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THE HISTORICAL AND CULTURAL HERITAGE OF THE GRAND DUCHY OF LITHUANIA IN THE SOUTH OF UKRAINE: TYAHIN FORTRESS

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The article is devoted to the results of the research of the fortress Tyagin, built by the Lithuanian Grand Duke Vytautas on the territory of the island Bolshoye Gorodishche in the late 14th to early 15th century. The archaeological materials provided valuable information about the syncretism of the complex of monuments on the island, the typology, layout and size of the fortress. It was one of the earliest stone castle-type fortresses on the northern Black Sea coast, a part of the defensive line of the southern borders of the Grand Duchy of Lithuania. The fortress' defensive system included a synthesis of defensive architectural elements, ranging from timber-engineered structures known from Old Russian times to stone walls and buttresses of a new level of fortification in Europe. The fortress was armed with artillery and edged weapons, the main type being crossbows, which were widespread in Lithuania. The fortress of Tyagin was situated at the crossroads of trade routes between the East and the West, at the crossroads of the custom. The artifacts testify to the presence of Lithuanian cultural objects, Genoese influence, contact with Crimea, and trade and economic relations with Poland. The monument is an integral part of the cultural heritage of Lithuania and Ukraine.

Keywords: fortress, cultural heritage, Lithuania, Ukraine.

Straipsnis skirtas Tyagino tvirtovės tyrimų rezultatams apžvelgti. Tvirtovė Bolšoje Gorodišče salos teritorijoje XIV a. pabaigoje – XV a. pradžioje buvo pastatyta Lietuvos kunigaikščio Vytauto Didžiojo įsakymu. Archeologinė medžiaga suteikė vertingos informacijos apie saloje esančio paminklų komplekso sinkretizmą, tvirtovės tipologiją, išplanavimą ir dydį. Tai yra viena ankstyviausių akmeninių pilių-tvirtovių šiaurinėje Juodosios jūros pakrantėje, kuri sudarė dalį Lietuvos Didžiosios Kunigaikštystės pietinės sienos gynybinės linijos. Tvirtovės gynybinę sistemą sudarė architektūrinių elementų sintezė – nuo medinių inžinerinių konstrukcijų, žinomų nuo senosios Rusijos laikų, iki Europai naujų fortifikacijos elementų kaip akmeninės sienos ir kontraforsai. Tvirtovės ginkluotę sudarė artilerija ir kovos ginklai, kurių pagrindinė rūšis buvo Lietuvoje plačiai paplitę arbaletai. Tyagino tvirtovė buvo įsikūrusi prekybos kelių kryžkelėje, skiriančioje Rytus ir Vakarus, papročių sankirtoje. Radiniai liudija lietuvių kultūros buvimą, Genujos įtaką, kontaktus su Krymu, taip pat prekybinius ir ekonominius ryšius su Lenkija. Paminklas, be abejonės, yra neatsiejama Lietuvos ir Ukrainos kultūros paveldo dalis.

Reikšminiai žodžiai: tvirtovė, kultūrinis paveldas, Lietuva, Ukraina.

INTRODUCTION

The history of the Northern Black Sea coast, on the territory of which the southern part of the Grand Duchy of Lithuania (GDL) was situated,

has preserved the toponymy and archaeological monuments connected with the name of the Grand Duke Vytautas of Lithuania. On his initiative the southern line of fortifications - a network of castles-fortresses of the Northern Black Sea coast was built.



Fig. 1. Plan of the Tyagin Hillfort and Fortress. *Drawing by O. Manigda and O. Grabovska.*

1 pav. Tyagino tvirtovės planas. *O. Manigdos ir O. Grabowskos pieš.*

One such castle was on Bolshoye Gorodishche Island (Big Hill), situated 0.5 km to the south-west from Tyaginka village in the Kherson region, where the Tyaginka River flows into the Dnieper River. The island is oval and up to 400 m long and up to 300 m wide. It is 6-10 m higher than the current level of Dnieper. The area of the island is 18.3 ha (Fig. 1). The entire perimeter of the island was surrounded by fortifications of stone. Moreover, the settlement of more than 6 ha was situated upstream of the Tyahinka River on the island which was surrounded by a big lake. The fortification system of the complex was based on the data of three-dimensional modeling (Кобалія 2018, 172–198),

topographic survey (На розі двох світів 2018, 28–36) and archaeological research conducted in the 20th and 21st centuries. One of the most convenient crossings over the Dnieper River was located in the area of Tyagin Island in the Middle Ages.

SOURCES AND HISTORY OF RESEARCH

The history of the southern region of the GDL, including the campaigns of the Lithuanian Grand Duke Vytautas and his efforts to create a defensive line along the northern Black Sea coast, is documented in written sources and maps.

This region was first mentioned in the reports of Johan von Posilge, author of the “Chronicle of the Land of Prussia”. Johan von Posilge not only mentions Vytautas successful campaign with a great army up to 200 miles away from Vilnius, the conquest of the southern lands, but also the construction of a castle down by the Dnieper River. In doing so, he points out that the castle was built of clay and stone over a period of four weeks, and is named the city of St. John (Жарких 2017, 6).

An account by the Burgundian diplomat and traveller Ghillebert de Lannoy (1386–1462), a contemporary of Grand Duke Vytautas who visited Moncastro (Belgorod-Dnistrovsky fortress) in 1421, also refers to the construction of the fortress: “During the time of my stay here, the governor of Podolia, the afore-mentioned Gedigold came to one of the river banks, with the purpose of establishing a completely new castle by force that was done in less than a month by the said Duke Vytautas, in a deserted place that had neither timber nor stone; however, the said governor had brought there twelve thousand men and four thousand carts loaded with stone and timber” (Чепкасов 2015, 232).

Even though the name of Tyagin was not mentioned, contemporary testimonies present the defensive activities of Grand Duke Vytautas and increase the likelihood of both discovering the

remnants of fortresses in this narrow region, and identifying their toponyms.

Michalon Litvin, a Lithuanian diplomat in Crimea, wrote his historical notes and memoirs, "About the Manners of Tatars, Lithuanians and Muscovites" in the first half of the 16th century, which merits further careful review. He tells us about the customs office at the crossing of the Dnieper near Tavan' where a stone building with arches named, "Vytautas'as bath", was kept by Lithuanians, Tatars and Greeks. They say that once upon a time it was inhabited by a public officer of the Grand Duchy of Lithuania who collected "duties" (Литвин 1994, 52–53).

The 18th and 19th-century testimonies of S. I. Myshetskyi (1740), Jean-Benoît Scherer (1788), F. F. Laskovski (1865), and A. S. Afanasiev-Chuzhbinsky (1860) are also noteworthy because they enable us to see the longevity of the fortress's remains. This reflects effective building methods, solid planning structures, and well-chosen building materials. Austrian historian, Johann Engel, argues that the fortress was founded by the Genoans between the 13th to 15th centuries (Histories of Ukraine and Ukrainian Cossacks, 1796), and rebuilt by the Turks in 1492 (Енгель 2014, 542).

Ukrainian historian, D. Yavornytsky, paid particular attention to the history of the fortress, who observed that there that was a large city with a triangular castle and rounded towers, surrounded by a moat filled with water on the Tyahinka River near the Dnieper. The Tyaghyn crossing is also repeatedly mentioned (Яворницький 1990).

