

*Sergey Dyachkov***THE 15th CENTURY BRIGANDINE OF A CROSSBOWMAN
FROM THE GENOESE FORTRESS OF CEMBALO**

Abstract:

S. Dyachkov 2011, The 15th century brigandine of a crossbowman from the Genoese fortress of Cembalo, AMMVII: 175-190

In 2007-2008, among the archaeological excavations of Genoese fortress of Cembalo remains of the medieval armour were discovered. The features allow us to classify them as a brigandine. The excavations of the main defence line and the Cembalo Consular castle show that in 1475, the fortress was captured by the Osman Turks. During these dramatic events the armour of one of the fortress crossbowmen was probably lost.

Keywords: Cembalo, Genoese fortress, brigandine, crossbowman, 15th c.

In the 14th-15th c. the Genoese fortress of Cembalo, located in the outskirts of Balaklava, was strategically important in the system of the Ligurian republic's property in the Crimea (Fig. 1). Comfortable and well-hidden by the coastal mountains, Balaklava was already settled in the remote past. In the 1st half of the 14th c. the Genoese consolidated their position and built up a fortress, a port and a shipyard within the shortest possible time (Fig. 2). The regulations for Genoese colonies of 1449 emphasize the importance of Caffa (modern Feodosiya), Soldaia (modern Sudak) and Cembalo as strategically important points on the transcontinental East-West trade route (*Устав...* 1863, 783-796). For a long time historical data about Cembalo was confined mainly to the data from written sources. Archaeological research was not conducted on the territory of the fortress, because Balaklava used to be the submarine base and the "closed" town in Soviet times.

In 2000 the joint archaeological expedition of the V. N. Karazina Kharkiv National University (the head of the expedition was S. V. Dyachkov) and the Chersonesus Tavricheskiy National Reserve (the head of the Cembalo branch was N. A. Alekseyenko) started excavations in Cembalo on the territory of the so-called town of Saint Nicolay. It is located at the entrance to the Bay in the western part of the Kastron Mountain's northern slope (Fig. 3). The expedition conducted the excavations of the church and defensive

constructions of the Consular castle (Tower No 8, Curtain Wall 6) (Дьячков 2004, 246-255; 2005, 212-227). During the excavations of Sites Б and В, adjoining Tower No 8 to the east of the outside of Curtain Wall 6 a stock of stone balls (208 items) was found. They were intended for throwing machines of trebuchet type, installed by the Genoese to fight against enemy's ships (Алексеенко, Дьячков 2007, 124-135; Дьячков 2008, 54-61; 2008а, 241-247). After Cembalo had been captured by the Osman Turks in 1475 an enterprising inhabitant of the fortress taken by the Turks used the stone balls as building material. He built up three walls of Room 3 with them. Curtain 6 was used as the 4th wall. Room 3 was meant for household needs. It had a fireplace and was covered with a light roof (Алексеенко, Дьячков 2007, 126-128).

In 2007, after the removal of Walls 7, 8, 9 of Room 3 on Site Б, a well-equipped and painstakingly built platform (larger than 25 m²) meant for installation of a powerful stone throwing machine was discovered (Дьячков 2008b, 84-85).

In the north-eastern part of the stone throwing machine platform, next to Curtain 6 we discovered considerably corroded plates of armour and its assemblage (No 1), lying irregularly. They were in Layers 4 and 5, saturated with the remains of active burning (ash, coal). In Assemblage No 1 there were 25 archaeological whole plates of armour and more than 48 fragments (Figs. 4-5). During the

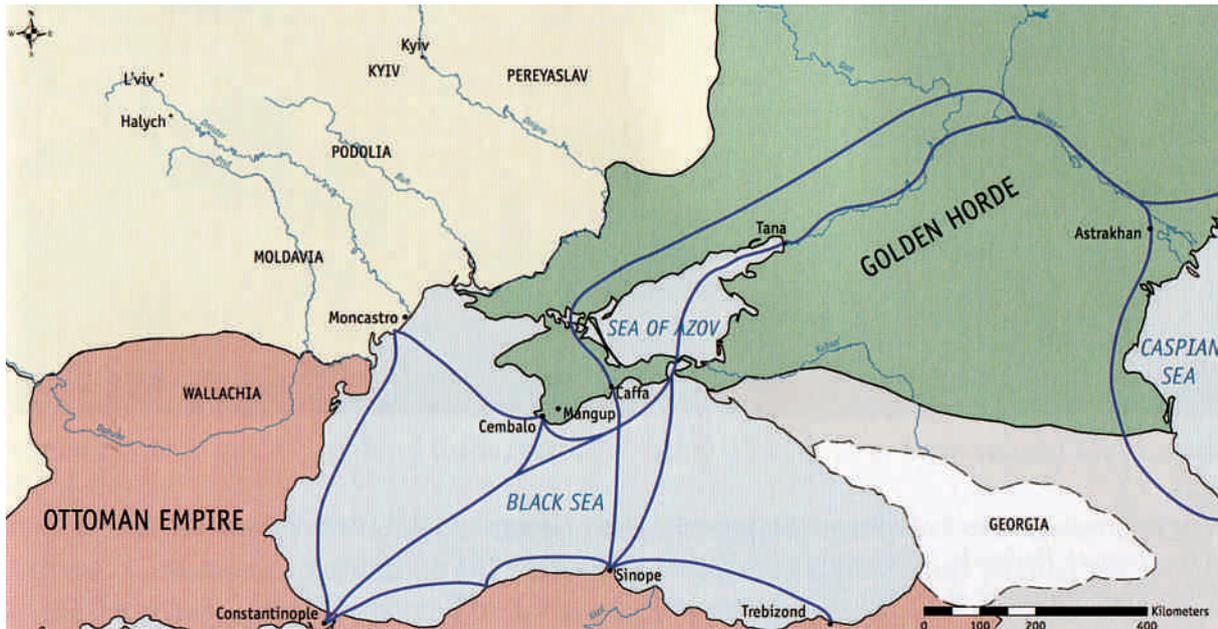


Fig. 1. Genoese traders routes throughout the Black Sea in the 15th c. (after *Crimean Chersonesos* 2003, 41).

Ryc. 1. Genueńskie szlaki kupieckie na Morzu Czarnym w XV w. (wg *Crimean Chersonesos* 2003, 41).

construction of Room 3 the armour was shifted to the edge of the platform together with the rubbish and the remains of the stone-throwing machine which had been evidently burnt by the Genoese in 1475.

