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ROMAN FORT AT CAPE AJ-TODOR (*CHARAX*) AND ITS SURROUNDINGS. A New Look at Old Discoveries

ABSTRACT

Despite many years of research at the site, the Roman fort at Cape Aj-Todor near Yalta remains relatively poorly studied. A better understanding of the discoveries made at the site can be reached by comparing them with the results of the excavations conducted in another fort also located in Crimea – at Balaklava-Kadykovka. This text is an attempt at gathering together all the published information about the discoveries made

at Cape Aj-Todor. The comparison of the research results from both sites has enabled establishing numerous similarities between them. Both forts functioned simultaneously, and their architectural remains can be qualified to identically dated phases. The final effect of the analysis undertaken by the author is a more complete plan of the fort at Cape Aj-Todor along with its surroundings, processed in a new graphic formula.

Keywords: Aj-Todor, Charax, Crimea, Roman army, Roman fortifications

Introduction

The fort at Cape Aj-Todor is the earliest discovered and correctly identified garrison site of the Roman army in Taurica. Despite the many excavations conducted in the fort, it is relatively little known. Much of the research material has never been circulated academically, while some of it – due to various twists and turns of fate – has been irretrievably lost. In turn, certain categories of movable artefacts from the collection stored in Moscow are only now being studied and published.1 However, it is worth taking another look at the previously published results of the studies conducted at the site, as well as to undertake efforts to come to a better understanding of the architecture, topography, and settlement history of the fort. This can be aided by conducting a comparison with the results of the excavations conducted within the last decades at other sites connected to the presence of the Romans in Taurica, primarily in Balaklava-Kadykovka.

The reasons for the choice of the fort's localisation

Cape Aj-Todor is situated about 8 km west of the present-day centre of Yalta (Fig. 1). This hill, separate from the nearby Crimean Mountains, is located on the extension of the so-called Gaspra Ridge.2 Viewed from afar, the cape is in the shape of a hill cut in half by the sea. The highest point is located right at the coast – on the cliff. The area is inaccessible from the coast, but the remaining slopes are at an angle of between 20 and 40 degrees.3 It is an excellent observation point.4 The cape is also located in the vicinity of the most convenient road leading from the west to the Yalta Valley, enclosed by high mountains. The old route for centuries ran right next to the castellum's fortifications, in the depression between the cape and the mountains.⁵ The above-mentioned Gaspra Ridge constitutes one of the most important natural boundaries dividing the southern edge of Crimea into separate valleys.6 However, the lack of water poses a challenge for any potential settlement on the cape. Another problem involves the very badly sheltered natural harbour located

¹ Žuravlev, Kamelina 2005; 2012; 2015; Kamelina 2012.

² Blavatskij 1938, 373; Zubar' 2003, 102.

³ Zubar' 2003, 102.

⁴D'âkov 1930, 7.

⁵ Firsov 1975, 94.

⁶ Bert'e-Delagard" 1907, 25-26.

⁷ Bert'e-Delagard" 1907, 25; Orlov 1988, 22; Zubar' 2000, 189.

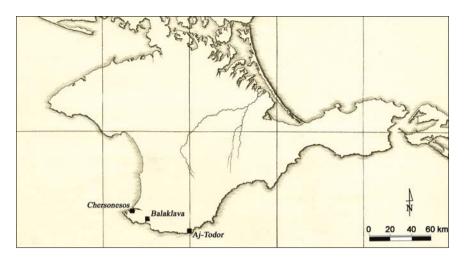


Fig. 1. Crimea. The Roman garrisons mentioned in the text (compiled by O. Kubrak).

in a wide open bay about 0.5 km east of the centre of the fort.8 At one time, Berthier de Lagarde noted that for many reasons this place is inferior to a number of others on the southern coast of Crimea, while for a military or trade fleet it is completely unusable.9 The bay does not protect mooring ships from storms.¹⁰ Based on my own experience, I can safely confirm that during a bout of bad weather it is impossible to approach the shoreline. However, there were some researchers who voiced a different opinion.11 Due to the lack of other convenient natural ports on the southern Crimean coast, a harbour must have functioned near the cape and was probably in use at least on a seasonal basis. This is evidenced, among other things, by the traditional name of the rock protruding out into the sea east of the above-mentioned bay "Harbour Rock" (in Turkish "Liman Burun").¹²

Taking into consideration the benefits and draw-backs of the fort's localisation on the cape, it should be stated that the choice of this spot in particular was motivated primarily by the unobstructed view and the neighbourhood of the best land route to the Yalta Valley. One of the very significant reasons must also have been the role of the cape as an important navigational point. It is distinctive and easily recognisable from the sea. Aj-Todor can be seen from Cape Ajudah (to the east) to that of Koška Rock near present-day Simeiz (to the west). The role of the discussed point in navigation along the Crimean coast is also evidenced by the fact that a modern lighthouse was erected on this spot as early as in 1865.

Aj-Todor and Charax

The name 'Charax' was only mentioned by Claudius Ptolemy (Ptol. Geog. III, 6, 2). The identification of this ancient settlement with the fort on Cape Aj-Todor was done by Rostovcev;¹⁵ however, he supposedly based this claim on the earlier opinion voiced by Latyšev, among others.¹⁶ Due to the lack of any possibility to verify Ptolemy's information, even the opinion of such a well-known researcher as Rostovcev should be treated with some caution. Certain scholars who later analysed this issue were hesitant to link Ptolemy's Charax to the fort on Cape Aj-Todor.¹⁷

At least some of the attempts to link various other names listed by the geographer from Alexandria with specific places have raised researchers' doubts, with their localisations ultimately later modified. The example of Calisia, supposedly corresponding to Kalisz (in central Poland), which was shown to have almost definitely been situated somewhere in modern-day Slovakia (by the Váh River), best illustrates the magnitude of the problem involved in the interpretation of data from Ptolemy's texts. However, to return to the southern Crimean coast, it should be stated that the identification of the fort at Cape Aj-Todor with *Charax* has been widely accepted in the academic literature on the matter and is usually quoted without any reservations or doubts. 19

⁸ Zubar' 2000, 177.

⁹ Bert'e-Delagard" 1907, 25.

¹⁰ Zubar' 2003, 102-103.

¹¹ Rostovcev 1911, 41; Blavatskij 1951, 291; Orlov 1988, 22.

¹² Keppen 1837, 191; D'âkov 1930, 7.

¹³ Novičenkova 2015, 151.

¹⁴ D'âkov 1930, 17; Orlov 1988, 22; Zubar' 2003, 102.

¹⁵ Rostovcev 1900, 159; Rostowzew 1902, 95.

¹⁶ Orlov 1988, 17.

¹⁷ D'âkov 1930, fn. 77; Firsov 1975, fn. 1.

¹⁸ Kolendo 2011.

¹⁹ Blavatskij 1951; Orlov 1985; 1988; Sarnowski, Zubar' 1996; Zubar' 2000; 2003; Novyčenkova, Novyčenkova-Lukyčeva 2009; Žuravlev, Kamelina 2015; Novyčenkova 2017.

History of research

Consecutive researchers have provided at least short overviews of the history of the investigations conducted at the site. Thanks to V.M. Zubar's publication, it is possible to follow in detail who studied what at the "Aj-Todor stronghold" up until the end of the 20th century. The stronghold is the contraction of the century.

The first amateur excavations were undertaken in 1849 by Count Šuvalov, a son-in-law of M.S. Voroncov, the owner of the nearby Alupka and a collector of ancient works of art. Systematic research was initiated in 1896 under the auspices of Grand Duke Alexander Mihailovič Romanov, at that time the owner of the surrounding land. The grand duke was very interested in archaeological discoveries near his household. At his initiative, a local museum was founded on the cape and served the purposes of collecting and presenting all the acquired finds. The idea for the museum was consulted with K.K. Koscjuško-Valjužinič, a representative of the Imperial Archaeological Commission and the Director of the Warehouse of Local Antiquities in Chersonesos. Rostovcev, who visited the museum, praised the idea of storing the whole collection in one place and the high level of the exhibition, for which special display cases had been purchased.²²

The pre-revolution excavations lasted 15 years with some interruptions. Rostovcev also participated in these studies, and it is to him that we owe not only the identification of the fort with Ptolemy's *Charax* but also the confirmation that this was indeed the place where a Roman garrison was stationed. Rostovcev published, among other things, a plan of the site as well as the epigraphic finds, including Latin stamps on bricks, altars, and the so-called votive reliefs.²³ From the perspective of the last century, we know that these are the only publications that were based directly on the results of these excavations. Some of the documentation and artefacts acquired at that time (later stored in the museum in Yalta) were lost during World War II.

The architectural structures discovered during the pre-revolution excavations included the following: two lines of defensive walls with traces of at least one gate, one fortified turret at the outer wall, two water reser-

voirs (later named *Nymphaeum* I and *Nymphaeum* II), as well as a baths building²⁴ and a complex of rooms "with a large portico" near the lighthouse. A shrine with dedications by *beneficiarii consularis*²⁵ as well as a fragment of an aqueduct made from ceramic pipes were uncovered outside the fort walls.²⁶

In the interwar period (1931, 1932, and 1935), research at the cape was conducted by V.D. Blavatskij.²⁷ Aside from the continuation of the work done on the buildings previously uncovered by the expedition supervised by this researcher, we are also indebted to him for the discovery of the cremation cemetery dated to the 3rd–4th century AD.

After the war, research was first undertaken in 1963 by P.N. Šulc, O.I. Dombrovskij, and L.V. Firsov,²⁸ while later, in the 1970s and 1980s, by K.K. Orlov.²⁹ We owe the discovery of the fragments of a marble plaque with a Latin inscription to the last of the above-mentioned scholars. The text of this building inscription is important for studies on the Roman military presence in Taurica.³⁰

The last excavations on the cape were conducted at the beginning of the 21st century by V.I. Novičenkov and N.G. Novičenkova from the Museum in Yalta.³¹ This research focused on the verification of the results of the earlier excavations of the external defensive wall.

Issues with the site plan

Despite the work conducted by a few expeditions and a fair amount of researchers, relatively little is known about the Roman fort referred to as *Charax*. Documentation is lacking from some of the excavations, as it was either not maintained or lost. The results from some seasons were only published in the form of short reports, while the entirety of the material still requires more comprehensive studies.³²

The scale of the issues connected to any attempt at preparing a synthetic analysis of the results of the research conducted thus far can be illustrated by the lack of one collective plan of the site (Fig. 2). It is quite peculiar that facts registered in the 19th century and at the beginning of the 20th century are presently invisible in the field and have been erased from human memory, and,

²⁰ Blavatskij 1951, 250; Orlov 1988, 16–19; Novičenkov, Novičenkova 2002, 27–29.

²¹ Zubar' 2000; cf. Zubar' 2003.

²² Rostovcev 1911, 1–2.

²³ Rostovcev 1900, 140–158; 1911, 1–42; Rostowzew 1902, 80–95.

²⁴ Rostowzew 1902, 91.

²⁵ Rostovcev 1911, 3–4.

²⁶ Rostovcev 1911, 3; Blavatskij 1951, 260; Orlov 1988, 21.

²⁷ Blavatskij 1951.

²⁸ Firsov 1990, 269–278.

²⁹ Orlov 1978, 366–367; 1982, 298–299; 1984, 309–310; 1985, 331–332; 1987, 106–133; 1988, 12–27.

³⁰ Sarnowski, Zubar' 1996, 229–234; Zubar', Sarnovskij 1997, 50–59.

³¹ Novičenkov, Novičenkova 2002; Novičenkova, Novičenkov 2005; Novyčenkova 2017.

³² Zubar' 2000, 198.

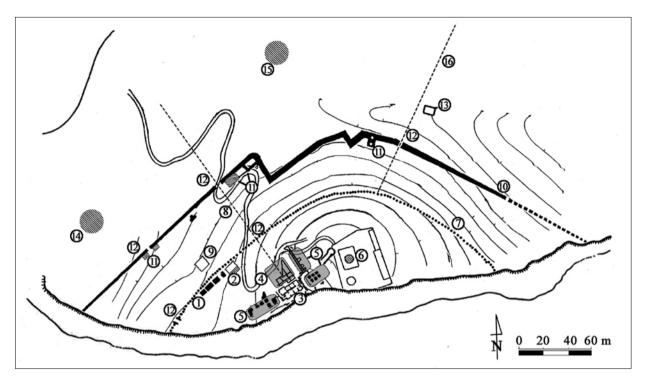


Fig. 2. Fort at Cape Aj-Todor. A plan of the site. This compilation was prepared based on the previously published plans (Rostovcev 1911, tab. 1; D'âkov 1930, fig. 7; Blavatskij 1951, fig. 2; Firsov 1975, fig. 1; Novičenkov, Novičenkova 2002, 33, fig. 3; compiled by R. Karasiewicz-Szczypiorski; drawing by O. Kubrak): 1. Rooms adjacent to the defensive wall; 2. *Nymphaeum* I; 3. Baths; 4. Central building (*principia?*); 5. Barracks; 6. Tower at the peak?; 7. Inner wall; 8. Probable course of the *via praetoria*; 9. *Nymphaeum* II; 10. Outer wall; 11. Turrets: confirmed localisation (in black), probable localisation (in gray); 12. Gates; 13. Temple outside the east gate; 14. Alleged temple beyond the walls – west of the fort; 15. Findspot of one of the altars dedicated to Jupiter (IOM) west of the temple (see no. 13 above); 16. Road leading to the harbour.

therefore, they were not included in the plans prepared in later periods. A comparison of the various plans from the perspective of the methods used for the documentation of the course of the Roman fortifications may serve as an example of such difficulties.

The oldest known plan was prepared by Keppen,³³ and his sketch of the outer wall is presented as a broken line. The outline of the fortifications is similar in shape to a triangle with an irregularly torn-off top. The later plan by Rostovcev, as supplemented by Dâkov, presents a semi-circular outline of both fortification sections.³⁴ Similar plans were later published by Blavatskij, Firsov, and Orlov.³⁵ Mistakes in the documentation appeared and were later duplicated, even though the mentioned researchers hired surveyors to measure the walls or did it themselves.³⁶ Only the verification during the following excavations proved that the external wall was curved,

and its course had actually ran more in accordance with what was sketched by Keppen.³⁷ The above-described repeated publications of the site plans containing mistakes are all the more surprising since, for example, Blavatskij noted that the various fragments of the external wall known in his time did not form the suggested arched shape. The researcher also noted a curve in the wall.³⁸ In turn, Orlov mentioned that a twisting wall would make better use of the natural defensive advantages of the area and would limit the "blind spots".³⁹ However, neither of these researchers attempted to correct the site plan so as to remove the mistakes.

To summarise, it should be emphasised that the most up-to-date information about the course of the outer wall were provided by Novičenkov and Novičenkova's verification of the earlier discoveries and opinions.⁴⁰

³³ Keppen 1837, 191.

³⁴ Roztowzew 1902, fig. 1; Rostovcev 1911, tab. 1; D'âkov 1930, fig. 7.

³⁵ Blavatskij 1951, fig. 2; Firsov 1975, fig. 1; Orlov 1988, fig. 1.

³⁶ Blavatskij 1951, 260; Firsov 1975, 95; Orlov 1988, 19.

³⁷ Novičenkov, Novičenkova 2002, fig. 3.

³⁸ Blavatskij 1951, 276, fn. 1.

³⁹ Orlov 1988, 24.

⁴⁰ Novičenkov, Novičenkova 2002; Novičenkova, Novičenkov 2005.

