Kozlovskaya V.I., Ilyashenko S.M.

The Lower City of Tanais

[Stable URL: http://elar.uniyar.ac.ru/jspui/handle/123456789/2922]

[Публикация работы:]
The Lower City of Tanais

V. Kozlovskaya and S. M. Ilyashenko

Abstract: Situated near the point where the Tanais River (the modern Don) flowed into Lake Maeotis (the modern Sea of Azov), the Greek colony of Tanais was located on the frontier of the ancient Greek world. Founded in the first quarter of the 3rd century BC as a small trading settlement, the city gradually became a large center of commerce and a major emporion. The systematic excavations at this site began in 1955, but after almost one hundred and fifty years, the size of the ancient city, as well as its precise topography and lay-out, still remain largely unknown. From the 1990s onwards, more archaeological work has been undertaken in the territory of the Upper City outside the main part of the settlement, bringing to light new evidence. The part of the city about which we know the least is the area to the south of the citadel, where the Lower City must have been located. The present article discusses all available evidence that may help us to reconstruct the diachronic development of the Lower City of Tanais and indicate the possible location of the ancient harbor.

Keywords: Lake Maeotis, Bosporus, harbor, lighthouse, emporion.

The starting point in the study of Tanais can be dated to 1824, when I. A. Stempkovskii claimed that he was still able to see the ruins of this city near the modern village of Nedvigovka, on the right bank of the river Don (ancient Tanais), where it flows into the Sea of Azov (ancient Lake Maeotis) (Figure 1). There, he found ‘remains of an acropolis, or a citadel, very similar to the one in Olbia, but a little bit smaller’ and noted that ‘these fortifications were surrounded by a deep moat, and at some places, on the rampart, there were piles of earth and stones that indicated the foundations of towers’.

The first archaeological investigations in the area of Nedvigovka, conducted in 1853 by P. M. Leontev, confirmed Stempkovskii’s hypothesis about the location of ancient Tanais.2 In 1854, Leontev published the results of his excavation under the title Archaeological Investigations in the Territory of Ancient Tanais and its Surroundings. Already at that time he attempted to locate the remains of any residential quarters outside the visually detectable part of the settlement. He wrote that ‘the territories directly adjoining the settlement in the west, north, and east form an area where there are no kurgans, but where small and large depressions can be noticed, indicating the possible locations of ancient structures. In the western part of the area, near the slope leading to the water, stone pieces with inscriptions were found; we started to dig there, but did not find anything, and stopped our work’3. According to Leontev, this kurgan-free area was surrounded by an earthen rampart forming a broken line, which at some point in the past must have served as an outer defense wall of the city. Despite the negative results of Leontev’s excavations, the existence of an outer defense wall was suggested again a hundred years later by T. N. Knipovich in her book Tanais. Basing her assumption on the analogies known to her, Knipovich was convinced that the city had had two ‘wings’ of residential quarters, which formed the eastern and the western parts of the settlement.4

Ancient authors provide very little information about this Greek colony: they perceived the emporion on the outskirts of the Classical world primarily as a geographical point on the river Tanais, which to them was ‘the boundary between Europe and Asia’ (Strabo XI.1.5; 2.1; VII.4.5).5 This is why the reconstruction of the city’s history is mostly based on archaeological material. Systematic excavations at the site, undertaken by the Lower Don Archaeological Expedition of the Archaeological Institute under the auspices of the Russian Academy of Sciences, have been taking place from 1955 onwards. Based on the results of these excavations, D. B. Shelov came to the conclusion that the hypothesis advanced by Knipovich was erroneous, at least in terms of the areas to the east and north of the settlement. He noted that only ancient waste dumps and a necropolis were found in this kurgan-free territory. Residential quarters of the last centuries BC were discovered only to the west of the citadel, in the area directly adjoining it.6

The last decade of the excavations has significantly expanded our knowledge of the site. The reconstruction of the initial period in the history of Tanais has changed completely: the early city is now considered much less ‘barbarian’ than it was thought before. In its foundation and development, we can now recognize many typical features characteristic of Greek colonies in general. Among

---

1 Stempkovskii 1854, 388. (Trans. from Russian by V. Kozlovskaya)
2 Leontev 1854, 397f.
3 Leontev 1854, 49. (Trans. from Russian by V. Kozlovskaya)
4 Knipovich 1949, 26.
5 Trans. by H. L. Jones in the Loeb edition, 1924.
6 Shelov 1970, 91-93.

The authors express their sincere gratitude to the Senior Research Associate of the Museum and Archaeological Preserve Tanais S. A. Naumenko and the Academic Secretary of the Museum and Archaeological Preserve Tanais L. M. Kazakovskii for their assistance in the preparation of this publication.
the recent finds are, for example, pits for domestic needs
discovered under the early street layers, as well as cellars-
the so-called 'closed complexes'—with important dating
material, including amphorae and amphora stamps, black-
glazed ceramics, terracottas, and coins. The combination of
such diverse categories of finds yielded by these complexes
makes Tanais one of the important chronological markers
for the Hellenistic and Roman periods in this region.

