Yıldırım).



Figure 13. Temple at Tios, view from the north-east (photograph courtesy of S. Atasoy).

Figure 14. Temple at Tios, view from the west (photograph courtesy of S. Atasoy).





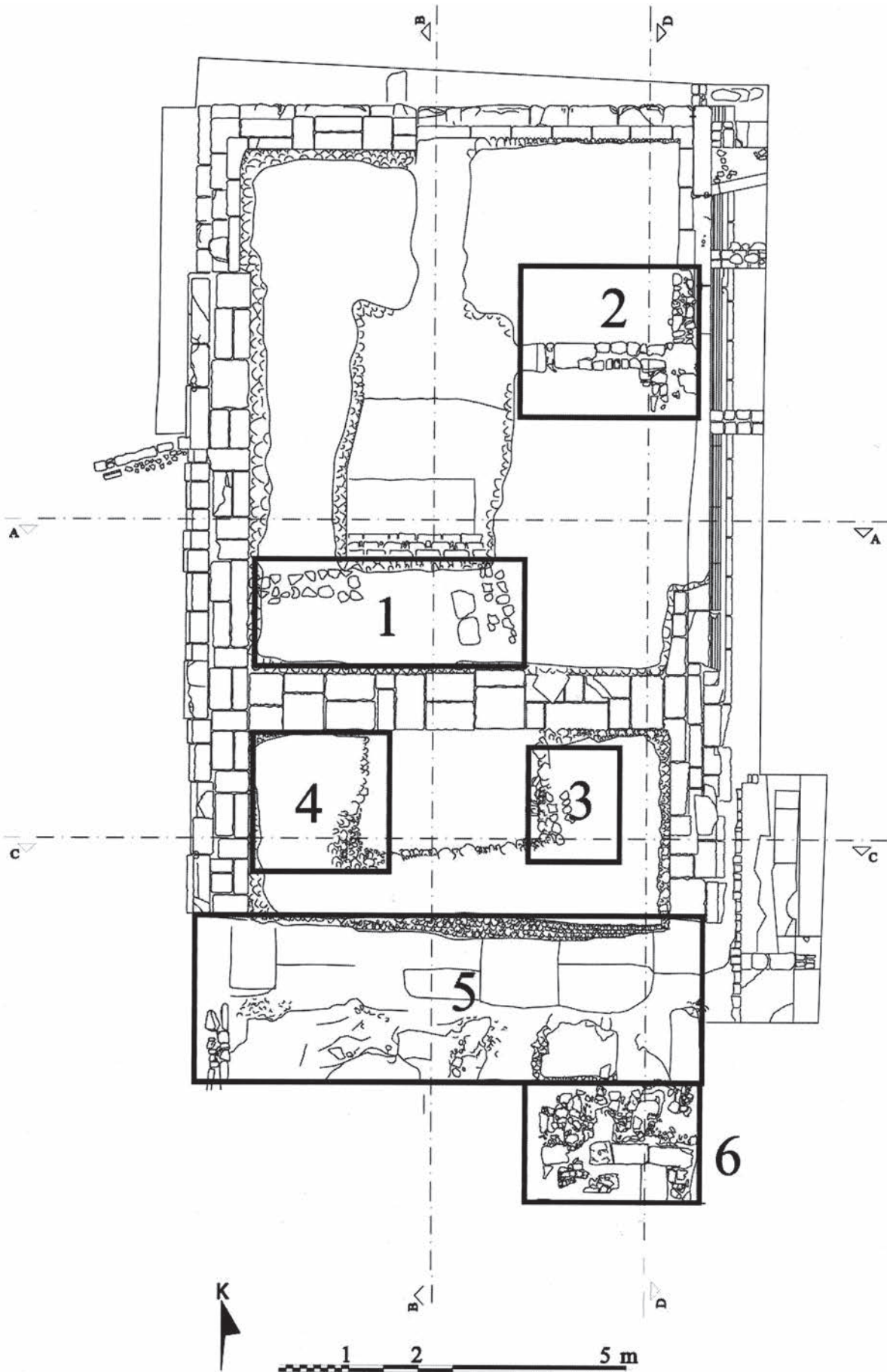


Figure 15. Plan of the temple at Tios (after Baran 2013, 10, fig. 7).



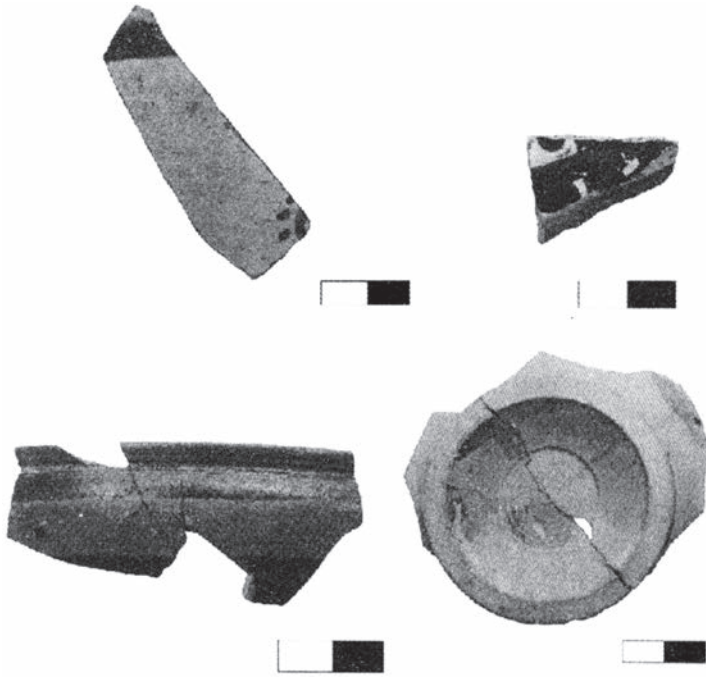


Figure 16. East Greek pottery from Tios (after Atasoy and Erpehlivan 2012, 2, fig. 2).



Figure 17. Attic pottery from Tios (photograph courtesy of S. Atasoy).

Figure 18. Attic pottery from Tios (photograph courtesy of S. Atasoy).



Figure 19. Attic pottery from Tios (photograph courtesy of S. Atasoy).

ceramics of the Archaic period expose the link between Tios and Miletus.<sup>22</sup>

#### Pits/Dugouts

Four pit-houses (or so their size would suggest), dated by the South Ionian pottery fragments found within them to the late 7th–very beginning of the 6th century,

<sup>22</sup> Atasoy and Yildirim 2011, 2; Atasoy and Erpehlivan 2015, 202–03; Yildirim 2017b, 469–70.





Figure 20. Pit-houses on the acropolis (after Yıldırım 2022, 858, fig. 3).