Cartographic materials play an important role in the localization of fortresses and their names. The earliest and most informative cartographic materials dates back to the 16th and 17th centuries. Thus, Tavan appears on Martin Waldsmuller's map of Sarmatia (1513) and on a portolan of Batisti Agnese (1552). We also note the presence of an unnamed fortress adjacent to Tavan, but its location

seems to be that of Tyagin. As such, it was likely unnamed on the map because it was drawn under the authority of the Crimean Khanate (Portolan), which did not recognize Tyagin.

M. Radziwiłł's "Map of Lithuania" (1613) is particularly important because it presents a correlation of written sources data and exact location of castles, customs houses, and crossings of this southern region of the Lithuanian state, including the location and name of the Tyagina Fortress itself – Teginka (Кордт 1910, XVI). The ruins of Tyagin fortress were found on the general map of Ukraine by Levasseur de Boplane in 1648 (Кордт 1910, IX) and on the map of Poland by J. A. Ricci Zanonni in 1767 (Дяченко 2010).

The history of archaeological research of the settlement and the fortress began in 1914, with excavations by Kherson archaeologist V. I. Goshkevich, who noted the presence of different cultural layers on this territory (Гошкевич 1916). He presented the first topographic plan of the island, recorded remains of a rampart and moat, as well as the fortification system of the fortress and its triangular layout (which, nowadays is only half of the fortress), and conducted field research of a stone wall and a donjon measuring 9.0 x 9.0 sq. m in its northern part.

According to V. I. Goshkevich, Tyagin's fortress was a Lithuanian castle and customs house, built by Grand Duke Vytautas in the early 15th century. There were excavations of a burial site with low embankments 1.0 km northeast of the fortifications.

All in all, 12 mounds were excavated and 15 male burials were uncovered. Goshkevich found two cornelian beads, the shape of which characteristic of the 15th century, so he dated them to the same period (Гошкевич 1916, 10). However, we strongly believe that the chronology of the burial ground requires additional research.

The director of the Kherson Local History Museum, S. A. Secretnyi, resumed further study

of the monument in 1936 and conducted a reconnaissance of the Bolshoye Gorodishche. He also created a schematic map of the archaeological sites near the village of Tyagynka, including a rough draft of the archaeological sites near Tyaginka. An employee of Kherson Local History Museum, N. N. Dmitrenko, also conducted a reconnaissance in the same area in 1946, but his works are not known to have yielded any datasets at present.

Thereafter, M. I. Olenkovskaya (Abikulova) and N. P. Olenkovskiy, employees of the Kherson Local History Museum further excavated the area around the monument in 1977 (Оленковская, Оленковский 1978, 364). More importantly, they discovered that the monument was protected by the state in 1983 and designated as a „monument of national importance“ (Оленковский 2010, 36–37).

Moreover, the Tyagin Archaeological Expedition of the Kherson Local History Museum (1992–1993) was headed by S. V. Bakhmatov. He undertook two small excavations and studied the section of the rampart in the southern part of the fortress (Бахматов 1992, 1).

In 2009–2011, works on the Bolshoye Gorodishche and fortress were carried out by V. E. Ilinskiy, who completed four excavations of 220m² as well as nine trenches and pits in different parts of the island (Ильинский 2010, 308–313). Ilinskiy argues that there was a fortress town named Semimayak built by the Lithuanians and existed from 1363–1484 (Ильинский 2010, 308–310), but he did not consider a Tatar town of the Ulus Dzhuchi. D. R. Kobalia joined the excavation efforts in 2011 (Кобалия 2018, 176). Six years later, Kobalia conducted “an analysis of the physical condition of the fortress, its fortification and buildings on the basis of photogrammetric measurements” (Кобалия 2018, 172).

During the archaeological investigations on the territory of the Bolshoye Gorodishche and Tyagin

Fortress, cultural layers from different historical periods—starting with the Bronze Age to the Scythian Age, Ancient times to the Late Middle Ages, and Early Modern times—were revealed. However, the specific distribution and thickness of the cultural layers are yet to be conclusively established.

According to V. L. Egorov, the Bolshoye Gorodishche on the island was one of four well-known “Golden Horde” cities of the Lower Dnepr during the reign of Ulus Dzhuchi, which spanned from the Mongol invasion of 1240 to the 1360s–1370s (Егоров 1985, 12). M. V. Yelnikov substantiated this hypothesis (Єльніков 2006, 48–49). Yelnikov argued that the cities flourished for two main reasons. First, “They were located at the crossing points and acted as guard posts” (Єльніков 2014, 94). Second, there were many Italian trade factories.

At the time, the Lower Dneper region was at the crossroads of the Eastern (Dzhuchid, as a part of) and Western (Genoese) civilizations. The region continued to develop trading directions in the subsequent Lithuanian period (Русина 1998).

EXCAVATIONS RESULTS 2016–2021

In 2016–21, the Southern Medieval Expedition of the Institute of Archaeology of the National Academy of Sciences of Ukraine (Head S. A. Biliaieva) conducted field studies of the monuments of the Great Hillfort. The Southern Medieval Expedition of the Institute of Archaeology of the National Academy of Sciences of Ukraine (Head S. A. Biliaieva) conducted excavations of the monuments of the Big Fortress. In 2016–17, they concentrated on the territory of the ancient settlement. The excavations confirmed the presence of the remains of urban structures and the continuation of the population after the decline of the Juchi ulus in the 60–70s. 14th century, and simultaneously with the existence of Tyagin fortress at the end of 14th–15th centuries.

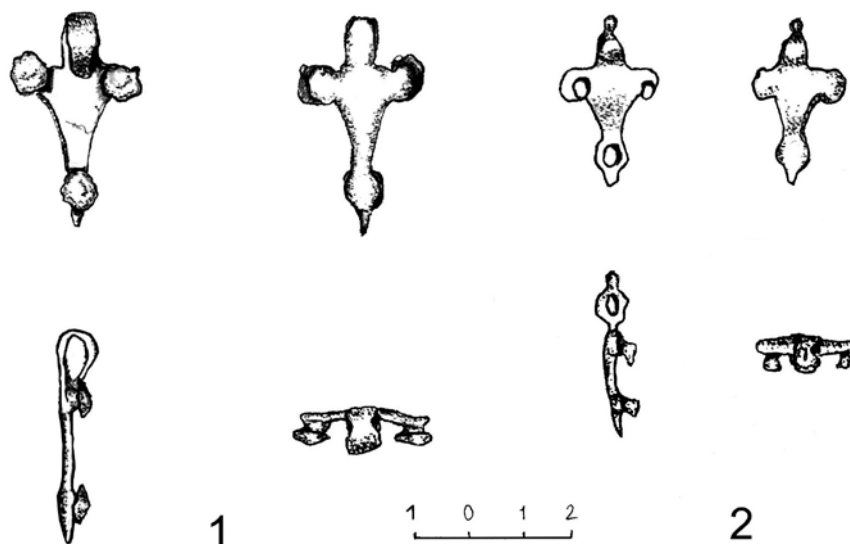


Fig. 2. Metal plates on bags. Drawing by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.
2 pav. Metalinės plokštelės ant kapšelių. N. Bimbirayte's, V. Grytsayenkos, K. Gulenko ir O. Chubenko pieš.