Buildings enclosed by the external wall

The research conducted thus far has revealed a number of buildings, of which the majority have only been partially investigated, while some of the research was not documented or the documentation has not been preserved. At times, the buildings are only mentioned in the publications.⁴¹ As a result, it is exceptionally difficult to form a complete image based on such rudimentary information.

The data made available by the various researchers enables stating that the remains of two streets were found in the area of the so-called 'citadel'. One, about 6 m wide, supposedly ran along the N–S axis, reaching the bathhouse located on the highest part of the hill. The bathhouse was situated west of this street. The second supposedly ran along the internal side of the inner defensive wall.⁴² A small side street about 4 m wide diverged westward at a right angle from the first of the abovementioned streets. It neighboured the bathhouse from the north.⁴³

The circuitous street could not have ran directly next to the inner defensive wall for its entire length as rooms that had been added to the inner face of these fortifications were found in the western part of the fort. 44 Abutments were also added from the inside in a few places in order to broaden the curtain wall. 45 In the south-western part of the inner wall, one fragment was registered towards the end of the 19th century that was supposed to have been up to 5.5 m thick. 46 In all probability, the wall had also been thickened from the inside. As a result, it should be assumed that an empty space was left between the supposedly circuitous street and the wall, which when needed was used for the construction of rooms or in order to add abutments or thicken the fortifications.

The rooms adjacent to the defensive wall

The buildings uncovered within the borders of the inner wall perimeter include, among others, the rooms in the north-western part on the top of the hill. The rooms adjacent to the inner defensive wall had already been marked on the plan prepared by Rostovcev. A number of such rooms in the above-mentioned part of the 'citadel' had also already been registered by D'âkov.

This scholar also reported finds of entire "mounds" of ballista balls. 48 Blavatskij's research, conducted on the internal side of the wall, also revealed two similar rooms, as well as cultural accumulations up to 3 m thick. 49

Aside from the general references cited above, a slightly larger amount of information can be found about three adjacent rooms. The walls are between 0.8 and 0.85 m thick, while they are 1.9×2.2 m, 5.2×5.4 m, and 6×4 m in dimensions. The first room supposedly functioned as a utility room, 50 and a floor made of a layer of lime mortar was registered inside. The last room had a floor made from raw clay, on the surface of which traces of a fire-hearth or oven were found. 51 On this basis, it can be assumed that the room performed a residential function. Among other things, a supply of over 700 stone balls for ranged weapons was discovered nearby. 52

To summarise the above-quoted references, it can be assumed that a series of rooms was built between the defensive walls and the circuitous street within the fort on Cape Aj-Todor. The space on the internal side of the fortifications at the outpost on Kazatskaya Hill was used in an analogous manner. Traces of fire-hearths were also found there on the clay floors in the rooms adjacent to the defensive wall. It is assumed on this basis that these were *contubernia*. ⁵³

Nymphaeum I

In the south-western part of the 'citadel', a water reservoir (so-called Nymphaeum I) was also found at the beginning of the 19th century (Figs 2.2, 3). The plan indicates that the basin, similarly as in the case of the above-mentioned rooms, was constructed right next to the defensive wall.⁵⁴ The basin was 9×7.7 m in dimensions and reached the depth of at least 2.55 m. The south-eastern wall, adjacent to the circuitous street (compare with the description of the streets provided above), was moulded into 8 or 9 steps, which enabled going down to the bottom of the tank.⁵⁵ The walls were made from quarried stone, while the entire interior was plastered with two layers of mortar. The internal sealing layer contained an admixture of broken pottery. A drain about 20 cm in diameter was located in the north-eastern part of the reservoir, near the bottom. The backfill layers in the vicinity of the tank contained broken roof tiles.

⁴¹ Cf. among others Zubar' 2000, 198.

⁴² Vinogradov 1910, 251; Zubar' 2000, 187.

⁴³ D'âkov 1930, fig. 12; Zubar' 2000, fig. 12.

⁴⁴ Rostovcev 1911, tab. 1; Blavatskij 1951, 282; Orlov 1988, 26; Zubar' 2000, 183.

⁴⁵ Orlov 1988, 26-27.

⁴⁶ Rostovcev 1900, 96.

⁴⁷ Rostovcev 1911, tab. 1.

⁴⁸ D'âkov 1930, 23.

⁴⁹ Blavatskij 1951, 280, 282.

⁵⁰ Zubar' 2000, 183.

⁵¹ Orlov 1988, 26.

⁵² Orlov 1988, 26.

⁵³ Karasiewicz-Szczypiorski 2015a, 78.

⁵⁴ Rostovcev 1911, tab. 1.

⁵⁵ Blavatskij 1938, 386.

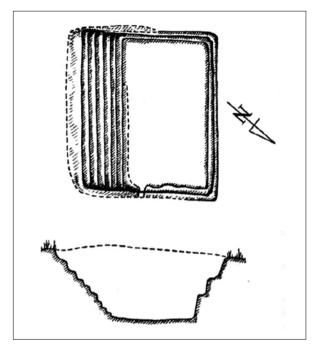


Fig. 3. Fort at Cape Aj-Todor. *Nymphaeum* I (after Blavatskij 1951, fig. 19).

On this basis, it can be assumed that the basin was covered with a roof.⁵⁶ Nearby, a fragment of a Latin inscription was also found carved into a lime plaque: "[n]ymph[aeum]". The preserved letters bore traces of having been painted red.⁵⁷ A piece of a relief, on which a fragment of an image presenting a woman near a tree is visible, was found in this same area.⁵⁸ Dâkov put forward a supposition that the marble sculptures of women that Šuvalov presented to the Alupka collection might also have been connected to the discussed reservoir.⁵⁹

The baths

The bathhouse (balneum) is the only building within the fort which was excavated in its entirety (Figs 2.3, 4). It is situated west of the hill's peak, on which the modern-day lighthouse is located. The bathhouse takes up the lower terrace, formed in the rock probably deliberately for its construction. As already mentioned, one of the main streets ran east of the discussed building, along the N–S axis. A narrower small street, perpendicular to the main artery, neighboured the bathhouse from the north.

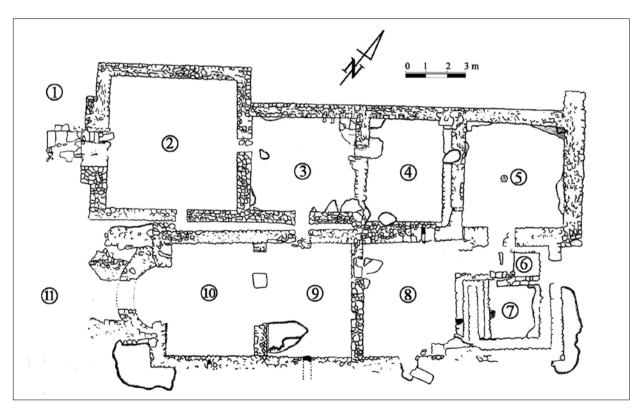


Fig. 4. Fort at Cape Aj-Todor. The baths (after Blavatskij 1951, fig. 22; numbering according to D'âkov 1930, 27, fig. 12).

⁵⁶ Blavatskij 1951, 282–283.

⁵⁷ Rostovcev 1911, 41–42; D'âkov 1930, 24; Blavatskij 1951, 250.

⁵⁸ Blavatskij 1951, 283.

⁵⁹ D'âkov 1930, 24.

⁶⁰ D'âkov 1930, 25.

Baths were discovered at the turn of the 19th and 20th centuries. They can be seen on the plan of the site published in 1902.61 Rostovcev was also the author of the first plan of the building and of the first attempt to interpret the functions of the discovered rooms.⁶² However, the mentioned plan was quite schematic; in addition, it shows that at the time the entire baths had not yet been uncovered. The bathhouse was once again studied in the 1930s, 1970s, and 1980s. Combining the discoveries made before the revolution and the results of research conducted later contributed, among other things, to the publishing of two subsequent versions of balneum plans. The older one presents all of the rooms in the baths and some of those in the neighbouring buildings. It also contains a coherent proposal for the numbering of the rooms.⁶³ The plan published later focused only on the baths building but provided more precise documentation of the structure. Undoubtedly, one major drawback of this version is the lack of any sort of markings of the rooms.⁶⁴ Due to the indicated imperfections in the published bathhouse documentation, Blavatskij's plan with D'âkov's numbering will be used in the present paper.

To return to the building itself, at present it is accessible on the surface, and it constitutes the best preserved example of a bathhouse constructed by Roman garrisons on the northern coast of the Black Sea. It is also an exception among the various Roman architectural monuments on Cape Aj-Todor as all the others, despite formally being under protection, have been systematically damaged or are threatened with destruction.

The baths building is 24.65 × 14.85 m in dimensions, with its longer side oriented along the W–E axis.⁶⁵ The walls are 0.75–1.0 m thick and were built from broken stone with admixtures of roof tiles and bricks,⁶⁶ in the pertinent literature sometimes even termed *opus mixtum*.⁶⁷ Lime mortar was used as the binding material. In the majority of the rooms, *pilae* from the hypocaust basements have been preserved, some of which were made of lime blocks and others from bricks bound with lime mortar.⁶⁸ *Pilae* made from ceramic pipes were also found, with additional holes made in their walls later.⁶⁹ Renovations of the heating system done with the use of such pipes were also observed in the garrison baths in the Chersonesos citadel.⁷⁰ During the

excavations, the remains of ceramic tiles which had covered the hypocaust, as well as leftover fragments of the floor mosaic (probably made from pebbles) and plaster fragments with traces of paintings, were also found.⁷¹

As mentioned above, the particular rooms and their parts have been marked using Arabic numerals from 1 to 11 as proposed by D'âkov (Fig. 4).⁷² The entire complex of rooms was clearly divided into two rows: the southern and the northern. Blavatskij's plan and the results of his studies provided confirmation that the building was constructed in two stages. The earlier phase saw the construction of only the rooms from the southern row (numbers 6–11). In the later phase, a whole row of rooms was added to the north (numbers 1–5). The plan published by Blavatskij⁷³ clearly indicates that the two sides of the building are at a slight angle to each other and are not linked very precisely.

Rooms 2 and 10 have furnace mouths (*praefurnia*) in the walls to the west. In these rooms, as well as in the neighbouring ones numbered 3, 4, 8, and 9, the remains of hypocaust basements have been preserved. Therefore, they were all heated by the two aforementioned furnaces.⁷⁴

In the walls of rooms 2 to 4, added at a later point in time, flues that served to let out the furnace gases from the basement level have also been preserved. In the walls of this part of the building, fragments of roof tiles marked with stamps "LE XI CL" were also found.⁷⁵

The published baths plans differ from each other in some details. However, it can be stated that at the level of the basements there were connections between rooms 2, 3, and 4, as well as between 9 and 10. Based on the analysis of this documentation, it remains uncertain whether there was a connection with room 8 (and if so, where exactly it was located). However, both Orlov and D'âkov were of the opinion that there had been a hypocaustum in this room.76 In addition, the latter of the above-mentioned researchers claimed that large ceramic box tiles were arranged on top of the pilae stacks covered with a layer of mortar, on which the remains of a mosaic made from broken pebbles (gravel) were preserved. This room had benches arranged along the walls neighbouring with rooms 4 and 9. It was also connected to the pools (so-called rooms 6 and 7). Three steps led to the large pool no. 7. The pool also had a drain for letting out water

⁶¹ Roztowzew 1902, 88, fig. 1.

⁶² Roztowzew 1902, 91, fig. 4.

⁶³ D'âkov 1930, 27, fig. 12.

⁶⁴ Blavatskij 1951, fig. 22.

⁶⁵ Blavatskij 1951, 287.

⁶⁶ Blavatskij 1938, 378.

⁶⁷ D'âkov 1930, 27.

⁶⁸ Blavatskij 1938, 378.

⁶⁹ Blavatskij 1951, 253.

⁷⁰ Antonova, Zubar' 2003, 55–56.

⁷¹ Blavatskij 1938, 378; Orlov 1977, 6, 8–9.

⁷² D'âkov 1930, 27, fig. 12.

⁷³ Blavatskij 1951, fig. 22.

⁷⁴ Rostowzew 1902, 91; D'âkov 1930, 26.

⁷⁵ Blavatskij 1951, 287.

⁷⁶ D'âkov 1930, 26; Orlov 1977, 6, 8-9.

on the side situated next to room 8.⁷⁷ The above-quoted information about the mosaic floor stands in contrast to the description claiming that the floor in room 8 was covered with bricks. They lacked stamps, but they had the same dimensions as the specimens bearing stamps "VEX / G RAV SP".⁷⁸ The publications provide concordant information that there was a doorway leading outside (in the direction of the cliff) in room 8, as well as a door to room 5.

Attempts to identify the functions of particular rooms were undertaken by Rostovcev and D'âkov.⁷⁹ However, these proposals could not be comprehensive. The first of these researchers did not have access to information about the entire building, while the second could not yet have known that the structure had been expanded. More precise studies of the building enabled distinguishing two construction phases.⁸⁰

The sum of the discoveries and observations conducted over the decades enables the reinterpretation of the functions of the particular rooms. In the earlier phase, when only the southern part of the building existed, room 8 along with pools 6 and 7 probably served jointly as an *apodyterium* and *frigidarium*. Even if we assume that room 8 had a hypocaust basement, it was located farthest away from the furnace (room 11) and in addition was furnished with benches along the walls. Due to its localisation in relation to the furnace, room 9 should have performed the function of a *tepidarium*, while room 10 – that of a *caldarium*. The above-mentioned room 11 would have been the back room for people working with the furnace (*praefurnium*).

It seems that after the expansion of the bathhouse nothing was changed in the old part of the building, with only the joint *apodyterium* and *frigidarium* extended through the addition of room 5. In all probability, this room was used to enter room 4 and subsequently to pass on to rooms 3 and 2. The last of these was located right next to the furnace and would have performed the function of a *caldarium*, while rooms 3 and 4 situated further from the fire would have jointly served as a *tepidarium*.

In summary, it may be assumed that the expanded bathhouse had two rows of rooms for warm and hot baths and one (large) *apodyterium* with a *frigidarium*. The cold baths would be limited to the two baths located in the eastern edges of the building (rooms 6 and 7). The estimates concerning the amount of rooms with

warm and hot bathing areas after the expansion of the *balneum* may of course raise certain doubts, but it seems certain that the general bathing surface was doubled!

The central building

In the central part of the so-called 'citadel', rooms were discovered that neighboured the baths but belonged to other buildings (Figs 2.4, 5.1). Large rooms that lacked hypocaust basements were located north of the bathhouse, on the opposite side of the small narrow street. The walls were supposedly monumental, even though they had been constructed using stones in clay bonding. During the excavations, a canal was found, made from broken stone well insulated with lime mortar and constructed earlier than the discussed building. Only later (after the terrain had been levelled) was a building erected in this place. It probably had two construction phases, which is indicated by the two levels of floors observed during the excavations.⁸¹ The architectural complex consisted, among other things, of a portico 22 m in length situated on the neighbouring street.82

It is rather improbable that the entire structure constituted a palaestra next to the bathhouse.83 Rather, it is possible that the building performed the function of a military headquarters.84 However, there is no way to confirm this hypothesis by conducting a comparison with other Roman forts. Most of the well-known castella were constructed on a rectangular plan. At Cape Aj-Todor, the irregular contours of the fortification lines undoubtedly required various compromises and nonstandard solutions. From the plans of the buildings from this part of the fort, it can be inferred that the building next to the bathhouse, which was only examined in some fragments, took up a parcel of land measuring 30 × 30 m.85 A military headquarters or praetorium could have been of a similar size. Blavatskij used the term principia to describe this building.86 However, D'âkov wanted to see principia on the peak of the hill near the modern-day lighthouse.87

Comparing the listed proposals, the option that the garrison baths were located next to the headquarters building seems to be more probable. A similar case is known from the legionary camp in Novae, 88 as well as from the Apsaros fort, at which research is ongoing. 89 It is very probable that after the introduction of

⁷⁷ D'âkov 1930, 26; Blavatskij 1951, 287.