**Tanais: A Chronological Overview**

The *emporion* of Tanais, founded at the beginning of the 3rd
century BC, gradually became the main economic center of
a larger area to the northeast of Lake Maeotis. Serving as
an intermediary between the ancient Greco-Roman world
and the nomads from the steppes, it was a place of the great
importance for the latter. Until the middle of the 5th century
AD, when the city ceased to exist, Tanais 'was a common
mart, partly of the Asiatic and the European nomads, and
partly of those who navigated the lake from the Bosporus,
the former bringing slaves, hides, and such other things as
nomads possess, and the latter giving in exchange clothing,
wine, and the other things that belong to civilized life'
(Strabo XI.2.3). The excavations have demonstrated that
wares—notably, wine in amphorae, objects of every-day
life, and jewelry—arrived in Tanais from various production
centers in the Pontic and Mediterranean regions.

The city’s farthestmost geographical location did not
necessarily mean that it was excluded from the political
life of the Bosporan Kingdom. However, this part of
the history of Tanais is still not well understood. Strabo
reports, among other things, that Tanais 'was founded by
the Greeks who held the Bosporus'. At the end of the 1st
century BC, the city, most likely, became involved in a
political conflict within the Bosporan Kingdom and, as a
result, was destroyed by King Polemon 'because it would
not obey him' (Strabo XI.2.3). This destruction ended the
first period in the history of Tanais, which is conventionally
referred to as 'Hellenistic'.

Recent excavations have shown that the city structure of
Tanais began to form at the end of the 3rd century BC and
must have been finalized by the middle of the 2nd century
BC. The history of Hellenistic Tanais can be tentatively
divided in four stages. The first stage is the time of the
emergence and existence of the *emporion*, lasting from
the beginning or the first quarter of the 3rd century BC to
the middle of the 3rd century BC. Numerous pits, usually
dug into the bedrock, date to this period. They were mostly
used as grain storages and cellars. Some pits, especially
large ones, were probably parts of semi-subterranean
dwellings. In some cases, a combination of earthen and
stone constructions was used. Pits were found everywhere
in the citadel, but only those located in the least destroyed
areas (under street layers, under the pavements of later
court yards, and in the spaces between the cellars of the
Roman period) were studied. Such structures were also
discovered in the Western District and in the Western
Suburb. Most often they were filled with waste, containing
fragments of amphorae from Sinope, Rhodes, Chersonesos, and unidentified Aegean centers. In addition, there were fragments of painted pottery dating from the end of the 4th to the beginning of the 3rd centuries BC. Above these pits usually lie habitation layers of the middle of the 3rd century BC.

The second stage in the history of Hellenistic Tanais lasted from the middle of the 3rd century BC to the 220s BC. Around the middle of the 3rd century BC, intensive building began in the city, including the construction of deep cellars. Structures with cellars were made out of stone and oriented along the north-south and east-west axes. Material from the second half of the 3rd century BC was found not only in the territory of the citadel, but also outside it (e.g., in the Western District). However, at the end of this period, for reasons yet unknown to us, the buildings were covered with earth and the surface was leveled to be used for new constructions.

The development of Tanais during this period was also characterized by the extent of its commercial relations. In this respect, the analysis of amphora stamps is particularly important. According to Shelov, amphorae from Rhodes formed the most numerous category of finds in Tanais of the Hellenistic period, and this situation is very different from the one observed in other settlements of the European Bosporus. However, a revision of the chronology of amphora stamps undertaken in the last few decades has shown that Rhodian amphora imports were not prevalent during almost the entire 3rd century BC, when they were outnumbered by Sinopean vessels. Sinope lost her leading role in trade with Tanais only at the end of the century, and this is clearly demonstrated by archaeological finds dating to the second stage of the Hellenistic period in the city’s history.

The third stage in the development of Hellenistic Tanais lasted from the end of the 3rd to the middle of the 2nd centuries BC. Noticeable changes in the planning of the city took place during the last quarter of the 3rd century BC: many cellars in the central and southern parts of the citadel were filled in and streets were formed, which continued to function until the middle of the 3rd century AD. Defensive stone walls appeared at around the same time, including the western fortification line of the citadel that separated the territory of the main part of the settlement from the western quarters. Thus, by the beginning of the 2nd century BC, or even earlier, the city had a well-organized infrastructure, a city-plan, and fortification complexes. Presently, we identify three fortified parts of the settlement that co-existed in the Upper City: the main rectangular part (the citadel), the Western District, and the Western Suburb (Figure 2). It is also possible that the city grew significantly in size during this period. This expansion may have been prompted both by the natural increase of the population and by the influx of new colonists.