The archaeological materials obtained present numerous signs of the Dzhuchid civilization: ruins of monumental buildings, areas of waterworks and drainage, and striking artifacts, such as ceremonial irrigated pottery, including sgraffito, which has analogies among ceramics of the East and West Crimea groups (Тесленко 2014, 495–512, 541–56). Coin finds also confirm the vitality and the presence of trade contacts at the settlement after the decline of the ulus Dzhuchi: a Dzhuchid pool from the 70-80s. There is also a circular bronze coin (1.6 x 1.8 cm in diameter) with a Kufi countermark, a silver coin (1.5 x 1.3 cm in diameter) dating back to the 2-3rd quarter of the 15th century with the Tamerlane of Timurids in the centre, a silver dirham coin of Kichi Mukhamad (1430–1444) minted at Ordu Bazar and others. In addition, a rounded bilon coin was found – a denarius, Poland, Krakow, Wladyslaw Warnencyk (1434–1444).¹

Materials from the fortress testify to the emergence and existence of a new factor of its

further development in the region in the person of the Grand Duchy of Lithuania. Important arguments for this process are the finds of the objects of Lithuanian origin in different, rather distant from each other sites of the hill fort. The metal plates on the leather bags are typical for the Lithuanian material culture. The items found differ in their size and materials. They belong to the cross-shaped type of plates.

The first overlay was found in the southern part of the fortress in the ruins of a building made of mud bricks and stone near the fortress. The bronze plate has a slightly convex, slightly convex central part with a projection at the top, which serves as a vertical loop with a lug; two rounded projections with rivets on the back side to fasten it to the leather base of the bag. Bottom part is shaped like an inverted teardrop, pointed to the bottom. The size of the overlay is 3,2 x 2,0 cm, thickness 0,2 cm, loop diameter 0,55 cm, height of the rivet 0,3 cm, diameter 0,3 cm (Fig. 2. 1).

¹ Definitions by G. A. Kozubowski, for which we express our deep gratitude.



Fig. 3. Tyagin Fortress. *Plan by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.*
 3 pav. Tyagino tvirtovė. *N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko brėž.*

The second plate was found 500 m to the north of the first in another excavation. It is made of iron, with three rivets on the back and a vertical loop. Visually, it is more massive than the first one and larger: 4.1 x 2.5 cm, the hinge diameter is 0.8 cm, the rivet height is 0.6 cm, the rivet diameter is 0.8 cm (Fig. 2. 2).

Complete analogy of this bronze band is found among the materials from Diktarai cemetery in Lithuania, most artifacts of which can be dated to the 14–15th c. (Urbanavičienė 1995, 184, 35, 1). Similar in form and date to the above described plaques are findings from Karmelavi cemetery (Rickevičiūtė 1995, 73–103, 23).



Fig. 4. Fragment of the Southern Wall with counterforce. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko. 4 pav. Pietinės sienos fragmentas su kontraforsu. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

In 2018, the expedition began researching the main site of the complex of monuments – the Tyagin fortress.

A necessary prerequisite for its further research was to make a topographic plan of the settlement and its dominant fortress, to determine its layout and dimensions. As a result of the work, the previous data was significantly corrected, which was verified in practice.

Topographic survey with laser total station Nikon NPL-332, conducted in 2018 by O. V. Manigda and O. V. Grabovskaya, included the territory of the fortress, the fortress and its fortifications, as well as, the whole relief of the plateau with slopes, on which the monument is located (На розі двох світів 2018, 28). Plans, relief models, plane measurements of the territory of the monuments were obtained.

Low-altitude aerial photography of the area with a quadcopter (A. V. Chubenko) was carried out. Two detailed orthophotomaps were created.

As a result, we got a detailed plan of the fortifications. The sizes of area of fortress were specified, which is 0,73 ha, perimeter of fortifications – 378 m, total area of fortress and fortress – 17,55 ha, and together with slopes – 21,89 ha. (Фортеця Тягинь 2021, 10–12). Viewing angle of the directions, mainly to the Dnieper valley (south-east to south-west), in line of sight up to 30 km.

As a result of inspections it was found that Tyagin (Fig. 3) refers to triangular fortresses of Constantinople type, widespread in Europe, including the Balkans.

Further excavations were carried out according to the plan of the fortress. According to typology of fortifications, it belongs to stone fortresses of castle type. We excavated 35 m long sections of the southern outer wall and up to 10 m long sections of the eastern wall, built of limestone with lime mortar. The distance between two parallel rows of stones is filled with smaller stones on clay mortar.



Fig. 5. Fragment of the Eastern Wall. *Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.*
5 pav. Rytinės sienos fragmentas. *N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.*

The south wall has two to four rows of stones up to 0.6 m in height, and the stones of the wall are deepened into the mainland clay.

On the inside, the wall was reinforced by a timber and earthwork structure up to 1.2 m wide and 1.5 m high, and it had a wooden fence.

Inside, there was a buttress to the wall, perpendicular to it on a north-south axis. It consisted of five rows of masonry limestone stones ranging in size from 0.1 x 0.2 m to 0.60 x 0.20 m, up to 1.5 m high, 0.5 m thick and 2.5 m long, masonry pastel on the facade (Fig. 4). The remains of the buttresses were traced at a distance of approximately 10 m one from another along the south wall. The structural features of the wall

described above, which included wooden and stone fortifications, are similar to the ones recorded on the site of the fortress, studied by V. I. Goshkevich (Гошкевич 1916). The retaining constructions located perpendicularly to the outer wall are also known in the construction of Trakai castle (Іевлев 2018, 38-39, 42).

The eastern wall of the fortress was also built of large, partly worked limestone stones and had a similar construction with small stones in the middle (Fig. 5).

In the south-eastern corner of the fortress there was a stone tower of a rectangular shape, with sides of 7.0 x 4.5 m, of a total area of 31.5 sq. m (Fig.6). The walls of the tower are made of limestone on



Fig. 6. Tower (Southeastern Corner). Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.
6 pav. Kampinis pietrytinis bokštas. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.



Fig. 7. Wall with the limestone frieze and Seljuk ornamental carvings. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.

7 pav. Siena, ornamentuota Seldžiukų stiliumi. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.



Fig. 8. Fragments of the bombard barrel situated on the wooden platform of the tower's first floor. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.

8 pav. Bombardos vamzdžio fragmentas pirmajame bokšto aukšte. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

lime mortar, embedded in the mainland to a depth of 0.4–0.6 m. The thickness of the walls is 1.0–1.2 m. The walls are plastered and whitewashed on the outside. The walls are up to 1.72 m high, 12 rows high, the masonry is pastel ornamented.

The north-west corner of the tower is decorated with a 0.4 m high limestone frieze and ornamental carving in Seljuk style (Fig. 7). The rest of the northern wall of the tower is lined with flat slabs 0.4 m high. Along the wall there is a path paved with