⁷⁸ Blavatskij 1951, 287.

⁷⁹ Rostovcev 1911, 91, fig. 4; D'âkov 1930, 26.

⁸⁰ Blavatskij 1951, 287–288.

⁸¹ Blavatskij 1951, 288.

⁸² Rostovcev 1911, 3; cf. Zubar' 2000, 186.

⁸³ D'âkov 1930, 28.

⁸⁴ Rostovcev 1911, 3-4; Zubar' 2000, 187.

⁸⁵ D'âkov 1930, fig. 12.

⁸⁶ Blavatskij 1951, 260.

⁸⁷ D'âkov 1930, 25.

⁸⁸ Biernacki 2002.

⁸⁹ Karasiewicz-Szczypiorski, Kakhidze 2015, 183–186, figs 3, 5.5.

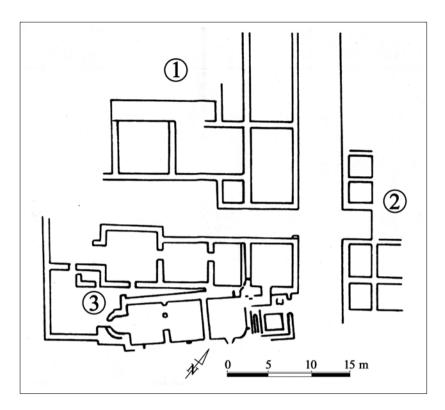


Fig. 5. Fort at Cape Aj-Todor. The central part of the fort (after D'âkov 1930, fig. 12): 1. Central building (*principia*?); 2. Barracks rooms; 3. Baths.

modifications to the buildings inside the Chersonesos citadel, a small staff building (Building B) and a separate chapel of the standards (Building G) were constructed next to the (expanded!) bathhouse (Building A).90 It is worth taking special note of this example as in Chersonesos the Roman garrison also had to be adapted to an atypical site. In addition, by all probability, in both cases soldiers from the vexillationes of the Lower Moesian army participated in their construction. Yet another argument in favour of the presented hypothesis about the function of the building located next to the bathhouse comes in the form of a piece of information that can be inferred from a comparison of the published fort plans. The front elevation (not investigated during the excavations) of the discussed building used to be oriented more or less toward the main gate in the inner defensive wall. It seems that the main gate in the external defensive wall was also located on the same axis. In forts and camps built according to a regular plan, the principia were erected directly opposite the main gate (porta praetoria), in the central part of the space enclosed by the fortifications.

The barracks

There were some rooms that belonged to a few other buildings situated east of the baths and the neighbouring street running from the north to the south (Figs 2.5, 5.2). The plans included in some of the publications show slightly larger fragments of the buildings discovered on the opposite side of the street. A number of small rooms are visible, located along the above-mentioned artery, probably arranged in two rows. Zubar's supposition seems correct that there was a barracks building standing on the eastern side of the above-mentioned artery, with its exits facing the street.

Similar rooms (four or six in pairs) have been marked as located east of the bathhouse. 94 The building that they composed must have been situated on the extension of the line determined by the bathhouse, *i.e.* along the W–E axis. The building with the rooms in two rows was similar in dimensions to that of the bathhouse and was located on the longer extension of the baths' axis. 95 Even though it was ignored by some of the researchers, it was included in Rostovcev's and Blavatskij's plans. 96

⁹⁰ Karasiewicz-Szczypiorski 2001, 65–66; 2015a, 30–32, 38.

⁹¹ Rostovcev 1911, tab. 1; Blavatskij 1951, figs 1, 2.

⁹² Rostovcev 1911, tab. 1; Blavatskij 1951, fig. 2.

⁹³ Zubar' 2000, 187.

⁹⁴ Rostovcev 1911, tab. 1; Blavatskij 1951, fig. 2.

⁹⁵ Orlov 1988, 19.

⁹⁶ Rostovcev 1911, tab. 1; Blavatskij 1951, fig. 2.

The remains of a similar building were discovered during the construction of an electric beacon east of the bathhouse in 1948. According to Orlov's account, farther to the east from the lighthouse, similar rooms were discovered during the construction of utility buildings, which he interpreted as barracks and generally dated to the 2nd-3rd century AD. However, excavations were never conducted in this area.⁹⁷

In summary, based on the quoted references and markings on the plans, it can be presumed that, so far, fragments of three or four barracks buildings have been discovered in the vicinity of the lighthouse. All were situated on the eastern side of the street west of which the baths were located. One part of the barracks was erected parallel to the aforementioned artery, opposite the alleged headquarters building; the second - perpendicularly to the street, directly opposite the bathhouse building. The third, about whose orientation it is difficult to state anything with any certainty, was located slightly farther to the east. It might perhaps have been placed on its longer axis, along the N-S line, as this is more or less the orientation of the modern-day utility buildings located east of the lighthouse, the construction of which led to the discovery of these alleged barracks.

A tower at the peak?

In the same area, in 1876, the foundations of an unidentified round building (Fig. 2.6) were probably destroyed during the construction of the lighthouse keeper's house north of the lighthouse. D'âkov suggested that the ancient signal tower (the lighthouse) must have been located west of the modern-day building of the same function. However, the researcher did not provide any rationale behind his hypothesis. It does not seem very probable, as the highest point at the cape is situated precisely in the spot where the above-mentioned house and the modern-day lighthouse are located. D'âkov himself mentions that the bathhouse slightly farther to the west was constructed on a terrace situated at a lower point, probably formed directly before the construction of the buildings within the fort.

If we assume that in the period of the functioning of the Roman fort a tower of some sort was needed at the Cape in order to signal passing ships, then it should have been located in the same place as the modern-day lighthouse and the lighthouse keeper's house. ¹⁰¹ If this was the case, the mentioned remains of a round building might have been the traces of a lighthouse erected by the Romans.

The inner wall

The course of the fortifications and its length

The inner wall (Fig. 2.7) was similar in shape to a semi-circle and enclosed the peak of the hill in a defensive perimeter. Especially from the north and the east, the fortifications were constructed in such a way that the steeper lower parts of the slopes were left in the forefield. Both ends of the wall reached as far as the cliff which prevented access to the cape from the south. ¹⁰² The internal section of the fortifications was about 380 m long.

The structure of the curtain wall

The wall was erected on a substruction made from fine broken stone, gravel, clay, and lime mortar. The dump after the ruined wall reached 7 m down the slope and was up to 1 m thick. 103 According to Rostovcey, the south-western fragment of the wall was 5.5 m wide at its base. 104 Blavatskij's research, conducted also in the western part of the fortifications, indicated that the width of the wall amounted to about 3 m.105 In turn, Firsov was of the opinion that the curtain was 2.0-2.5 m thick.¹⁰⁶ Elsewhere, it was stated that the width at the base amounted to between 1.8 and 2.4 m. Higher up, the curtain must have been narrower, as the preserved remains of the external and internal faces of the walls are at an 80-85 degrees angle.¹⁰⁷ Both wall fronts were made from large and medium-sized stone blocks. The filling inside the wall consisted of fine stones mixed with clay, but admixtures of lime mortar have also been encountered. 108 The mortar was also supposed to have bound the stone wall fronts. 109 Allegedly, the wall was also covered with lime plaster, while in its upper parts it consisted exclusively of small stones bound using the same kind of mortar.¹¹⁰

It can be inferred from Orlov's reports that in the western part of the fortifications, the inner wall was thickened by 1.8–2 m. On this basis, the researcher

⁹⁷ Orlov 1988, 19.

⁹⁸ Orlov 1988, 19.

⁹⁹ D'âkov 1930, 25.

¹⁰⁰ D'âkov 1930, 25.

¹⁰¹ Novičenkova 2015, 151.

¹⁰² Firsov 1975, 96.

¹⁰³ Blavatskij 1951, 280.

¹⁰⁴ Rostovcev 1900, 96.

¹⁰⁵ Blavatskij 1938, 373; Blavatskij 1951, 280.

¹⁰⁶ Firsov 1975, 96.

¹⁰⁷ Zubar' 2000, 182.

¹⁰⁸ Blavatskij 1938, 373; 1951, 280; Orlov 1988, 25–26; Firsov 1975, 96, 100.

¹⁰⁹ Firsov 1975, 98.

¹¹⁰ Orlov 1988, 26-27.

estimates that the rampart walk on the rebuilt curtain might have been 2–3 m wide. The thickening of the wall is supposedly a trace of the adaptation of the fortifications enabling the placement of catapults, as is also indicated by the numerous finds of stone balls in this part of the fort. It is worth noting that the joint width of the curtain wall (along with the thickened part) in the discussed fragment amounts to almost 4.5 m. Thus, the observations made in Orlov's studies are similar to those cited by Rostovcev.

Based on the gathered information, it can be stated that the fort's inner defensive wall was constructed in a very similar manner to the fortifications erected by the Romans around the watchtower on Kazatskaya Hill and in the fort in Balaklava-Kadykovka. 112 In the case of both mentioned sites, the curtain consists of two wall fronts made from irregular blocks of stone and an interior filled with fine stone and clay. However, there are no traces of the use of lime mortar in these walls. In Balaklava, mortar was used in the construction of the turrets by the gate, erected at a later point in time.¹¹³ In the case of both curtain walls cited as analogies, traces of a ditch were found in the forefield. The one on Kazatskaya Hill has been especially well-preserved. It is not deep, but the cross section in the shape of letter 'V' is clearly visible.114 The remains of the wall at this outpost are 1.9-2.5 m wide at the base, while the fragment of the curtain wall discovered in Balaklava was slightly narrower at its base (1.3-1.4 m). Traces of the thickening of the walls, which in Balaklava also amounted to 1.3-1.4 m, were found at both sites, added from the internal side. 115 These examples of the thickening of the walls were located near the gates and have been interpreted as remains of structures used to ascend the walls (ascensus). At Aj-Todor, this structure for ascending the walls (a ramp?), added to the internal sides of the fortifications, might have been located at the south-western edge of the walls, where the curtain wall was supposedly even 5.5 m wide. 116 The significant width of the alleged ramp may have resulted from the need to bring ballistae to the top of the walls. The abutments on the internal side of the discussed wall, which broadened the curtain by 0.8-1.0 m, are perhaps yet another trace of the adaptation of the fortifications to the use of ballistae, as is the depository of stone balls discovered slightly farther to the north.¹¹⁷ The reinforced curtain might have aided in the placement of the *ballistae*, similarly as did the turrets. A thickened fragment of the wall, which might have been introduced in order to broaden the rampart walk, was also found on Kazatskaya Hill. However, in this case, a type of buttress was added onto the external surface of the wall.¹¹⁸

It can be inferred from the data published by Orlov that first 500 and then later over 700 balls made from gravel (Russian galka) were found in the vicinity of the above-mentioned wall fragment at Cape Aj-Todor. 119 Such balls were also found during subsequent excavation seasons in various parts of the fort.¹²⁰ The stone raw material mentioned in the publications allows for the supposition that the Roman garrison used pebbles from the nearby beach as projectiles. In the information provided about the discovery of the first deposit of balls, mention is made that their average diameter amounted to about 15 cm.¹²¹ Previously, Blavatskij had mentioned finds of balls "the size of fists". 122 The researchers sometimes provided information about the diameters of the stone projectiles in their publications but did not make any remarks concerning their weight. It can only be supposed that they weighed up to 4.7 kg.¹²³ However, from the newest studies of the collection of shots from the excavations at Cape Aj-Todor, kept in various museums in Moscow, it can be inferred that the projectiles vary in terms of their mass. The heaviest among them weigh from 1.5 to almost 2.3 kg.124

The turrets

There is no information in the publications about any remains of turrets by the inner wall or about the ditch in the forefield.¹²⁵ It seems that this older wall was erected without any additional fortifications. The wall at the Kazatskaya outpost may serve as an example of the application of a similar solution. It was constructed on a circular plan, while the only extension of the defensive perimeter found during the excavations came in the form of the above-mentioned buttress in the northeastern part of the wall. In all probability, this buttress enabled one *ballista* to be placed on the widened

¹¹¹ Orlov 1985, 332; 1988, 21.

Sarnowski *et al.* 2002, 169; 2007, 61; Karasiewicz-Szczypiorski,
 Savelâ 2013, 125, figs 5:3–4, 8:1–2, 9:1–2; Karasiewicz-Szczypiorski 2015a, 62, 76; 2015b, 57.

¹¹³ Karasiewicz-Szczypiorski, Savelâ 2013, 125–127.

¹¹⁴ Sarnowski, Savelja, Karasiewicz-Szczypiorski 2002, 168–169; 2009, 60; Karasiewicz-Szczypiorski 2015a, 76.

¹¹⁵ Sarnowski *et al.* 2002, 169, figs 2, 14; 2009, 61, fig. 3; Karasiewicz-Szczypiorski, Savelâ 2012, 177, figs 1:1, 2; 2013, 124–125, figs 1:1, 5:3–4.

¹¹⁶ Rostovcev 1900, 96.

¹¹⁷ Orlov 1985, 332; 1988, 27; 1988, 26–27.

¹¹⁸ Sarnowski et al. 2002, 169, figs 2, 14; 2009, fig. 3.

¹¹⁹ Orlov 1978, 366; 1980, 115–116.

¹²⁰ Orlov 1984, 309; 1985, 331.

¹²¹ Orlov 1978, 366; 1980, 115–116.

¹²² Blavatskij 1951, 289.

¹²³ Cf. Karasiewicz-Szczypiorski 2015a, 94.

¹²⁴ Žuravlev, Kamelina 2015.

¹²⁵ Orlov 1988, 25; Zubar' 2000, 183.



Fig. 6. Fort at Cape Aj-Todor. *Nymphaeum* II as preserved at the beginning of the 21st century (photo by R. Karasiewicz-Szczypiorski).

fragment of the rampart walk (probably more as a demonstration of strength than out of any real need).

The gates

The gate was supposedly situated in the north-western fragment of the fortifications, but its traces are at present no longer visible (Fig. 2.12). 126 The results of studies done in order to prepare a new plan of the fort at Cape Aj-Todor suggest that the gate in the internal wall must have been located along the line linking the main gate in the external wall with the previously discussed alleged headquarters building. This would be an example of a standard solution applied in almost all the forts and camps from the Principate period. A straight road (*via praetoria*) presumably ran from the *porta praetoria* to the *principia* building.