The fourth stage lasted from the middle of the 2nd to the end of the 1st centuries BC. This period is considered the highpoint of the development of Hellenistic Tanais. City quarters and streets took their final shape, the construction of strong defensive walls with towers was finished, city squares appeared, and the city planning was completed. The majority of Hellenistic burials in the necropolis of Tanais date to this period. Moreover, the last few decades of excavations have revealed fragments of inscriptions and architectural details, made out of marble and local stone, dating from the 2nd to 1st centuries BC. These discoveries are particularly important since no inscriptions from the pre-Polemon period had been found at the site before. The end of this stage in the city’s history, as well as the end of the entire Hellenistic period in Tanais, was marked by the destruction of the settlement at the end of the 1st century BC.

We know that around that time Tanais was sacked by the Bosporan king Polemon, as mentioned before. With this event began a new period in the history of the city, conventionally referred to as ‘Roman’, which lasted from the 1st to the middle of the 3rd centuries AD. At the beginning of this period, the fortification system was destroyed, buildings were ruined, and the economic life of the city slowed down. According to Yu. G. Vinogradov, the city came back to life only under the reign of Sauromates I (AD 93-94 to AD 123-124), who permitted the defense structures to be rebuilt. But even before that development took place, during the reign of Aspurgus, who ruled in the first half of the 1st century AD, the population of the city may have increased owing to the arrival of new colonists, relocated there from the Bosporus. This conclusion is based on numismatic evidence: at around that time, metal coins entered the inner market of the city, and they are frequently found in the corresponding layers. It has been pointed out that the demand for small metal coins could only have come from the part of the population that had arrived from the Bosporus.

The general rebuilding of the city started almost immediately after its destruction by Polemon. Many residential complexes were raised already during the 1st century AD. The main part of the settlement (the citadel) expanded to the south and west, and structures were also built outside it. The spatial organization of the city became more economical and was based on a rectangular grid of streets. Excavations have revealed numerous house complexes that invariably possessed paved courtyards with water-collecting cisterns in the center. Each house complex, of which only one or two rows of superstructures are currently preserved, had one or several cellars.

The second stage in the history of Hellenistic Tanais lasted from the middle of the 3rd century BC to the 220s BC. Around the middle of the 3rd century BC, intensive building began in the city, including the construction of deep cellars. Structures with cellars were made out of stone and oriented along the north-south and east-west axes. Material from the second half of the 3rd century BC was found not only in the territory of the citadel, but also outside it (e.g., in the Western District). However, at the end of this period, for reasons yet unknown to us, the buildings were covered with earth and the surface was leveled to be used for new constructions.

The third stage in the development of Hellenistic Tanais lasted from the end of the 3rd to the middle of the 2nd centuries BC. Noticeable changes in the planning of the city took place during the last quarter of the 3rd century BC: many cellars in the central and southern parts of the citadel were filled in and streets were formed, which continued to function until the middle of the 3rd century AD. Defensive stone walls appeared at around the same time, including the western fortification line of the citadel that separated the territory of the main part of the settlement from the western quarters. Thus, by the beginning of the 2nd century BC, or even earlier, the city had a well-organized infrastructure, a city-plan, and fortification complexes. Presently, we identify three fortified parts of the settlement that co-existed in the Upper City: the main rectangular part (the citadel), the Western District, and the Western Suburb (Figure 2). It is also possible that the city grew significantly in size during this period. This expansion may have been prompted both by the natural increase of the population and by the influx of new colonists.

The fourth stage lasted from the middle of the 2nd to the end of the 1st centuries BC. This period is considered the highpoint of the development of Hellenistic Tanais. City quarters and streets took their final shape, the construction of strong defensive walls with towers was finished, city squares appeared, and the city planning was completed. The majority of Hellenistic burials in the necropolis of Tanais date to this period. Moreover, the last few decades of excavations have revealed fragments of inscriptions and architectural details, made out of marble and local stone, dating from the 2nd to 1st centuries BC. These discoveries are particularly important since no inscriptions from the pre-Polemon period had been found at the site before. The end of this stage in the city’s history, as well as the end of the entire Hellenistic period in Tanais, was marked by the destruction of the settlement at the end of the 1st century BC.

We know that around that time Tanais was sacked by the Bosporan king Polemon, as mentioned before. With this event began a new period in the history of the city, conventionally referred to as ‘Roman’, which lasted from the 1st to the middle of the 3rd centuries AD. At the beginning of this period, the fortification system was destroyed, buildings were ruined, and the economic life of the city slowed down. According to Yu. G. Vinogradov, the city came back to life only under the reign of Sauromates I (AD 93-94 to AD 123-124), who permitted the defense structures to be rebuilt. But even before that development took place, during the reign of Aspurgus, who ruled in the first half of the 1st century AD, the population of the city may have increased owing to the arrival of new colonists, relocated there from the Bosporus. This conclusion is based on numismatic evidence: at around that time, metal coins entered the inner market of the city, and they are frequently found in the corresponding layers. It has been pointed out that the demand for small metal coins could only have come from the part of the population that had arrived from the Bosporus.