Figure 21. Pit-houses of circular plan (after Yıldırım 2022, 860, fig. 4).

were discovered very close to each other in the south of the acropolis, two round and two rectangular (Figures 20–22).<sup>23</sup> All had two separate fire destruction layers,

dated by burnt pottery finds to the late 7th century BC and to the second half of the 6th century BC, followed by ruination; all were severely damaged by the subsequent intense settlement of the acropolis. These were the first pit-houses to be recorded in the southern Black Sea:

<sup>23</sup> Ş. Yıldırım (pers. comm., 16 September 2019).



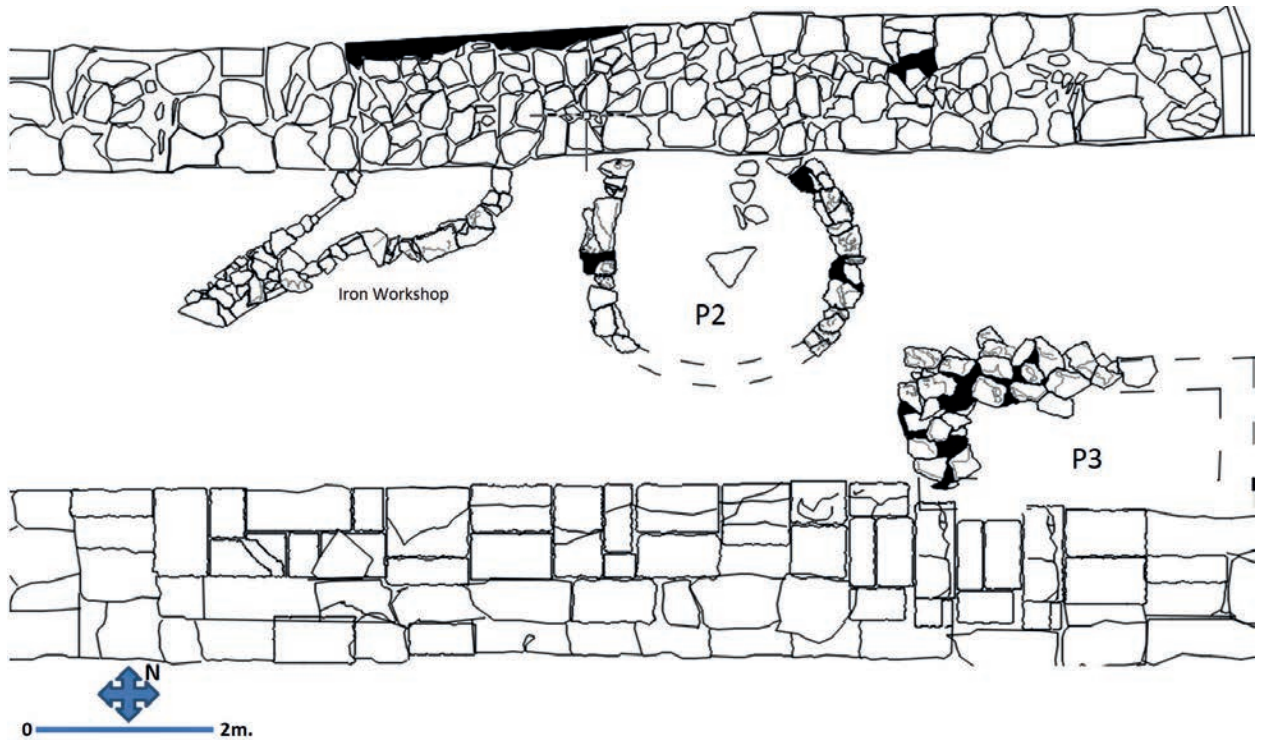


Figure 22. Plan of pit-houses P2 and P3 and the iron workshop (after Yıldırım 2022, 860, fig. 5).

examples were previously known on all other Pontic shores.<sup>24</sup> Subterranean dwellings ('dugouts' and 'semi-dugouts', otherwise pit-houses and semi-pit-houses) were common in Greek settlements around the Black Sea (over-prescriptive definitions and descriptions have been essayed but have no place here<sup>25</sup>). In the northern Black Sea region show that, except on the Taman Peninsula, the first colonists inhabited roofed or flat-roofed pit-houses or semi-pit-houses,<sup>26</sup> rectangular, oval and round.. The history of pit-houses in Berezan dates from the late 7th century BC until the last quarter of the 6th century BC; Archaic pit-houses have also been encountered in such important settlement as Panticapaeum<sup>27</sup> and Chersonesus,<sup>28</sup> and in Gorgippia, Myrmekion, Tyramba, Nymphaeum, Nikonion and Kerkititis.<sup>29</sup> Elsewhere in the southern Black Sea round

dwellings were found in the course of excavation in the fortress area of Sinope.<sup>30</sup>

Debate about the origins, purpose and use of these structures continues. Many small pits used for waste disposal or storage. Stone-based residences discovered at Porthmion show that pit-houses were not the only form of dwelling.<sup>31</sup> No pit-houses have been discovered in Ionia, which is the origin of the majority of the colonists. Yet it is understood that the architecture of pit-houses is not dissimilar to Anatolia's.<sup>32</sup> There are many similar architectural structures in various cultures and eras. We should not expect the first colonists, whose numbers were low and needs immediate, to build magnificent public or private structures in stone. It would have been much more logical and practical to accommodate themselves to regional conditions and to share the architectural style of the local community. It is very likely that the first examples of residential architecture were pit-houses and semi-pit-houses which are specific to the Black Sea region, continuing until stone dwellings replaced them in the 6th century BC.<sup>33</sup>

Not far from the pit-houses was an iron workshop, also dug into the ground, uncovered in 2019.<sup>34</sup> It has

<sup>24</sup> See Tsetsckhladze 2004.

<sup>25</sup> See Tsetsckhladze 2021, 149–51. Some Pontic Greek cities contain entire quarters of such structures. Inevitably, more is known about the northern than the southern Black Sea, with Berezan and Olbia both extensively excavated, studied and published. Olbia revealed a street where 40 such dwellings were laid out regularly down one side, and a few are found on the opposite side (Vinogradov and Kryzickij 1995, figs. 8–9); while more than 250 have been recorded in Berezan. For the latest on dugouts in Berezan, see Chistov 2017; 2022. In Olbia: Mazarati and Otreshko 1987; Kryzickij and Lejpunskaja 2010. For the *chora* of Olbia, see Otreshko 2009; Kryzhitskii *et al.* 1989, *passim*. Dugouts from other Greek colonies of the northern Black Sea: Tsetsckhladze 2004, 230–44. Dugouts in general: Kuznetsov 1999; Tsetsckhladze 2004; Buisikh 2005.