In 2008 the excavations of Site B were conducted. It adjoined the stone throwing machine platform (Site B) from the east. Here, in the redeposited Layer 1, at the depth of 0,35 m other



Fig. 2. The Kastron mountain and the territory of the so-called town of Saint Nickolaj. *Photo by S. Dyachkov.*

Ryc. 2. Góra Kastron i obszar tzw. miasta św. Mikołaja. *Fot. S. Djačkov.*

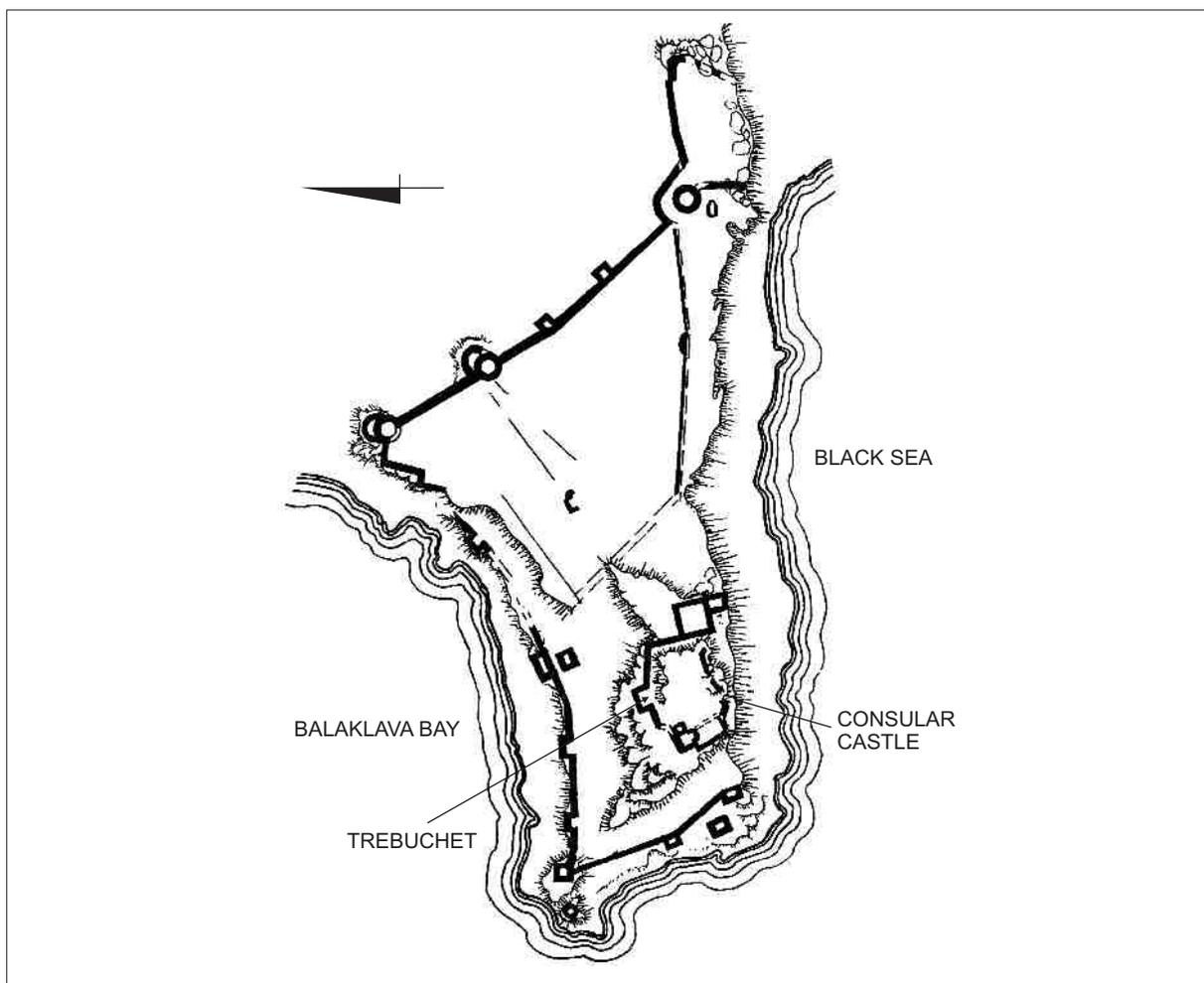


Fig. 3. Fortress of Cembalo. Layout Plan. *Drawing by N. Alekseyenko.*

Ryc. 3. Plan twierdzy Cembalo. *Rys. N. Aleksejenko.*

plates of the armour (Assemblage No 2) were found. They were lying flat in several layers (Figs. 4; 6). The remains of the armour rested on a small platform put between the ruins of Curtain 6 and a tourist path. Wall 11 and the steps of the stairs (Fig. 4), were evidently built up from the stones of the fortress ruins during the construction of a mortar position. Its remains were found during the excavation. The plates of the medieval armour were lying on the mountain slope, next to a digging tool of the Great Patriotic War time (1941-1945).

These parts of the armour were evidently dislocated, both in the Osman period of Cembalo and in recent times. The condition of most of the plates of the armour turned out to be very poor. Few intact objects were preserved, and the plates of the armour were split and corroded. However, bronze and iron rivets (Fig. 7) remained unharmed. Eight archaeologically intact plates

and about 80 pieces of the armour, different in size, were extracted from Layer 1. The distance between Assemblage No 1 and Assemblage No 2 was 5,8 m.

The discovered plates of the armours and their parts, as it can be said based on their shapes, most probably related to the same kind of defensive armour. The plates of rectangular or trapezium shapes with rounded corners and rivets prevail. The plates of the armour discovered on the territory of the Cembalo Consular castle can be generally divided into three types.

Type 1. Large iron plates mainly of rectangular shape with rounded corners (5,5 x 10,0 x 0,4 cm; 7,0 x 11,5 x 0,4; 7,3 x 10,0 x 0,5 cm; 7,5 x 10,0 x 0,5 cm). The plates are rather corroded, damaged and split into several parts. Type 1 plates were found in Assemblage No 2 (Fig. 8). Most specimens are longitudinally convex (protuberant), and some of the plates are flat. Among them we can single

