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THE RESTS OF FORTIFICATION OF UCH-BASH HILLFORT IN THE SOUTH-WESTERN CRIMEA

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ABSTRACT

The purpose of the research paper. The article deals with one of the few hillforts of the Final Bronze - Early Iron Age on the northern coast of the Black Sea - the Uch-Bash settlement.

Scientific novelty. Discovered remains of fortification, the system and stages of their construction, the reason and time of fortification of the settlement, the place of the site in the system of synchronous fortified settlements of the region are discussed in the article.

Conclusions. The settlement of Uch-Bash is one of the points that arose on the shores of the Black Sea during the final Bronze Age – around the end of the 12 century B.C. The site was badly damaged by the detonation of the Black Sea Fleet's ammunition depots during the retreat of the Primors'ka Army in 1942.

The settlement was founded on a place with landscape protection. From the side of the Inkerman valley and the sea, Uch-Bash was impregnable, its protected steep rock was about 15 meters high. From the land, the plateau of the Uch-Bash smoothly descended towards the hill of Malakhovy Kurgan on the Heraklion Peninsula.

The first remains of an ancient fortification were excavated in the 1950s by the expedition of S.F. Strzelecki. 2006-2012 research revealed the remains of walls, an ancient entrance and a ditch on the west side of the settlement. The direction of the walls corresponded to the direction of the fortifications excavated in the 1950s. The context of the remains of the fortification allows them to date from the end of the 12th to the mid of 8th century BC.

Archaeological excavations have shown that the fortifications at the Uch-Bash settlement were built in several stages. The second stage dated on the middle of the 8th century BC. It is likely that the construction of the fortress was not finished. The remains of these buildings are covered by a layer of destruction and fire associated with an attack by nomads, which left a number of finds of the Novocherkassk type in the fire layers.

The fortifications of Uch-Bash are not the only one site in the north of Pontus. Various types of fortifications have sites in the mouth and lower reaches of the Danube, the Southern Bug, and the Don. Landmarks with similar geographical characteristics are known in the headwaters of the estuaries of other large rivers in the north of the Black Sea. Fortified settlements of this time also appear further north on the border of the steppe and forest-steppe, in the forest-steppe region, further east near the steppe zone of Eurasia.

There are grounds for asserting that the northern coast of the Black Sea had an economically and socially determined system of fortified settlements and hillforts, which was located on the border of coastal settlements and the steppe zone of the region.

Keywords: Late Bronze Age, Early Iron Age, fortification, Crimea, Uch-Bash, Pontic region, northern Black Sea coast

ЗАЛИШКИ ФОРТИФІКАЦІЇ ГОРОДИЩА УЧ-БАШ У ПІВДЕННО-ЗАХІДНОМУ КРИМУ

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АНОТАЦІЯ

Мета статті. Статтю присвячено дослідженням одного із небагатьох городищ доби фінальної бронзи-раннього заліза північного узбережжя Чорного моря - поселення Уч-Баш.

Наукова новизна: мова йде про виявлені залишки фортифікації, систему й етапи їх зведення, причину та час укріплення поселення, місце пам'ятки у системі синхронних укріплених поселень регіону.

Висновки. Поселення Уч-Баш є одним із пунктів, що виникли на берегах Чорного моря у фінальний період бронзи – приблизно в кінці XII століття до н.е. Місце сильно постраждало від підриву складів боєприпасів Чорноморського флоту під час відступу Приморської армії в 1942 р. в ході Другої світової війни.

Поселення було засновано на місці, що має природний захист. З боку Інкерманської долини та моря Уч-Баш був неприступний, його захищала стрімчасть скеля близько 15 м заввишки. Із суші – плато Гераклеїського півострова плавно спускалося в бік пагорба Малахового кургану на Гераклеїський півострів.

Перші залишки давнього укріплення були розкопані в 1950-х роках експедицією С.Ф. Стржелецького. Дослідженнями 2006-2012 рр. із західного боку городища виявлено залишки стін, стародавнього входу та рову. Напрямок стін відповідав напрямку укріплень розкопаних у 1950-х роках. Контекст залишків укріплення дозволяє датувати їх кінцем 12 – серединою 8 ст. до н.е.

Археологічні розкопки показали, що укріплення на поселенні Уч-Баш зводилися у кілька етапів. Другий етап припадає на середину 8 ст. до н.е. Ймовірно, що будівництво фортеці не було закінчене. Залишки цих споруд перекриті шаром руйнування і пожежі, пов'язаної із нападом кочовиків, що лишили в шарах пожежі низку знахідок новочеркаського типу.