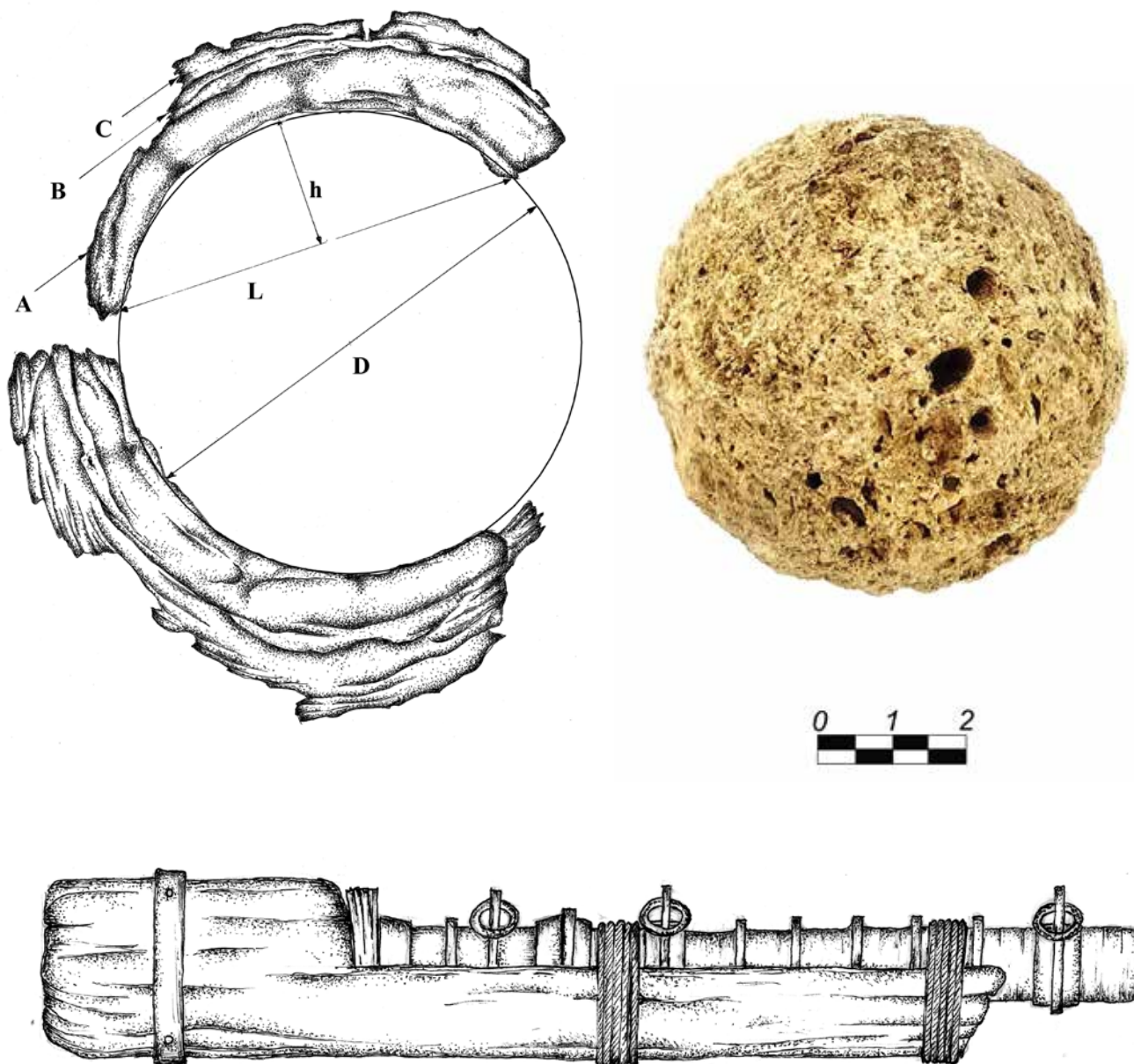


Fig. 9. 1- Reconstruction of the bombard fragment (1); bombard (2), core (3). *Author of reconstruction O. E. Malchenko.*

9 pav. 1 – Bombardos fragmento rekonstrukcija; 2 – bombardas; 3 – vamzdis. *Rekonstrukcijos autorius O. E. Malchenko.*

flat stones. Similar decorations are known on other monuments of the Northern Black Sea coast. On the citadel of Mangup, where the platband is decorated with Seljuk braids. Such decorative elements are traditional for Crimean monuments of the XIV–XV centuries. According to one of the researchers V. P. Kirilko, the Mangup clypeus casing may be dated to 1425–27 (Кирилко 2005, 272). Similar decorations are known on the entrance of Janike Khanum mausoleum in Chufut Qala in Crimea.

On the floor of the first tier of the tower there is a rectangular-shaped construction (1.0 m x 1.6 m) made of boards, fastened with nails (Fig.8). According to the definition of Dr. M. S. Sergeeva, poplar wood was used in the structure (Сергеева 2021, 63–64).

Two fragments of the barrel of a 15th-century bombard were found on the boards, which, according to O. E. Malchenko, could be of Genoese origin (Fig. 9, 1–2). “This is the first Italian bombard found on land in mainland Black Sea Ukraine” (Мальченко 2021, 57).

On the floor of the first tier, after removing the wooden structure, pits for poles with traces of shrivelled wood, coated with clay around the perimeter were revealed (Fig. 10). The columns supported the structure of the second tier of the tower. According to the calculations of architects T. N. Evseeva, A. S. Lutsik and reconstruction of M. M. Ievlev (Ієвлев 2021, p. 17–18), such tower could be three-tiered, up to 9 m high. The location of the tower is very well chosen: on the highest point with an excellent view of the Dnieper River.

In the inner area of south-eastern part of the fortress there are ruins of monumental buildings, which can be seen on the architectural details made of stone and their functional purpose. According to architect T. N. Evseeva they are window and door details of openings, thresholds, steps, corner facade stones with three facet treatment – “front exit”, wedge, possibly a castle



Fig.10. Tower and pole pits. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.

10 pav. Bokštas ir stulpaduobės. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

stone, lock or key – wedge-shaped or pyramidal masonry element at the top of the vault, arch or flat lintel, corner facade slab, fragment of alabaster architectural decoration, fragment of gutter made of large worked limestone with a drain (Фортеця



Fig. 11. Architectural detail with Seljuk decoration. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko. 11 pav. Architektūrinė detalė su Seldžiukų dekoru. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

Тягинь 2021, 16, 21), fragment of column capital with Seljuk décor (Fig. 11), analogy to which is known from excavations of Mosque-Mohyla in Zaporozhye Region (Єльніков 2011, 177).

A unique find deserves special attention and further study - a fragment of a brick with a heraldic sign, partially damaged, measuring 30.0 x 18.0 cm, thickness 16 cm (Fig. 12). On the side face of the brick, there is a groove 18 cm long, 1.0 cm deep. On the front side of the brick, there is a cross, 15.0 cm long. At a distance of 8.0 cm from the top of the cross to the right branch, 7.0 cm long, with two “kolumnes” or “Gediminas’ pillars”. At the bottom

of the slab is an unclear image. To the left of the cross is a Latin letter “V”. On the edge of the slab and partially at the bottom a double frame, the edge of the brick is damaged. Perhaps the frame girded the brick. Finding of the brick, which shows the features of heraldry, close to the sign systems of known Lithuanian families, allows to raise a question about the connection of Tyagin Castle with certain circles of Lithuanian elite.

The layout, architecture, and composition of the material remains of the fortress reflect its dual purpose as a defensive post and a customs office at the border. From a defense standpoint, it

completely corresponds to the tasks of fortification on a strategically important section of the Lower Dnieper. In other words, the fortress features a wide observation range, stone walls, and is reinforced with wooden and other earthy materials, stone buttresses, and a multistory tower with bombard cannons. O. E. Malchenko explains that *bombard* here refers to the so-called Genoese “medium-sized bombard” cannon.

This type of bombard was intended for the ship’s onboard arsenal, but “easily adapted to the fortress artillery, as it showed its effectiveness in clearing and controlling the near side when attacked by enemies” (Мальченко 2021, 58). Also, Malchenko does not overlook the Baltic origin of the barrel, because at the peak of its power, Lithuania could afford to deliver artillery to the southern cordon as well, especially since Lithuania and Genoa were competitors on the main trade routes of the Black Sea basin (Мальченко 2021, 60).

Archaeologists also found a limestone core of 54–56 mm in diameter (Fig. 9.3), while excavating the outer side of the castle wall. This limestone core was intended for a small caliber swivel cannon that was used in the late 14th- to early 15th-centuries. To be sure, those kind of cannons were essential parts of the Genoese arsenal in the 15th century (Мальченко 2021, 58). We also found several fragments of stone cores 55 mm in diameter.