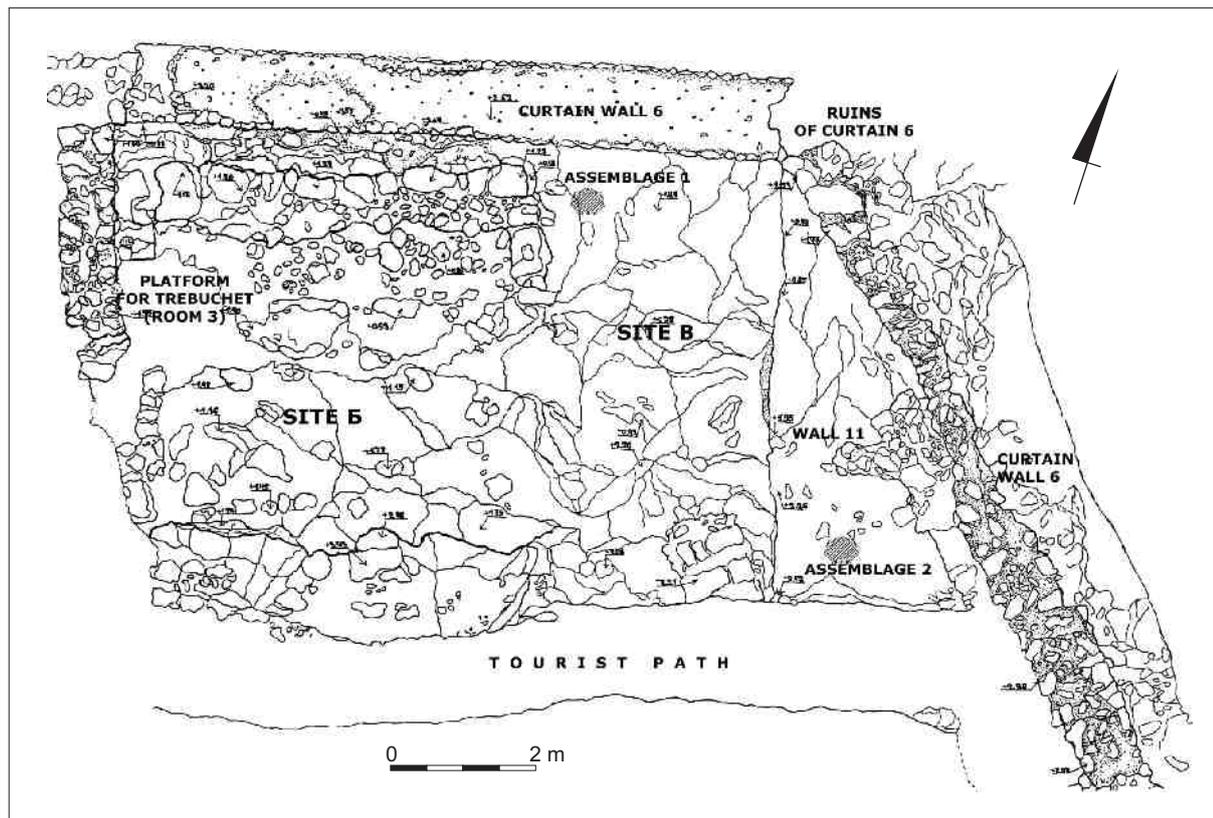


Fig. 4. Sites B and B of Consular castle (the platform of trebuchet). Drawing by Ju. Tsitkovskaya, A. Yermanovskaya.

Ryc. 4. Stanowiska B (B) i B (W) na zamku konsularnym (platforma trebusza). Rys. Ju. Tsitkovskaja, A. Jermanovskaja.

out the fragments of a flat massive plate with roughly knocked sideways corners of practically square shape (11,0 x 10,5 x 0,5 cm) (Fig. 8:3). The square-shaped flat plates of similar size made up the set of a protective cuirass (coat of plates) of the 15th c. from the Szczerba castle, Silesia, on the territory of present-day Poland (Marek 2008, 89, Fig. 3:1-2). On some of the plates of Type 1 iron or bronze rivets or marks of the rivets are left. The iron rivets have big protuberant heads of 1,3-1,5 cm in diameter. The bronze rivets were made with flat heads of 1,2 cm in diameter (Figs. 8:4-5, 10). Under some rivets there were remains of linen cloth. The plates of this type were supposed to be in the chest part and on the back of the armour.

Type 2. Iron plates with rounded corners, mainly trapezium shaped (4,5 x 10,0 x 0,5 cm; 4,5 x 9,0 x 0,5 cm; 4,5 x 8,5 x 0,5 cm and others). The plates are slightly longitudinally protuberant (Fig. 9). The plates were fixed to the cloth with the help of iron rivets with protuberant heads (diameter 0,8-1,2 cm). As a rule, the rivets were placed longitudinally on one axis in the middle part of the plate (Fig. 9:1-2, 4, 6). The plates of this type were discovered in Assemblage No 1 and have traces of

fire, which is testified to by the plates being stuck with one another (Fig. 9:5). Ten archaeologically unharmed plates of this type were discovered.

Type 3. Narrow rectangular iron plates with slightly round corners (4,0 x 10,0 x 0,3 cm; 3,0 x 9,0 x 0,3 cm; 3,0 x 9,5 x 0,3 cm and others) were found in Assemblage No 1. They were fixed with the help of rivets with protuberant round heads (diameter 0,8-1,1 cm). As a rule, in the plates of Type 3 there is one rivet left, which is located either in the central part of the specimen (Figs. 10:2-3, 10), or in one of the corners of the plate (Fig. 10:7-8). In the corners of separate plates there are holes of 0,1 cm in diameter, which evidently served to fix the plates to the lining of the linen cloth. Many plates of this type are damaged, broken or bent, with traces of fire (Figs. 10:1-3, 6, 13 and others). This type of plates of the armour can include 15 relatively unharmed pieces and 48 fragments of the plates.

The cuirass plates of Types 2 and 3 were probably fixed to the cloth at the level of the stomach, the waist and the skirt of the chest part of the armour. The shape and size of the plates made it possible to fix them in such a way that the armour owner's could move freely.



Fig. 5. The plate armour (assemblage No. 1). *Photo by S. Dyachkov.*

Ryc. 5. Zbrojniki pancerza (skupisko nr 1). *Fot. S. Djačkov.*



Fig. 6. The plate armour (assemblage No. 2) *in situ*. Photo by S. Dyachkov.

Ryc. 6. Zbrojniki pancerza (skupisko nr 2) *in situ*. Fot. S. Djačkov.



Fig. 7. The plate armour (assemblage No. 2). Photo by S. Dyachkov.

Ryc. 7. Zbrojniki pancerza (skupisko nr 2). Fot. S. Djačkov.