The area between the inner and outer walls

The expansion of the fortifications through the construction of a new wall in the forefield of the old fortifications led to the enclosure of additional space within the defensive perimeter. The estimates provided in the literature on the subject indicate that the area of the stronghold was increased at that time from 2 ha to 6 ha or from 2.5 ha to 4.5 ha. The distance between the external

and the inner walls oscillates in various places from 40 to 80 m, while the open area between the two walls amounts to about 2.5 ha.¹²⁷ There were supposedly no buildings in this open space, and it was supposed to have served as a refuge.¹²⁸ Blavatskij's opinion could have been based on his own research results. He did not encounter any architectural remains, and the preserved cultural layer was only 0.2 m deep and located directly on the rock. 129 The reason behind the lack of any buildings was supposedly the "lay of the land" or the terrain. 130 It can be presumed that the steep slope of the hill constituted an obstacle for the builders. It seems that as a result the eastern part of the discussed area was the least suitable for construction of any type of buildings. Nevertheless, Dâkov claimed that the entire space between the two walls, as well as the area beyond the walls, had been settled. 131

This part of the fort was only to a small extent excavated. Nevertheless, a water reservoir was found in the north-western part of the area between the walls, 132 and it was referred to in the literature on the topic as *Nymphaeum* II (Figs 2.9, 6). In terms of its construction, this tank is supposedly very similar to *Nymphaeum* I. 133 At present, this is one of the few structures available on the surface of the ground and open for visitors. However, there are no traces of steps which would have led down to the bottom of the basin analogically to those in *Nymphaeum* I. This allows us to assume that the similarity lies rather in the dimensions,

¹²⁶ Zubar' 2000, 183.

¹²⁷ D'âkov 1930, 33; Firsov 1975, 95.

¹²⁸ Blavatskij 1938, 373; 1951, 261, 278, 291.

¹²⁹ Blavatskij 1951, 261.

¹³⁰ Firsov 1975, 96.

¹³¹ D'âkov 1930, 29.

¹³² Rostovcev 1911, 3.

¹³³ Orlov 1988, 21.

which were not provided in the published material. It can also be presumed that there were analogies between the brickwork and the mortar used in the two reservoirs. In fact, the *Nymphaeum* II walls were also constructed from broken stone; however, there are no visible traces of any mortar insulating the inside of the structure.

In terms of the method and extent of the utilisation of the space between the fortification lines, it is difficult to come to any far-reaching conclusions, as apart from the area directly around *Nymphaeum* II, no larger excavation works have been conducted there. Only various fragments of the external walls have been excavated. However, during the work carried out in the northwestern part of the fortifications, remains of a building that was adjacent to the curtain wall from the inner side and the accompanying cultural layers were encountered at least once. The mentioned accumulation near the unidentified building was up to 2.5 m thick. This same author also mentioned the remains of a few buildings accompanied by accumulations that were not very thick.

In my opinion, there are no analogies or logical arguments that would justify a significant increase of the fort's surface and the length of its fortifications without taking advantage of the additional terrain protected by the fortifications. The examples from Chersonesos and Balaklava-Kadykovka indicate that upon moving the previous fortification line even slightly, the areas left after the walls had been knocked down were immediately used for the construction of new buildings.¹³⁶ The situation should be similar in the discussed case. As the south-western part of the open area between the walls was not completely devastated and lies outside the modern-day military unit, there is hope that in the future it will be possible to conduct new archaeological studies on this terrain. As a result, it will probably be possible to establish whether the area between the fortification lines was utilised, and if so - how.

The external wall

The outer fortification line is situated at the bottom of the hill, allegedly 60 m below the inner wall (Figs 2.10, 7.a–d).¹³⁷ The discussed section of the fortifications was

supposed to have been 550 m long,¹³⁸ even though according to the first known measurements taken this amounts to only 550 steps (!), *i.e.* 185 fathoms.¹³⁹ To the west and to the east, the wall ended at the edge of the cliff.

The course of the fortification

Dâkov emphasised that the fort was not typical, as the fortifications were constructed according to an irregular plan, reminiscent of a semi-circle. Orlov noted that the seemingly unpredictable course of the wall might indicate the existence of bends in the external fortifications. However the researcher did not present any proposals concerning their course on the composite plan of the site that he had prepared. 141

The existence of a bend was documented in a sketch made by Keppen in the 1830s. 142 One bend in the middle part of the wall, east of the gate closing off the area of the lighthouse, was also discovered recently by Novičenkov and Novičenkova. 143 Their investigations also confirmed the existence of at least one rectangular turret in the middle section of the fortification line, which was added onto the internal side of the defensive wall. 144

With the results of Novičenkov and Novičenkova's research at our disposal, we can with all certainty state that the outer wall, at least in its middle part, ran along a broken line. The aforementioned researchers, referring to Keppen and the results of their own excavations, established that there had been at least two bends in the external wall.¹⁴⁵

The structure of the curtain wall

Various fragments of the external wall differ in terms of the applied construction techniques. A significant part of the central section in its lower parties is made of irregular stone blocks. At its base, this part of the curtain wall has the width of between 4.6–5.4 m¹⁴⁷ to 5.5 m. He external wall face slants at an 82–85 degrees angle, while the internal one at a 75–77 degrees angle. Similarly as in the case of the inner wall, two wall faces were erected from large stones, while the spaces between them were filled with small stones and clay.

¹³⁴ Orlov 1978, 366; 1988, 22.

¹³⁵ Orlov 1988, 24–25.

Karasiewicz-Szczypiorski 2001, 63; 2015a, 65; 2015b, 60;
 Karasiewicz-Szczypiorski, Savelâ 2013, 124–131.

¹³⁷ Zubar' 2000, 181.

¹³⁸ Orlov 1988, 23.

¹³⁹ Cf. Keppen 1837, 192.

¹⁴⁰ D'âkov 1930, 21.

¹⁴¹ Orlov 1988, 24, fig. 1.

¹⁴² Keppen 1837, 191.

¹⁴³ Novičenkov, Novičenkova 2002; Novičenkova 2015, 292, 294; 2017, 292, 294.

¹⁴⁴ Novičenkova 2017, 289–290.

¹⁴⁵ Novičenkov, Novičenkova 2002, 33, fig. 3; Novičenkova 2015, 152–153; 2017, 289, fig. 1.

¹⁴⁶ Novičenkova, Novičenkov 2005, 241; Novičenkova 2015, 151, 155.

¹⁴⁷ Orlov 1988, 24.

¹⁴⁸ Rostowzew 1902, 89; Firsov 1975, 97.

¹⁴⁹ Firsov 1975, 97; Orlov 1988, 22.

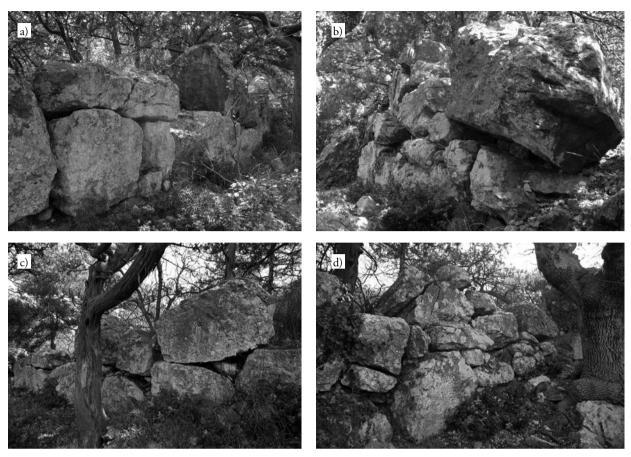


Fig. 7. a–d. Fort at Cape Aj-Todor. The outer wall to the east of the modern road to the lighthouse as preserved at the beginning of the 21st century (photos by R. Karasiewicz-Szczypiorski).

The western part of the wall was supposedly constructed very differently from its central part.¹⁵⁰ In this fragment, the curtain wall is 2.2–2.4 m wide at its base and was erected on the rock. However, the wall was (at least partially) located on an older cultural layer containing a significant amount of ash admixtures, as well as on a substructure consisting of clay and stones.¹⁵¹

Finer stones were used in the making of the wall face in this fragment than in the case of the middle part of the wall. ¹⁵² Based on the depth of the dump located in front of the wall, its original height is estimated to *c*. 3 m. ¹⁵³ Firsov, analysing the tilt angle of the wall face, suggested that the height of the curtain wall may well have reached as high as 7–8 m. ¹⁵⁴ In its eastern fragment, the wall supposedly reached the width of 6 m. ¹⁵⁵

In the lower parties of the wall, traces of the use of lime mortar were also encountered during excavations. 156 Keppen also informed about the use of such binding material in his description of the alleged turret located on the internal side of the discussed fortifications. 157 In turn, Rostovcev emphasised that the external wall had been constructed without the use of mortar. 158 Firsov categorically claimed that mortar had been used both in the construction of the external face and the internal one of the discussed section of the fortifications, as well as deep in its core.¹⁵⁹ In turn, Orlov observed traces of the use of lime mortar in the western edge of the middle part erected using large stone blocks. The mortar was supposedly also present in the upper parties of the curtain wall. 160 Traces of mortar were also found during last excavations in the western part of the external wall.¹⁶¹

¹⁵⁰ Blavatskij 1951, 276; Novičenkova, Novičenkov 2005, 241; Novičenkova 2015, 151, 155.

¹⁵¹ Blavatskij 1938, 373; cf. Novičenkova 2017, 294–295.

¹⁵² Orlov 1988, 24; *cf.* Novičenkova 2017, 294.

¹⁵³ Blavatskij 1951, 278.

¹⁵⁴ Firsov 1975, 97.

¹⁵⁵ D'âkov 1930, 21; Orlov 1988, 23.

¹⁵⁶ Zubar' 2000, 179.

¹⁵⁷ Keppen 1837, 191, 193.

¹⁵⁸ Rostowzew 1902, 89.

¹⁵⁹ Firsov 1975, 99–100.

¹⁶⁰ Orlov 1988, 24.

¹⁶¹ Novičenkova 2015, 153-154.

It would seem worthwhile to comment on these observations regarding the differences in the methods of constructing particular sections of the discussed fortification section. The use of variously-sized stones in different parts of the wall and the alternating thickness of the curtain wall may indicate that the fortifications were built by a few brigades using slightly different raw material. A similar situation has already been observed in Chersonesos along the curtain wall consisting of 17 wall sections rebuilt at the beginning of our era, perhaps also with the aid of the Roman army.¹⁶² The above-discussed differences might also result from the stretching out of the investment over time and changes in the original concept during the construction of the structure. 163 Similar situations have been observed in other places, including Hadrian's Wall in Great Britain, for which in the western part the curtain wall's stone fortifications were built at a later point in time than the turrets. The toothing construction located between the turrets, built earlier, is broader than the curtain wall added on later. The width of the toothing corresponds to the curtain in the eastern part of the wall, which is somewhat older. In the quoted example, it is clear that in the case of similar investments the initial plan was later revised. The reasons behind this might have been the lack of time, no labour force, or no money. Blavatskij and Novičenkova point out that the external wall might have been constructed in a hurry. 164 The former researcher emphasised that the fortifications are rather reminiscent more of an embankment than an actual wall.165 Firsov noted that clay and not lime mortar was used in the core of the wall (especially at its base). In his opinion, this lowered the construction costs significantly.¹⁶⁶ Novičenkov and Novičenkova were of the opinion that the construction of a wall with bends required less time and costs than of a wall with turrets but enabled a very similar effect.167

The turrets

Most of the publications regarding the fortifications at Cape Aj-Todor provide information about the turrets at the external wall, the remains of which, however, have not been preserved (Fig. 2.11). The only researcher who

claimed that the external wall was not reinforced by turrets was Firsov.¹⁶⁸

The first to mark one rectangular structure on the internal side of the discussed fortification line on his plan of the site was Keppen. ¹⁶⁹ The structure, located 200 steps from the sea, was supposedly 13×7 steps in dimensions, while the preserved ruins were made from stones in lime mortar bonding. In 1909, a rectangular turret measuring 6×4 m was discovered in the north-eastern section of the external wall, with foundations that were 1 m thick. The wider side of the structure adjoined the inner face of the curtain wall. ¹⁷⁰ The turrets also supposedly flanked the main gate in the north-western part of the external wall. ¹⁷¹

In addition, one semi-circular turret was allegedly visible somewhere in the bend of the wall. 172 It is almost certain that this refers to the same turret, the existence of which in the middle section of the fortifications was confirmed during the last excavations conducted at this site. The alleged semi-circular shape of this structure may have resulted from the rounded corner of the bend in which the turret was situated.¹⁷³ One other piece of information about a rectangular turret, next to which a third gate (perhaps a door?) was located, refers to the north-western section of the wall.¹⁷⁴ However, in this case, discrepancies among the opinions expressed by various authors are obvious. D'âkov, while writing about the discussed fragment of the fortifications, assumes that it was rather a doorway aiding in the defence of the main gate that was located in this spot. However, the researcher does not mention any turret there.175

The gates

A gate with the width not exceeding 3 m, which should have served as a passageway to the nearby harbour in the bay, was located in the north-eastern section of the external wall (Fig. 2.12). This gate was used as an exit leading to a nearby temple (Fig. 2.13).¹⁷⁶ The main gate was probably situated in the north-western segment of the external wall, more or less in the spot where the road leading to the lighthouse currently cuts through the remaining traces of the fortifications or somewhat to the east of this road.¹⁷⁷ It was supposedly flanked by

¹⁶² Karasiewicz-Szczypiorski 2014, 91–94; 2015a, 46–47, 54.

¹⁶³ Cf. Novičenkova 2015, 151.

¹⁶⁴ Blavatskij 1951, 281; Novičenkova 2015, 151.

¹⁶⁵ Blavatskij 1951, 291.

¹⁶⁶ Firsov 1975, 100.

¹⁶⁷ Novičenkov, Novičenkova 2002, 33.

¹⁶⁸ Firsov 1975, 96.

¹⁶⁹ Keppen 1837, 191, 193.

¹⁷⁰ Rostowzew 1902, 90, fig. 3; Rostovcev 1911, 3; D'âkov 1930,
21; Blavatskij 1951, 250; Orlov 1988, 23; Zubar' 2000, 180.

¹⁷¹ D'âkov 1930, 22.

¹⁷² D'âkov 1930, 20, fig. 7.

¹⁷³ Novičenkov, Novičenkova 2002, 33; Novičenkova 2015, 153; 2017, 289.

¹⁷⁴ Orlov 1988, 24; cf. Novičenkova 2017, 289.

¹⁷⁵ D'âkov 1930, 21, fig. 9; cf. Novičenkova 2017, 289.

 ¹⁷⁶ Rostowzew 1902, 90, fig. 3; Rostovcev 1911, 4; D'âkov 1930,
 21–22; Novičenkova 2015, 154.

 ¹⁷⁷ Rostovcev 1911, 3; D'âkov 1930, 22; Orlov 1988, 23;
 Novičenkov, Novičenkova 2002, 28; cf. Novičenkova 2015, 153;
 2017, 289.

turrets, while the gateway was allegedly even 10 m wide. 178 However, Orlov claimed that there were no traces whatsoever of the existence of such structures. 179

Perhaps a third gate (or a doorway?) was located in the north-western segment of the wall. This additional passageway through the curtain wall, with the width of 2.5 m, was allegedly situated at a distance of 129 m from the cliff and 70 m from the inner wall. Firsov claimed that only one gate existed in the western part of the external wall, more or less in the same spot as the discussed passageway. Zubar' was of the opinion that there were three gates reinforced by turrets in the external fortifications, and that the only confirmed turrets were situated next to the gates. The same spot as the discussed passageway through the same spot as the discussed passageway.