Укріплення Уч-Башу не є єдиними на подібних пам'ятках півночі Понту. Різні типи укріплень мають пам'ятки в усті та нижній течії Дунаю, Південного Бугу, Дону. Схожі за географічними характеристиками пам'ятки відомі у верхів'ях лиманів інших великих річок півночі Причорномор'я. Укріплені поселення цього часу з'являються також північніше на кордоні степу та лісостепу, в лісостеповому регіоні, далі на схід біля степової зони Євразії.

Є підстави стверджувати, що північне узбережжя Чорного моря мало економічно та суспільно обумовлену систему укріплених поселень і городищ, яка знаходилась на межі поселень узбережжя та степової зони регіону.

Ключові слова: доба фінальної бронзи, доба раннього заліза, фортифікація, Крим, Уч-Баш, Понтійський регіон, Північне Причорномор'я

THE QUESTION OF ORIGIN OF FORTIFICATION IN THE NORTHERN PONTIC REGION

The Northern Black Sea region, as one of the regions of Europe, which received its own powerful progress in the transition period from the Bronze Age to the Iron Age, has its own historiography regarding ethnic processes, art, metalworking, trade,

ideology, etc. All these questions in one way or another revolve around Greek-barbarian relations, a huge mass of information compiled more than a century ago by M.I. Rostovtsev¹, cultural comparisons, comparativistics, etc. Not the last among them is the issue of studying the traditions of construction and architecture, which, unlike arts cases, has not been studied so deeply. Currently, we are conducting full-scale research on the ancient architecture of the Northern Black Sea region², the rest of the research is episodic³. A number of papers are a generalization of the studies of predecessors on the hillforts of the forest-steppe zone of the Black Sea region, such as the works of G.T. Kovpanenko⁴, O.I. Terenozhkin⁵ and M.M. Daragan⁶, but special attention to the study of the system of entrances as one of the most important in protection, was not assigned, as, for example, in the work of A. Zanocha⁷ regarding hillforts in the Central Europe. Unfortunately, there are no generalizations, let alone discussions, on the basis of generalizing researches in this direction of the study of our antiquity. This is a significant gap in research and historical processes, because, as shown by research in other regions, and our minor work in Khotiv hillfort⁸, the issue of fortification, the traditionality of architecture and construction, factors that cause innovations, are fundamental for historical conclusions and archaeological searches.

In this short article, we will focus on the remains of the fortification discovered in the Uch-Bash settlement in the Crimea. The fortifications of Crimea, in addition to ancient cities and posts, also have a rather superficial study, both in terms of field research and subsequent reconstructions of such structures, at least until the Late Scythian period. In general, we operate with the descriptions of A.L. Berthier-Delagard⁹, Fr. Dubois de Montpere¹⁰, P.S. Pallas¹¹ and P. Keppen¹², who noted the

¹ *Ростовцев М.И.* Эллинизм и иранство на юге России: общ. очерк. Петроград: Огни. 1918.

² *Крыжицкий С.Д.* Архитектура античных государств Северного Причерноморья. Київ: Наукова думка. 1993; *Буйских А.В.* Пространственное развитие Херсонеса Таврического в античную эпоху. Материалы по археологии, истории и этнографии Таврии. Supplementum 5. Симферополь, 2008.

³ *Фабриціус І.* Тясминська експедиція, Археологічні пам'ятки УРСР, т. II. Київ: Видавництво АН УРСР, 1949. С. 80-111; *Ковпаненко Г.Т., Бессонова С.С., Скорый С.А.* Памятники скифской эпохи Днепровского лесостепного Правобережья. Киев: Наукова думка. 1989; *Шрамко Б.А.* Бельское городище скифской эпохи (город Гелон). Киев: Наукова думка, 1987; *Крушельницька Л.* Чорноліська культура Середнього Придністров'я. Львів: Наукова бібліотека ім. В. Стефаника НАН України, 1998; *Тереножкин А.И.* Предскифский период на Днепровском Правобережье. Киев: Изд-во Академии наук Украинский ССР, 1961; *Ромашко В.А.* Заключительный этап позднего бронзового века Левобережной Украины (по материалам богуславско-белозерской культуры). Київ: КНТ, 2013; *Болтрик Ю.В., Фіалко О.Є.* Напад скіфів на Трахтемирівське городище. Київ: Інститут археології НАН України. 2003; *Дараган М.Н.* Начало раннего железного века в Днепровской правобережной лесостепи. Київ: КНТ, 2011; *Кравченко Е.А.* й ін. Хотівське городище (новітні дослідження). Київ: Інститут археології НАН України, 2017.