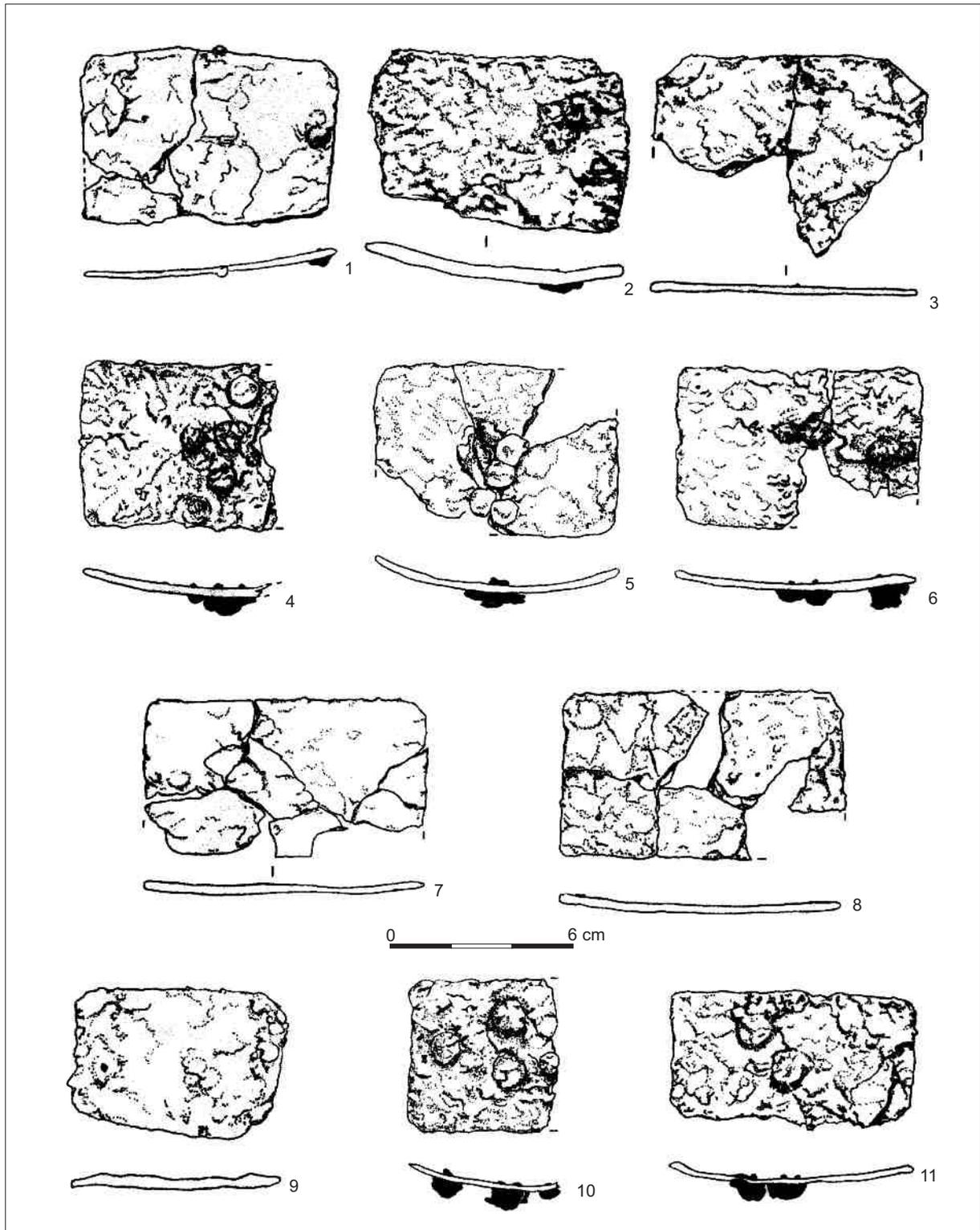


Fig. 8. The iron plate armour of type 1. Drawing by Ju. Tsitkovskaya, A. Yermanovskaya.

Рис. 8. Збројници панцерца типу 1. Рис. Ју. Цитковскаја, А. Јермановскаја.

A big massive plate in the shape of semi-circle (5,0 x 12,0 x 0,6 cm) (Fig. 11:1) is of particular importance for the armour. This plate was evidently fixed on the bottom of the neck, on

the chest part or on the warrior's back. Similar plates were included into a set of knightly armour of the 14th c. from Azov (Горелик, Фомичев 1989, 74, fig. 11), and also 15th c. brigandines from the



Fig. 9. The iron plate armour of type 2. Drawing by Ju. Tsitkovskaya, A. Yermanovskaya.

Ryc. 9. Zbrojniki pancerza typu 2. Rys. Ju. Tsitkovskaja, A. Jermanovskaja.

Szczerba castle, Silesia (Marek 2008, 112, Fig. 27:13). A relatively small semi-circular armour plate with the remains of an iron hook (or a loop?) was placed evidently under the armholes and connected the plates of the chest part with the back (Fig. 11:2).

The literature proposes several classifications of medieval armour made of plates. Among them, the most functional and multipurpose one is the classification by Y. S. Khudyakov and A. I. Solovyev (Худяков, Соловьев 1987, 138-139). According to this classification, we can classify the plates of the armour from Cembalo as rectangular or trapezium shaped ones with slightly round corners, rivets and few holes. The plates were fixed on the linen with round-cornered

rivets and they probably partially overlapped one another. The mentioned features allow us to classify the remains of the armour from Cembalo as a brigandine.

The set of finds of iron plates in the Cembalo Consular castle allows us to suggest a preliminary reconstruction of the brigandine (Fig. 12). Different sizes and forms of iron and bronze rivets point out that the cuirass was repaired and assembled many times from various plates, which happened to be at hand.

It should be outlined that we found fragments of armour of the 15th c. during excavations in various plots of the Cembalo fortress. Two iron cuirass plates of rectangular form with iron rivets were found in 2002 in the layers of the interior

space of Barnabo Grillo Tower (Tower No 1) (Адаксина, Кирилко, Мыц 2003, 69, No 98-99, Fig. 85).

In 2003 during the excavation of the barbican of this tower, four unharmed pieces and three fragments of rectangular and trapezium shaped plates of armour were discovered. Iron and ornamental bronze rivets (Адаксина, Кирилко, Мыц 2004, 82, No 158, Fig. 89; 89, Nos 212-214, Fig. 90; 94, No 240, Fig. 90; 98, No 260, Fig. 91; 101, No 285, Fig. 89) were preserved on the armour plates. Two plates of iron armour were also discovered during the excavations of Tower No 2 near the main city gates of the Cembalo fortress (Адаксина, Кирилко, Мыц 2006, 40, No 57, Fig. 85; 41, No 58). Five armour plates of trapezium form with bronze ornamental rivets, decorated with an embossed octahedral rosette were found on the territory adjoining the donjon of the fortress (*ibidem*, 47, Nos 21, 22, 42, Fig. 147; 50, Nos 43, 44, Fig. 149).

The above mentioned armour plates were found by the South-Crimean archaeological expedition of the Hermitage (Saint Petersburg) during the excavations of the main defensive line of the fortress. These artefacts are typologically and chronologically close to the plates of the cuirass of the Consular castle excavations. For example, the trapezium shaped plates with the ornamental bronze rivets of the brigandine from the Consular castle were probably used as shoulder-pieces (Fig. 13).

Among the finds of protective armour of Italian manufacture from the northern coast of the Black Sea the knightly armour of the 14th c. from Azov area has a special role. The western European knightly armour with remains of a horse bridle was discovered during the excavations in 1979. According to the authors of the published work it probably belonged to the head of the Genoese or Venice administration of Tana. It should be pointed out that the plates of the armour from Azov are well known to archaeologists who deal with finds from Europe and Rus (Горелик, Фомичев 1989, 74-77). They are also close in style to the finds from Cembalo.

It is known that in the 12th-14th c. the armour made of plates was the prevalent kind of a the warrior's protective equipment and experienced its new rebirth¹. Its use was reflected in written, iconographic and sigillographic medieval sources. They are found in the course of archaeological excavations in the wide space of Eurasia from the Atlantic to the Pacific Oceans.

Based on excavations of the 11th-15th c. sites, iron armour made of plates was well-known in Rus. Researchers connect the usage of new constantly developing armour by medieval Rus warriors with the increase in power of various kinds of armour-piercing weapons, such as crossbows, and later on, fire-arms as well (Медведев 1959, 132; Кирпичников 1976, 35).

In the 1950s during the excavations in Novgorod the Great hundreds of plates of the 13th-14th c. armours were discovered, which were called *brony doshchatyye* in Rus (Медведев 1959a, 175). *Doshchatyye* armour cuirass can be found on the 14th c. and later iconpaintings, chronicle miniatures and in, in sigillographic specimens (Янин 1970, Nos 414, 418, 419, 430, 434, 437, 439).

During the post-Mongol period in Rus the elastic armour became widespread. It consisted of rectangular or square plates, fixed on a soft coat (leather or thick cloth) like tiles (Кирпичников 1976, 35).

In the 14th c. the armour made of plates was used everywhere. The supposition that this type of armour was used in the Kulikovo battle in 1380 and protected Great Duke of Vladimir and Moscow Dmitriy Ivanovich Donskoy (1362-1389) and common warriors of the Russian host (Кирпичников 1980, 71-72) seems reasonable.