Taking into account the newest research results and approaching the unverified earlier reports with caution, it can be assumed that the external line of defence had been reinforced with turrets and bends. These bends were located only in the middle section, while the turrets were situated also in the eastern and western sections, adjacent to the gates that presumably must have been located there. If not all of the turrets, then at least most of them were erected on a rectangular plan on the internal side of the perimeter wall. In the case of the external fortifications, information is lacking regarding a possible ditch in the forefield of the wall. The fortifications were built with the use of a variety of construction techniques and diverse building materials on a plan similar to that of a triangle.

Extramural area (extra muros)

The research conducted thus far has only to a small extent encompassed the area beyond the fort. As a result, only one building and some other traces of a settlement can be mentioned. The interpretation and dating of at least part of the discovered remains raises certain justifiable doubts; however, there is usually no possibility of verifying the published data. Another frequent issue is the lack of any preserved documentation, as signalled by subsequent authors.

The shrine outside the east gate (with dedications by beneficiarii consularis)

The remains of a small temple were discovered in 1907 about 30 m north-east of the gate from which

a road ran in the direction of the wharf at the nearby bay (Fig. 2.13). The building was almost definitely originally located next to this road. The appalling state of the architectural remains made any attempts at reconstructing the plan of the building impossible. 183 Modern-day researchers are also unable to make any such attempts as no documentation for the research conducted in this area has been preserved (perhaps none was ever compiled?). Two altars were extracted from the ruins.¹⁸⁴ There were some Latin inscriptions on the altars, both dedicated to Jupiter "Iovis Optimus Maximus". A third similar altar was found by coincidence a year earlier (at a spot located at a distance of about 170 m to the west), during levelling works conducted in a nearby vineyard (Fig. 2.15).¹⁸⁵ A collection of 12 votive reliefs and their fragments also originates from the temple ruins, and these elements have been identified as traces of a cult of Thracian origin. 186 The mentioned reliefs made from marble bear representations of: Dionysus (three times), the Thracian Horseman (two times), Mitra (two times), as well as Hermes, Hecate, and Artemis. One relief has not been identified. 187

A second temple beyond the walls – west of the fort?

On the property belonging to Prof. Malyšev before the revolution, to the west from the fort, two more votive reliefs were found (without their context), shattered into pieces. The considerable distance from the above-described temple prompted at least some of the researchers to conclude that a second temple had existed beyond the fort walls (Fig. 2.14). Both reliefs presented Artemis. This was supposed to be a proof that an undiscovered shrine had been dedicated to this goddess. 190

However, so far no research has been conducted in this area, and the hypothesis about the existence of a second temple cannot be verified. Nevertheless, after the passage of one hundred years, it seems highly unlikely. It must be remembered that one of the three known altars was found at some distance from the temple, in which it is almost certain that the altar had been located. This is indicated by the similarity between all the three known altars. It is also probable that the original reliefs exhibited in one temple were later scattered around the area. Not only the two reliefs with Artemis (loose findings from

¹⁷⁸ D'âkov 1930, 22.

¹⁷⁹ Orlov 1988, 23.

¹⁸⁰ D'âkov 1930, 22, fig. 9; Orlov 1988, 24.

¹⁸¹ Firsov 1975, 96, fig. 1.

¹⁸² Zubar' 2000, 181; cf. Novičenkova 2015, 153-154; 2017, 289.

¹⁸³ Rostovcev 1911, 4; cf. Zubar' 2000, 189.

¹⁸⁴ Rostovcev 1911, 5, no. 2, 6, no. 3.

¹⁸⁵ Rostovcev 1911, 4–5, no. 1, tab. 1:a; D'âkov 1930, 31; *cf.* Blawatsky, Kochelenko 1966, 24.

¹⁸⁶ Rostovcev 1900, 1–42.

 ¹⁸⁷ Rostovcev 1911, 13–16; *cf.* D'åkov 1930, 31; Blavatskij 1951,
 256–258; Blawatsky, Kochelenko 1966, 23–25.

¹⁸⁸ Rostovcev 1911, 16; cf. D'âkov 1930, 32; Blavatskij 1951, 258.

¹⁸⁹ Rostovcev 1911, 16–17; cf. D'âkov 1930, 30.

¹⁹⁰ Rostovcev 1911, 16-17; D'âkov 1930, 32; Blavatskij 1951, 258.

Malyšev's plot of land) but also one complete plaque and a fragment of another one originating from different parts of the fort were found at various distances from the shrine with dedications by *beneficiarii consularis*. One of these reliefs presents the Thracian Horseman and bears a Latin inscription, while the other features a Greek-sounding woman's name transcribed in Latin "[*Parthe*] nope". ¹⁹¹

Most probably, the temple (or temples) located *extra muros* were privately funded by the soldiers or officers and served to perform cult practices other than those of the official worship. ¹⁹² The same function was performed by the Temple of Jupiter Dolichenus constructed at a distance of about 60 m from the fort in Balaklava. This shrine was probably situated by the road leading out of one of the *castellum*'s gates. ¹⁹³

One significant difference between the temple at Cape Aj-Todor and the one in Balaklava-Kadykovka is that votive reliefs, preserved in full or in fragments, were only discovered in the first location. There can be no doubts concerning their connection to cults common in the Balkan provinces of the Empire; however, their relation to the Roman garrisons in Crimea is not as obvious.¹⁹⁴ We know of no other similar finds either from the Temple of Jupiter Dolichenus or in general from the Roman fort in Balaklava and its surroundings. A number of votive plaques were found in Chersonesos, but they were scattered all across the town, while for example altars with Latin inscriptions were found almost exclusively in the close vicinity of the citadel occupied by the Romans.

The lack of documentation as well as of any possibility of verifying the earlier excavations means that the above-mentioned doubts will probably never be resolved. However, by referring to the above-quoted material differences between the attestations of the cults practiced at Cape Aj-Todor, in Balaklava-Kadykovka, and in Chersonesos, it is possible to speculate that they result from a different composition of the *vexillationes* stationing in these garrisons. ¹⁹⁵ Perhaps the discovery of traces of a Thracian cult is connected with the suggested stationing of soldiers from the *I Thracum Syriaca equitata* cohort at the cape? ¹⁹⁶ The soldiers of this unit stationing in Lower Moesia would have consisted of *peregrini* recruited among the local population on the Balkan Peninsula.

Perhaps, however, the findings of the votive plaques *extra muros* point to the presence of an unidentified group of civilian inhabitants living in a settlement outside the walls (*vicus*)?

The settlement beyond the walls

The majority of the scholars conducting research at the site suggested the existence of a settlement near the fort.¹⁹⁷ In turn, Orlov emphasised that so far no traces of cultural layers with a thickness and scope suggesting a stable settlement have been found outside the walls. 198 Zubar' drew attention to the finding of the abovementioned fragment of a votive relief with the female name Parthenope. However, the researcher claimed that it was too soon to claim the existence of a settlement next to the camp. 199 The conjectures concerning the permanent presence at Aj-Todor of civilians connected to the garrison can also be supported by the interpretation of votive reliefs from Chersonesos. The scattering of these objects across different parts of the town (almost exclusively outside the citadel) constitutes one of the arguments supporting the hypothesis about a permanent settlement of a group of civilians in the town, probably originating mainly from the Balkan provinces of the Empire.²⁰⁰ In the case of the finds from Aj-Todor, coming mainly from the temple outside the fort walls, suggestions have been made that the shrine served not only the soldiers but also civilian inhabitants.²⁰¹

Due to the lack of any evidence that would indisputably confirm the existence of a settlement next to the camp, researchers are probably doomed to remain guessing. In an attempt to take into account all the traces that might be linked to the discussed issue, it would be worthwhile to focus on the altars originating from the above-mentioned temple outside the fort walls.

One of the altars²⁰² was issued by a *beneficiarius consularis* from the Eleventh Claudian Legion "*pro sa[l(ute)] sua et filiorum* [...]". Yet another altar was issued by another *beneficiarius consularis* "*pro sal(ute) sua et su[or(um)*]".²⁰³ The funding of votive offerings also on behalf of someone's close ones may (but does not necessarily) testify to the fact that civilians came to Taurica together with the *beneficiarii*. Of course,

 ¹⁹¹ Rostovcev 1911, 42, no. 2; IOSPE I² 679; Solomonik 1965,
 99–102; Novychenkova-Lukychova 2014, 143.

¹⁹² Cf. Zubar' 2000, 190.

¹⁹³ Sarnowski, Savelja 2000a; Karasiewicz-Szczypiorski 2015a, 72; 2015b, 67.

¹⁹⁴ Karasiewicz-Szczypiorski 2015a, 126–128.

¹⁹⁵ Karasiewicz-Szczypiorski 2015a, 176–181.

¹⁹⁶ Sarnowski 1988, 80; Zubar' 2000, 196–197; Matei-Popescu 2010, 234; *cf.* Spaul 2000, 366–367.

 ¹⁹⁷ Rostovcev 1900, 152; 1911, 35, 41; D'âkov 1930, 29–31; 1942,
 75; Blavatskij 1951, 290.

¹⁹⁸ Orlov 1988, 21.

¹⁹⁹ Zubar' 2000, 197; cf. Rostovcev 1911, 42.

²⁰⁰ Karasiewicz-Szczypiorski 2015a, 42.

²⁰¹ D'âkov 1930, 31-32.

²⁰² Rostovcev 1911, 5, no. 2; IOSPE I² 675.

²⁰³ Rostovcev 1911, 6, no. 3; IOSPE I² 676.

it cannot be stated whether they reached as far as Cape Aj-Todor, and if so – whether they lived *extra* or perhaps *intra muros*. The example of Centurion Antonius Proculus, also from the Eleventh Claudian Legion, who almost certainly served in Balaklava, shows that his wife and at least one daughter lived in Chersonesos.²⁰⁴ Thus, it is impossible to determine whether the close relatives of the Roman soldiers who arrived at the southern Crimean coast lived at Cape Aj-Todor. However, it seems justifiable to once again draw attention to the discussed altars, which may serve as an argument in the discussion on the topic.

The soldiers' cemetery

A soldiers' cemetery must have been situated beyond the walls. It is possible that civilians connected to the garrison were also buried there. Even if this was the case, it does not apply to the later cremation burials dated to the 3rd-4th centuries AD.²⁰⁵ The only material trace of the cemetery, which presumably functioned as long as the Roman army stationed at the fort, is a potential gravestone with a representation of a horseman and a Latin inscription.²⁰⁶ As in the case of the gravestone of a cavalryman from Balaklava-Kadykovka, this is the only piece of evidence of a military burial ground at the fort;²⁰⁷ however, in Balaklava, information is available concerning the find-spot of the stela and it can be assumed that it was discovered in situ, 208 whereas the place of origin of the discussed fort gravestone is uncertain. In the literature on the topic, the opinion is voiced that the plate was purchased in the 19th century for the Voroncov collection (perhaps in Rome) along with some other objects.²⁰⁹ However, it seems more probable that it made its way to the palace in Alupka as a result of the excavations conducted at Cape Aj-Todor supervised by the son-in-law of the collection's owner - Count Šuvalov.²¹⁰

The aqueduct

A fragment of an aqueduct made from ceramic pipes was also found outside the fort. The pipeline runs in the direction of the fort from the spring flowing to this day on the slopes of Aj-Petri Mountain. It was discovered outside the walls, about 700 m from *Nymphaeum* I,

to which it most probably led. 211 The construction of the water conduit can in all probability be dated to the 2^{nd} century AD. 212

It seems almost certain that the aqueduct supplied water to the waterless cape, all the more so since pipes were also discovered somewhere within the area of the fort.²¹³ However, it remains unknown at which point the pipeline intersected the fortifications and whether only one pipeline existed. It is also unknown how the water was distributed around the fort. The aqueduct should have first supplied water to the bathhouse located at the highest point in the fort and then subsequently (gravitationally) to all the reservoirs situated lower down in the 'citadel' (*Nymphaeum* I) and in the area between the walls (*Nymphaeum* II).

Pottery production outside the fort walls

In the pertinent academic literature, opinions were expressed about the convenient conditions in the vicinity of the fort for the development of pottery production. The localisation nearby a rich deposit of clay, well-known for many generations and called "the clay pit", was conducive to this purpose. ²¹⁴ It is also well-known that during the construction of the Grand Duke Aleksander Mihailovič's house (west of the fort) a huge deposit of broken defective pottery products was found; however, there is no information available concerning the dating of this find. ²¹⁵

The above-mentioned dump of production 'rejects' (pottery kiln waste) evidences the functioning of a pottery production facility near the cape. However, it is impossible to determine whether deficient ceramic building materials were also found and whether the deposit can be dated to the first centuries of our era. Berthier de Lagarde emphasised (as did other researchers) the complete lack of water in the closest vicinity of the fort.²¹⁶ This is probably the main reason behind the lack of settlement activities since the end of the Roman Period up until modern times. The water supply system constructed by the Romans functioned only until the fort was abandoned, i.e. at the latest until the mid-3rd century AD.²¹⁷ Taking into account this data, it can be assumed that pottery production developed in this area only during the period of the stationing of the Roman garrison. This is also indirectly indicated by the discovery of the aforementioned

²⁰⁴ Sarnowski, Savelja 2000b, 197–205.

²⁰⁵ Blavatskij 1951, 262–274, 291.

²⁰⁶ Rostovcev 1911, 38, tab. III:3; D'âkov 1930, 4; AE 1990, 871.

²⁰⁷ Savelja, Sarnowski 2000.

²⁰⁸ Karasiewicz-Szczypiorski 2015b, 53–54, 66.

²⁰⁹ Rostovcev 1911, 38.

²¹⁰ D'âkov 1930, 6.

²¹¹ Blavatskij 1951, 260, 288, fig. 24: 6; Orlov 1988, 21.

²¹² Cf. Blavatskij 1951, 289.

²¹³ Rostovcev 1911, 3; cf. Zubar' 2000, 188.

²¹⁴ Bert'e-Delagard" 1907, 25; D'âkov 1930, 29.

²¹⁵ Bert'e-Delagadr" 1907, 25; D'âkov 1930, 29; Orlov 1988, 21.

²¹⁶ Bert'e-Delagard" 1907, 25; Orlov 1988, 22; Zubar' 2000, 189.

²¹⁷ Orlov 1988, 22, 27; Zubar' 2000, 198.

dump filled with pottery products in an area through which the aqueduct ran, *i.e.* west of the fort.

The road running near the fort

Following the discovery of the temple outside the fort walls and the altars set up by the *beneficiarii*, Rostovcev assumed that the place of worship may have been connected to a military outpost (*statio*) next to an important route or crossroads. ²¹⁸ Since then, some of the researchers have postulated that a road ran next to the fort, which may have linked the southern coast of Taurica with Chersonesos. ²¹⁹ This hypothesis is frequently accepted indiscriminately and is the source of a profound 'belief', developed beyond measure in various areas of Crimea, in the widespread system of Roman roads. ²²⁰

It is worth emphasising at this point that the fort at Cape Aj-Todor was constructed in the vicinity of the most convenient natural passageway to the Yalta Valley. However, I am not convinced that the road running from the west was a route built and guarded by the Romans that ensured a permanent passageway to Chersonesos. It must be taken into account that the route through the mountains was very long and uncomfortable, while its maintenance and monitoring must have surpassed the capabilities of the garrisons at Balaklava-Kadykovka and Cape Aj-Todor, located as they were at some distance from each other. Despite the inconvenient harbour,²²¹ it seems almost certain that the supplies for the fort were delivered by the sea. In all probability, the land route, which surely existed, had little significance for the transport organised by the Roman army. Its role and safety might have increased in later times. Most of the traces of the nearby settlements are dated to as late as the Middle Ages.²²² Towns on the southern coast (e.g. Aluston) also did not come into being prior to the 6th century AD.223

Reaching for arguments closer to modern times, it is worth noting that the traditional route (from the direction of Sevastopol through the Baydar mountain pass) was encountered on the southern coast by Adam Mickiewicz, among others. Evidence for this comes in the form of the subject matter of his *Crimean Sonnets*. Nevertheless, even in later periods, the road leading to

Yalta from the west was marked on maps as a minor route. Even in the beginnings of the 20th century, the tsar's family was transported from Sevastopol to the palace in Livadia (Yalta) by the sea!

