

The Bosphorus: Gateway between the  
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(1st Millennium BC–5th Century AD)

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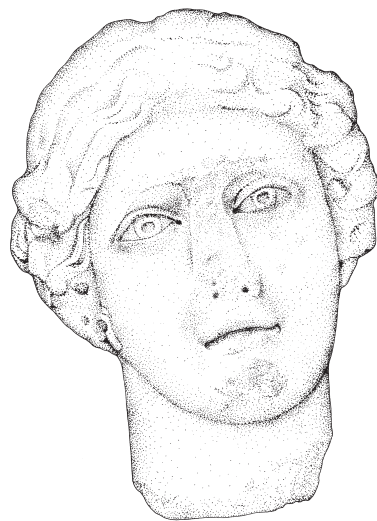
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# ARCHITECTURAL SIMILARITIES(?) BETWEEN THE BLACK SEA AND NORTH AEGEAN SETTLEMENTS

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Fig. 1: Karabournaki aerial view

Greek colonisation in the North and East (the Aegean and the Black Sea region in particular) was a long process with a significant impact on the life, development and formation of those regions.<sup>1</sup> The structures and remains found in these areas signify aspects of life and activity that contribute to our knowledge of the people living there.

The Greek presence in the North Aegean goes back to the Late Mycenaean period.<sup>2</sup> In the centre of the Thermaic Gulf it has been attested archaeologically in the settlement unearthed on a low mound in Karabournaki (in the vicinity of Thessalonica) (Fig. 1).<sup>3</sup> Although there is no written information about the Greeks settled in Karabournaki, the site could be part of ancient Therme, known from literary sources as πόλις Ελληνῶν Θρηίκων (Hecataeus *FGrHist* 1. F 163).<sup>4</sup> The archaeological data

so far are insufficient to provide evidence for the co-existence of Greeks and locals in the settlement, but the presence of Thracians in the region is well attested from literary sources.<sup>5</sup> The location of this settlement next to the harbour had turned it into a significant trading centre in the area already in the Geometric period, but mostly from the Early Archaic period, as it is suspected that the excavated finds will confirm.<sup>6</sup>

Contemporary disturbance from military activities and horse burials has caused severe damage to the architectural remains of the ancient settlement and it has destroyed completely the later phases from the Classical period onwards.<sup>7</sup> The current excavations<sup>8</sup> brought to light parts of buildings and structures that date in the

basic nucleus of Therme in the so-called historical period (Tsiafakis 2010; Tiverios 2008, 24-28; Xydopoulos 2007, 44-51).

<sup>5</sup> For a discussion on the subject and bibliography, see Tsiafakis 2010.

<sup>6</sup> The large quantities and quality of the imported pottery coming from various important centres of the Greek world (Euboea, East Greece, Athens, Corinth, Sparta, etc.) in combination with the numerous trade amphorae lead to this suggestion. See Tsiafakis 2000; Tiverios *et al.* 2003b; Tiverios 2009, 388, 394; Manakidou 2010.

<sup>7</sup> Tsiafakis 2010; Tiverios *et al.* 2003b, 327-29.

<sup>8</sup> The current research at the site is undertaken by the Aristotle University of Thessaloniki under the direction of Prof. M. Tiverios and assisted by Ass. Prof. E. Manakidou and the author. For the current excavations and bibliography for earlier research, see Tiverios *et al.* 2003b; Tiverios 2009; Tsiafakis 2010; Manakidou 2010; and papers in *AEMTh* from 1994 onwards.

<sup>1</sup> See Tsatskhladze 2008; Graham 2001; Tsiafakis 2009; Isaac 1986; Moustaka *et al.* 2004.

<sup>2</sup> For the Greek presence in the area, see the bibliography presented in Tiverios 2008, 11, n. 55.

<sup>3</sup> The up-to-date excavation data confirm the existence of the settlement at least from the Geometric period (see Tiverios *et al.* 1999, 329, 331; 2003b; 2004, 260-61; Tsiafakis 2000, 419; Tiverios 2009, 388, 394). An earlier date that might go back to the Bronze Age is suspected through the Mycenaean pottery found probably in the area (see Vokotopoulou 1986, 83; Tiverios 1987, 249-50, 255; Tiverios 2008, 11, n. 55).