The medieval armour of this type attained its functional and technological perfection in the art of war of the Central Asian nomadic peoples. On the vast territory of the Genghisides' state the iron armour underwent quite a difficult evolution. In the 12th-14th c. scale armours of *kuyak* or *khatangu degael* types (Худяков, Соловьев 1987, 159) were particularly popular. It is obvious that *khatangu degael*, i.e., the cuirass fastened with belts was used in the battles by Jamuka – a playfellow and temporary ally of Temujin (*Сокровенное сказание...* 2002, §106). An interesting description of the iron scale armour of the Mongols was made by Piano Carpini (Карпини 1957, 50-51, § II. II). In M. Gorelik's opinion the construction of protective armour of *khatangu degael* type was widely spread in Rus, the Baltic countries and Western Europe. Our excavations in Cembalo affirm that this principle was used in the protective armour in the Black Sea coastal areas as well. As a rule, the main components of the discovered plated sets were iron plates of rectangular or square form, often with cut corners, quite big (6,0-10,0 x 4,0-6,0 cm)

¹ It is necessary to point out that the plate armour has been well known in the sources since the remote past (bibliography review: Медведев 1959, 120-123).

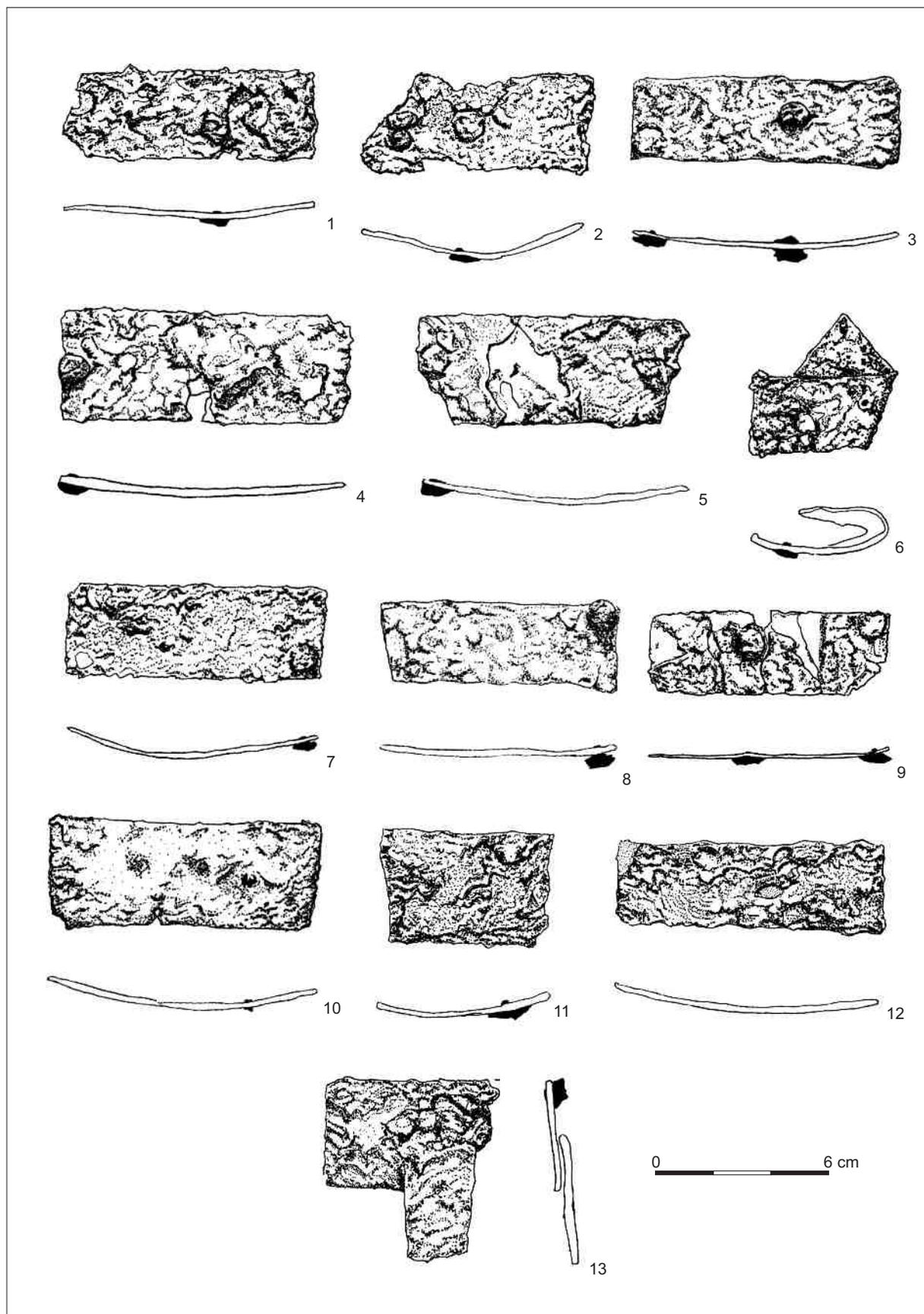


Fig. 10. The iron plate armour of type 2. Drawing by Ju. Tsitkovskaya, A. Yermanovskaya.

Ryc. 10. Zbrojniki pancerza typu 3. Rys. Ju. Tsitkovskaja, A. Jermanovskaja.