Due to the numerous doubts regarding the need for the existence of a land route that would have run next to the cape and its quality, it can be assumed that the army stationed at the fort would have monitored the movements of the local population heading to the Yalta Valley rather than of some Roman army columns or convoys transporting supplies.

Dating the site

The general chronological framework for the fort at Cape Aj-Todor has for a long time been dated to the period between the mid-1st to the mid-3rd century AD.224 Such dating was supposed to be confirmed by the finds of coins, among which the oldest were specimens issued during Galba and Vitellius's reign, while the youngest - during Gordian III's. However, the research results so far have not provided any evidence for Roman building activities in the 1st century AD. The only trace of any construction works conducted during this period is supposed to have been a roof tile with the stamps VEX / G RAV S P, found in a secondary context.²²⁵ As a result of the conducted physico-chemical analyses and the reinterpretation of the inscriptions on the stamps, we currently know that the building material signed using the above-mentioned stamps was only made in the second half of the 2nd century AD.²²⁶ The new dating is connected to the reading of the inscription which mentioned a centurion of the Eleventh Claudian Legion²²⁷ and the opinion expressed in the literature on the subject that there was no squadron of the Ravennate Fleet on the Black Sea in the 1st century AD. 228 In connection to the cited research results, it can be stated that as of yet evidence is lacking concerning the presence of the Romans at Cape Aj-Todor in the 1st century AD.

The remains of canals, which most probably served the purpose of draining rain water from the area of the later bathhouse and from the neighbouring alleged

²¹⁸ Rostovcev 1911, 7, 9.

²¹⁹ D'âkov 1942, 80; Orlov 1988, 21.

²²⁰ See, among others, Lancov 2003; Zubar' 2003, 120–121; for arguments against this claim, see Sarnowski 1989, 85; Karasiewicz-Szczypiorski 2015a, 102, 130.

²²¹ Bert'e-Delagard" 1907, 25.

²²² Dombrovskij 1961; Orlov 1988, 18; *cf.* D'âkov 1930, 18; Sarnowski 1989, 85.

²²³ Dombrovskij 1961, 166; Myc 2002, 16.

²²⁴ Rostowzew 1902, 92–93; D'âkov 1930, 33; Blawatsky, Kochelenko 1966, 25–26.

²²⁵ Zubar' 2000, 184, 197.

²²⁶ Sarnowski 2006c.

²²⁷ Orlov 1988, 21; Sarnowski, Zubar' 1996, 229–234; Zubar', Sarnovskij 1997, 50–59; Zubar' 2000, 194–195, fig. 19; 2005, 59–63, fig. 3, no. 4; *cf.* Sarnowski 2006c, fig. 1.

²²⁸ Sarnovskij 2006; Sarnowski 2006a; 2006b.

headquarters (see above, 'The central building'), are the first (oldest) trace of building activities at the discussed site. The canals made from broken stone and in the form of gutters insulated with lime mortar were destroyed during the construction of the mentioned buildings. ²²⁹ Based on the above-mentioned building inscription, which was probably related to the construction of the baths, stamps on bricks from *pilae*, stratigraphy, and small finds, the construction of the bathhouse can be dated to the mid-2nd century AD at the earliest. ²³⁰

The altar funded by Marcus Geminius Fortis, 231 dated to 118/119-121/122 AD, can be acknowledged as the earliest dated trace of the stationing of the Roman garrison. 232 According to Zubar', the arrival of the Roman army was a result of the peace reached by Hadrian on the other territories and his withdrawal from a number of areas conquered by his predecessor. Basing the hypothesis on the dating of only one inscription does not give us any certainty regarding the actual date of the arrival of the Romans. The above-mentioned altar might have been set up after a few or even a few dozen years of the presence of the garrison in the mentioned fort. Therefore, it cannot be excluded that the beginnings of the army presence at Cape Ai-Todor, similarly to other places in Taurica (Balaklava-Kadykovka, Chersonesos), might date to the final period of Trajan's reign.²³³

A trace of the presence of the Romans dated to the beginnings of the 2nd century AD might also come in the form of one of the layers distinguished during Orlov's excavations, which – based on the *fibula* found during his explorations – has been dated to the turn of the 1st and 2nd centuries AD.²³⁴ Thus, the results of the research conducted so far, enable delimiting the beginnings of the Roman army presence at the cape to the first decades of the 2nd century AD.

The evacuation of the garrison supposedly occurred in the first half of the 3rd century AD.²³⁵ The departure of the Romans may have entailed deliberate dismantling of a part of the fortifications and buildings.²³⁶ It should be added that so far traces of 'pre-Roman' settlement are

lacking, while some material (pottery) has been found that might be dated as later.²³⁷

One of the arguments indicating the presence of the Romans up until at least the mid-3rd century AD was the above-mentioned Gordian III's bronze coin.²³⁸ However, Zubar' presumed that the evacuation might have occurred earlier, *i.e.* in the mid-230s.²³⁹ It should be remembered that in the context of the research conducted thus far at the fort, this later coin is an isolated find. Its link to the cremation cemetery should be taken into account, as the burial grounds began to function probably somewhere around the mid-3rd century and are dated to the period from the second half of the 3rd to the first half of the 4th century AD.²⁴⁰ The two oldest Roman coins from the graves are Trajan's and Gordian III's issues.²⁴¹

The last renovation of the rooms added onto the inner wall of the fort supposedly took place in the mid-3rd century AD.²⁴² An uncleared dump was registered in the baths, containing roof tiles signed with the stamps VEX / G RAV S P and LEG XI CL, as well as LE XI CL.²⁴³ It is important to note the presence in the discussed dump of roof tiles with the stamps of the Eleventh Claudian Legion, which were placed on the roofs constructed (or only repaired) in the first half of the 3rd century AD.²⁴⁴ As a result, it can be assumed that the fort at Cape Aj-Todor was abandoned at the same time as, for example, the fort in Balaklava-Kadykovka or the watchtower on Kazatskaya Hill, that is *c*. the mid-230s.²⁴⁵

In summary, it can be stated that, considering the present state of research, there is no evidence of the stationing of the Roman army at Cape Aj-Todor both in the 1st century AD and in the 240s AD.

Construction phases and their dating

In various sections of their excavations, both Blavatskij and Orlov distinguished three construction phases.²⁴⁶ The division into three phases proposed by the quoted researchers still seems to be valid. However, it was necessary to verify the suggested dating and revise

²²⁹ Orlov 1982, 298-299; Blavatskij 1951, 288.

²³⁰ Orlov 1988, 24, 26.

²³¹Rostovcev 1911, 5; IOSPE I² 674.

²³² Sarnowski 1989, 78, tab. 3; Zubar', Sarnovskij 1997, 54; Zubar' 2000, 192.

²³³ Karasiewicz-Szczypiorski 2015a, 163, 176.

²³⁴ Orlov 1978, 366.

²³⁵ Blavatskij 1951, 256, 259, 278, 288, 290.

²³⁶ Orlov 1988, 27.

²³⁷ Blavatskij 1951, 261, 280.

²³⁸ Rostovcev 1900, 156; Bert'e-Delagard" 1907, 24; Blavatskij 1951, 245.

²³⁹ Zubar' 2000, 198.

²⁴⁰ Blavatskij 1951, 274, 290–291; Orlov 1978, 366.

²⁴¹ Blavatskij 1951, 290–291.

²⁴² Orlov 1980, 115–116.

²⁴³ Orlov 1984, 310.

²⁴⁴ Sarnowski 2006c, 94, 97–98; Karasiewicz-Szczypiorski 2015a, 174–175.

 ²⁴⁵ Sarnowski *et al.* 2009, 59; Karasiewicz-Szczypiorski 2015a, 36, 62, 78; 2015b, 58; *cf.* Filippenko, Alekseenko 2000.

²⁴⁶ Blavatskij 1951, 254, 288, 289, 291; Orlov 1988, 18.

the correlation of the stamped bricks and roof tiles with the subsequent *vexillationes* stationed at the cape. Such specification was possible thanks to the analyses of the clay used for the production of the ceramic building material from various places of the stationing of the Roman detachments in Crimea.²⁴⁷

The stamps on the bricks and roof tiles found during the excavations conducted at Cape Aj-Todor belong to three types:²⁴⁸

PER·L·A·C > / LEG·I·IT·PRAEP / VEX·MOES·INF (type $2,^{249}$ type 14^{250})

Per L. A(---) C(---), > (centurionem) | leg(ionis)

I It(alicae) praep(ositum) | vex(illariorum

or –illationis) Moes(iae) inf(erioris)²⁵¹

These stamps are the earliest ones at the discussed site. The use of building material signed using these stamps can be dated to Antoninus Pius or early Marcus Aurelius and linked to the construction activities of the *vexillatio exercitus Moesiae Inferioris*. At other sites, VEMI stamps are the most frequently encountered stamps linked to this unit. According to the information on the discussed stamp from Aj-Todor, this *vexillatio* included officers from the First Italic Legion.²⁵²

VEX / G RAV SP (type 1,²⁵³ type 13²⁵⁴) Vex(illarii) G. Rav(onii?) Sp(erati?)²⁵⁵

Contrary to the previously dominant opinions, stamps of this type do not constitute traces of the presence of the Ravennate Fleet, and they should not be dated to the 1st century AD. 256 These are probably equivalents of the VEX and VEM stamps known from Balaklava-Kadykovka and Kazatskaya Hill. The ceramic material signed with these stamps is perceived as linked to the building activities of the Roman garrisons from the period of the reigns of Marcus Aurelius and Commodus. At this time, soldiers of the First Italic Legion still continued to be a part of the *vexillationes* in Taurica, but the presence of a centurion of Claudius' Eleventh Legion has been attested. 257

The Eleventh Claudian Legion stamps²⁶¹ are found in the largest number of sites connected to the presence of the Romans in Taurica. The roof tiles signed with these stamps usually constitute an addition to an older roof on which the majority of the tegular material has the earlier VEMI stamps. Type 15 (according to Sarnowski) is a variety of the same kind of stamp as that which appears only at Cape Aj-Todor. Both variants can be referred to the period of Septimius Severus' reign and of his successors, and may be linked to the construction activities of garrisons dominated by the soldiers and officers of Claudius' Eleventh Legion. In all the known Roman outposts in Crimea, this is the latest dated signed ceramic material used for construction and renovation.

In summary, the above-described architectural remains, juxtaposed with information about the stamped building material, allow for distinguishing three construction phases. However, perhaps further research will support a more detailed division.

Phase 1 applies to some faint traces of buildings (primarily water installations), the construction of which can be dated either to the final period of Trajan's reign or the beginnings of Hadrian's. The discussed remains do not correspond to any other types of building ceramic used at the cape. So far, there have been no examples of stamps of the Fifth Macedonian Legion, which are linked with the construction activities of the *vexillatio* of this army unit in Chersonesos in the analogical period.

Phase 2 was distinguished for the architectural remains of the majority of the discovered buildings. It can be dated to the second half of the 2nd century AD. The tegular material from various sites seems to indicate the need for distinguishing two separate phases within the framework of Phase 2: a construction phase (during Antoninus Pius' reign) and a renovation phase (during Marcus Aurelius' reign). The first of these is signalled primarily by the presence of the following stamps: VEMI (in Chersonesos, Balaklava-Kadykovka, and on Kazatskaya Hill) and PER·L·A·C > / LEG·I·IT·PRAEP / VEX·MOES·INF (Aj-Todor). The second is evidenced

LE XI CL; LEG XI CL (type 3,²⁵⁸ types 4 and 15²⁵⁹) Le(gio) XI Cl(audia); leg(io) XI Cl(audia)²⁶⁰

²⁴⁷ Sarnowski 2006c; Karasiewicz-Szczypiorski 2015a, 174–175.

²⁴⁸ Blavatskij 1951, 254; Orlov 1988, 18; Zubar' 2000, 190, 289.

²⁴⁹ Blavatskij 1951, 254; Orlov 1988, 18; Zubar' 2000, 190, 289; Novyčenkova, Novyčenkova-Lukyčeva 2009, 68–69, figs 8–9.

²⁵⁰ Sarnowski 2006c, 97.

²⁵¹ Sarnowski 2006c, 97.

²⁵² Karasiewicz-Szczypiorski 2015a, 174–181.

²⁵³ Blavatskij 1951, 254; Orlov 1988, 18; Zubar' 2000, 190, 289; Novyčenkova, Novyčenkova-Lukyčeva 2009, 62–68, figs 1–7.

²⁵⁴ Sarnowski 2006c, 96–97.

²⁵⁵ Cf. Sarnowski 2006c, 97.

²⁵⁶ Sarnovskij 2006; Sarnowski 2006a; 2006b.

²⁵⁷ Sarnowski 2006c, 92, fig. 1.

 ²⁵⁸ Blavatskij 1951, 254; Orlov 1988, 18; Zubar' 2000, 190, 289;
 Novyčenkova, Novyčenkova-Lukyčeva 2009, 69–70, fig. 10.

²⁵⁹ Sarnowski 2006c, 94–95, 97.

²⁶⁰ Sarnowski 2006c, 94, 97.

²⁶¹ Sarnowski 2006c, type 4.

mainly by the finds of VEX stamps at the above-listed sites and VEX / G RAV SP at the cape.

Phase 3 manifests itself in the reconstruction and expansion of various buildings (e.g. the expansion of the bathhouse, the construction of the external fort wall). This increased construction activity has been linked to the presence of a detachment dominated by soldiers from the Eleventh Claudian Legion, as confirmed, among other things, by the stamps on the building ceramics: LE XI CL, LEG XI CL. This phase is dated to the period of the reign of Septimius Severus and his successors.

Assigning the buildings to the phases The bathhouse

Based on Orlov's research conducted in the balnea area, three construction phases can be distinguished: Phase 1 – before the baths were constructed (the only known traces are the above-mentioned canals); Phase 2 - the construction of the small bathhouse (the southern row of rooms); Phase 3 – the expansion of the bathhouse (the addition of the northern row of rooms). This division results from the published reports showing that two layers of plaster were registered on one of the balnea walls, while two floor levels were also preserved in one of the rooms. It seems very significant to note the information that the lower (older) floor was divided from the upper one by a levelling layer about 0.7 m thick.²⁶² Similarly levelled layers were registered between analogical floor levels in Balaklava-Kadykovka and at the Chersonesos citadel.263

The central building

Three phases were also distinguished during the excavations of the alleged headquarters building.²⁶⁴ Similarly to the neighbouring bathhouse, Phase 1 preceded the construction of the discussed building (in this case also only the canals for draining water were included). A monumental building was constructed in Phase 2, preceded by levelling works. The existence of Phase 3 is indicated by the presence of two floor levels registered during the excavations. The lower floor level would have belonged to Phase 2, while the higher one to Phase 3. Similarly, in this area both levels are separated by a levelling layer, but its thickness has not been precisely established.