⁴ *Ковпаненко Г.Т., Бессонова С.С., Скорый С.А.* Памятники скифской эпохи...

⁵ *Тереножкин А.И.* Предскифский период на Днепровском Правобережье...

⁶ *Дараган М.Н.* Начало раннего железного века в Днепровской правобережной лесостепи...

⁷ *Zanosi A.* Typology and evolution of gates and access into early hallstattian fortresses in Tisa-Dniester space. *Tyragetia*. 2015. IX [XXIV], 1. P. 7-27.

⁸ *Кравченко Е.А.* й ін. Хотівське городище... С. 115.

⁹ *Бертье-Делагард А.Л.* Раскопка Шверинского кургана. *Материалы по археологии России*. 1890. Т. 12. С. 54-55; *Бертье-Делагард А.Л.* Случайная находка древностей близ Ялты. *Записки Одесского императорского общества истории и древностей*. 1907. Т. 27. С. 19-27.

¹⁰ *Montpereux de D.Fr.* Voyage autour du Caucase, chez les Tcherkesses at les Abkhases, en Colchide, en Georgia, en Armenie at en Crimée. 1839. Т. II. Paris: Librairie de gide, editeur des annals des voyages.

remains of cities that were clear to them, that is, similar to their modern European cities. Previous fortifications during the modern era had already been covered with earth, so interest in these places arose a little later or by chance due to some remarkable finds or excavations. Thus, among the fortifications of the Kyzyl Koba culture in the monograph by O.M. Leskov¹³ were those that were described as taurian by other researchers. Excavations were not carried out on these objects, cultural attribution was most often given *a priori*¹⁴. Subsequently, a number of questions arose regarding the cultural attribution of these sites, but their archaeological study never took place.

On the other hand, the excavations of the Uch-Bash settlement, which were carried out in 2006-2013, revealed the remains of defensive structures of the Late Bronze – Early Iron Age¹⁵, which correspond to the remains of the fortification of this settlement, discovered in the 1950s. Then the materials were not published.

ARCHAEOLOGICAL AND TOPOGRAPHICAL CONTEXT OF UCH-BASH FORTIFICATION

The settlement of Uch-Bash is one of the points that arose on the shores of the Black Sea during the final Bronze Age – around the end of the 12 century B.C. The settlement was found in the upper Sevastopol Bay in the South-Western Crimea on the right bank of the River of Chorna near its mouth (fig. 1). The plateau where the settlement was located had steep and sometimes vertical slopes (fig. 2), which made it a natural fortress on the side of the sea and the river that flows through the Inkerman Valley and flows into Sevastopol Bay. Prior to anthropogenic changes and the construction of the Chornorichensky Reservoir, the river valley near Uch-Bash was swamped about which the first evidence was written by Pallas before any global landscape changes in this place¹⁶.

The monument was badly damaged by the detonation of the Black Sea Fleet's ammunition depots during the retreat of the Primors'ka Army in 1942, which were located in the Inkerman adits just below the archaeological site¹⁷. Archaeological preventive excavations was carried out as part of a program to dispose of ammunition and explosives left over from World War II in Sevastopol and Kerch from 2005 to 2014¹⁸. In March 2014, the site was captured by the Russian Federation, the garrison was destroyed and taken prisoner. No work is currently underway on the site.

¹¹ Паллас П.С. Наблюдения, сделанные во время путешествия по южным наместничествам Русского государства в 1793-1794 годах. Научное наследство. Т. 27. Москва: Наука, 1999.

¹² Кеппен П. О древностях Южного берега Крыма и гор Таврических. Крымский сборник. Санкт-Петербург: Типография Императорской Академии Наук, 1837.

¹³ Лесков А.М. Горный Крым в тысячелетии до нашей эры. Киев: Наукова думка, 1965.

¹⁴ Ibid. С. 29 et seq.

¹⁵ Кравченко Э.А. Поселение Уч-Баш и финал предскифского периода в Северном Причерноморье. Херсонесский сборник. Ч. 18. 2013-2014. С. 71-96; Кравченко Э.А. Кто сжег Уч-Баш? *Revista Arheologica*. 2014. Vol. 10, Issue 1-2. С. 49-71.

¹⁶ Паллас П.С. Наблюдения, сделанные во время путешествия... С. 50-52.