The general rebuilding of the city started almost immediately after its destruction by Polemon. Many residential complexes were raised already during the 1st century AD. The main part of the settlement (the citadel) expanded to the south and west, and structures were also built outside it. The spatial organization of the city became more economical and was based on a rectangular grid of streets. Excavations have revealed numerous house complexes that invariably possessed paved courtyards with water-collecting cisterns in the center. Each house complex, of which only one or two rows of superstructures are currently preserved, had one or several cellars.

The fourth stage lasted from the middle of the 2nd to the end of the 1st centuries BC. This period is considered the highpoint of the development of Hellenistic Tanais. City quarters and streets took their final shape, the construction of strong defensive walls with towers was finished, city squares appeared, and the city planning was completed. The majority of Hellenistic burials in the necropolis of Tanais date to this period. Moreover, the last few decades of excavations have revealed fragments of inscriptions and architectural details, made out of marble and local stone, dating from the 2nd to 1st centuries BC. These discoveries are particularly important since no inscriptions from the pre-Polemon period had been found at the site before. The end of this stage in the city’s history, as well as the end of the entire Hellenistic period in Tanais, was marked by the destruction of the settlement at the end of the 1st century BC.

We know that around that time Tanais was sacked by the Bosporan king Polemon, as mentioned before. With this event began a new period in the history of the city, conventionally referred to as ‘Roman’, which lasted from the 1st to the middle of the 3rd centuries AD. At the beginning of this period, the fortification system was destroyed, buildings were ruined, and the economic life of the city slowed down. According to Yu. G. Vinogradov, the city came back to life only under the reign of Sauromates I (AD 93-94 to AD 123-124), who permitted the defense structures to be rebuilt. But even before that development took place, during the reign of Aspurgus, who ruled in the first half of the 1st century AD, the population of the city may have increased owing to the arrival of new colonists, relocated there from the Bosporus. This conclusion is based on numismatic evidence: at around that time, metal coins entered the inner market of the city, and they are frequently found in the corresponding layers. It has been pointed out that the demand for small metal coins could only have come from the part of the population that had arrived from the Bosporus.

The general rebuilding of the city started almost immediately after its destruction by Polemon. Many residential complexes were raised already during the 1st century AD. The main part of the settlement (the citadel) expanded to the south and west, and structures were also built outside it. The spatial organization of the city became more economical and was based on a rectangular grid of streets. Excavations have revealed numerous house complexes that invariably possessed paved courtyards with water-collecting cisterns in the center. Each house complex, of which only one or two rows of superstructures are currently preserved, had one or several cellars.

In the 2nd century AD, the main part of the settlement was already well fortified, surrounded in the north, east,
and west by a substantial moat, partly dug into the clayish soil and partly cut into the bedrock. A representative of the Bosporan king resided in the city at all times. The importance of Tanais in the political life of the Bosporus increased, owing to the city’s location on the frontier of the Bosporan kingdom and its role as an intermediary in the latter’s relations with Sarmatian tribes. The economic development of Tanais as the main commercial and production center in the large steppe region reached its highpoint. Rural settlements also appeared around the city during this period.

The layers dating to the middle of the 2nd century AD revealed traces of destruction and a severe fire. These traces are particularly noticeable in the remains of the western fortification line of the citadel. The defense towers ceased to function around the middle of the 2nd century AD, and new towers, erected next to them or on top of them, continued to function until the middle of the 3rd century AD. In addition, the excavations of the 3rd-century-AD structures often expose partially buried remains of cellars dated to the middle of the 2nd century AD. These destructions can possibly be associated with the arrival in the Lower Don area of strong militarized nomadic groups from the east. From that time onwards, the presence of the steppe people in the city becomes evident and rich burials of local elite members appear in the area. At the same time, these destructions did not have any long-term effect. Tanais was quickly rebuilt, while waste and ash were taken out of the Upper City to the area adjacent to the river. The building activity reached its highpoint in the second half of the 2nd to the beginning of the 3rd centuries AD. Several inscriptions dating to the period from Sauromates II to Inensimeus testify to the restoration of the defense walls.