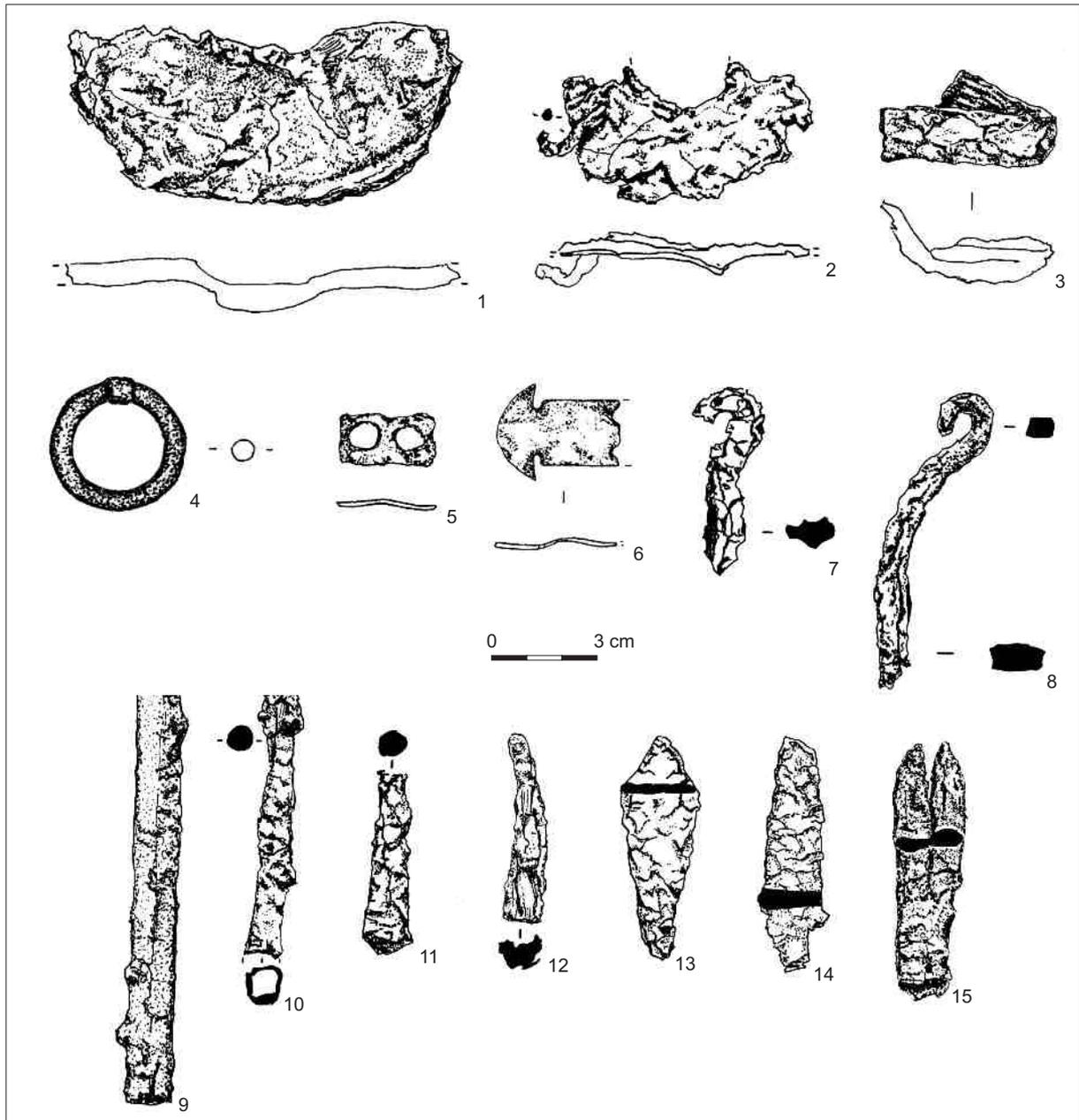


Fig. 11. The objects from the excavations on the site B. *Drawing by Ju. Tsitkovskaya, A. Yermanovskaya.*

Ryc. 11. Przedmioty z badań na stan. B (W). *Rys. Ju. Tsitkovskaja, A. Jermanovskaja.*

and slightly bent along the vertical or horizontal axis. The plates were sewn or fixed on cloth lining with the help of rivets. Sometimes both methods of fixing were combined (Горелик 1983, 251, 255, Tab. 3, 7-11).

Based on the achievements of the nomads in the manufacture and usage of metal armour B. Thordeman supposed that it was mainly the Mongol scale armour that influenced the development of military technology in Europe in the 12th-14th c. (Thordeman 1940, 286). However,

other specialists think that the spread of the armour of this type was the result of natural and independent development of military technology in Europe (Kalmar 1960, 240). Moreover, in the opinion of M. Gorelik, some rulers of the Golden Horde could order individual armours from Italian craftsmen (Горелик 1983, 269). D. Nicolle (2002, 213) has recently published an article in which he presented evidence for early use of the coat of plates in the 13th c. Italy. From Italy, where this kind of armour most



Fig. 12. The preliminary reconstruction of the brigandine from Cembalo. *Photo by S. Dyachkov.*

Ryc. 12. Wstępna rekonstrukcja brygantyny z Cembalo. *Fot. S. Djačkov.*

probably originated, it spread across medieval Europe. It is more probable that the Cembalo find is rather of Italian than Mongol or Eastern European origin. Moreover it has clear Italian parallels (Scalini 2004).

According to the renown expert in Western European medieval weapons W. Boenheim, the armour of this type became widespread in European countries in the general process of army democratisation. It was connected with the growth of infantry significance on the battlefield (Бехайм 1995, 19), and since the mid-14th c, one can notice a total transition from mail armour to plate armour. It was a peculiar reply to the growing power of missile weapons. Even the best chain armour could not stand arrows of long bows and crossbow bolts. The armour made of plates turned out to be much more efficient. Fastened plates covered one another and this way they doubled the thickness of protection and they could better resist or diminish the impact of the enemy's attacks. Thus, the cuirass answered the requirements of

strengthening the armour (Кирпичников 1971, 16; Коггинс 2009, 84-85). The finds of Swedish archeologists in 1921-1930 were of particular significance in the field of studying armour of this type in medieval Europe. They excavated a mass grave near the walls of the town of Wisby in Gotland. These were the remains of emergency volunteer corps warriors, who perished in 1361, defending their motherland against the Danish army under the command of King Valdemar IV Atterdag (1340-1375). The Danes broke down the resistance of townspeople, dealt with them severely, and plundered the rich island, which was the passing point of the Hanseatic League. In the mass grave there were 24 well-preserved sets of coats of plates which enriched the museum collections of Copenhagen, Stockholm and Gotland (Tordeman 1939; Блэр 2008, 51). Now the above mentioned armour from Wisby is the "golden find" for the study of arms and armour.

The collection of medieval armours of coat of plates or brigandine types in Europe constantly

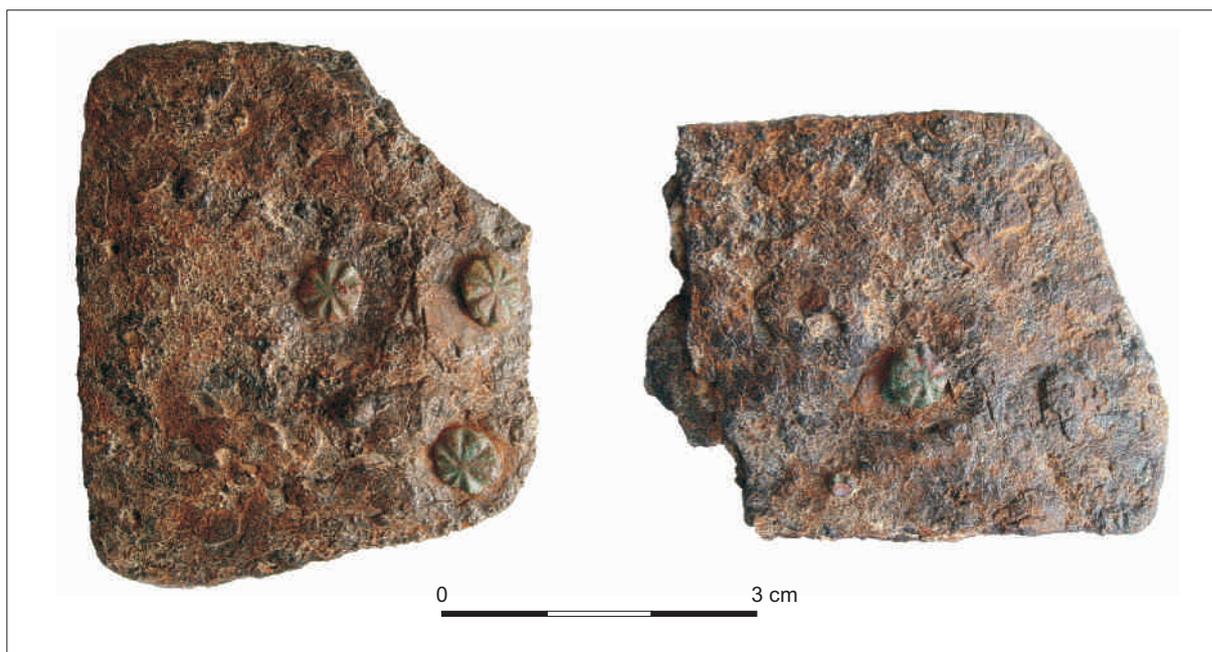


Fig. 13. The plates of trapezium decorated with an embossed octahedral rosette on the bronze rivets heads from the Consular castle. *Photo by S. Dyachkov.*