<sup>26</sup> Tsetsckhladze 2004.

<sup>27</sup> Tolstikov 1992.

<sup>28</sup> Zolotarev 1998.

<sup>29</sup> Tsetsckhladze 2004.

<sup>30</sup> Doonan *et al.* 2017, 179, 181, 193.

<sup>31</sup> Vachtina 2003.

<sup>32</sup> Tsetsckhladze 2000.

<sup>33</sup> Tsetsckhladze 2000; 2003; 2004, 253–62.

<sup>34</sup> I am most grateful to Ş. Yıldırım for this information. See now Yıldırım 2022.





Figure 23. Archaic iron workshop (after Yildirim 2022, 862, fig. 6).

been dated to the last quarter of the 7th century-middle of the 6th century. There is an oval furnace within it (Figure 23), in turn containing quantities of ash and iron slag (Figure 24). The furnace was in a pit, just like the pit-houses. Metallurgical finds of the Archaic period were discovered in Berezan<sup>35</sup> (northern Black Sea) and Apollonia Pontica<sup>36</sup> (western Black Sea), but these were copper slags whereas Tiejion yielded iron. There is no information yet of nearby mineral deposits or mineral ores.

### Pottery

Study of local population around Tios is in its infancy,<sup>37</sup> but the discovery there of a



Figure 24. Slag fragments from iron workshop (after Yildirim 2022, 862, fig. 7).

<sup>35</sup> Tsetskhladze 2003.

<sup>36</sup> Damyanov 2018.

<sup>37</sup> The ethnic composition of the local population of the southern Black Sea is diverse. Even ancient authors were confused. See Tsetskhladze 2013 (with literature). And see now Manoledakis 2022.

large quantity of Phrygian and Phrygian-type pottery and of a fragment of an Old Phrygian inscription



Figure 25. Pottery sherd inscribed in Old Phrygian (after Yildirim 2022, 866, fig. 13).

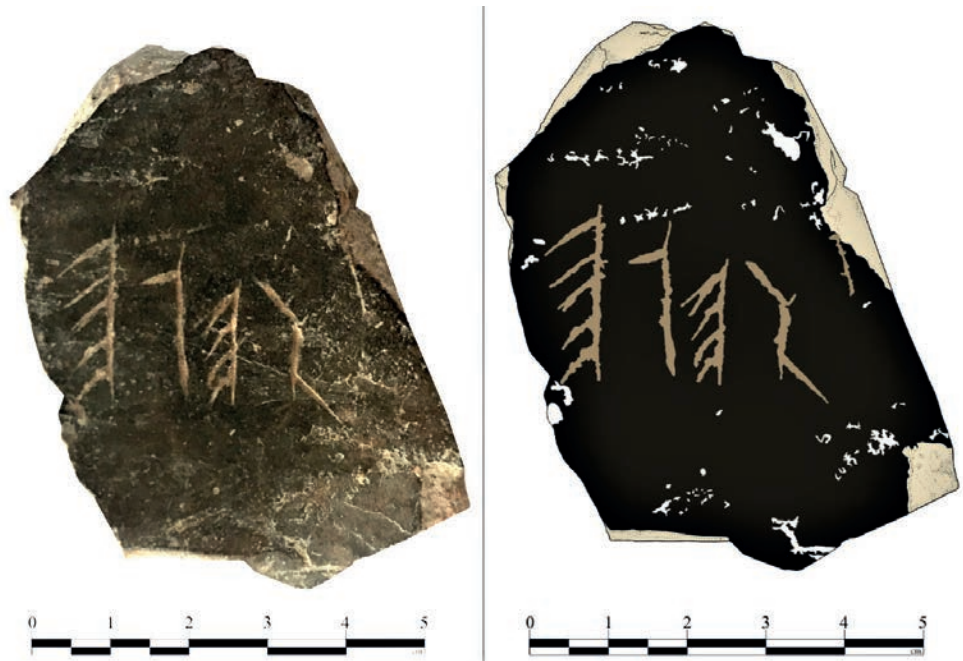


Figure 26. Terracotta horse figurines from the first layer of structure P1 (after Yildirim 2022, 867, fig. 14).

on a fragment of grey ware points to a Phrygian presence:<sup>38</sup> it reads either *EIES* or *EGES* (Figure 25).<sup>39</sup> According to Yildirim, the territory around Tios was heavily populated by locals, probably of Phrygian origin;<sup>40</sup> and we assume that the circumstances were amicable.

Our current knowledge makes it clear that Phrygians did indeed live around some of the Greek colonies of the southern Black Sea – for instance, the discovery of

a shrine dedicated to Kubaba near to Amisos/Samsun.<sup>41</sup> On the southern Black Sea coast, grey ware was first encountered at Tios. The Phrygian inscription and Phrygian motifs (checker, zig-zag, triangles) are very crucial to Tios grey ware, which seems closely related to Phrygian culture. Detailed research on Tieian black and grey wares continues.

Two terracotta horse figurines of the Late Geometric period and large a large quantity of pottery fragments were discovered in the strata just below the colonial levels on the eastern terrace of the acropolis (Figure 26). The first figurine must be a local product; the second was mould-made and black-glazed. This latter example

<sup>38</sup> Again, I am most grateful to Ş. Yildirim for this information. See now Yildirim 2022.

<sup>39</sup> A. Avram thought that this is Old Phrygian and it is believed to date to the 8th–7th centuries BC. The inscription will be published by B. Öztürk.

<sup>40</sup> On the Phrygians in the southern Black Sea, see Vassileva 2015.

<sup>41</sup> Tsetskhladze 2015, 16–21.



Figure 27. Example of Middle Wild Goat II pottery from first layer of structure P2 (after Yildirim 2022, 864, fig. 8).

shows significant resemblance to pieces of the Late Geometric period. But archaeological data indicate the last quarter of the 7th century BC as *terminus ante quem*.<sup>42</sup>

About 200 pieces of East Greek pottery of the Orientalising period were recovered from the eastern terrace of the acropolis in 2015–19, mostly South Ionian, with Miletus the commonest centre of manufacture, only a few North Ionian.<sup>43</sup> The initial investigations by M. Vakhtina of the 2019 excavations, revealed Milesian, Chian, Clazomenian and North Ionian pottery as well as local produce.<sup>44</sup>

The oldest pottery of Wild Goat style from the acropolis dates to the last quarter of the 7th century BC (South Ionian Middle Wild Goat II: Figure 27). It was recovered particularly from the round dwellings excavated there in 2018–19, on the bedrock.<sup>45</sup> The dwellings had twice been affected by fire: the earlier fire destruction layer, belonging to the 7th century BC, is at the lowest ground level of the house. South Ionia was the leading producer of



Figure 28. Ionian bowl from the Archaic houses (after Yildirim 2022, 864, fig. 9).