In the middle of the 3rd century AD, Tanais and the surrounding settlements were destroyed and burnt. Traces of a large-scale fire were found everywhere in the excavated area. Tanais came back to life in the second half of the 4th century AD. That time was the beginning of the last period in the history of the city, referred to as ‘Late Antique’, which lasted from the second half of the 4th to the 5th centuries AD. In the last few years, excavations at the site have revealed relatively well-preserved structures of the

---

15 Shelov 1972, 261-263.
16 KBN 1242-1247; 1249-1252 (Korpus Bosporskikh Nadpisei / Corpus Inscriptionum Regni Bosporani, ed. by V. V. Struve et al. (Moscow-Leningrad, 1965).
4th century AD, which differed from the buildings of the previous period in many respects. The planning of the city was also different: old streets and squares were covered by new houses and pits. So far, broad streets have not been discovered in the late city—only narrow paved passageways (c. 2 m wide) between houses. During this period, houses, partly dug into the soil, were built carelessly on the ruins of the buildings of the 2nd to 3rd centuries AD. Residential and domestic structures had no cellars. Three stages can be distinguished within this period, the first stage starting in the middle of the 4th century AD. However, there are no clear chronological markers for the layers inside the buildings, so that the chronology for this period still remains tentative.

The size of the territory of late Tanais is also not clear. Shelov maintained that the city rebuilt on the ruins occupied the same territory as it did during the pre-destruction period, although economically it was much weaker than in the 2nd to 3rd centuries AD. Discoveries made in the last few years confirm this hypothesis. The excavations undertaken from 2003 to 2010 outside the citadel (to the south, west, and east of it) proved particularly important for the topographical reconstruction of late Tanais. The limits of the city in the west are still unknown, but its territory must have extended beyond the western border of the main part of the settlement, since the ruins of houses were found to the west of the western defense moat of the Roman period (excavation trench XXIX) (Figure 2). In the east, remains of seven houses dating from the 4th to 5th centuries AD were unearthed in excavation trench XXX (Figure 3, no. 79). No fortification structures of the 4th to 5th centuries AD have been detected anywhere in the area, apart from those found by Shelov in excavation trench IV (Figure 2). In the Upper City, buildings of the 4th to 5th centuries AD were built on the top of the ruined western defensive wall, and the western moat no longer had a protective function.

All structures unearthed outside the main part of the settlement had one construction layer, which corresponded to the first construction level of the buildings in the main part of late Tanais. At the end of this period (i.e., at the end of the 4th to the beginning of the 5th centuries AD), the size of the territory occupied by the city decreased abruptly. The structures to the west and east of the main part of the settlement appear to have been abandoned. No houses of the later type, which were usually round in plan and built

---

18 Shelov 1972, 312.
Exploring the Hospitable Sea

into the contours of the older structures, were found in those areas. The disappearance of several settlements on the right bank of the river and in the delta of Don can possibly be associated with the same developments.

Remains of structures tentatively dated to the second quarter or the middle of the 5th century AD have only been found in the territory of the main part of the settlement. Most of them were carelessly built and round in plan. It is not clear what caused the final decline of the city. There are no visible traces of destruction in the layers of the 5th century AD, but it is clear that Tanais was no longer able to remain the major commercial and economic center of the Lower Don steppes. Life in the settlement gradually came to an end, and it was abandoned and forgotten for many centuries to come.

Investigations in the Lower City of Tanais

Presently, after almost one hundred and fifty years of excavations at the site, the size of the ancient city, as well as its precise topography and lay-out still remain largely unknown. For many years, archaeological work had focused primarily on the fortified main part of the settlement, as well as on a small area to the west of it with the remains of the buildings from the end of the 3rd to the 1st centuries BC, and on the necropolis adjoining the city walls in the east, north, and west. From the 1990s onwards, more archaeological work has been undertaken in the territory of the Upper City outside the main part of the settlement, bringing to light new evidence. The least amount of information available, however, concerns the area located south of the citadel. This area consists of two parts: the one immediately adjacent to the river and the first terrace on the bank of the river - a low slope, which in the north transforms into the steep second terrace, where the Upper City is located. The difference between the levels of the two terraces is c. 15m. Presently, the entire territory between the river and the beginning of the second terrace is densely covered by the buildings of the modern village. In addition, the railway line Nedvigovka-Taganrog runs along the river, and the station platform is located in the same area. As a result, the archaeological picture of this territory is much less clear and further large-scale archaeological investigations of this area are impossible. Yet, this part of the settlement is extremely important for our understanding of the topography of ancient Tanais - this is where the Lower City was located, including the harbor district and the harbor itself, as Shelov once suggested. His hypothesis was confirmed already in the 1960s, when a villager, who was digging a well for his household needs, discovered fragments of two large red-clay pithoi in the Discoveries in the Lower City, as well as an ancient subterranean structure with light-clay narrow-necked amphorae from the first half of the 3rd century AD. These finds were interpreted as the remains of ancient storage facilities, which in all likelihood would have been located in or near the harbor district.