There are many rounded musket bullets (15 pieces) with a diameter that ranges from 1.0 cm to 1.6cm, along with rifle flints of later period of the fortress’ existence under the Crimean Khanate and Ottoman rule (16th–17th centuries). Analogues are presented in the collection of excavations of the Akkerman fortress (Біляєва 2016, 319; Біляєва, Болтрик, Фіалко 2022, 108).

The weapons found at the fortress likely emanate from Lithuanian military assets that date back to the 14th-15th centuries. 14th-century monuments featured approximately 20 pieces of iron crossbow



Fig. 12. Brick fragment with heraldic elements. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko. 12 pav. Plytos su heraldiniais elementais fragmentas. N. Bimbirayte’s, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

bolts (Fig. 13) and seven tetrahedral and leaf-shaped petiolate arrowheads widespread in Eastern Europe (Медведев 1966, 107: 28). In Lithuania, similar crossbow bolts and arrowheads were also found at ancient settlement sites, including Vilnius Castle Hill (Rackevičius 2008, 137–152; Виткунас, Забела 2017, 75–76).

Near the remains of the destroyed masonry connecting the eastern wall with the northwestern corner of the tower at a depth of 0.8 m we found a mace; i.e., a rod with spiked fragments (Fig. 14). It is the first such object discovered in the entire Black Sea region.



Fig. 13. Crossbow arrows. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.

13 pav. Arbaletu strėlės. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

Archaeologists discovered a destroyed light-red 15th-century vessel near the mace at a depth of 1m. Stratigraphically, this vessel does not date back to the construction of the fortress in the late 14th to early 15th-century. Rather, it may be attributed to a brief military action, which left a layer of narrow strips of burnt wood.

Morphology and features of the mace are as follows: the mace is iron, forged with the cavity inside the tip, and has rod filled with lead. The mace has the shape of an inverted pear with a cone-shaped end. There is a small-rounded depression with a diameter of 0.2 cm at the top of the mace. Eight segments converge to the top in the form of an isosceles triangle, each of the opposite sides equal to 1.5cm. The bases of the triangles (about 1.6 cm each) form the diameter of the mace tip, which is 13 cm.

After the mace expands to its maximum capacity, all segments are narrowed at the rod.

The diameter of the mace hole for lead pouring is 1.0cm. The thickness of the iron casing is 0.6cm. The length of the head is 5.4cm, and the length of the rod fragment is 4.6cm. The total length of the preserved fragment of the mace is 10cm. The mace together and rod fragment together weigh 250 g. The diameter of the rod is 1.4 cm.

Remnants of decorative facets in the form of a thin cord are visible below the mace. This is an example, par excellence, of Medieval Ukrainian weaponry that survives until present day. As discussed, the mace served a dual purpose. On the one hand, it was used as an offensive military weapon. On the other hand, it was a symbol of the power of a military leader (officer, hetman, colonel or Koshevoy ataman (Бехайм 1995, 258-261). The mace was utilized as a combative civilian weapon during the Kievan Rus era (Гуцул 2011, 143) and was part of the chivalrous weapon culture of Medieval Europe. It was customary for military leaders to possess maces (Бехайм 1995, 259).

Crossed ceremonial maces decorated the coat of arms of the Great Hetmans of Lithuania since the beginning of 1497; namely, Hetman Konstantin Ostrozhsky (1497–1500). With the formation of the Ukrainian Cossacks, relics of knightly culture, including maces, were also coopted by Ukrainian knights.

Unfortunately, the rare specimen of Cossack maces, which are now stored in Ukrainian museums, were only found accidentally with one exception. Specifically, the mace found near the village Skotarevo, Cherkassy, which is stored in the Cherkassy Museum. It is made of iron through the use of casting and forging technology, with similar features to maces found at the Tyagin Fortress.

At the end of the 15th century, the lower reaches of the Dnieper became a politically charged zone. Crimean Khan Mengli Giray took over, and he had a tight grip over the Tyagin Fortress as well as Crimea's defense and economic policy. On the



Fig.14. Mace. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.
14 pav. Buožė. N. Bimbiraytė's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

right bank of the Dnieper, which was within the borders of the Duchy of Lithuania, he used old Lithuanian fortifications (Tyagin and Dashev) for his fortifications. This caused aggravated relations with the Lithuanians, which led to direct conflict (Мальченко 2003, 59).

The Grand Duke of Lithuania, Alexander (1492–1501), even sent a letter to Mengli Giray expressing a desire for peaceful coexistence, and proposed the building of a castle together with the Tatars in Tyagin with the financial backing of the Ottomans (Мальченко 2003, 60). Mengli Giray built the castle as early as 1492, but Lithuanian Duke Alexander tried to solve the question peacefully and offered to withdraw the Tatar garrison and return Tyagin castle to Lithuania.

Mengli Giray did not agree, which escalated tensions and led to a military conflict. At the

end of 1492, an armed detachment from the Ukrainian frontier castles under the leadership of the Cherkassky and Kanevsky headman, Prince Bogdan Glinsky, reached the Lower Dnieper by boat and destroyed the newly built city of Mengli Giray.

This campaign was made by order of the Grand Duke of Lithuania Alexander “ (Мальченко 2003, 60). Bogdan Glinsky was Hetman of the Zaporizhian army between 1488–1495, and tried to protect the possessions of the Lithuanian principality from the encroachments of Mengli Giray. His title enabled him to use powerful and symbolic objects such as maces.

The arc-shaped spur with thickened and rounded ends found in Tyagin strongly suggest the presence of a cavalry. The said spur was partially damaged in that the middle part of the ledge seems



Fig. 15. 1 – jar; 2 – bowl. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.
15 pav. 1 – ąsotis; 2 – dubenėlis. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

broken off. The length of the spur is 15.5 cm, and the distance between its ends is 11.5 cm.

The spur has close analogies from finds at the burial site near Lake Obeliai (Urbanavičius, Urbanavičienė, 1988, 25-31). Six buckles with an oval or rounded tongue, one rectangular buckle, and separate fragments were found from the details of men's costume. Several iron and bronze overlays and plaques were found. For example, a triangular-shaped openwork bronze with four holes for fastening.

Other finds that may have had a dual significance include a cutter, which may have possibly been a fragment of a battle axe. To construct the fortress, wood and up to a hundred forged iron nails of different kinds (e.g., building nails, ship nails, and nails for fixing leather goods), and staples were used.

During the 2016-2021 excavations, archaeologists found approximately 3000 artifacts at the settlement and fortress. Tools constitute an insignificant part of the collection: these are

hoes, fishing hooks, iron and flint crosses, pestle and crowbar, which is quite consistent with the defensive purpose of the castle-fortress.

Conventional objects such as oval-shaped crossheads with unbroken ends, twisted in opposite directions, were also found. Such crosses are found on a number of monuments in Eastern Europe, including Lithuania, as well as in the burials of the first chronological group of the Jakštaičiai cemetery (Urbanavičius 1995, 132), burials near Lake Obeliai (Urbanavičius, Urbanavičienė 1988, 38:60, 1-4).

The largest and most diverse group of the collection is represented by dishes made of clay, glass, and metal (about 500 pieces). Most of it consists of ceramic tableware: from red (up to 90%), gray, and some fragments of light clay. They functionally served as containers and kitchen tableware. Around 65% of tableware was glazed, and up to 35% of the tableware was unglazed. Containers made up to 12% of the collection, and included fragments of necks, walls of medieval

amphorae (both with and without handles), legs, and large thick-walled pithos for food storage.