<sup>42</sup> See Yildirim 2022, 868–69.

<sup>43</sup> Yildirim 2021, 394–95; Atasoy and Erpehlivan 2015, 202.

<sup>44</sup> A comprehensive project to investigate East Greek pottery on the eastern terrace is being undertaken Vakhtina and Yildirim.

<sup>45</sup> Yildirim 2021, 395.

Middle Wild Goat, and Wild Goat in general is associated with Ionia and its environs.<sup>46</sup>

<sup>46</sup> Cook and Dupont 1998, 51–52; Kerschner and Schlotzhauer 2005.





Figure 29. Archaic eyed kylix from second layer of structure P1 (after Yıldırım 2022, 864, fig. 10).

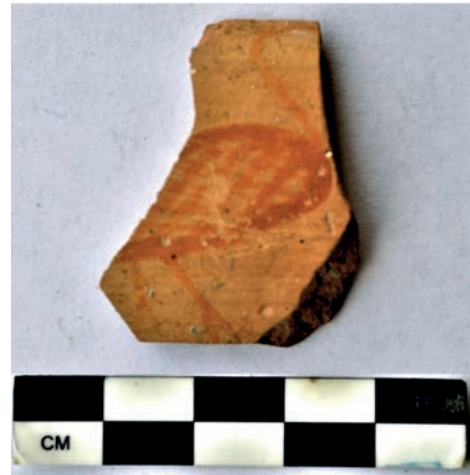


Figure 30. Piece of Archaic Ionian bowl (after Yıldırım 2022, 865, fig. 11).

Ionian kylikes of the 7th–mid-6th century BC are the most numerous East Greek ceramics on the acropolis (Figure 28).<sup>47</sup> There are different types in Tios, some depicted with eyes (Figure 29). Among amphorae, Chian examples with a white undercoat are common. Some, used for storage, date to the late 7th century BC.<sup>48</sup> There is only one bird bowl at Tios (Figure 30). Recent work on this ware gives prominence to North Ionia as its place of manufacture.<sup>49</sup>

The Black Sea littoral has yielded a type of handmade pottery resembling the black ware in Tios. Of still-debated origin, it is found readily in both the northern and western Black Sea (Histria/Istros, Odessos, Tomis, Apollonia Pontica, Berezan and Olbia<sup>50</sup>), a common pottery type related by some to the local people of the northern Black Sea.<sup>51</sup>

Except for examples found in Samsun, Akalan<sup>52</sup> and Sinop,<sup>53</sup> the East Greek ceramics, especially those that date to the Middle Wild Goat II stage, found in a stratigraphic layer in Tios are the first. Various ceramics were found to suggest that one of the local peoples inhabiting this coast was Phrygian. The founders of Tios were inevitably influenced by the predominant Phrygian culture. Hence the Phrygian god Zeus Syrgastes<sup>54</sup> was the most significant cult of ancient Tieion because of the powerful interaction with the local culture.<sup>55</sup>

<sup>47</sup> Atasoy and Erpehlivan 2015, 202–03; Yıldırım 2021, 395; Schlotzhauer 2001, 123–24; Cook and Dupont 1998, 129.

<sup>48</sup> Sezgin 2012, 83–136.

<sup>49</sup> Dupont 1986, 61–63; Kerschner *et al.* 2002, 63–72, 149.

<sup>50</sup> Yıldırım 2022, 868 (with bibliography).

<sup>51</sup> Tsetskhladze 1998, 44–47; 2004, 262–68. Various ancient sources state that many local communities lived around the Black Sea, such as the Thracians, Getae, Cimmerians, Scythians, Mariandynoi, Tibareni, Eneti, Chalybes, Macrones, etc. (Tsetskhladze 1998, 44–50).

<sup>52</sup> Cummer 1976, 53–57, pl. 7.

<sup>53</sup> Akurgal 1956, 48; Akurgal and Budde 1956, 4–7; Boysal 1959, 13–14.

<sup>54</sup> Avram 2016; Marek 2016, 509.

<sup>55</sup> Öztürk 2013b, 331–32; 2018, 722; Yıldırım 2021.

### Cemeteries

From the living to the dead: five burial grounds have been identified very close to the city (Figure 31). The Eastern Necropolis, which may be the oldest of them, occupies a hill devoted to a closed military base, the construction of which did much damage. A rescue excavation in 1972 produced some tile-covered and sarcophagus burials (Figures 32–33). Among the grave finds stored in Kastamonu Museum are three lekythoi dated to the 5th century BC (Figures 34–35). No evidence has come to light of burials dating to the Archaic and Classic periods. This area may be considered the oldest cemetery of the Tios site.

Excavations between 2009 and 2012 focused on the church on the acropolis, the side chapel and the area around them used as cemetery, with graves to the east and south (Figure 36). Some Doric-style capitals were found on the southern side of the church in 2015–16 that belong to an old temple beneath the church. Reused Roman sarcophagi slabs are found as well. The graves are chiefly simple pit graves, cist graves, tile graves and sarcophagi. This may be considered the first cemetery of the Byzantine settlement located on the hill of the acropolis. During the 2013–16 seasons, many additional graves and skeletons were found in the same area.<sup>56</sup> The grave offerings are simple and poor in quantity and quality, and based on their analysis, the graves belong to the Late Roman and Byzantine periods. More important and people were presumably buried elsewhere, in the nearby hills, but these lands are private property.

The modern cemetery of Filyos is next to the ancient cemetery in the Sefercik and Harmantepe districts, east and north of the ancient theatre. Looted graves and numerous sarcophagus fragments suggest

<sup>56</sup> Yıldırım 2016, 15; 2018, 148–49.



Figure 31. Aerial photograph of the burial grounds at Tios (after Atasoy 2022, 55, fig. 2).



Figure 32. Tile-covered grave (after Atasoy 2022, 56, fig. 3).

that the area was a necropolis (Figure 37). On a hill to the south of the theatre is the Ören Tepesi/Hıdırlık necropolis, a large area as indicated by the graves looted and destroyed in antiquity and since. No datable objects were associated with the burials, but their structures may suggest the

Roman and Byzantine periods (Figures 38–39). Numerous chamber tombs and rock-cut graves are recorded around modern Filyos; one at a place called Öteyüz was built of carved stones (Figures 40–41). Roman-period cemeteries were normally without the city walls. Inhumation graves in simple



Figure 33. Sarcophagus burial  
(after Atasoy 2022, 56, fig. 4).



Figure 34. Lekythos  
(after Atasoy 2022, 57, fig. 5).



Figure 35. Lekythos  
(after Atasoy 2022, 57, fig. 6).