Other sporadic finds, modern construction work, and rescue excavations in the area provided additional information about the Lower City of ancient Tanais. In 1977, a test trench (5 x 2.7m) was laid out on the first terrace on the bank of the river, south of the citadel (Figure 3, no. 76). The excavated layers revealed remains of reed-and-clay, mudbrick, and stone constructions, as well as household pits and burnt layers, which archaeologists dated to the 1st century AD. Other layers contained material of the 2nd to 3rd centuries AD, but no architectural remains, and may have been disturbed during the earlier construction of the railway line. The excavation was interrupted prematurely and did not reach virgin soil, so that there is no information about possible earlier layers. The dates of the 2nd to 3rd centuries AD were later supported by the finds from the small-scale excavation (4 x 5m) conducted in 2001 by L. M. Kazakova in the area located immediately to the west of the 1977 test trench. The results of both these investigations suggested that at least in the early centuries AD residential quarters must have existed in this part of the Lower City.

Some archaeological work has also been undertaken to the east of this area, south of the southeastern corner of the citadel (Figure 3, no. 77). There, small-scale excavations conducted on the first terrace on the bank of the river in 1959 and 2001 revealed cultural layers filled with ceramic fragments of the 2nd to 3rd centuries AD, as well as some earlier and later layers. The earlier layers, discovered in 2001, contained possible architectural remains, but the excavated area was too small to allow any further conclusions. Visual observation by archaeologists of work conducted by villagers on their private land in the same territory (Figure 3, no. XI and to the west of it) produced very similar results: layers with ceramic fragments of the 1st to 3rd centuries AD were detected, as well as burnt layers and possible remains of stone foundations. A test trench laid out in 1993 to the south of it, on the other side of the modern railway line, in the area adjacent to the river (Figure 3, no. 78), revealed layers with ceramic fragments of the 3rd century AD. Another test trench, excavated in 1994 much farther to the east (c. 600m to the southeast of the southeastern corner of the citadel), also on the other side of the railway line, yielded four burial pits of the 2nd to 3rd centuries AD. Thus, it appears that in the early centuries AD the situation in the eastern part of the Lower City of Tanais roughly corresponded to that in the Upper City


26 Ilyashenko 1970, 93-94.


28 Arsen'eva et al. 2002.


31 Il'jašenko 2005, 148-149.

where similar layers filled with ceramic fragments from the same period have been discovered east of the main fortified part of the settlement (Figure 3, no. 79). The latter did not contain any architectural remains and were tentatively interpreted as waste layers. In addition, the excavations undertaken to the east of the citadel confirmed that during various periods of the city’s existence that territory was occupied by a necropolis; in the 4th to 5th centuries AD, residential quarters, mentioned above, were located there. 32

Recent archaeological work in the western part of the Lower City also produced some evidence that adds to our knowledge of this part of the settlement. In 2003, trench XXVIII was laid out in the area adjacent to the river, 30m to the south of the southern end of the western protective moat of the citadel (Figure 3, no. 74). This area had been traditionally viewed as prone to frequent flooding, and therefore uninhabited in antiquity. The excavation of an 80m² area revealed well-preserved remains of three houses, as well as parts of two streets, dating to the second half of the 4th century AD (Figure 4). Thus, we can conclude that the Lower City continued to function in Late Antiquity, similar to the Upper City, and that some residential quarters were located in the western part of it. It is also important that the structures discovered in the Lower City were no different from the contemporaneous buildings found in the main part of the settlement. In addition, a section of a massive wall (Figure 5, wall 14) was discovered southwest of the excavated building remains in trench XXVIII, also dated to the 4th century AD. It is possible that this wall protected the late residential quarters from the water during inundations. At the end of the 4th century AD, the inhabitants must have abandoned their houses in this area, leaving behind some of their belongings. Small test trenches laid out in the northern and southern parts of trench XXVIII also allowed archaeologists to detect habitation layers of the 1st, 2nd, and 3rd centuries AD, but further work was prevented by rising groundwater. 33

Modern construction work undertaken to the east of trench XXVIII, on the first terrace on the bank of the river (Figure 3, no. IX), revealed cultural layers of the 2nd to 3rd centuries AD. Once, after particularly heavy rainfall, contours of an ancient structure became visible in the middle of a busy road nearby (Figure 3, no. VIII), but no further investigations were possible, for practical reasons. An ancient coin was also found there in 2006, later dated to the middle of the 3rd century AD. Modern construction work in two parts of the area adjacent to the river, on the other side of the railway line, yielded ceramic material of the 1st century BC to the 1st century AD (Figure 3, no. 87). 35

32 Il'jašenko 2005, 149 (with further references); Arseneva et al. 2008.

Exploring the Hospitable Sea

Farther west, c. 350m to the west of the fortified main part of the settlement, trench XXIV (30m²) was laid out in 1998 (Figure 3, no. 73). The excavation produced a section of a paved street, c. 3m long and 2m wide. The street ran in the direction east-west and was bordered along the sides by large stones. The cross-section of the street showed that it must have functioned from the first half of the 2nd century BC until the middle of the 3rd century AD. Remains of structures and pits used for household needs were discovered to the north and east of the street, dating from the 2nd century BC to the middle of the 3rd century AD. Their lower layers were dated by Rhodian amphora stamps, while the upper layers yielded coins from the first decades of the 2nd century AD; on the top, there was a layer of fire destruction with remains of stone structures, dated to the middle of the 3rd century AD. This date corresponds to the date of the fire that destroyed all known buildings of the 3rd century AD in the fortified main part of the settlement.  