<sup>4</sup> Therme was probably organised *komedon*, meaning that it was made up of a number of small habitations scattered about the head of the Thermaic Gulf. The settlement at Karabournaki must have been the

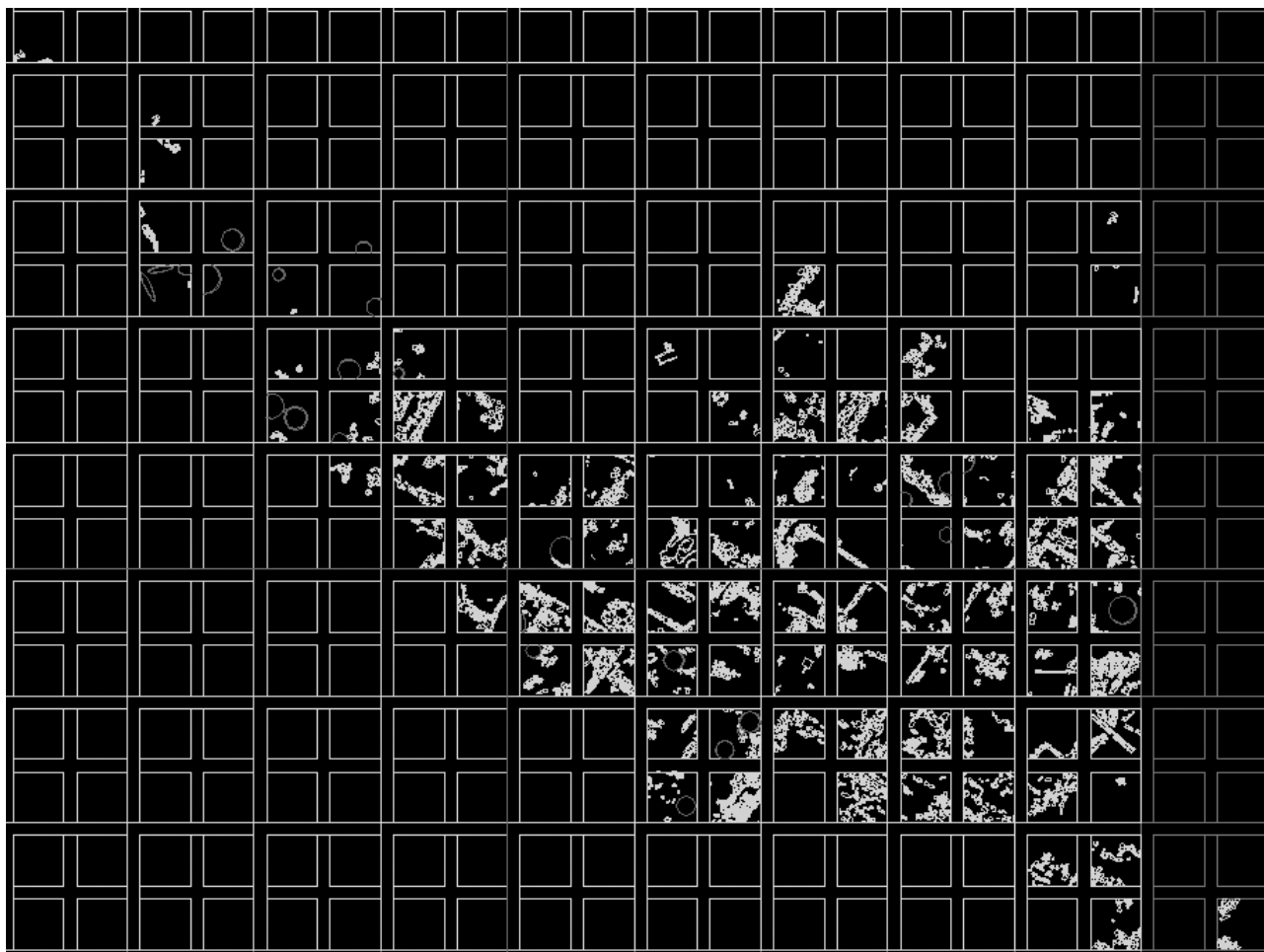


Fig. 2: Architectural plan: the excavated area

main from the Archaic period.<sup>9</sup> These can be divided in two major categories: above-ground stone buildings, and subterranean or semi-subterranean structures.