Kitchen tableware includes ceramics (both with and without) irrigation spouts. Among the pottery without irrigation spouts, one can distinguish a group of pots with “rail-shaped” corolla (Алядінова 2021, 62). In the adjacent areas, particularly in Crimea, this pottery was spread in the 15th century and according to I. B. Teslenko, was probably of Minor-Asiatic origin (Тесленко 2011, 66).

The next group of pottery without irrigation spouts, is represented by fragments of red-clay pottery painted with white engobe. They can be classified as part of the so-called group of “Southwestern Crimea”, which was used from the 14th century to the third quarter of the 15th century (Тесленко 2014, 502).

Glazed tableware items included: jars, bowls, maquettes, plates, and water glasses. There are several groups of decorated pottery, such as monochrome, polychrome, single-sidedly glazed pottery, double-sidedly glazed pottery, and tableware made using the sgraffito technique. These glazed items mostly come in different shades of green that range from light to dark. However, some glazed items are either yellow or yellowish-brown.

Single-type jars with shaped drains, coated with white engobe on the exterior side, and partially glazed with a green veneer was also found. The restored jug height is 24cm, it s 0.7 cm thick, and the diameter of its neck is 10cm. The neck is decorated with rows of linear ornamentation (Fig. 15.1). There are analogies to this jug in the group of pottery from South-East Crimea, dating from fortresses of Alushta and Funy in the third quarter of the 15th century, before the Ottomans (Тесленко 2021, 206–207).

Bowls with engobe and green glaze (Fig. 15.2) resemble the monuments mentioned above, but in the 14th-15th centuries strata (Тесленко 2021, 207–69). It is likely that the Aquarius spout covered with



Fig. 16. 1 – Pottery fragment with Byzantine decorations using the Sgraffito technique; 2 – Pottery fragment with inscription using the Sgraffito technique. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.

16 pav. 1 – Bizantijos stiliaus keramikos fragmentas su sgrafito dekoru, 2 – keramikos fragmentas su sgrafito dekoru ir įrašu. N. Bimbirayte’s, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

green glaze belongs to the same group of vessels, which analysts date back to the second half of the 14th– to the 15th centuries from the Alushta fortress (Тесленко 2021, 211:73,1).

Sgraffito pottery, which includes bowls and plates, is also relatively diverse. The so-called “Byzantine Circle” ceramics (Fig. 16.1), which resembles Crimean ceramicwork of 14th and 15th



Fig. 17. Bichrom pottery with the Sgraffito technique. Photo by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.
17 pav. Bichrominė sgrafito keramika. N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko nuotr.

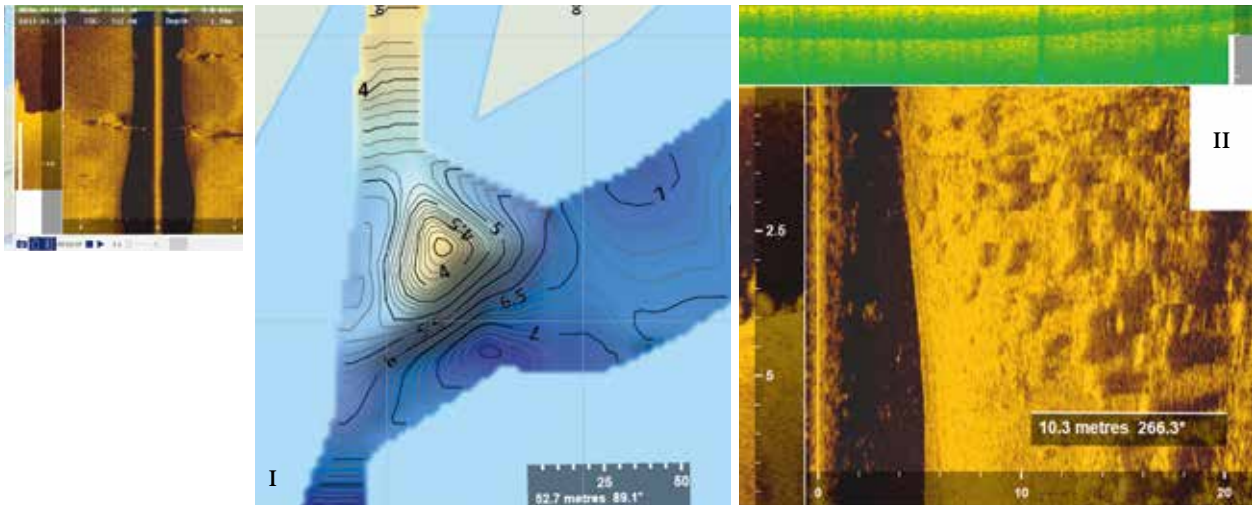


Fig. 18. 1. Underwater piers. 2. The presumed location of the tower and its submerged remains. *Drawing by N. Bimbirayte, V. Grytsayenko, K. Gulenko and O. Chubenko.*

18 pav. 1 – Priplaukos liekanos po vandeniui, 2 – spėjama bokšto vieta ir jo liekanos po vandeniui. *N. Bimbirayte's, V. Grytsayenko, K. Gulenko ir O. Chubenko brėž.*

centuries, and in particular, the kind of artifacts discovered in the Nikitsky Botanical Garden (Тесленко 2018, 49:25,10). The first found fragment with the letters “S” and “P” inscribed thereon in incised Cyrillic inscription covered in gilt is of particular interest (Fig. 16, 2).

The latest group of sgraffito pottery is a group of bowls with so-called “bichrome coloring” was found in 15th- to early 16th-century layered items associated with Ottoman expansion (Fig. 17). There are similar specimens among the materials of Alushta and Sudak (Алядінова, Тесленко 2015, 175).

Thus, the foregoing analysis of the ceramic complex of the Tyagin Fortress bears witness to its Byzantine roots, thereby belonging to the traditions of the Northern Black Sea region. Such belonging may be associated with Crimea in the first degree, given the subsequent spread of technology and decoration in the vast space from the Balkans to the Volga region

20 glassware fragments with transparent, bluish-gray, and yellow exteriors were found. They feature exquisitely shaped glasses, bowls, and

bottle-shaped vessels, and were very likely utilized by the Genoese cultural circle.

Moreover, metal tableware includes fragments of cast-iron pots, widely used by the inhabitants of Eastern Europe after the arrival of the Tatar-Mongols in the middle of the 13th century. 15th- to 17th-century collectable coins were found on the territory of the fortress in the process of excavations that took place in 2018–2021. This suggests a broader framework of existence and functioning of the fortress structures. A total of 22 coins, 13 silver and nine made bronze and copper, were found in the fortress.

These Dzhuchid coins date back to the late 14th- to the first half of the 15th-century, and include a silver coin with a Kafin countermark, as well as a coin from the collection of the fortress discovered in 2016–2017. More than half of all these findings are silver coins that belong to the late 15th-century Mengli Giray era in the Crimean Khanate.

In addition, they found two copper Ottoman coins of the late 15th- to 16th-century Bayazid II era, minted in Constantinople, and one Russian

coin that dates to Peter I's reign in the beginning of the 18th-century. The latter coin was seemingly associated with the Russian military occupation of Tyagin in 1738. Two Polish coins were also found in the fortress. Namely, a denarius from the bilon of Wladyslaw Warnencyk (1434–1444) from Krakow, and a silver coin of secondary use (1.8 cm x 1.9 cm in diameter) depicting Sigismund I (1467–1548).