¹⁷ Маношин И.С. Гороицкая трагедия. О последних днях обороны Севастополя 29 июня – 12 июля 1942. Симферополь: Таврида, 1992; Wiedemann L., Göbel H.G. Wir Kampfeten auf der Krim: 1941/1942, Kertsch-Sewastopol. Luftflotte 4, 1942.

¹⁸ Кравченко Э.А. и др. От бронзы к железу: хозяйство жителей Инкерманской долины. Киев: НАН Украины. 2016. С. 13.



Fig. 1. Uch-Bash hillfort (1), Sakharna Golovka settlement (3) and Inkerman Valley (between 1 and 3 points). Synchronous sites: an iron ore deposit and an ancient mine (2), Balaklava settlement (4).

This part of Crimea was not densely populated during the final Bronze Age¹⁹. Currently, a number of settlements of the Bilozerka culture or so-called Late Bronze Age culture of the Crimea²⁰, which corresponds to the Lower Dnieper variant of the Bilozerka culture²¹, have been studied. However, the material culture of Uch-Bash is different from the culture of the Bilozerka settlements – it has the characteristic features of the cultures of the Thracian Hallstatt, focused on developed agriculture²².

¹⁹ Кравченко Е.А. Кизил-кобинська культура у Західному Криму. Київ-Луцьк: ІА НАНУ, Волинські старожитності, 2011. С. 91.

²⁰ Колотухин В.А. Поздний бронзовый век Крыма. Киев: СтилоС, 2003.

²¹ Лесков О.М., Кравченко Е.А., Гошко Т.Ю. Могильник білозерської культури біля с. Широке. Львів, Винники: Історико-краєзнавчий музей, Майдан, 2019.

²² Кравченко Е.А. Кизил-кобинська культура у Західному Криму... С. 45; Кравченко Э.А. и др. От бронзы к железу... С. 175, 255.

In addition to Uch-Bash, several other settlements within easy reach are characterized by the relevant material complex – Saharna Golovka, which is located on the opposite bank of the Chorna River, closing a single ford, and Balaklavske – on the slopes of Balaklava Bay at the other end of the pass through Inkermanska and Balaklaska Valley (fig. 1). Probably, all three settlements were connected in a system where Uch-Bash was the main fortress, Saharna Golovka as an outpost controlled the way from the steppe, and Balaklavske as access to Balaklava Bay²³.

If on the side of the valley and sea the Uch-Bash had natural protection, then on the land – the Herakleian Peninsula plateau descended smoothly in the direction of the hill of the Malakhov kurgan and the Kilen bay. The first remains of an ancient fortification were excavated in the 1950s by the expedition of S.F. Strzelecki²⁴ (fig. 3). However, he doubted the antiquity of these remains and did not publish them. 2006-2012 research revealed the remains of walls, an ancient entrance and a ditch on the west side of the settlement²⁵ (fig. 4). The direction of the walls corresponded to the direction of the fortifications excavated in the 1950s. The context of the remains of the fortification allows to date them from the Older pre-Tavrian period (end of the 12th – first half of the 9th century BC) to the end of the Younger pre-Taurian period (mid of 8th century BC)²⁶. Two periods can be traced back to the construction of fortifications: the last one – stone fortifications – walls and a probable entrance tower (fig. 5, 6), and the earliest – a ditch and an entrance bridge (fig. 7, 8). Additional fortifications near the ditch due to significant damage to the site during the World War II could not be traced.

The stone fortifications consisted of two lines of walls and probably a tower at the entrance gate, which was just beginning to be excavated (fig. 5, 6). The walls were placed in a stream 0.40-0.70 m deep on large foundation stones. They consisted of large slabs and stones of large, medium and small rubble. The outer wall (fig. 5: 1, 6: a)

²³ Кравченко Э.А. и др. От бронзы к железу... С. 31-34.

²⁴ Стржеleckий С.Ф. Черновой материал. *The Scientific Archive of the National Reserve "Khersones Tavriyskiy"*, File 1321; Кравченко Э.А. Поселение Уч-Баш и финал предскифского периода в Северном Причерноморье... С. 71-96; Кравченко Э.А. Кто сжег Уч-Баш?... С. 49-71.