The latter are the focus of this paper. Over 100 trenches (4 x 4 m) have been excavated so far in Karabournaki (Fig. 2). Dugouts of various types and sizes have been uncovered in 40 of them.<sup>10</sup> A significant number of these – 26 to date<sup>11</sup> – are beehive-shaped structures with certain characteristics that place them within a single group.<sup>12</sup>

As can be seen on the architectural plan (Fig. 2), the beehive-shaped dugouts are spread out on the mound with rubbish- or other types of pits surrounding them. The latest data indicate that they are located in three sections of the excavated area on the mound: the north-western (i), southern (ii) and central-eastern (iii) parts.

<sup>9</sup> There is some indication for Geometric times but the Archaic phase is primarily uncovered. Tsiafakis 2010; Manakidou 2010; and papers in AEMTh from 1994 onwards. For the Geometric, see especially Tiverios *et al.* 2002, 260-61; 2003a, 194; Chatzis 2008, *passim*.

<sup>10</sup> It should be mentioned that more than one pit has been found in many trenches. The total number of all types of pits so far is over 80.

<sup>11</sup> 22/84b (NW), 22/84b (NE), 22/84b (S), 22/91d, 22/94a (SW), 22/94a (SE), 22/94b (NW), 22/94d, 23/1a, 23/1d, 23/2d, 23/5b, 23/12b (NE), 23/12b (SW), 23/12d, 27/78b, 27/78c, 27/78d, 27/79b, 27/79c, 27/79d, 27/89b, 27/89c, 27/89d (NW), 27/89d (centre), 27/90a.

<sup>12</sup> Tsiafakis 2010; Tiverios *et al.* 2003b, 333-35.

The first group is located in an area that does not preserve any other constructions but various types of pits.<sup>13</sup> The finds in that part of the mound give the impression that it was an area with workshops (Figs. 3-4).<sup>14</sup> In addition, a pit was discovered here containing pottery waste from a local workshop producing the 'eggshell' type of vessel type.<sup>15</sup> The other two groups of beehive-shaped structures are placed among various buildings.<sup>16</sup>

The principle attributes of these constructions can be summarised as follows (Fig. 5): partially underground and partially above the surface; beehive-shape in their subterranean part;<sup>17</sup> similar in construction and dug into

<sup>13</sup> Contemporary disturbance at the site might, however, be responsible for the damage in this part of the settlement. But the possibility cannot be excluded of an open area for workshop activities having existed.

<sup>14</sup> Various fragments of moulds and slag have been recovered from this area.

<sup>15</sup> The beehive-shaped dugout in trench 27/79d. For this category of pottery, see Tiverios 1990, 75-76; Tiverios *et al.* 2002, 261, 266; 2003b, 347-49; Pante 2008, 158-204; Tsiafakis and Manakidou forthcoming.

<sup>16</sup> The latest archaeological evidence gives the impression that the beehive-shaped constructions may be earlier than their surrounding buildings and that they might have been incorporated within them in a secondary use.

<sup>17</sup> In most of the cases they are larger in diameter at the base than at the top, but it seems that there are some exceptions. The dugouts in trenches 22/84b (NW), 22/94b (NW), 23/5b, 23/12b (SW) and 27/79b are larger in diameter at the top.



Fig. 3: Trench 27/79d



Fig. 5: Beehive structure in trench 27/78c



Fig. 4: Beehive structure in trench 27/79d

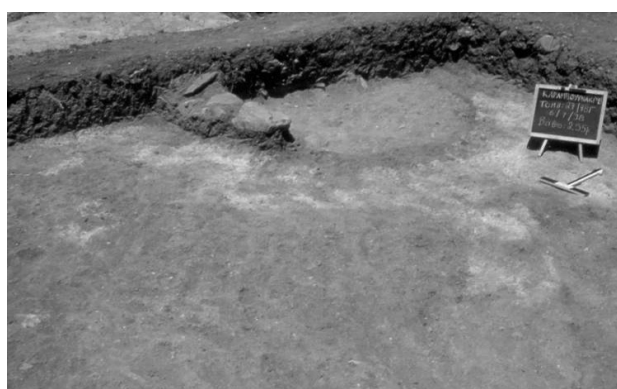


Fig. 6: Stone bordering in the beehive structure in trench 27/78c

the same earth layers; a base that goes down to the virgin soil of the region – a whitish, very hard earth, called *mellagas* in the local dialect,<sup>18</sup> and an above-ground part, now lost in most instances, apparently built of stone, as is indicated by the stones found on some of them (Fig. 6).<sup>19</sup>

The above-ground stone structure is at least of a certain height. The mud bricks found in the interior of many of them, however, allow the assumption that they were used for the upper parts. The underground part, which is well preserved, is always dug into the same layers of soil. It starts with dark brown very hard ground 0.40 m-0.50 m thick, which has yielded no finds, and this is followed by the *mellagas* mentioned above. There is no indication of any type of flooring and the bottom of the dugouts is found on this whitish ground. To date, there is no indica-

tion of any type of coating on the walls (clay, mud-brick, stone, etc.).