Altogether, the coin finds and myriad artifacts reveal the second objective of the fortress: the development of trade and economic relations. This also indicates the existence of specific areas for trade and other economic activity.

Three civilizational movements converged in Crimea; namely, influences from Lithuania and Poland, Genoa, and the Byzantine Empire. The eastern region was developed by Ulus Juchi and the Seljuks, who left their mark since the era of Kievan Rus and heavily influenced the architecture of Eastern Europe in the subsequent period. The syncretic culture of South Crimea reflected certain steps in the process of globalization of the great Eurasian space.

Different cultural manifestations are expressed in the character of immovable parts of the monument and in the aforesaid artifacts. The results of bathymetric studies of the water area of the Dnieper and Tyaginka rivers near the Big Fortress, conducted by M. M. Ievlev and A. V. Chubenko, feature an important base of evidence concerning the trading activity of the fortress-castle.

Remains of the pier were found in the water area of Tyaginka River, which was located on the island and was a part of Tyaginsk fortification approximately 400 m to the north, and had a bridge during the Middle Ages.

The open pier is located on the southwestern side of this island on the left bank of Tyaginka River. At the bottom of the river there were found remnants of piers, one part of which was made of stone and another made of wooden poles (0.3 m–0.4 m in

diameter). The total area is more than 300m, and its dimensions are 11m x 35m (Fig. 18.1). The authors believe that the lake was deeper at the time of the fortress, which allowed river and sea boats to enter. It was a convenient harbor for ships to anchor, and the island was a very convenient place for storing goods. People were able to unload and load sea vessels at the open wharf, which could not go upstream of the Dnieper (Ієвлев, Чубенко 2018, 44).

According to written sources, in particular M. Litvin, (Литвин 1994, 36), one of the most convenient crossings was located near Tyagin Island during the Middle Ages, a land route which passed through the crossing near Tyagin Hillfort. Hence, we deduce that the bathymetric works were also focused on finding the location of this crossing.

In the area where the Tyaginka River flows into the Dnieper River, near the promontory where they form, the remains of a stone tower were found at the bottom of the Dnieper River. Specifically, foundations and wall collapses. Their dimensions are 25 m x 20 m with a depth of 4m, located on a rounded hill (Fig. 18.2). Accordingly, Ієвлев, Чубенко concludes, "Thus, the tower was a separate fortification object, which controlled the crossing of the Dnieper. The crossing must have been located above the inflow of the Tyahinka river into the Dnieper river, near the settlement of Tyahin" (Ієвлев, Чубенко 2018, 43–44).

CONCLUSION

Excavations of the Tyagin fortress built by Lithuanian Grand Duke Vytautas at the end of 14th- to the beginning of 15th-century became an important step in the study of an insufficiently known period of southern region of the GDL's history. We studied the southern type of the castle of Kiev and part of the GDL for the first time, and determined its planning structure and characteristics.

We recorded the transition to the tower-type castle system based on stone structures and tiered stone towers – wherein we found the remains of a wooden platform for the placement of artillery weapons, including a bombard and a stone cannon ball. Thus, as with other regions of the GDL, the transition to tower-type castles took place sometime between the end of the 14th to the early 15th century.

A complex of cultural material was discovered on the settlement and on the territory of the fortress, which had syncretism features tracing back to different European regions. The discovery of the Lithuanian component of the cultural material, first documented in the southern frontier of the state, is of particular importance. For these traces evidence the direct presence of Lithuanians on the territory of Tyagini, which we may further glean from artifacts of Lithuanian origin and heraldry. Future cameral studies undertaken by Lithuanian specialists would do well to focus on the latter part.

The monument is an extremely important example of the cultural heritage of Lithuania and Ukraine, the study of which is bound to refine our view of history in southern Ukraine and the Grand Duchy of Lithuania. As such, resuming our research enterprise, conservation of touristic routes to historicize our sites, and museification project after the end of hostilities in Ukraine and its victory against Russia will be a worthy undertaking.

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LIETUVOS DIDŽIOSIOS KUNIGAİKŠTYSTĖS ISTORINIS IR KULTŪRINIS PAVELDAS UKRAINOS PIETUOSE: TYAGINO TVIRTOVĖ

Svitlana Biliaieva, Natalia Danute Bimbirayte

Santrauka

Pietinėje LDK teritorijoje randami išlikę su Lietuvos kunigaikščiu Vytautu Didžiuoju susiję vietovardžiai, archeologijos paminklai, taip pat Juodosios jūros pakrantės istorijos elementai.

Kunigaikščio Vytauto Didžiojo įsakymu buvo sukurtas pilių-tvirtovių tinklas palei pietinę Šiaurės Juodosios jūros regiono pakrantę. Viena iš tokių tvirtovių stovėjo Bolšoje Gorodišče saloje (0,5 km į pietvakarius nuo Tyaginkos kaimo Chersono srityje), kur Tyaginka įteka į Dnieprą. Rašytiniuose šaltiniuose aprašoma Tyagino komplekso būklė (tvirtovė ir pilis) skirtingais istoriniais laikotarpiais.

Tvirtovės archeologiniai tyrimai prasidėjo 1914 metais V. I. Goshkevichius pradėjęs kasinėjimus Chersone. Tuo metu jis sudarė pirmąjį salos topografinį planą ir pažymėjo tvirtovės fortifikacinę sistemą bei jos išdėstymą. V. I. Goshkevichius spėjo, kad Tyagino tvirtovė buvusi lietuvių pilis ir muitinė, pastatyta XV a. pradžioje kunigaikščio Vytauto Didžiojo įsakymu. XX a. – XXI a. pradžioje vietovėje buvo vykdomi tyrimai vadovaujami S. A. Sekretny'o, N. M. Dmitrenko, M. I. Olenkovskayos, N. P. Olenkovsky'o, S. V. Bakhmatovo, V. E. Ilyinsky'o ir D. R. Kobalios. 2016–2021 m. Ukrainos nacionalinės mokslų akademijos Archeologijos institutas vykdė „Pietų viduramžių ekspediciją“ Didžiojoje ir Tyagino tvirtovėse. Kasinėjimai patvirtino Džučio miesto struktūrų buvimą tvirtovės teritorijoje ir gyventojų gyvenamosios veiklos tęstinumą Lietuvos laikotarpiu. Svarbiausi to įrodymai – kad lietuviškos kilmės objektų buvo aptikta įvairiose teritorijos dalyse. Pavyzdžiui, metalinės odinių kapšelių plokštelės yra pagrindinis lietuviškos materialinės kultūros elementas tarp vietovės radinių.