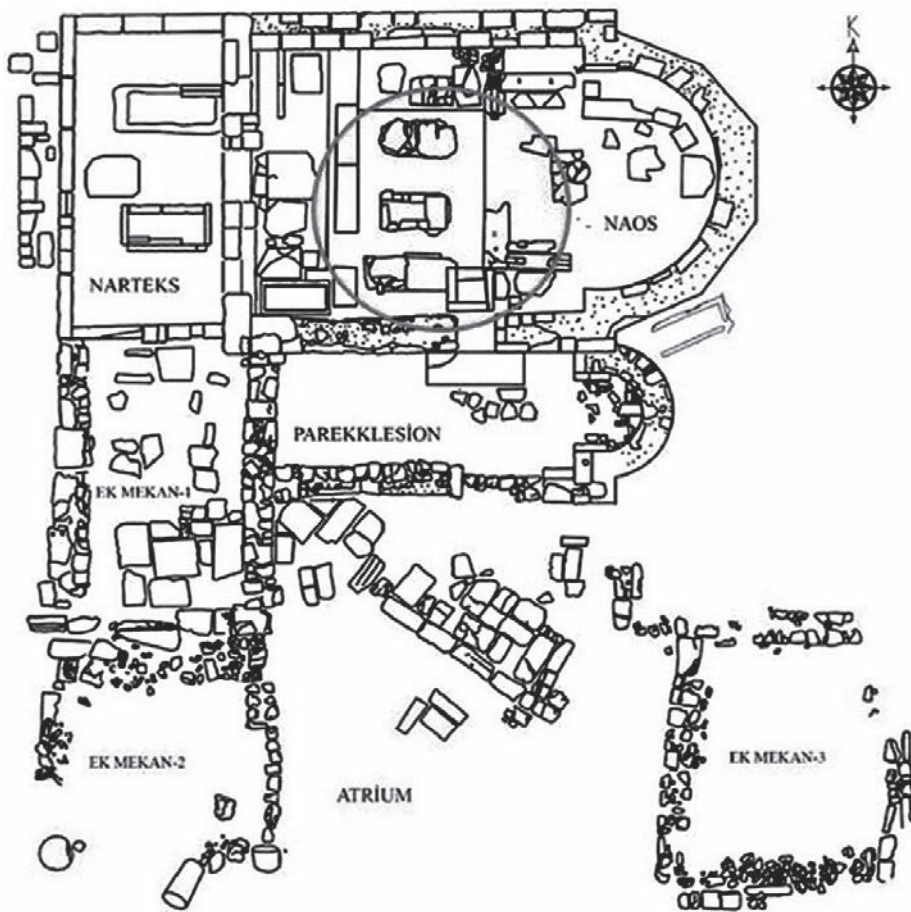


Figure 36. Acropolis of Tios, remains of the church and the temple (after Atasoy 2022, 58, fig. 7).



Figure 37. Grave from the Sefercik district (after Atasoy 2022, 61, fig. 11).



Figure 38. Grave in Hıdırlık/Ören Tepesi (after Atasoy 2022, 62, fig. 12).





Figure 39. Grave in Hıdırlık/Ören Tepesi (after Atasoy 2022, 63, fig. 13).



Figure 41. Grave with two chambers at Öteyüz (after Atasoy 2022, 65, fig. 15).

ZONGULDAK FİLYOS-TİOS\2007  
ROMA DÖNEMİ İKİZ HYPOJE

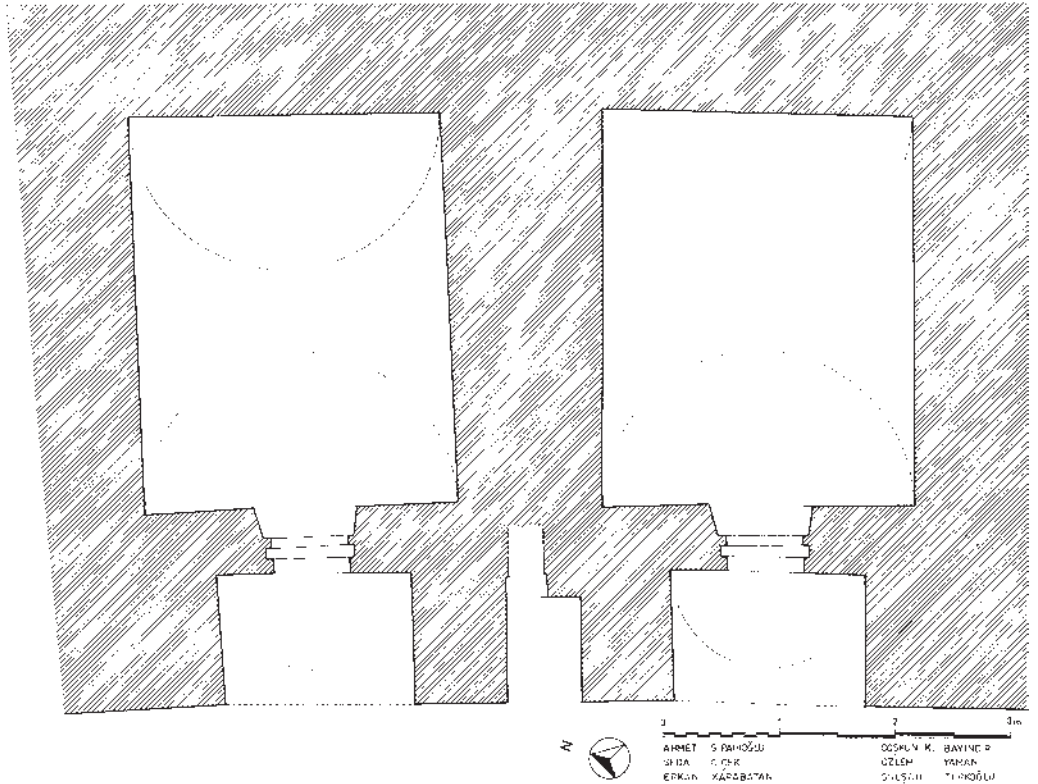


Figure 40. Grave with two chambers at Öteyüz (after Atasoy 2022, 64, fig. 14).

pits and tile-covered should be attributed to the Roman or Romanised population in Tios. No levels of archaeological deposits before the Roman period were detected in any of the burial grounds.<sup>57</sup>

*At this point, alas, the oracle fell silent. We leave the text as he left it (JFH/ŞY). A mound of Tios material sat on his desk.*

## Bibliography

### Abbreviation

FGrH F. Jacoby, *Die Fragmente der Griechischen Historiker* (Berlin/Leiden 1923–58).

Akyürek Şahin, N.E. and Uyar, S. 2009: 'Ein neues Bleigewicht aus dem Territorium von Tios in Ostbithynien'. *Gephyra* 6, 137–48.