Another small test trench laid out nearby, in the area adjacent to the river (Figure 3, no. I), revealed a very similar stratigraphy. These two trenches are located on the eastern side of a ravine that cuts through both terraces from north to south. A foundation pit for a new house dug on the opposite -western- side of the ravine in 2002 went down to virgin soil, but no habitation layers were found. Modern construction work in other areas along the western side of the ravine had similar results, sometimes producing ash layers with ceramic fragments of the 2nd to 3rd centuries AD (Figure 3, no. III). On several other occasions, construction work undertaken by villagers in the western part of the first terrace and in the area adjacent to the river also revealed cultural layers of the 2nd to 3rd centuries AD (Figure 3, no. V and, to a smaller extent, no. VI), as well as waste layers with ceramic fragments of the 2nd century BC to the 3rd century AD (Figure 3, no. IV) and cultural layers of the same periods (Figure 3, no. II).  

Based on all the evidence described above, we can conclude that most of the territory to the south of the Upper City must have been occupied, at least, during the 2nd to 3rd centuries AD, since cultural layers of that period, with traces of architectural remains, were detected everywhere in this area. Some of the small-scale excavations in the central and eastern parts also yielded material and possible remains of habitation layers dating to the 1st century AD, but not many finds of the 2nd to 1st centuries BC. The latter, however, does not necessarily exclude the possibility that these parts of the Lower City were occupied during the early periods -in particular, in view of the fact that only very few of the trenches excavated in this area reached virgin soil. In the western part of the Lower City, however, the earliest ceramic material, architectural ruins, and remains of cultural layers date to the 2nd century BC, while the latest date to the second half of the 4th century AD.  

Presently, we cannot make any secure assumptions about the extent of the Lower City in the 2nd to 3rd centuries AD, when it seems to have occupied the largest territory. It is possible that its western border was formed by the western ravine, located c. 350m to the west, since test trenches on the western side of the ravine did not reveal any cultural layers or any other significant material, as mentioned above. Not much work has been done in the area to the southeast of the citadel, so that we have no information about the possible extent of the Lower City in the eastern direction, apart from the four burials of the 2nd to 3rd centuries AD found much farther to the east, which can be (or not) a part of a larger necropolis located outside of the city. In the south, the natural border would be clearly formed by the river, but its precise location in antiquity is unknown to us. The only piece of evidence in this respect are the remains of the so-called ‘drainage pipe’, first discovered in 1870 by P. I. Khitsunov, who laid out several test trenches in the middle part of the south slope of the second terrace and in the area adjacent to the river, in order to investigate an underground channel, discovered by chance. In the course of his work, Khitsunov established that this channel went from the southern gate of the citadel down to the river,
where it ended.\textsuperscript{38} The purpose of the channel had not been satisfactorily explained at the time of its discovery and is still debated nowadays. Recent excavations in the main fortified part of the settlement revealed other sections of the same channel under the street pavement dating from the end of the 2nd to the 3rd centuries AD. Inside the citadel, the channel went along the axis east/northeast - west/southwest, but outside the city walls it changed direction and ran from north to south, along the slope, down to the river. We may assume that the end point of this channel indicates the location of the river during the period in question and, thus, the farthest possible location of the southern border of the Lower City in antiquity (Figure 3).

To summarize, we can tentatively suggest that the Lower City first emerged in the area adjacent to the river and on the first terrace on the bank of the river, to the south of the citadel and the Western District, and that it must have been in existence by the end of the 3rd century BC. This development was, most likely, associated with the general growth of the settlement and intensive construction work that began in the city around the middle of the 3rd century BC, as well as with its evolving commercial relations, mentioned above. Tanais flourished and gradually became what Strabo called ‘next to Panticapaeum … the largest mart of the barbarians’ (VII.4.5).\textsuperscript{39} The expansion of the Lower City probably continued during the second half of the 1st century AD, when the previously unoccupied areas farther to the east were settled. The development of Tanais reached its highpoint in the second half of the 2nd to the beginning of the 3rd centuries AD, and most archaeological finds and architectural remains in the Lower City come from that period. The latest structures, dating to second half of the 4th century AD, and thus to the last period of the existence of Tanais, have only been discovered so far in the western part of the Lower City, in the area adjacent to the river. This is, of course, also the area where the earliest evidence for the existence of the Lower City has been found and where, incidentally, the ancient harbor of Tanais may have been located.