There is great variation in the size of these beehive-shape structures. Their lower diameters, which can be considered the safest measurement, vary from 0.66 m to 2.35 m. The upper preserved diameters<sup>20</sup> range between 0.80 and 2.20 m. Since the upper part of the dugouts is not always preserved, we can mention only the deepest of them, which is 1.65 m. The depth of the dugouts that preserve stone bordering ranges from 1.10 to 1.40 m.

In some cases the structures are found in pairs, occasionally with an opening that connects one to another (Fig. 7).<sup>21</sup> The stone bordering of the above-ground part, found in one, provides safe information about their underground part (Fig. 6).<sup>22</sup> Judging from it, we can

<sup>20</sup> The upper diameter refers always to the underground part. Furthermore, it is not always certain –except for the dugouts that preserve their stone borderings – whether the preserved height of the underground part is complete or if a part of it has been destroyed.

<sup>21</sup> Trench 27/89d (Tiverios *et al.* 1999, 329). An opening is found also between the dugouts of trenches 27/78c and 27/78d. (Tiverios *et al.* 2000, 224-25).

<sup>22</sup> The depth of 27/89d (NW) is 1.35-1.40 m (in its underground part). Including the stones of the above-ground part, the preserved depth is 1.70-1.80 m. The 27/89d (centre) dugout did not preserve any stone bordering, but it is at the same level with the 27/89d (NW) and its underground depth is 1.35-1.40 m.

<sup>18</sup> Tiverios *et al.* 2001, 256.

<sup>19</sup> Stones as a boundary for their above-ground part were preserved at least in dugouts 23/12b (NE), 27/78b, 27/78c and 27/89d (NW).



Fig. 7: Beehive structures in pairs

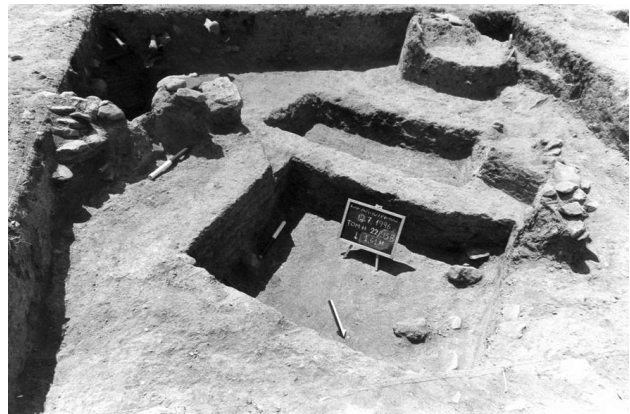


Fig. 9: Rectangular structure in trench 22/93b



Fig. 8: Beehive structures in trench 23/12b

suggest that 1.50 m was the average depth for the subterranean part. These paired structures are found in the open area (i.e. the north-west part) of the settlement.

Niches and openings into the underground part occur in some cases. The dugouts found in trench 23/12b, for example, preserve some openings (Fig. 8).<sup>23</sup> The proximity of these constructions to the metalworking shop leads to the assumption that they may have used as part of it. If this is true, then the peculiarities of construction might relate to the specific needs of the workshop. These dugouts are found in the southern part of the mound (area ii) among various buildings.

In the third area (iii) with a concentration of beehive-shaped dugouts, some examples have been uncovered in spaces related to food preparation and cooking. The example in trench 22/94b belongs to a place with hearths and various finds related to the preparation of food.<sup>24</sup> A similar function appears to have been performed in at least one other dugout unearthed in the same area in trench 22/84b (NE):<sup>25</sup> all the pottery finds in its fill are

<sup>23</sup> Tiverios *et al.* 2002, 209; 2003b, 335. For the nearby metalworking workshop, see Tiverios *et al.* 2011; Tsiafakis 2010.

<sup>24</sup> Tiverios *et al.* 2006, 337-39.