Tyagino tvirtovės topografinio plano sudarymas yra būtina sąlyga tolesniems tyrimams. Žvalgant vietovę dronu buvo nustatyta, kad tvirtovės teritorija yra 0,73 ha, jos įtvirtinimų perimetras – 378 m, bendras tvirtovės ir pilies plotas yra 17,55, su šlaitais – 21,89 ha. Taip pat nustatyta, kad Tyagino tvirtovė buvo Konstantinopolio tipo. Pastarasis pilių-tvirtovių tipas buvo plačiai paplitęs ir siekė net Balkanus. Tyagino tvirtovės išorinės pietinės sienos atkarpa – 35 m ilgio, o jos rytinė siena statyta iš kalkakmenio ir siekia iki 10 m ilgį. Rastas stačiakampis akmeninis bokštas pietrytiniame tvirtovės kampe. Bokštas apima 31,5 kv. m. plotą, konstrukcijos išdėstytos keliais lygiais kaip liudija ertmės, skirtos stulpams įrengti ir paremti antrąjį aukštą. Bokšto šiaurės vakarų kampas puoštas kalkakmenio frizu ir Seldžiukų ornamentiniais raižiniais. Pirmajame bokšto aukšte rasta medinės platformos liekanų, tarp kurių aptikta XV a. genujietišką arba baltišką kilmės bombardos vamzdžio fragmentų. Taip pat rastas kalkakmenio patrankos sviedinys (54–56 mm skersmens), skirtas XIV a. pabaigos – XV a. pradžios mažo kalibro pasukamajai patrankai. Tarp radinių paminėtina XV a. geležinė buožė, pirmą tokia rasta Šiaurės Juodosios jūros regione. Taip pat tyrinėjimų gyvenvietėje ir Tyagino tvirtovėje metu aptiktas plieninių ginklų arsenalas, įprastas Lietuvos kariams, ir apie 20 arbaletų strėlių antgalių.

Vidinėje tvirtovės teritorijoje matomi monumentalų pastatų griuvėsiai. Tarp radinių, aptiktų šioje teritorijoje, pirmiausia pažymėtinas plytos fragmentas (30 cm × 18 cm dydžio ir 16 cm storio) su heraldiniu ženklu. Priekinėje pusėje matomas

reljefinis 15 cm ilgio kryžius. Virš kryžiaus ir 8 cm dešiniau yra 7 cm ilgio atsišakojimas su Gediminaičių stulpais. Deja, atvaizdo, esančio fragmento apačioje, nepavyko atpažinti. Kairiau nuo kryžiaus iškalta lotyniška raidė V.

Rasti dirbiniai leido suprasti, kokiems dar tikslams tarnavo tvirtovė. Vien „Pietų viduramžių ekspedicijos“ metu rasta apie tris tūkstančius dirbinių, rodančių kontaktų vietas ir konkrečias zonas, muštinės egzistavimą ir prielankos statybą, ir tai tik patvirtina, kad tvirtovė buvo pastatyta prekybai ir ekonominiams ryšiams plėtoti. Kryme susiliejo keli

civilizaciniai dariniai: lietuvių, lenkų, genujiečių ir bizantiečių. Džučio uluso tautos buvo Krymo kultūros ramsčiai, o seldžiukų kultūros pėdsakai čia matomi jau nuo Kijevo Rusios laikų, bėgant laikui vis dar išlaikę svarbą ir padarę tolimesnę įtaką Rytų Europos architektūrai. Sinkretinė Pietų kultūra atspindi laipsnišką ėjimą didžiosios Eurazijos erdvės globalizacijos link. Straipsnyje apžvelgti tyrimų rezultatai parodo, kad archeologiniai kasinėjimai Tyagino tvirtovės teritorijoje yra svarbus žingsnis tiriant Lietuvos ir Ukrainos kultūrinį paveldą.

THE HISTORICAL AND CULTURAL HERITAGE OF THE GRAND DUCHY OF LITHUANIA IN THE SOUTH OF UKRAINE: TYAHIN FORTRESS

Svitlana Biliaieva, Natalia Danute Bimbirayte

Summary

The toponymy and archaeological monuments associated with the Great Lithuanian Duke Vytautas and the history of the Northern Black Sea coast are preserved in the southern part of the GDL. He created a network of castles-fortresses along the southern line of of the Northern Black Sea coast. One such fortress was situated on Bolshoye Gorodishche Island (0.5 km southwest of Tyaginka Village in the Kherson region), where the Tyaginka River flows into the Dnieper River. Written sources describe the state of the Tyaginskiy Complex (i.e., both the fortress and castle) through several historical phases.

The trajectory of archeological research of the fortress began in 1914 when V. I. Goshkevich excavated Kherson. At the time, he made the first topographic plan of the island and marked the fortification system of the fortress as well as its layout. Goshkevich hypothesized that the Tyagin Fortress was a Lithuanian castle and customhouse,

built in the early 15th century by Grand Duke Vytautas. Many researchers such as S. A. Sekretny, N. M. Dmitrenko, M. I. Olenkovskaya, N. P. Olenkovsky, S. V. Bakhmatov, V. E. Ilyinsky, and D. R. Kobalia undertook further excavations in the 20th and early 21st centuries.

In 2016-2021, the Southern Medieval Expedition of the Institute of Archaeology of the National Academy of Sciences of Ukraine conducted excavations of the monument of the Big Fortress and Tyagin Fortress. Excavations confirmed the presence of Juchid City structures on the territory of the fortress and the continuation of the population's life activity during the Lithuanian period. The discover of objects of Lithuanian origin in different parts of the fortress serve as key evidence to that effect. For example, the overlays on leather bags are a typical Lithuanian cultural material staple.

Forging a topographical plan of the Tyagin Fortress is a prerequisite for further research in

the field. We completed a quadrocopter survey and found that the area of the fortress is 0.73 ha, the perimeter of its fortifications is 378m, the total area of the fortress and the castle is 17.55 ha, which together with the slopes is 21.89 ha.

We established that the Tyagin Fortress is typologically Constantinoplean, stone, and castle – adding to many other such Constantinoplean fortresses in Europe, which span as far as the Balkans. The sections of the Tyagin Fortress's outer southern wall are 35 m long, and its eastern wall is made of limestone and up to 10 m long. A rectangular stone tower was found in the southeastern corner of the fortress; it is 31.5 square meters in area and has multilevel constructions, as evidenced by the holes that were designed to accommodate the pillars supporting its second level.

The northwestern corner of the tower is decorated with a limestone frieze and Seljuk ornamental carvings. On the tower's first floor, the remains of a wooden platform were unearthed, wherein we found fragments of a 15th-century barrel of a bombardment of Genoese or Baltic origin, a light limestone cannon ball (54 mm-56 mm in diameter) designed for a small-caliber swivel cannon of the late 14th- to early 15th-century. We also found a 15th-century iron mace for the first time in the Northern Black Sea area on the corner of the tower.

We also discovered an arsenal of cold steels arms—typically possessed by Lithuanian warriors—and approximately 20 crossbow bolts

in the settlement and in the Tyagin Fortress. In the inner territory of the fortress, we can see the ruins of monumental buildings. Most notably, the fragment of a plate with a heraldic sign measuring 30.0 cm x 18.0 cm and 16cm thick. The front side of the slab is embossed with a 15.0 cm-long cross. Above the cross and 8.0 cm to right, there is a 7.0 cm-long branch, with two “kolumnes” or “Gediminas’ pillars”. At the bottom of the slab, there is an unclear image. The Latin letter “V” is engraved to the left of the cross.

Numerous artifacts gave us some idea about the more conventional purposes that the fortress served. The Southern Medieval Expedition alone yielded around three thousand. Artifacts indicating the locations and specific areas of contacts, the existence of a customhouse, and the construction of a wharf as well as a crossing strongly indicate that the fortress was built to develop trade and economic relations. Several civilizational entities converged in Crimea; namely, Lithuanian, Polish, Genoese, and Byzantine. The peoples of Ulus Juchi were the cultural pillars of Crimea, and the Seljuks left their mark since the era of Kievan Rus and heavily influenced the architecture of Eastern Europe in the subsequent period. The syncretic culture of the south reflected certain steps toward the globalization of the great Eurasian space. Excavating the Tyagin Fortress is indeed, an important step in the study of Lithuania and Ukraine's cultural heritage.