Atasoy, S. 2008: 'Zonguldak-Filyos (Tios/Tieion/Tios/Tianos/Tieum) Kurtarma Kazısı'. In Delemen, İ. (ed.), *Prof. Dr. Haluk Abbasoğlu'na 65. Yaş Armağanı* (Istanbul), 91–97.

----. 2012: 'New exploration of the southern Black Sea coast: Filyos-Tios'. In Tsetskhladze, G.R. (ed.), *The Black Sea, Paphlagonia, Pontus and Phrygia in Antiquity: Aspects of Archaeology and Ancient History* (BAR International Series 2432) (Oxford), 29–33.

----. 2013a: 'New exploration of the Turkish Black Sea coast: Filyos/Tios'. In Tsetskhladze, G.R., Atasoy, S., Avram, A., Dönmez, Ş. and Hargrave, J. (eds.), *The Bosphorus: Gateway between the Ancient West and East (1st Millennium BC–5th Century AD)* (Proceedings of the Fourth International Congress on Black Sea Antiquities, Istanbul, 14th–18th September 2009) (BAR International Series 2517) (Oxford), 373–78.

----. 2013b: 'Batı Karadeniz Kıyısında Antik Bir Kent Kazısının Öyküsü. Filyos-Tios: Kazmalı mı?'. In Tekin, O., Sayar, M.H. and Konyar, E. (eds.), *Tarhan Amağanı. M. Taner Tarhan'a Sunulan Makaleler/ Essays in Honour of M. Taner Tarhan* (Istanbul), 23–35.

----. 2015: 'Tios Kentinin Siyasi Tarihi/ The Political History of Tios'. In Atasoy and Yıldırım 2015a, 15–27

----. 2016: 'Excavations at Tios: 2006–2015'. Atasoy, S. 2016: 'Excavations at Tios: 2006–2015'. In Manoledakis, M. (ed.), *The Black Sea, in the Light of New Archaeological Data and Theoretical Approaches* (Proceedings of the 2nd International Workshop on the Black Sea in Antiquity, Thessaloniki, 18–20 September 2015) (Oxford), 207–16.

----. 2018: 'Surveys and Excavations on the Southern Black Sea Coast'. In Manoledakis, M., Tsetskhladze, G.R. and Xydopoulos, I. (eds.), *Essays on the Archaeology and Ancient History of the Black Sea Littoral* (Colloquia Antiqua 18) (Leuven/Paris/Bristol, CT), 109–46.

----. 2022: 'Burial Ground at Tios'. In Boardman, J., Hargrave, J., Avram, A. and Podossinov, A. (eds.), *Connecting the Ancient West and East: Studies Presented to Prof. Gocha R. Tsetskhladze* (Monographs on Antiquity 8) (Leuven/Paris/Bristol, CT), 51–65.

Atasoy, S. and Erpehlivan, H. 2012: 'Filyos-Tios Kenti: İlk Yerleşmeye Ait Keramik Buluntular'. In Şahin, İ. (ed.), *İsmail Fazlıoğlu Anı Kitabı* (Edirne), 1–16.

----. 2015: 'Tios'da Erken Yerleşmeye Ait Keramikler/ Ceramics from the Early Settlement at Tios'. In Atasoy and Yıldırım 2015a, 202–17.

Atasoy, S. and Yıldırım, Ş. 2011: 'Filyos-Tios 2009 Yılı Kazısı'. In *32. Kazı Sonuçları Toplantısı*, vol. 4 (Ankara), 1–16.

----. (eds.) 2015a: *Zonguldak'ta Bir Antik Kent: Tios/ An Ancient City in Zonguldak: Tios. 2006–2012 Arkeolojik Çalışmaları ve Genel Değerlendirme/ General Assessment of Works Between 2006 and 2012* (Ankara).

----. 2015b: 'Recent Discoveries at Tios and its Territory'. In Tsetskhladze et al. 2015, 441–44.

Avram, A., Hind, J. and Tsetskhladze, G. 2004: 'The Black Sea Area'. In Hansen, M.H. and Nielsen, T.H. (eds.), *An Inventory of Archaic and Classical Poleis* (Oxford), 924–73.

Baran, A. 2013: 'Tios/Tieion Akropol Tapınağı 2011 Yılı Çalışmaları'. In Dönmez, Ş. (ed.), *Güneş Karadeniz'den Doğar: Sümer Atasoy'a Armağan Yazılar/ Lux ex Ponto Euxino: Studies Presented in Honour of Sümer Atasoy* (Ankara), 1–12.

Başaran, S. n.d.: *Enez (Ainos) (Enez)*.

Boardman, J. 1991: 'Early Greek Pottery on Black Sea Sites?'. *Oxford Journal of Archaeology* 10.3, 387–90.

----. 1999: *The Greeks Overseas: Their Early Colonies and Trade*, 4th ed. (London).

Buisikh, S.B. 2005: 'Zemlyanochnoe domostroitel'stvo epokhi kolonizatsii Severnogo Prichernomor'ya (na primere Nizhnego Pobuzh'ya)'. *Bosporskie Issledovaniya* 9, 3–21.

Chistov, D.E. 2017: 'Zemlyanki arkhaischeskoi Berezani'. In Gavrilyuk, N.A. (ed.), *Pivnichne Prichernomor'ya za antichnoi dobi (na poshanu S.D. Kryzhits'kogo)* (Kiev), 127–43.

----. 2022: 'The Berezan Island Site: From an Early Outpost towards and Archaic Ionian City'. In Tsetskhladze, G.R. (ed.), *Ionians in the West and East* (Proceedings of an International Conference 'Ionians in the East and West', Museu d'Arqueologia de Catalunya-Empúries, Empúries/L'Escala, Spain, 26–29 October, 2015) (Colloquia Antiqua 27) (Leuven/Paris/Bristol, CT), 869–93.

Cook, R.M. and Dupont, P. 1998: *East Greek Pottery* (London/New York).

Damyranov, M. 2018: 'On the Chronology of the Earliest Greek Metallurgy in Apollonia Pontica'. Poster presented at the 19th International Congress of Classical Archaeology, Cologne/Bonn, 22–26 May 2018.

<sup>57</sup> For more detail, including discussion of corpses, diet, health, etc., see Atasoy 2022, on which the foregoing paragraphs are based.