<sup>25</sup> In this trench, excavated in 2009, were found two beehive-shaped dugouts and one trash pit. Tiverios *et al.* forthcoming.

related to kitchen activities. Apart from the transport amphorae that originated from various geographical regions (for example Attic SOS, Chian, Samian, Lesbian), the rest of the vessels are exclusively local and they are divided into two groups: cooking ware and *symposion* pots. Worthy of note is the placement of multiple sets of oinochoai and selected seashells next to the walls of the dugout. Also of importance is the date of the pottery fragments: they appear to belong to the 7th century BC.

Of special interest is a dugout so far unique in shape that was found in the mound (Fig. 9).<sup>26</sup> None of its above-ground part is preserved and just the subterranean part has been unearthed. This has a rectangular shape with walls constructed of mud bricks<sup>27</sup> but with no type of floor, its bottom reaching the natural ground as with the beehive-shaped structures. No evidence of its initial purpose or use has been found and it was probably cleared before its abandonment. Traces of fire were noticeable in its fill, which was composed of numerous stones and pottery fragments, local and imported, dated in the 8th, 7th and 6th centuries BC.

One more rectangular subterranean construction, of uncertain date, has been uncovered in the area surrounding the mound (Fig. 10).<sup>28</sup> It is quite different from any other at the site and preserves its entrance with a staircase; along its north side there is a bench. Worthy of note is its situation among numerous cylindrical-type waste pits. Two more underground constructions were unearthed on the north *trapeza* in Karabournaki.<sup>29</sup> They are elliptical in shape with an extension shaped into a descending staircase (Fig. 11). On their ground floor

<sup>26</sup> It is located in trench 22/93b, excavated in 1996. Its interior is 1.60 x 1.65 m and it is about 1.46 m deep.

<sup>27</sup> The height of the bricks is 0.7 m and in terms of dimensions they are divided in two groups: a) 0.43 x 0.30 m; b) 0.23 x 0.30 m. The south-east side preserves 13 rows of bricks, the south-west 14 or 15 rows, the north-east 17 rows and the north-west side 14 rows.

<sup>28</sup> It is 2.40 x 4 m large and 1.40 m deep (Pandermali and Trakosopoulou 1998b, 289, figs. 6-7). The excavation carried out by the Archaeological Service in the broader area of the site, outside the mound, has revealed also some dugouts and pits (see Pandermal and Trakosopoulou 1998a-b; Pante 2009, 275-76).

<sup>29</sup> See Pandermali and Trakosopoulou 1998a-b; Pante 2009, 273-78.



Fig. 10: Rectangular structure in the area surrounding the mound (after Pante 2009, fig. 4)



Fig. 11: Elliptical construction in the area surrounding the mound (after Pante 2009, fig. 2)

there are some circular rock-cut openings used either for storage vessels or for holding roof posts.<sup>30</sup>

Apart from shape and the construction type, homogeneity appears also in the fill of those beehive-shape dugouts found on the mound. The majority of them, if not all, were filled with grey-brown thin earth-like ash, and there were traces of fire in various places. I should be noted that the fire did not take place inside the pits; rather, burned objects and ash were thrown into them. A great quantity of pottery is found, imported and local, along with animal and fish bones and seashells. The first results of archaeobotanical study<sup>31</sup> show grapes, grain, lentils and beans among the seeds found within. Even though the pottery has not yet been studied, the first impression is that the majority of it dates from the 7th and 6th centuries BC.<sup>32</sup> Consequent upon this is the assumption that the dugouts were closed up and abandoned at the same time, maybe in the (early?) 5th century BC.

The fill of the numerous trash pits found in the south-western area at the bottom of the Toumba leads in the

<sup>30</sup> Pante 2009, 273.

<sup>31</sup> The archaeobotanical study is being carried out by Ass. Prof. S. Valamoti and E. Gatzogia.

<sup>32</sup> It should be mentioned, however, that fragments dating to the 8th or the 5th century BC have also been found in some of them.

same direction. It is interesting that they were filled with similar material to the beehive-shape constructions uncovered on the top of the mound.<sup>33</sup> The three underground constructions unearthed in the *trapeza* and in the south-western area were filled with Geometric and Iron Age pottery; this dates them to the Late Geometric period.<sup>34</sup>

Based on the most recent archaeological data, a possible date for the construction of the beehive-shaped dugouts on the top of the mound seems to be the 7th century BC, if not even earlier (late 8th century BC). The archaeological evidence suggests that these structures were already built in the earlier phases of the settlement, perhaps before the constructions of Greek type. However, they were apparently still in existence alongside the later Archaic constructions of the site, and it is probable that they had been adapted for secondary use. It is not known how they were used in the Archaic period when they were incorporated into buildings of Greek type.