Рис. 13. Трапезоватые збройники ze zdobionymi rozetami na główkach brązowych nitów z zamku konsularnego. *Fot. S. Djačkov.*

grows due to the efforts of archaeologists. For example, the finds of the protective armour, being unique in variety and preservation were discovered during the excavations in 1986-1996 at the Szczerba castle (Silesia). This castle was ruined and plundered during the campaign of the Hussites in 1428 (Marek 2008, 87-124). It should be mentioned that many plates of this type of armour, discovered in Gotland, in the Szczerba castle in Silesia, in Italian colonies of Cembalo and Tana are similar in size, constructions and principles of usage (Горелик 1983, Table 3:10-11; Горелик, Фомичев 1989, 77:34; Marek 2008, 103). Thus, the excavations in various areas of Europe and Asia show that practically functional technical ideas were in use for a long time.

Brigandine (German – *Brigantine*, Italian – *corazzina*) can be considered to be among these outstanding achievements in the field of protective armour. This kind of armour appeared in Eurasia in the 13th c. and was successfully used all over the area until the 17th c. (Kalmar 1960, 296; Кирпичников 1971, 20; 1976, 36; Кирпичников, Медведев 1985, 317). Brigandine is a very flexible and plastic kind of armour where metal plates, which partially covered one another, were fixed on the inner side of the linen cloth with the help of rivets. One could see only rows of rivets on the outer side. The brigandine became for long the most popular kind of armour, both in Europe

and in the East. In the 13th-14th c. the brigandine was often used as knightly armour, also by members of royal families. In these cases expensive fabrics were used for its manufacture, and heads of rivets were covered with gold, giving them decorative form (Marek 2008, 105; Блэр 2008, 80-81).

In the 15th c. the full plate (cuirass) became the prevailing protective armour of knights whilst the brigandine remained infantry armour. However, the most widespread and democratic form of infantry armour was the coat of plates with iron plates partially covering one another, riveted (or sewn) to the lining, slightly rounded in the region of neck and armholes. An infantryman usually wore a tunic with the coat of arms of a master who hired him (Коггинс 2009, 100). A light armour, not impeding the warrior's movements, was typical for archers and crossbowmen. The miniatures of medieval chronicles, as a rule, show archers and crossbowmen wearing mainly brigandines (Пейн-Голлуэй 2008, 10, Figs. 2:14, 3:44, 13:51). This mass-made armour was comparatively cheap and was easy to manufacture and repair. Brigandines were delivered to troops and garrisons. For example, in 1453, protectors of the Saint George Bank, alarmed by the growth of the Turkish threat, began to prepare for the expedition to the Black Sea northern coastal colonies. In the list of weapon and equipment necessary for the dispatch 50 *coiracias* were the first to be mentioned (Мьш

2009, 236-237). Brigandine was known to be called *corazzina* in Italy and France. Namely 50 sets of armour were given in the list of weapons and equipment. They were more suitable during fortress defence than knightly armour.

The circumstances of the find and fragments of the brigandine armour discovered in Cembalo in 2007-2008 enable us to suppose that this armour belonged to a hired Genoese crossbowman from the fortress garrison of the 2nd half of the 15th c. Together with the plates of cuirass the elements of armour fixing – bronze and silver fasteners – were discovered (Fig. 11:5-6). In Assemblage No 1 and Assemblage No 2, among iron items there was also a large ring, round in gauge and 4,1 cm in diameter and quaintly bent iron hooks – evidently elements of appliance for drawing the bow-string of a crossbow (Figs. 11:4, 7-8). Fragments of boltheads, arrowheads and dartheads (Fig. 11:9-15) were also found here.

Besides armour fragments, 65 boltheads have been found during the excavations in recent years. The majority of them are of the same type. The bolts had pyramidal, triple-edged large heads. Their height is 1,9 cm, and the width of their sides is between 1,2 and 1,5 cm. No doubt, the crossbow was a medieval soldier's personal weapon (Bradbury 2004, 247). We do not doubt either that Genoese garrisons in the Black Sea coastal area were provided with this weapon of mass use. It is known, for example, that in the beginning of the 14th c. more than a hundred crossbows (Контамин 2001, 86) were kept in the arsenal of Venice.

According to the regulations for the Genoese colonies of 1449, the basis of the Cembalo fortress garrison were *balistarii quadraginta numero boni et sufficientes cum suis armis et balistris duobus pro quolibet* (Устава... 1863, 785). One should

probably understand crossbows under 'two ballists'. The presence of two crossbows and an assistant (loading) made it possible to increase the rate of shooting. Crossbows probably differed in size, shooting range and so on.

Crossbowmen in Germany usually wore leather jackets with sewn metal plates, while in France and Italy it was the *corazzina* or brigandine (Бехайм 1995, 289). It is logical to suppose that Genoese crossbowmen in the Black sea coastal colonies, as well as in other places of the Ligurian domain, used this type of armour. Various kinds of brigandines usually made up the protective equipment of famous Genoese crossbowmen.

It can be beautifully illustrated with the miniature from *Chronicles* by Jean Froissart, which shows Genoese crossbowmen and English archers, protected with brigandines. Incidentally, the operating staff of the trebuchet type throwing machines in the miniatures of the 14th-15th c., as a rule, were dressed in armour of brigandine type.

Weapon, protective armour and equipment was often lost in medieval battles. In the Szczerba castle in Silesia, which was occupied and ruined by the Hussites in 1428, the remains of the armour were found in the most important places of the castle's defence (Marek 2008, 88, Fig. 1). A Pskov posadnik Danila left his armour, deserting the battlefield. The Tatar Khan Mengli-Gerey lost the protective armour manufactured in Moscow, which had been given to him as a gift by Ivan III (Медведев 1957, 133-134).

The excavations of the main defence line and the Cembalo Consular castle show that in 1475, the fortress and Soldaia offered resistance to the troops of Gedyk-Akhmet-pasha and were taken by storm (Мыц 2009, 479-480). During these dramatic events the armour of one of the fortress defenders was probably lost.

docent Sergey Dyachkov
Kharkiv National University

Bibliography

- Bradbury J.
2004 *The routledge companion to medieval warfare*, London-New York.
- Crimean Chersonesos
2003 *Crimean Chersonesos: city, chora, museum, and environs*, ed. G. R. Mack, J. C. Carter, Astin.
- Kalmar J.
1960 *A brigantine*, Folia Archaeologica 12, p. 227-242.
- Marek L.
2008 *Medieval armour from Szczerba Castle*, AMMIV, pp. 87-122.
- Nicolle D.
2002 *Jawshan, Cuirie and Coat-of-Plates: An Alternative Line of Development for Hardened Leather Armour*, [in:] *A Companion to Medieval Arms and Armour*, ed. D. Nicolle, Woodbridge, pp. 204-206.