- Doonan, O., Vural, H., Goldman, A., Bauer, A., Rempel, J., Sherratt, S., Krotschek, U., Maranzana, P. and Sökmen, E. 2017: 'Sinop Kalesi Archaeological Excavations, 2015–2016 Field Seasons'. In Steadman, S. and McMahon, G. (eds.), *The Archaeology of Anatolia: Recent Discoveries*, vol. 2 (Newcastle-upon-Tyne), 178–99.
- Dupont, P. 1986: 'Naturwissenschaftliche Bestimmung der Archaischen Keramik Milets'. In Müller-Wiener, W. (ed.), *Milet 1899–1980: Ergebnisse, Probleme und Perspektiven einer Ausgrabung* (Kolloquium Frankfurt am Main 1980) (*Istanbuler Mitteilungen* Beiheft 31) (Tübingen).
- Gökyıldırım, T. 2013: 'İstanbul Arkeoloji Müzeleri Koleksiyonundaki Tios Sikkeleri'. In Dönmez, Ş. (ed.), *Güneş Karadeniz'den Doğar: Sümer Atasoy'a Armağan Yazılar/ Lux ex Ponto Euxino: Studies Presented in Honour of Sümer Atasoy* (Ankara), 195–214.
- Günsenin, N. 2010: 'Introduction to the shipwrecks at Yenikapı (Istanbul). The Byzantine Harbour Through History'. In Pomey, P. (ed.), *Transferts technologiques en architecture navale méditerranéenne de l'Antiquité aux temps modernes: identité technique et identité culturelle* (Istanbul/Paris), 107–08.
- Kassab Tezgör, D. 2013: 'Un état des travaux archéologiques sur la côte sud de la mer Noire'. In Bru, H. and Labarre, G. (eds.), *L'Anatolie des peuples, des cités et des cultures (Ile millénaire av. J.-C.-Ve siècle ap. J.-C.), 1: Autour d'un projet d'atlas historique et archéologique de l'Asie Mineure. Méthodologie et prospective* (Besançon), 167–74.
- Kerschner, M., Mommsen, H., Akurgal, M. and Niemeier, W.D. 2002: *Töpferzentren der Ostagais: Archaometrische und archaologische Untersuchungen zur Mykenischen, geometrischen und archaischen Keramik aus Fundorten in Westkleinasien* (Ergänzungshefte zu den Jahreshften des Österreichischen Archäologischen Institutes in Wien 3) (Vienna).
- Kerschner, M. and Schlotzhauer, U. 2005: 'A new Classification System for East Greek Pottery'. *Ancient West and East* 4.1, 1–56.
- Kocabaş, U. and Özsait Kocabaş, I. 2010: 'Shipwrecks at the Theodosian Harbour'. In Pomey, P. (ed.), *Transferts technologiques en architecture navale méditerranéenne de l'Antiquité aux temps modernes: identité technique et identité culturelle* (Istanbul/Paris), 109–27.
- Kryzhitskii, S.D. 1982: *Zhilye doma antichnykh gorodov Severnogo Prichernomor'ya (VI v. do n.e.-IV v. n.e.)* (Kiev).
- . 1993: *Arkhitektura antychnykh gosudarstv Severnogo Prichernomor'ya* (Kiev).
- Kryzhitskii, S.D., Buiskikh, S.B., Burakov, A.V. and Otreshko, V.M. 1989: *Sel'skaya okrugol'vii* (Kiev).
- Kryžickij, S.D. and Lejpunskaja, N.A. 2010: 'Building remains and accompanying finds, 6th–1st century BC'. In Lejpunskaja et al. 2010, 27–101.
- Kuznetsov, V.D. 1999: 'Early Types of Greek Dwelling Houses in the North Black Sea'. In Tsetskhladze, G.R. (ed.), *Ancient Greeks West and East (Mnemosyne Suppl. 196)* (Leiden/Boston/Cologne), 531–64.
- Manoledakis, M. 2015: 'Greek colonies and the southern Black Sea hinterland: looking closer into a long, complex and multidimensional relationship'. In Tsetskhladze et al. 2015, 81–89.
- . 2022: *An Approach to the Historical Geography of the Southern Black Sea Littoral (First Millennium BC)* (Colloquia Antiqua 36) (Leuven/Paris/Bristol, CT).
- Mazarati, S.N. and Otreshko, O.M. 1987: 'Poluzemlyanki i zemlyanki'. In Kryzhitskii, S.D. (ed.), *Kul'tura nasleniya Ol'vii i ee okrugol'vii v arkhaischeskoie vremya* (Kiev), 8–17.
- Otreshko, V.M. 2009: 'Zemlyanki i poluzemlyanki na antichnykh poselenyakh niznego Pobuzh'ya'. In Kryzhitskii, S.D. (ed.), *Ol'viiskie drevnosti. Sbornik nauchnykh trudov pamyati Valeriya Mikhailovicha Otreshko (1949–1999)* (Kiev), 98–102 [written ca. 1989/90].
- Öztürk, B. 2008: 'Kuruluşundan Bizans Devri Sonuna Kadar Tios Antik Kenti/ The ancient city of Tios from its establishment till the end of the Byzantine Period'. *Arkeoloji Sanat* 128, 63–78.
- . 2012: *2012: Küçükasya'nın Batı Karadeniz Kıyısında Bir Antik Kent: Tios (Tieion)* (Dissertation, Marmara University, Istanbul).
- . 2013a: 'The History of Tieion/Tios (Eastern Bithynia) in the Light of Inscriptions'. In Manoledakis, M. (ed.), *Exploring the Hospitable Sea* (Proceedings of the International Workshop on the Black Sea in Antiquity, Thessaloniki, 21–23 September 2012) (BAR International Series 2498) (Oxford), 147–64.
- . 2013b: 'Tios (Zonguldak-Filyos) Antik Kentinde Dinsel İnanırlar ve Kültler'. In Dönmez, Ş. (ed.), *Güneş Karadeniz'den Doğar: Sümer Atasoy'a Armağan Yazılar/ Lux ex Ponto Euxino: Studies Presented in Honour of Sümer Atasoy* (Ankara), 329–44.
- Robert, L. 1937: *Études Anatoliennes: Recherches sur les inscriptions grecques de l'Asie Mineure* (Paris).
- Schlotzhauer, U. 2001: 'Ausgewählte Beispiele ostgriechischer Keramik aus Naukratis im Blickwinkel neuer Forschungen'. In Höckmann, U. and Kreikenbom, D. (eds.), *Naukratis: Die Beziehungen zu Ostgriechenland, Ägypten und Zypern in archaischer Zeit* (Akten der Table Ronde Mainz, November 1999) (Möhnesee), 111–25.
- Sezgin, Y. 2012: *Arkaik Dönem İonia Üretimi Ticari Amphoralar* (Istanbul).
- Summerer, L. 2014: 'Topographies of worship in northern Anatolia'. In Bekker-Nielsen, T. (ed.), *Space, Place and Identity in Northern Anatolia* (Geographica Historica 29) (Stuttgart), 189–213.
- Tolstikov, V.P. 1992: 'Pantikapei – stolitsa Bospora'. In Koshelenko, G.A. (ed.), *Ocherki arkheologii i istorii Bospora* (Moscow), 45–99.
- Tsetskhladze, G.R. 1994: 'Greek Penetration of the Black Sea'. In Tsetskhladze, G.R. and De Angelis, F. (eds.), *The Archaeology of Greek Colonisation: Essays Dedicated*