Karabournaki is not the only site in the area where this type of construction can be seen. Similar examples have been found at other sites such as Nea Kallikrateia, Toumba Thessalonikis and Pieria.<sup>35</sup>

The semi-subterranean structures unearthed in Karabournaki are reminiscent somehow of some of the dugouts found in the Greek Colonies around the Black Sea.<sup>36</sup> These latter are the earliest type of architectural remains found there and a long discussion has been underway about their existence and use.<sup>37</sup> Some scholars consider them to have been dwellings of locals, others of Greeks, while some others think that they were cellars.<sup>38</sup> Domestic use as well as household and craft functions appear to be their role in the various sites where they appear. Their shape varies from the rectangular to the oval and circular. The rectangular examples, which seem to be more readily accepted as dwellings, occupy an area of 7 m<sup>2</sup> and they were sunk to a depth of 0.8-1 m into the ground. They usually have some kind of coating on their walls and a floor and preserve indications of roofs, while benches and hearths have been found in their interiors.<sup>39</sup> The round dugouts appear to have domestic or craft functions. They are smaller than the rectangular examples, ranging in extent between 3 and 6 m<sup>2</sup>, they are not usually coated, nor do they have benches or tables. Metallic slag and various traces of metalworking found within them indicate their use as workshops.

<sup>33</sup> Pante 2008, 158-60; Pandermali and Trakosopoulou, 1998a-b; Pante 2009, 273-78.

<sup>34</sup> Pante 2009, 276-78.

<sup>35</sup> Bilouka *et al.* 2002, 304; Bilouka and Graikos 2004, 379-80; Soueref 1997, 394 fig. 10; 2001, 180; Poulaki-Pandermali, 2007, 631.

<sup>36</sup> Tiverios 2009, 387-88.

<sup>37</sup> Tssetskhladze 2004, 225-78; 2003; Tssetskhladze and Snodgrass 2002; Kuznetsov 1999, *passim*; Kryzhitskii 1982, 12. For Berezan, see Solovyov 1999; 2001. Olbia: Kryzhitskii 1982; Marchenko and Domanskii 1999; Kryzhytskii *et al.* 2003. Nikonion: Sekerskaya 2001. The lower reaches of Dniester: Okhotnikov 2001. Kerkinitis: Kutaisov 1990, 63, 70. Panticapaeum: Treister 2002. Nymphaeum: Zinko 2001. Myrmekion: Vinogradov *et al.* 2003; Butyagin 1997.

<sup>38</sup> Tssetskhladze 2004, 225; Kuznetsov 1999; Kryzhitskii and Marchenko 2001.

<sup>39</sup> Tssetskhladze 2004, 245-46.

The date of most of the dugouts in the Black Sea area ranges from the late 7th down to the 4th century BC, with the majority of them belonging within the 6th century.<sup>40</sup>

If the dating is correct, then the dugouts in Karabournaki are earlier than the Black Sea examples. The latter, though, appear to be larger than the beehive-shaped pits and have some constructional differences. The residential role attributed to the Black Sea examples is difficult to justify in general for the beehive-shaped pits unearthed in Karabournaki in terms of size and construction, but it cannot be excluded for the rectangular example or for one of the elliptical dugouts found in the surrounding of the Toumba area.<sup>41</sup> A similarity, in particular of the latter, with some of the Berezan or Olbian examples is possible.<sup>42</sup> Household activities in general as well as storage and craft production seem to be possible functions for the constructions in Karabournaki. Nevertheless, their location next to spaces for kitchen activities and workshops implies roles linked to these.

Despite their differences, however, and the difficulty of attributing a similar role to both geographical groups, a relationship – particularly for the round ones – between the semi-subterranean constructions found in Karabournaki and in the Black Sea cannot be denied. Their role in domestic, storage or craft use seems logical in both regions. In conclusion, we could suggest that the Greeks employed semi-subterranean constructions to cover their needs in Black Sea and North Aegean.

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<sup>40</sup> Tsetskhladze 2004, *passim*.

<sup>41</sup> Pante 2009, 276.

<sup>42</sup> Pante 2009, figs. 1-2; Solovyov 1999, figs. 12-13; Tsetskhladze 2004, 229, fig. 4.



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