- Scalini M.
2004 *Plattenpanzer des Mittelalters in Mittelitalien – Urkunden und archäologische Funde im Licht der Sammlungsbestände der Toskana*, [in:] *Das Brigantinen-Symposium auf Schloss Tirol*, Vol. 3, ed. K. Spindler, pp. 119-129.
- Thordeman B.
1939 *Armour from the Battle of Wisby, 1361, vol. 1*, Stockholm.
- Адаксина С. Б., Кирилко В. П., Мыц В. Л.
2003 *Отчет об археологических исследованиях средневековой крепости Чембало (г. Балаклава) в 2002 г.*, Материалы Южно-Крымской археологической экспедиции II, pp. 5-78.
2004 *Отчет об археологических исследованиях средневековой крепости Чембало (г. Балаклава) в 2003 г.*, Материалы Южно-Крымской археологической экспедиции III, pp. 7-103.
2006 *Отчет об археологических исследованиях средневековой крепости Чембало (г. Балаклава) в 2005 г.*, Материалы Южно-Крымской археологической экспедиции V, pp. 6-52.
- Алексеевко Н. А., Дьячков С. В.
2007 *Требюше генуэзской крепости Чембало (XIV-XV вв.)*, [in:] *LAUREA. (Сб. науч. трудов)*, Харьков, pp. 124-135.
- Бехайм В.
1995 *Энциклопедия оружия*, Санкт-Петербург.
- Блэр К.
2008 *Рыцарские доспехи Европы. Универсальный обзор музейных коллекций*, Москва.
- Горелик М. В.
1983 *Монголо-татарское оборонительное вооружение второй половины XIV – начала XV вв.*, [in:] *Куликовская битва в истории и культуре нашей Родины*, ред. Б. Рыбаков, Москва, pp. 244-257.
- Горелик М. Ф., Фомичев Н. М.
1989 *Рыцарские доспехи XIV века из Азова*, [in:] *Северное Причерноморье и Поволжье во взаимоотношениях Востока и Запада в XII-XVI вв.*, Ростов-на-Дону, pp. 73-78.
- Дьячков С. В.
2004 *Консульская церковь крепости Чембало (XIV-XV вв.)*, [in:] *О древностях Южного берега Крыма и гор Таврических*, Киев, pp. 246-255.
2005 *Археологические исследования генуэзской крепости Чембало в 2000-2005 гг.*, Древности 2005. Харьковский историко-археологический ежегодник, pp. 212-227.
2008 *«Арсенал» метательных снарядов генуэзской крепости Чембало в Крыму*, Российская археология 2, pp. 54-61.
2008a *Новые метательные снаряды и детали камнемета из раскопок Чембало*, Древности 2006-2008. Харьковский историко-археологический ежегодник, pp. 241-247.
2008b *Площадка для метательной машины генуэзской крепости Чембало (XIV-XV вв.)*, [in:] *Проблемы истории и археологии Украины*, Харьков, с. 84-85.
- Карпини Дж. дель Плано
1957 *История монгалов*, [in:] *Путешествие в восточные страны Плано Карпини и Рубрука*, Москва, pp. 37-124.
- Кирилко В. П., Мыц В. Л.
2004 *Укрепление Чобан-Куле (по материалам раскопок 1992-1993 гг.)*, [in:] *О древностях Южного берега Крыма и гор Таврических*, Киев, pp. 205-245.
- Кирпичников А. Н.
1971 *Древнерусское оружие, вып. 3. Доспех, комплекс боевых средств IX-XIII вв.*, [in:] *Археология СССР. Свод археологических источников*, Е1-36, ed. Б. Рыбаков, Ленинград.
1976 *Военное дело на Руси в XIII-XV вв.*, Ленинград.
1980 *Куликовская битва*, Ленинград.
- Кирпичников А. Н., Медведев А. Ф.
1985 *Вооружение*, [in:] *Археология СССР. Древняя Русь: город, замок, село*, Москва, pp. 298-365.
- Коггинс Дж.
2009 *Эволюция вооружения Европы. От викингов до Наполеоновских войн*, Москва.
- Контамин Ф.
2001 *Война в средние века*, Санкт-Петербург.
- Медведев А. Ф.
1959 *К истории пластинчатого доспеха на Руси*, Советская археология 2, pp. 119-134.
1959a *Оружие Новгорода Великого. Труды Новгородской археологической экспедиции*, Материалы и исследования по археологии СССР 65, pp. 152-184.
- Мыц В. Л.
2002 *Генуэзская Луста и Капитанство Готии в 50-70 гг. XV в.*, [in:] *Алушта и алуштинский регион с древнейших времен до наших дней*, Киев, pp. 139-189.
2009 *Каффа и Феодоро в XV в. Контакты и конфликты*, Симферополь.

Новгородская...

1950 *Новгородская первая летопись старшего и младшего изводов*, Москва-Ленинград.

Пейн-Голлуэй Р.

2008 *Книга арбалетов. История средневекового метательного оружия*, Москва.

Скржинская Е. Ч.

2006 *Судакская крепость. История – археология – эпиграфика*, Киев-Судак-Санкт-Петербург.

Сокровенное сказание

2002 *Сокровенное сказание монголов*, Москва.

Устав...

1863 *Устав для генуэзских колоний в Черном море, изданный в Генуе в 1449 году*, Записки Одесского общества истории и древностей 5, Одесса.

Худяков Ю. С., Соловьев А. И.

1987 *Из истории защитного доспеха в Северной и Центральной Азии*, [in:] *Военное дело древнего населения Северной Азии*, Новосибирск, pp. 135-163.

Янин В. Л.

1970 *Актовые печати Древней Руси X-XV вв.*, т. II, Москва.

*Sergej Djačkov***XV-WIECZNA BRYGANTYNA KUSZNIKA
Z GENUJEŃSKIEJ TWIERDZY W CEMBALO****Streszczenie**

W l. 2007-2008, w trakcie badań archeologicznych genueńskiej kolonii Cembalo (dziś Balaklava, Krym, Ukraina) odkryto pozostałości żelaznego pancerza zbrojnikowego. Relikty te pochodzą z zamku konsularnego, a zdeponowano je w miejscu, gdzie w XV w. ulokowano machinę miotającą w typie trebusza. Wśród odkrytych reliktyw, autor publikacji wydzielił trzy typy prostokątnych i trapezowatych zbrojników. Znajdiska z Cembalo mają liczne analogie do pancerzy zbrojnikowych odkrytych zarówno w pół-

nocnej części basenu Morza Czarnego, jak i w Europie Zachodniej. Charakter i okoliczności odkrycia wskazują, że są to relikty brygantyny, szeroko rozpowszechnionej w XIV-XV w. Według autora publikacji, pancerz ten był własnością jednego z kuszników, należącego do miejscowego garnizonu i został utracony w czasie szturmów twierdzy przez wojska tureckie w 1475 r.

Tłumaczył Piotr N. Kotowicz