- to Sir John Boardman (Oxford University Committee for Archaeology Monograph 40) (Oxford), 111–35.
- . 1998: 'The Greek Colonisation of the Black Sea Area: Stages, Models, and Native Population'. In Tsetskhladze, G.R. (ed.), *The Greek Colonisation of The Black Sea Area: Historical Interpretation of Archaeology* (*Historia Einzelschriften* 121) (Stuttgart), 9–68.
- . 2000: 'Note on semi-pithouses and handmade pottery from Gordion'. In Avram, A. and Babes, M. (eds.), *Civilisation grecque et cultures antiques périphériques: Hommage à Petre Alexandrescu à son 70e anniversaire* (Bucharest), 165–70.
- . 2003: 'Ionians Abroad'. In Tsetskhladze, G.R. and Snodgrass, A.M. (eds.), *Greek Settlements in the Eastern Mediterranean and the Black Sea* (BAR International Series 1062) (Oxford), 81–96.
- . 2004: 'On the Earliest Greek Colonial Architecture in the Pontus'. In Tuplin, C.J. (ed.), *Pontus and the Outside World. Studies in Black Sea History, Historiography and Archaeology* (*Colloquia Pontica* 9) (Leiden/Boston), 225–81.
- . 2007: 'Greeks and Locals in the Southern Black Sea Littoral: A Re-Examination'. In Herman, G. and Shatzman, I. (eds.), *Greeks between East and West: Essays in Greek Literature and History in Memory of David Asheri* (Jerusalem), 160–95.
- . 2011: 'The Scythians: Three Essays'. In Tsetskhladze, G.R. (ed.), *The Black Sea, Greece, Anatolia and Europe in the First Millennium BC* (*Colloquia Antiqua* 1) (Leuven/Paris/Walpole, MA), 95–139.
- . 2012: 'The Southern Black Sea Coast and its Hinterland: An Ethno-Cultural Perspective'. In Tsetskhladze, G.R. (ed.), *The Black Sea, Paphlagonia, Pontus and Phrygia in Antiquity: Aspects of Archaeology and Ancient History* (BAR International Series 2432) (Oxford), 235–41.
- . 2013: 'Not all things Greek came through Greek trade or at the hands of Greeks'. In Tsetskhladze, G.R., Atasoy, S., Avram, A., Dönmez, Ş. and Hargrave, J. (eds.), *The Bosphorus: Gateway between the Ancient West and East (1st Millennium BC–5th Century AD)* (Proceedings of the Fourth International Congress on Black Sea Antiquities, Istanbul, 14th–18th September 2009) (BAR International Series 2517) (Oxford), 69–82.
- . 2015: 'Greeks, locals and others around the Black Sea and its hinterland: recent developments'. In Tsetskhladze et al. 2015, 11–42.
- . 2019: 'Once again about the Establishment Date of Some Greek Colonies around the Black Sea'. In Tsetskhladze, G.R. and Atasoy, S. (eds.), *Settlements and Necropoleis of the Black Sea and its Hinterland in Antiquity* (Select Papers from the Third International Conference 'The Black Sea in Antiquity and Tekkeköy: An Ancient Settlement on the Southern Black Sea Coast', 27–29 October 2017, Tekkeköy, Samsun) (Oxford), 1–41.
- . 2021: 'Pontic Greeks and Locals: Subterranean Dwellings Once Again'. In Manoledakis, M. (ed.), *Peoples in the Black Sea Region from the Archaic to the Roman Period* (Proceedings of the 3rd International Workshop on the Black Sea in Antiquity held in Thessaloniki, 21–23 September 2018) (Oxford), 149–84.
- Tsetskhladze, G.R., Avram, A. and Hargrave, J. (eds.) 2015: *The Danubian Lands between the Black, Aegean and Adriatic Seas (7th Century BC–10th Century AD)* (Proceedings of the Fifth International Congress on Black Sea Antiquities, Belgrade, 17–21 September 2013) (Oxford).
- Vachtina, M.J. 2003: 'Archaic Buildings of Porthmion'. In Bilde, P.G., Højte, J.M. and Stolba, V.F. (eds.), *The Cauldron of Ariantas: Studies Presented to A.N. Ščeglov on the Occasion of his 70th Birthday* (Black Sea Studies 1) (Aarhus), 37–54.
- Vassileva, M. 2015: 'Phrygia and the southern Black Sea'. In Tsetskhladze et al. 2015, 91–96.
- Vinogradov, J.G. and Kryzickij, S.D. 1995: *Olbia: Eine altgriechische Stadt im nordwestlichen Schwarzmeerraum* (*Mnemosyne* Suppl. 149) (Leiden/New York).
- Yeşil, A., Uzun, A. and Aksu, G.A. (eds.) 2013: *Enez: Doğal, Kültürel ve Turistik Güzellikleri* (Istanbul).
- Yıldırım, Ş. 2015: 'Tios Roma Tiyatrosu/ The Roman Theater of Tios'. In Atasoy and Yıldırım 2015a, 271–95.
- . 2016: 'Tios-Tieon 2014 Yılı Çalışmaları'. In 37. Kazı Sonuçları Toplantısı, vol. 2 (Ankara), 13–32.
- . 2017a: 'Tios-Tieion: Söylenecek Çok Önemli Bir Şeyi Olmayan Kent'. *Trakya Üniversitesi Edebiyat Fakültesi Dergisi* 7/14, 206–42.
- . 2017b: 'Tios-Tieion 2015 Yılı Kazı Çalışmaları'. In 38. Kazı Sonuçları Toplantısı, vol. 1 (Ankara), 465–78.
- . 2018: 'Tios-Tieion 2016 Yılı Kazı, Restorasyon ve Konservasyon Çalışmaları'. In 39. Kazı Sonuçları Toplantısı, vol. 3 (Ankara), 147–68.
- . 2021: 'Tieion Akropolis'. *Belleten* 85 (303), 383–422.
- . 2022: 'Results of Recent Archaeological Investigations of Archaic Tieion'. In Boardman, J., Hargrave, J., Avram, A. and Podossinov, A. (eds.), *Connecting the Ancient West and East: Studies Presented to Prof. Gocha R. Tsetskhladze* (Monographs on Antiquity 8) (Leuven/Paris/Bristol, CT), 855–75.
- Zolotarev, M.I. 1998: 'Rannie etapy gradostroitel'stvav Khersonese Tavricheskom'. *Khersonesskii Sbornik* 9, 26–35.