The rooms next to the inner wall

Two floor levels were also registered during the excavations of some of the rooms added onto the internal face of the defensive wall. The higher level was supposed to have been located c. 20 cm above the lower one and referred to the activities of the Eleventh Claudian Legion at the end of the $2^{\rm nd}$ century and in the first half of the $3^{\rm rd}$ century AD.²⁶⁵ On this basis, the floors observed during the excavations can be qualified as traces of construction activities in Phase 2 and in Phase 3.

Nymphaeum

The water basin located in the area fortified by the inner wall was insulated twice using layers of mortar.²⁶⁶ This might indicate that it was constructed at the latest in Phase 2 and renovated in Phase 3. Blavatskij dated the construction of the tank to the second half of the 1st century AD, while the addition (construction) of the agueduct to the 2nd century.²⁶⁷ Correcting this information so that it is in accordance with the current state of knowledge, the supposition can be put forward that the reservoir was constructed in Phase 1 and may initially have been linked to the above-mentioned canals for draining water from the area on which the later bathhouse and central building were erected. In Phase 2, a newly constructed water conduit was attached to the reservoir. The nearby baths from the very beginning almost certainly must have had stable access to water, which, considering the local conditions, could only have been ensured by an aqueduct. Thus, it can be assumed that the entire system for bringing rainwater to Nymphaeum I must have been formed before the construction of the bathhouse, i.e. in Phase 1.

The inner wall

Two phases have been distinguished for the inner wall. Traces of the reconstruction of the fortifications were observed by Orlov, who dated the discussed fortifications to the 2nd-3rd centuries AD.²⁶⁸ Fragments of roof tiles with the stamps VEX / G RAV SP were found in the structures of the abutments added from the inside to the curtain wall.²⁶⁹ Thus, it is probable that the wall was constructed in Phase 2, simultaneously to the construction of the baths, and renovated in Phase 3, more or less at the same time as the expansion of the bathhouse. The fragments of the stamped roof tiles would have

²⁶² Orlov 1978, 366; 1984, 310.

²⁶³ Karasiewicz-Szczypiorski 2015a, 28, 63.

²⁶⁴ Blavatskij 1951, 288.

²⁶⁵ Blavatskij 1951, 281–282.

²⁶⁶ Blavatskij 1951, 282.

²⁶⁷ Blavatskij 1951, 289.

²⁶⁸ Orlov 1985, 331–332; 1988, 21, 27.

²⁶⁹ Blavatskij 1951, 280; Orlov 1985, 331–332; 1988, 26.

found their way into the added or reconstructed part during the renovation, *i.e.* in Phase 3.

The external wall

Orlov dated the external fortification line to no earlier than the 2nd century AD.²⁷⁰ In turn, Firsov claims categorically that this was a one-phase structure, and the external wall might have been constructed later than the internal one.271 A fragment of a roof tile with the VEX / G RAV SP stamp was found in a cultural layer in the forefield of the external fortifications.²⁷² In my opinion, the find comes from the destruction (levelling?) layer formed before the construction of the external wall. This hypothesis seems to be confirmed by the fact of the reuse of fragments of similarly stamped roof tiles in the construction of the curtain wall.²⁷³ It can thus be assumed that the wall was built in Phase 3. Similarly, the dating of the external wall follows from the analysis of the pottery from Blavatskij's excavations, as well as from an analysis of the stratigraphic layout observed during last excavations conducted by Novičenkova.²⁷⁴ In her opinion, the wall was built in the 2nd century AD.²⁷⁵ However, it is important to remember that Antoninus Pius' coins determined the terminus post quem for the beginning of construction works.

The significant enlargement of the fort could have been connected to the doubling of the area of the bathhouse (Phase 3). The differences in the construction of various segments of the new fortifications can, in turn, be explained by the simultaneous work of a few different building crews or by breaks in the construction and modifications of the original concept.²⁷⁶

The fort and its immediate surroundings. Towards a periodisation of the settlement history of the site

An important element of the analysis undertaken herein is the attempt to prepare, based on all the available data, a more transparent and complete plan of the fort (Fig. 2). The remains of all the buildings and their parts that appear on various plans and/or are mentioned in different publications have been taken into account. In addition, information from the above-presented

stratification of some buildings into construction phases was used.

Phase 1

It seems justified to use the term 'Trajanic' to refer to this phase, analogically as in the case of other discussed Roman bases in Taurica.²⁷⁷ It can be assumed that during this period, the fort encompassed only the area of the so-called 'citadel', *i.e.* the peak of the hill encircled by the inner wall. We are not fully certain as to the course of the fortifications during this period. However, in all probability, the fortifications had the same contours as in Phase 2. The only hint in this regard might be the localisation of *Nymphaeum* I. The reservoir, which may have been constructed as early as in Phase 1, lies within the area of the fortifications from Phase 2.

The canals used for draining water belong to the earliest phase. They were probably linked to *Nymphaeum* I in order to make the collection of rainwater more effective, since in the discussed period the fort was not yet catered for by a water supply system. At this point, it is worth noting that at the fort in Balaklava-Kadykovka similarly only the canals delivering and draining water as well as the remains of a tank and inspection manhole have been preserved from Phase 1 (the Trajanic phase).²⁷⁸

It is very probable that the temple outside the fort walls at Cape Aj-Todor was also constructed in the discussed phase. This assumption can be based on the dating of the oldest of the known altars dedicated to Jupiter, which was founded in 118/119–121/122 AD.

Phase 2

The buildings considered to be from this phase were constructed during the reigns of Antoninus Pius and/ or Marcus Aurelius. A *vexillatio* of the Lower Moesian army under the command of a centurion from the First Italic Legion, and later a formation under the command of a centurion from the Eleventh Claudian Legion, were stationed at the cape during this period.²⁷⁹

The above-mentioned remains from the previous phase indicate that the new garrison appropriated a place that the Roman army had already been using, but this happened after a break lasting a few decades. The poor state of preservation of the remains from the previous phase may have resulted from the destruction of the

²⁷⁰ Orlov 1988, 24; cf. Novičenkova 2015, 151.

²⁷¹ Firsov 1975, 97–98.

²⁷² Blavatskij 1951, 278.

²⁷³ Kamelina 2012, 58.

²⁷⁴ Kamelina 2012; Novičenkova 2017, 295.

²⁷⁵ Novičenkova 2015, 151, 153.

²⁷⁶ Cf. Karasiewicz-Szczypiorski 2014, 91; 2015a, 46.

²⁷⁷ Karasiewicz-Szczypiorski 2015a, 23–24, 60–61; 2015b, 56–57.

 ²⁷⁸ Karasiewicz-Szczypiorski, Savelaâ 2012, 174, figs 1.6–7, 3, 4,
 5: 2013, 123

²⁷⁹ Karasiewicz-Szczypiorski 2015a, 174–181.

buildings and fortifications by the army leaving the cape in the first half of the 2nd century, or it may have been an effect of the passage of time, the elements, or human activities. The results of the research conducted thus far do not resolve these doubts. However, it is almost certain that the exceptionally modest remains of the buildings from Phase 1 are also a result of the levelling of the terrain, traces of which were observable during the excavations. This probably stemmed from the need to prepare the area for the construction of new buildings. It can be assumed that the groundwork included not only levelling the surface but also terracing the terrain. The garrison of the Balaklava-Kadykovka fort also conducted levelling work, and perhaps also demolition, before initiating the construction in Phase 2, destroying most of the earlier remains in the process.²⁸⁰

The inner wall (without any turrets) and the buildings within the area defended by the fortifications were constructed during the discussed phase. The buildings constructed during this period include the bathhouse, the central building next to the baths (the principia?), the rooms next to the perimeter wall opening out into the circuitous street, as well as the barracks east of the bathhouse. The baths and Nymphaeum I were linked to the aqueduct that was constructed during the same time. The road coming out of the supposed headquarters building probably led to the main gate (Fig. 2.4, 12). If this supposition is correct, then the fort – despite its seemingly utter irregularity - maintained the fundamentals of the order used in the construction of other castella. The rounded course of the fortifications and the addition of the row of rooms on the internal side of the curtain wall enable noting certain similarities between the fort at the cape and the outpost constructed in the same time-period on Kazatskaya Hill.²⁸¹ This comparison also indicates that the fort at Cape Aj-Todor was not an absolute exception in terms of the construction solutions used by the Roman garrisons.

The beginnings of the buildings included in Phase 2 should be dated, by analogy to the Temple of Jupiter Dolichenus in Balaklava, to the period after 138 AD and connected to the construction activities of the formation present in Taurica under the name *vexillatio exercitus Moesiae Inferioris*, which included officers of the First Italic Legion. The continuation of the building expansion at Cape Aj-Todor, also considered to be a part of Phase

2, was conducted by a detachment under the command of a centurion from the Eleventh Claudian Legion. This may have occurred during the reign of Marcus Aurelius. ²⁸² The Phase 2 structures should thus be correlated to the phase of the same number distinguished in the case of the Roman buildings in Balaklava-Kadykovka and Chersonesos. The Dolichenum was constructed in Balaklava during this period, as was the *praetorium* along with its neighbouring buildings and the fort's defensive wall. ²⁸³

The temple outside the walls at Cape Aj-Todor continued to function or was rebuilt in Phase 2. At this time, the second of the known altars dedicated to Jupiter (found in the ruins of the shrine) was most probably set up.²⁸⁴ The altar was supposedly made in the second half of the 2nd century AD.²⁸⁵

Phase 3

Another period of increased construction activities can be dated to the reign of Septimius Severus and his successors. During this time, at the cape stationed a *vexillatio* probably dominated by soldiers from the Eleventh Claudian Legion.

In a few places across the fort, a levelling layer was observed separating the floor levels of Phase 2 from those of Phase 3.²⁸⁶ The thickness of the discussed layer amounts to between 0.2 to 0.7 m. This has analogies with the situation observed during excavations at Balaklava-Kadykovka, on Kazatskaya Hill, and at the Chersonesos citadel, where a similar layer was up to even 1 m thick.²⁸⁷

In this latest phase, a number of buildings were renovated, including the rooms adjacent to the inner wall and the supposed headquarters building. The baths were developed and the fort enlarged through the construction of the external wall.²⁸⁸ The inner wall was made thicker, probably in order to enable placing ballistae on its crown. The deposit of stone balls constitutes traces of the use of ballistae. The new external wall probably had three gates. The main one was erected on an axis which was probably an extension of the alleged via praetoria. The external fortification line was probably constructed in a short time, with a number of construction brigades working on it simultaneously. The curtain wall was strengthened through the addition of at least a few turrets located on its internal side. In the central section of the fortifications, the wall ran in a broken line, increasing its defensive value. Among

²⁸⁰ Cf. Karasiewicz-Szczypiorski 2015a, 60; 2015b, 56.

²⁸¹ Sarnowski *et al.* 2002, 169–170; 2009, 61; Karasiewicz-Szczypiorski 2015a, 77–78.

²⁸² Karasiewicz-Szczypiorski 2015a, 176–181.

²⁸³ Sarnowski, Savelja 2000a, 38, 88; Karasiewicz-Szczypiorski 2015b, 57–58.

²⁸⁴ Rostovcev 1911, 5, no. 2; IOSPE I² 675.

²⁸⁵ Sarnowski 1989, tab. II.

 ²⁸⁶ Blavatskij 1951, 280–282, 288; Orlov 1978, 366; 1984, 310;
 Žuravlev, Kamelina 2015, 191.

²⁸⁷ Karasiewicz-Szczypiorski 2001, 65, 71; 2015a, 28, 63; 2015b, 58; Wróbel *et al.* 2008, 102.

²⁸⁸ Cf. Novičenkova 2015, 151, 153.

other things, another water reservoir (*Nymphaeum* II) was built in the area between the walls. Its localisation at a small distance from *Nymphaeum* I (but lower down) allows for the supposition that after the tank outside the inner wall had been filled up, the excess water from the aqueduct flowed down (through a pipe) to fill up the new reservoir as well. The temple continued to function outside the gate, leading eastward to the port.

In the light of the research conducted thus far, the listed construction works should be linked to the use of the youngest building material with the LEG XI CL and LE XI CL stamps. An analogical situation has been observed at Balaklava-Kadykovka and at the citadel in Chersonesos. In Balaklava during this time, the praetorium was expanded, while the fortifications from the western side were dismantled and moved farther into the previous forefield, increasing the area encircled by the walls.²⁸⁹ In Chersonesos, as in the case of Aj-Todor, the garrison baths were expanded.²⁹⁰ It seems highly probable that the observed cases of increasing the area enclosed by the defensive walls and the expansion of the bathhouse might constitute traces of the enlargement of the individual succeeding Roman garrisons in Taurica in the first decades of the 3rd century AD.

Conclusions

Summarising all these considerations on the fort at Cape Aj-Todor, it should once again be emphasised that evidence is lacking that would confirm the presence of the Romans at this site in the 1st century AD. Only minimal traces have survived from Phase 1 (probably Nymphaeum I and the canals destroyed during the construction of the bathhouse and the nearby supposed headquarters building). Phase 2 involved the construction of the inner wall, the bathhouse, the above-mentioned central building (the principia?), and probably also the water supply system as well as most of the buildings of the so-called 'citadel'. In Phase 3, the baths were expanded, while the inner defensive wall was thickened, and the other encountered buildings behind this fortification line were renovated and reconstructed. The fort was also enlarged through the construction of the external wall.

In the light of the above-presented attempt to divide the architectural remains into phases and the results of the studies and analyses of the building ceramics from the places where the Roman army was stationed in Crimea, it can be concluded that the fort at Cape Aj-Todor was constructed and expanded at the same pace as the fort and Temple of Jupiter Dolichenus in Balaklava-Kadykovka and as the Chersonesos citadel's interior.

It should be emphasised that the data available in the publications concerning many of the excavations conducted at the cape are patchy and often do not enable answering many of the questions posed by modern research. The supplementation and clarification of some of this information and posing of new research hypotheses is possible primarily due to the studies performed in the 1990s and at the beginning of the 21st century, conducted mostly at other sites connected to the presence of the Roman army in Crimea. Within this scope, enormous significance should be attached to the Polish-Ukrainian research of the Temple of Jupiter Dolichenus and the remains of the fort in Balaklava-Kadykovka, as well as of the watchtower on Kazatskaya Hill near Inkerman. As a result of the work conducted there, it was possible to distinguish and correlate the subsequent construction phases at the listed sites and at Cape Aj-Todor. Based, among other things, on the results of the said research, a new proposal was formulated concerning the periodisation of the presence of Lower Moesian vexillationes in Taurica.²⁹¹ Due to the lack of any perspectives for research at the cape in the nearest future, analyses should be conducted on the unpublished reports from the excavations at this site stored in various archives.

The above-presented comprehensive comparison and analysis focusing on only the published material enables stating that the fort was expanded at the threshold of the 3rd century, which almost certainly indicates the intent to enlarge the garrison stationing there. Traces of analogical changes at this same time can also be observed in Chersonesos and Balaklava. Therefore, this suggests that perhaps during the reigns of Septimius Severus and his successors a more ambitious plan to reinforce the Roman army presence in Taurica was being implemented.

Translated by Miłosława Stępień Proof-reading by Maciej Talaga

²⁸⁹ Karasiewicz-Szczypiorski 2015a, 62–67; 2015b, 58–61.

²⁹⁰ Karasiewicz-Szczypiorski 2015a, 28–30.

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Abbreviations:

AE – L'Année épigraphique, Paris.