²⁵ Савелья О.Я., Кравченко Э.А., Лисенко Р.В., Шевченко Д.А. Розкопки поселень Уч-Баш (2009). Севастополь, 2009. *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2009/2a; Савелья О.Я., Кравченко Э.А. Отчет Севастопольской археологической экспедиции об охранно-спасательных исследованиях Инкерманского отряда на поселении Уч-Баш (2006). *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2006/2; Савелья О.Я., Кравченко Э.А. Отчет о раскопках поселения Уч-Баш (2007). *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2007/13; Савелья О.Я., Кравченко Э.А. Отчет о раскопках поселения Уч-Баш (2008). *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2008/13; Кравченко Э.А. Отчет о разведках на территории Севастопольского горсовета (Инкерманская долина, Шампаны). *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2009/26; Кравченко Э.А. Отчет о раскопках поселения Уч-Баш в 2010 г. *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2010/46; Кравченко Э.А. Отчет о разведках на правом берегу р.Черная (Севастопольский горсовет), Севастополь, 2012. *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2012/85; Кравченко Э.А., Разумов С.Н., Овчинников Е.В. Отчет о раскопках поселения Уч-Баш в 2011 г. *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2011/102; Кравченко Э.А., Разумов С.М., Квитницкий М.В., Москаленко А.В. Отчет о раскопках поселения Уч-Баш в 2012 г. Севастополь, 2013. *The Scientific Archive of the Institute of Archeology, NAS of Ukraine*. File 2012/87.

²⁶ Кравченко Э.А. Поселение Уч-Баш и финал предскифского периода в Северном Причерноморье... С. 71-96; Кравченко Э.А. Кто сжег Уч-Баш?... С. 49-71.

open 6,4 m long had two faces of masonry, between which stretched a hut of small rubble and bentonite clay. In total, the wall was 2,5 m in width: fronts 0,85/0,85 m, filling 0,85 m. The inner wall (fig. 5: II, 6: c) had a more complex construction with pine logs up to 0.4 m in diameter, which were charred during the fire, a clay building with small rubble and medium and large rubble of the main masonry. It was almost completely destroyed as a result of ancient events and the most recent explosion, only a small area of large stone blocks remained in situ. All the remains of the wall are open 4,4 m in long.

The ditch (fig. 7: a, b, 8: c) had a semicircular shape in cross section 3,6/2 m wide and 1,25 m deep. Open on 8.3 m long. Excavated in the bentonite natural ground (fig. 8: a). To build the stone fortifications, it was covered with clay and a layer of rubble was poured on top 0,05-1 m thick. A bridge (fig. 7: a, 8: a, b) was built across the ditch during its existing with dimensions according to the width and depth of the trench (2 m and 1,2/04 m respectively). Bridge width – 3 m. This is part of the natural ground, which was not removed during the construction of the moat. The ditch was probably lined with marl slabs, several of which remained on the walls of the ditch *in situ* (fig. 7: a, 8: a, b). The surface of the bridge contained several rounded shallow pits (fig. 7: a, 1, b, 5-6 section, 8: a, b) with diameter 0,35 m, symmetrically located on the sides of the bridge, probably from the stones that held the wooden floor above the drain. Three pits were preserved, the fourth could not be traced visually.

The material from the ditch and backfill under the wall is generally inconspicuous and few in number, corresponding to the pre-Tavrian periods according to the classification of ceramics (end of the 12th – mid of the 8th century BC). In general, the material that accompanied the upper layers clearly separates the functioning of the ditch and the entrance in the Older pre-Tavrian period (end of the 12th – turn of 10th – 9th centuries BC). Since the issue was covered in detail in a number of special articles, it will not be discussed here²⁷.

DISCUSSION

So, where does the tradition of building such fortifications come from and what is it connected with? A. Zanoci, in his typology of gates in early Hallstatt settlements²⁸, notes that the side entrance, i.e. located to the left of the central fortification, as assumed at Uch-Bash in the first construction period, if the defense site, studied by S.F. Strezheletskyi, belongs to the early horizon, was mostly the only entrance to the settlement. In some cases, an additional one was arranged. In general, according to the characteristics of such entrances, Uch-Bash meets the criteria of early Hallstatt settlements, including those of the Tisza-Dniester region, as well as settlements of the Lusatian culture and burial field cultures of Central Europe²⁹ it is located to the left of the upper part along which the wall and ditch passed, and on which the defense site was located³⁰. That is, the right side of the attacker, not protected by a shield, was

²⁷ See for details: *Кравченко Э.А. Поселение Уч-Баш и финал предскифского периода в Северном Причерноморье... С. 71-96; Кравченко Э.А. Кто сжег Уч-Баш?... С. 49-71.*