The Ancient Harbor of Tanais

The only information we have about the possible location of the ancient harbor of Tanais is indirect and derives from archaeological material discovered in the Upper City in the 1960s and 1970s. At that time, three rooms -S, T, and U- were excavated in trench IV in the southwestern corner of the main fortified settlement (Figure 6). Room T was adjacent to the southern and western defense walls of the citadel and to the southwestern tower of the defense complex; rooms U and S were located north of it and adjacent to the western defense wall. The rooms were destroyed in the middle of the 3rd century AD. The excavations in all three of them revealed numerous fragments of light-clay narrow-neck amphorae dating to the first half of the 3rd century AD: in room T, fragments of over 300 such amphorae were found, most of them bearing dipinti, while room S yielded 229 amphora fragments with dipinti (Figure 7). The word NAFA -the modified Greek word NAFTHA (petroleum)- was visible on about 80 amphora fragments and intact vessels from room S, 12 fragments from room T, 4 fragments from room U, and 3 fragments found outside these rooms (Figure 8).\textsuperscript{40} Many of these amphorae and amphora fragments revealed traces of a dark pitchy substance. The chemical analyses of the residue performed in the 1960s in laboratories in Ufa and Moscow established that the substance in question was oxidized petroleum.\textsuperscript{41} The closest accessible petroleum deposits in the region are located on the Taman and Kerch peninsulas. In terms of its chemical composition, the petroleum from the Chongelek deposit, located 30km south of ancient Panticapaeum, is the closest to the substance found in the amphorae in Tanais.\textsuperscript{42} All three rooms where the amphorae were found were adjacent to the western defense wall of the citadel and to the southwestern defense tower. Shelov, who conducted the excavation, suggested that this tower might have functioned as a lighthouse since it was well visible

\textsuperscript{38} Shelov 1972, 51-52, with the references to P. I. Khitsunov, Izvlechenie iz zhurnala arkeologicheskikh razyskanii, proizvedennykh Nadvornym Sovetnikom P. Khitsunovym na razvalinakh drevenego Tanaisa. Archive of the Leningrad Branch of the Archaeological Institute, Izvestiya Arkeologicheskoi Komissii 10 (1869), 36; Otchet Arkeologicheskoi Komissii za 1870, 23.

\textsuperscript{39} Trans. by H. L. Jones in the Loeb edition, 1924.

\textsuperscript{40} Arseneva and Shelov 1974, tab. 1a.

\textsuperscript{41} Shelov 1971,73.

\textsuperscript{42} Kostrikov 1971.
from the water (Figure 9). The fact that petroleum stored in the amphorae inside this tower could have been used for light also confirmed his suggestion. 43

If, indeed, the southwestern defense tower in Tanais served as a lighthouse, then the harbor of Tanais had to be located in the Lower City to the southwest of the citadel. And, as mentioned above, the earliest and the latest archaeological remains in the Lower City have so far been found in the western part of it, indicating that this area must have been the busiest, the most important, and/or the most convenient to live in, for whatever reasons. It is, however, also possible that the harbor of Tanais changed its location throughout the time of the city’s existence. We know that in antiquity the river, on the one hand, was probably much closer to the site than it is now and that, on the other hand, it was much better suited for navigation. We also know that the sea -Lake Maeotis- must have been much closer to the city than it is presently: Strabo wrote about Tanais that it was the city ‘on the river and the lake’ (XL.2.3). 44 It is clear then that the location of the harbor as well as the outlay of the

---

43 Shelov 1971, 73-74; Arseneva and Shelov 1974, 149.
44 Trans. by H. L. Jones in the Loeb edition, 1924.
List of Bibliography


Discussion

Demetry Ogoltsev: I have a question about petroleum. If I am not mistaken, it was also used for warfare. And maybe this is why such large amounts were used. Do you know from which locations this petroleum came and to where it was exported to be used for purposes other than lighting – i.e., for something more warfare-oriented?

Valeriya Kozlovskaya: Warfare was clearly an option because the structure where the amphorae in question were found was a defensive tower. The remaining of some war mechanisms have been found in Tanais but nothing that could indicate that fire had been used for defence; still, it is a good hypothesis. As to your question about the origin,
this particular petroleum found in the amphorae in question seems to have come from the area of Panticapaeum. I do not know of any studies concerning other possible sources of petroleum in the region. In general, in the case of lighthouses, they very often also served as defensive towers, so that wherever we have evidence of lighthouses, it is very difficult to differentiate between their various functions and the purposes for which fuel might have been used. They were multifunctional, even temples often were, as we know, multifunctional also in this area. Sometimes they might have served as watchtowers or navigational landmarks.