AO – Arheologičeskie Otkrytiâ, Moskva.

CIL - Corpus Inscriptionum Latinarum.

IAK – Izvestiâ Imperatorskoj Arheologičeskoj Kommissii.

IOSPE I² – B. Latyschev, Inscriptiones antiquae Orae Septentrionalis Ponti Euxini. Inscriptiones Tyrae, Olbiae, Chersonesi Tauricae aliorum locorum a Danubio usque ad regnum Bosporanum, Petropoli 1916.

IOSPE IV – B. Latyschev, Inscriptiones antiquae Orae Septentrionalis Ponti Euxini. Graecae et latinae per annos 1885–1900 repertae, Hildesheim 1965.

MAIÈT – Materialy po Arheologii, Istorii i Ètnografii Tavrii, Simferopol.

MIA – Materialy i issledovanià po archeologii SSSR, Moskva.

VDI – Vestnik Drevnej Istorii, Moskva.

ZOOID - Zapiski Odesskago Obŝestva Istorii i Drevnostej, Odessa.

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Римский форт на мысу Ай-Тодор (*Харакс*) и его окружение. Новый взгляд на старые открытия

Форт на мысу Ай-Тодор является одним из первых открытых и правильно отождествленных мест дислокации римской армии в Тавриде (рис. 1). Несмотря на многократные исследования, крепость все еще относительно слабо изучена. Многие материалы из раскопок так и не вошли в научный оборот, более того, часть их в результате бурных превратностей судьбы без возвратно утрачена. Стоит, однако, пересмотреть и хорошо известные сведения, с целью их лучшего понимания. В этом могут помочь результаты исследований последних десятилетий на других объектах, связанных с римским присутствием в Тавриде, прежде всего, в Балаклаве-Кадыковке (рис. 1).

Среди исследователей очень долго доминировало убеждение, что на мысу Ай-Тодор римский гарнизон располагался с середины I в. н.э. и до середины III в. н.э. Такая датировка подтверждалась находками монет, среди которых наиболее ранними были экземпляры, эмитированные в правление Гальбы и Вителия, а наиболее поздней - монета времен правления Гордиана III. Однако результаты проведенных к настоящему времени исследований не дали доказательств строительной активности римлян в I в. н.э. Следами деятельности этого периода могла быть строительная керамика с клеймами VEX/G RAV S P, находимая во вторичных контекстах. Благодаря физико-химическим анализам и толкованию надписей на клеймах теперь известно, что визированный строительный материал с упомянутыми клеймами изготовляли только со второй половины II в. н.э. Предложение более поздней датировки связано с прочтением надписи, упоминающей центуриона XI Клавдиева легиона, и появлением в публикациях мнения, что в І в. н.э. не было никакой эскадры Равеннской флотилии на Черном море. Опираясь на результаты упомянутых исследований, можно констатировать нехватку каких-либо доказательств дислокации римского гарнизона на мысу Ай-Тодор в I в. н.э. Начальный период присутствия римской армии на этом месте можно соотнести только с первыми десятилетиями II в. н.э.

Форт должен был быть окончательно покинут в конце первой половины III в. н.э. На присутствие римского гарнизона вплоть до середины этого

столетия может указывать находка бронзовой монеты Гордиана III. Зубарь предполагал, однако, что эвакуация могла быть и раньше, т.е. в середине 30-х годов III в. н.э. Нужно иметь в виду, что в контексте проведенных к настоящему времени исследований упомянутая поздняя монета является единственной находкой. Следует принимать во внимание ее связь с расположенным поблизости могильником с кремациями, который начинает функционировать, вероятно, уже с середины III в. н.э. и используется до первой половины IV вв. н.э. Две наиболее ранние римские монеты, происходящие из могильника, были выпущены в период правления Траяна и именно Гордиана III.

Резюмируя, можно констатировать, что на настоящем этапе исследований нет прямых доказательств присутствия римского гарнизона на мысе Ай-Тодор как в І в. н.э., так и в 40-е годы ІІІ в. н.э. и позднее. Наиболее вероятно, что объект был покинут одновременно с фортом в Балаклаве-Кадыковке и другими постами в пограничной зоне хоры Херсонеса в середине 30-х годов ІІІ в. н.э.

Соотношение открытых на памятнике архитектурных объектов с тремя фазами, предложенное Блаватским и Орловым, остается все еще актуальным. Тем не менее, необходимо было провести пересмотр данных датировок и произвести корректуру корреляции клейм на кирпичах и черепице с очередными вексилляциями (vexillationes), дислоцированными на мысу. Такое уточнение стало возможным благодаря анализам глины, из которой была изготовлена клейменная строительная керамика, происходящая из мест дислокации римских войск в Крыму, а также благодаря анализу стратиграфии и архитектурных объектов на упомянутых выше памятниках, таких как Балаклава-Кадыковка и Казацкая. Полученные результаты позволили автору данной разработки предложить новую периодизацию памятника и отнести открытые к настоящему времени архитектурные объекты к трем следующим фазам:

Фаза 1. К ней относятся ничтожные следы архитектурных структур (главным образом, водяных инсталляций), возникновение которых можно датировать или концом правления Траяна или началом господства Адриана. С упомянутыми

объектами не соотносится ни один из типов строительной керамики, найденных при раскопках на мысу. Пока не обнаружено кирпичей или черепицы с клеймами V Македонского легиона, которые связываются со строительной активностью вексилляции (vexillatio) этой военной части в Херсонесе в аналогичный период.

Можно предположить, что в этот период форт охватывал только территорию так называемой "цитадели", то есть центра возвышенности, огороженной внутренней стеной. У нас нет полной уверенности относительно хода укреплений из этого периода. Наиболее вероятно, однако, что у укрепления было такое же очертание, как в Фазе 2 (рис. 2.7). Единственное указание на это дает расположение Нимфея І. Емкость, которая могла возникнуть уже в Фазе 1, находится в соседстве с оборонительной стеной Фазы 2 (рис. 2.2).

К наиболее ранней фазе относятся также каналы, отводящие воду. Наиболее вероятно, что они сообщались с Нимфеем I в целях улучшения накапливания дождевой воды, так как в этот период форт еще не был снабжен водопроводом.

Здесь же стоит обратить внимание на то, что и в форте в Балаклаве-Кадыковке со времен Фазы 1 («траянской») также сохранились только каналы, подводящие и отводящие воду, и остатки емкости или ревизионного колодца.

Очень вероятно, что храм за стенами на мысу Ай-Тодор также возник в этот период (рис. 2.13). Это можно предположить на основании датировки наиболее раннего из известных алтарей, посвященных Юпитеру, который был заложен в 118/119–121/122 годах.

Плохая сохранность объектов Фазы 1, вероятно, связана с разрушением построек и укреплений гарнизоном, покидающим мыс в первой половине II в. н.э. или же является следствием медленного действия времени, стихий и людей. Результаты проведенных исследований не позволяют однозначно решить этот вопрос.

Фаза 2. была выделена на основании изучения архитектурных остатков большинства открытых сооружений. Она может быть датирована второй половиной ІІ в. н.э. Автор считает, что находки клейменных черепиц, обнаруженных на разных памятниках, указывают на необходимость выделения в будущем еще двух фаз в пределах самой Фазы 2: строительной (в правление Антония Пия) и ремонтной (в правление Марка Аврелия). На первую указывает, прежде всего, наличие клейм: VEMI (Херсонес, Балаклава-Кадыковка, Казацкая) и PER·L·A·C> / LEG·I·IT·PRAEP/VEX·MOES·INF (Ай-Тодор). Вторую подтверждают, главным образом, находки клейм VEX на упомянутых выше объектах и VEX/G RAV S P на мысу.

В этот период мыс Ай-Тодор занимала вексилляция нижнемезийской армии под командованием центуриона из I Италийского легиона, а потом воинское формирование под командованием центуриона с XI Клавдиева легиона.

Состояние описанных выше архитектурных остатков Фазы 1 указывает на то, что новый гарнизон занял территорию, уже использованную ранее римской армией, но, вероятно, это имело место спустя несколько десятилетий. Ничтожно малое количество остатков ранних сооружений, отмеченное во время раскопок, является, скорее всего, результатом более поздней нивелировки данной местности при подготовке территории для новой застройки. Наиболее вероятно, что проводимые в это время земляные работы состояли не только в выравнивании поверхности земли, но также и ее террасировании. Стоит вспомнить, что гарнизон форта в Балаклаве-Кадыковке в такой же период (т.е. перед постройкой сооружений, относящихся к Фазе 2) тоже провел нивелировочные работы (а, возможно, и разборку прежних сооружений), уничтожив большинство следов более ранней застройки.

На мысу Ай-Тодор в Фазе 2 появляются внутренняя стена (без башен) и застройка на территории, охраняемой этим укреплением (рис. 2.7). Были построены Термы (рис. 2.3, 4.6-11, 5.3), центральное здание рядом баней (principia?) (рис. 2.4, 5.1), помещения при оборонительной стене, выходящие на окружную улицу (рис. 2.1), и казарменные бараки к востоку от бани (по крайней мере, 3 здания) (рис. 2.5). Термы и Нимфей I присоединили к построенному в этот период акведуку. Улица, выходящая из предполагаемый комендатуры, наиболее вероятно, вела к центральным воротам (рис. 2.8). Если это предположение верное, то форт, несмотря на видимость совершенной иррегулярности, сохранял основы порядка, применяемого в большинстве римских укреплений в период принципата. Ход укреплений по линии, приближенной к части окружности, и пристройка серии помещений по внутренней стороне куртины, позволяет улавливать сходство между данным фортом и возникшим в это же время постом на высоте Казацкая. Это сравнение показывает, что форт на мысу Ай-Тодор не был абсолютным исключением в применяемых римскими гарнизонами строительных решениях.

Возникновение построек, относящихся к Фазе 2, следовало бы датировать, по аналогии с храмом Юпитера Долихена в Балаклаве, периодом после 138 года н.э. и связывать с присутствием воинского формирования, выступающего в Тавриде под названием vexillatio exercitus Moesiae inferioris, в состав которого входили офицеры (и, скорее всего,

солдаты) I Италийского легиона. Вероятно, продолжение строительства форта, относящегося еще к Фазе 2, проводил отряд, возглавляемый центурионом XI Клавдиева легиона. Это могло иметь место в период правления Марка Аврелия. Объекты Фазы 2 следует соотносить с фазой с таким же номером, выделенной для римских сооружений в Балаклаве-Кадыковке и цитадели Херсонеса. В этот период в Балаклаве возник Долихений, а также преторий (pretorium) вместе со смежными зданиями и крепостными стенами форта.

В период Фазы 2 на мысу Ай-Тодор по-прежнему функционирует или восстанавливается храм за стенами (рис. 2.13). В это время, скорее всего, был заложен второй из известных алтарей, посвященных Юпитеру, обнаруженный в святилище. Этот алтарь датируется второй половиной II в. н.э.

Фаза 3. На протяжении этой фазы сооружены или перестроены ряд объектов. Повышенная строительная активность связывается с присутствием отряда, состоящего, главным образом, из солдат XI Клавдиева легиона, что подтверждается клеймами на строительной керамике: LE XI CL и LEG XI CL (тип, известный до сих пор только по исследованиям на мысу Ай-Тодор). Фаза 3 датируется периодом правления Септимия Севера и его преемников.

На территории форта в нескольких местах была отмечена выравнивающая (нивелировочная?) прослойка, разделявшая две разных дневных поверхности Фазы 2 и Фазы 3. Толщина данного слоя колеблется в пределах от 0,2 до 0,7 м. Это явление аналогично выявленным во время исследований в Балаклаве-Кадыковке, на высоте Казацкая и в цитадели Херсонеса, где подобные слои достигали даже метровой толщины.

В течение Фазы 3 были отремонтированы помещения возле внутренней стены и предполагаемая комендатура (principia) (рис. 2.1–4, 5.1). Расширены термы и увеличен форт, благодаря постройке внешней стены (рис. 2.10, 4.1–5). Толщина внутренней стены была увеличена, скорее всего, для того, чтобы на ней могли быть установлены метательные орудия (рис. 2.7). Косвенным доказательством для этого служат большие запасы каменных ядер, обнаруженные во время раскопок.

В новой внешней стене были сооружены, предположительно, трое ворот (рис. 2.12). Главные ворота были построены на оси, представляющей собой удлинение предполагаемой via praetoria, которая соединяла центральное здание (principia?) с воротами во внутренней стене (рис. 2.8). Внешняя линия укреплений возникла, скорее всего, в течение очень короткого периода, и над ее сооружением работали вместе несколько строительных бригад. Куртина была укреплена башнями, размещенными по ее внутренней стороне (рис. 2.10–11). В центральной части укрепления стена была построена по ломанной линии, что также увеличивало его оборонительные достоинства. На территории между стенами был построен, помимо прочего, очередной резервуар для воды (Нимфей II). Его расположение на небольшом расстоянии от Нимфея I, но ниже по склону, позволяет догадываться, что вода из акведука после наполнения более раннего вместилища за внутренней стеной стекала (по трубе?) и наполняла уже новый резервуар (рис. 2.2–9).

Снаружи от ворот, ведущих к востоку (к пристани), по-прежнему функционировал храм (рис. 2.13).

В такой же период в Балаклаве-Кадыковке был расширен преторий (pretorium), а укрепления форта с западной стороны были разобраны и передвинуты на предполье, увеличивая, тем самым, территорию, обнесенную стенами. В Херсонесе, так же, как и на мысу Ай-Тодор, были расширены гарнизонные термы.

В свете предложенной выше попытки нового переосмысления архитектурно-строительных объектов Ай-Тодора надо заметить, что в таким же образом были перестроены форт и храм Юпитера Долихена в Балаклаве-Кадыковке, а также внутренняя застройка цитадели в Херсонесе.

Важным элементом анализа, предпринятого автором настоящей работы, является также попытка составления, на основании доступных данных, нового плана форта (рис. 2). В этой работе были учтены все сооружения и их части, которые появляются на разных планах и/или упоминаются в различных публикациях. Также была использована информация, следующая из представленного выше разделения части объектов на строительные фазы.

Резюмируя, следует подчеркнуть, что содержащиеся в публикациях сведения относительно большинства проведенных на мысу раскопок часто скупы и недостаточны для решения вопросов, которые в настоящее время стоят перед учеными. Восполнение этих лакун и появление новых теорий стали возможны благодаря исследованиям 90-х годов XX в. и начала XXI в., проведенным, главным образом, на других объектах, связанных с римским военным присутствием в Тавриде. Огромное значение имели украинско-польские исследования храма Юпитера Долихена и остатков форта в Балаклаве-Кадыковке, а также сторожевой башни на высоте Казацкая возле Инкермана. Благодаря этим работам удалось откорректировать информацию по очередности строительных фаз форта на мысу Ай-Тодор. В виду слабых перспектив на возобновление исследований на этом объекте,

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в ближайшем будущем должны быть проанализированы хранящиеся в научных архивах неопубликованные отчеты предыдущих раскопок.

Представленное выше обширное описание только опубликованных материалов (и их анализ) позволяет заметить, что форт был расширен на рубеже III в. н.э., что с большой долей вероятности указывает на намерение увеличить дислоцируе-

мый в нем гарнизон. Следы подобных изменений в это же время можно заметить также в Херсонесе и в Балаклаве. Таким образом, можно предположить, что в период правления Септимия Севера и его преемников был реализован обширный план укрепления римского военного присутствия в Тавриде.

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