²⁸ *Zanoci A. Typology and evolution of gates... P. 18.*

²⁹ *Ibid. P. 18, type II.a.*

³⁰ *Стржелицький С.Ф. Отчет о раскопках раннетаврского поселения Уч-Баш X-VIII вв. до н.э. Севастополь, 1952 г. The Scientific Archive of the National Reserve "Khersones Tavriiskiy", File 680/1—III; Стржелицький С.Ф. Черновой материал...; Кравченко Э.А. Поселение Уч-Баш и финал предскифского периода в Северном Причерноморье... С. 71-96; Кравченко Э.А. Кто сжег Уч-Баш?... С. 49-71.*

exposed from the defense side³¹. It is also worth noting that the masonry fortifications of the second construction period at Uch-Bash – two longitudinal and one transverse walls, which are probably the remains of a gate tower or a defense site, are generally similar to the second subtype of type II side entrances identified by A. Zanoci³². But since this part of the fortification has remained only partially excavated since 2014, we can only talk about it hypothetically.

The search for analogies to both the stone structure and the structure of the Uch-Bash entrance showed that synchronous complexes are still unknown in the Crimea. There are later settlements of the Hellenistic period in the east of the Crimea, where the settlement is surrounded by a ditch with bridges and crossings lined with stones, but they correspond to the barbarian population of the *chora* of the Bosphorian cities and are in no way related to the chronological period and population considered in the article. As for the closest analogies, similar structures were discovered at the Dykyi Sad hillfort in the upper reaches of the Southern Buh estuary³³ on the territory of the current city of Mykolaiv. There they were part of the fortifications of the citadel of the settlement, the dating of the building is complicated by the mixing of material from the ditch, but in general it also belongs to the Late Bronze Age – Early Iron Age. Unfortunately, the fragmentedness of the publications of this site limits the understanding of the synchronicity or asynchrony of the constructions of the ditch with the entrance bridge and the stone structures (towers) near the bridges. K. Horbenko does not separate in time the construction of the ditch, stone fortifications near the entrances and the citadel itself, although he does not give a clear dating of the construction of the fortifications either³⁴, relying on a broad date of the 13th – 9th centuries B.C. In the Dykyi Sad settlement, the bridge was built on a stone masonry, the remains of which were excavated in two places of the citadel – in the northwest and in the south. The ditch of the Dykyi Sad was wider than Uch-Bash one and was about 5 m wide and 3 m deep³⁵. The author of the excavation places the remains of the towers both to the right and to the left of the entrance, which gives us reason to doubt the contemporaneity of these structures. According to ancient military tactics, the road or passage to the entrance should be located in such a way that the right side of the attacker, not protected by a shield, was turned towards defensive structures or walls³⁶. Considering the fact that all this time – from the end of the Bronze Age to the Roman era, there were no radical changes in the forces and means of warfare, this statement of the Roman military architect Vitruvius can be applied to earlier times as well. Accordingly, at least the northwestern tower of the Dykyi Sad does not meet its purpose. Let us assume that there, as in Uch-Bash, the ditch with the crossing bridge and the stone structures of the walls with towers are asynchronous and traditionally different.

³¹ *Витрувий*. Десять книг об архитектуре. Москва: Издательство Всесоюзной Академии архитектуры. 1936.

³² *Zanoci A.* Typology and evolution of gates... P. 18, type II.b.

³³ *Горбенко К.* Городище «Дикий Сад» у XIII-IX ст. до н.е. *Емінак*. 2007. № 1 (1). С. 7-14; *Горбенко К.* Залишки будівельних споруд «цитаделі» городища Дикий Сад. *Старожитності Лукомор'я*. 2020. № 1 (1). С. 5-44; *Gorbenko K., Trygub O.* History of Exploration of Final Bronze Age Fortified Settlement (Hillfort) 'Dykyi Sad' (Mykolaiv, Ukraine). *Revista Arheologică*. 2022. Vol. 18, Issue 2. P. 17-34.

³⁴ *Горбенко К.* Залишки будівельних споруд «цитаделі» городища Дикий Сад... С. 5-44.

³⁵ *Куштан Д.П.* Південь лісостепового Подніпров'я за доби пізньої бронзи. *Археологічний альманах*. 2013. С. 9.

³⁶ *Витрувий*. Десять книг об архитектуре... С. 32.

The ditch surrounding the settlement of the Final Bronze Age was traced in the forest-steppe at the Vovkivka fortified settlement³⁷, however, unfortunately, the details of the fortification of this site remain unclear.

It is also not known for sure what fortifications the Kartal settlement in Odesa region had during the early Hallstatt period³⁸. Considering the topography of the settlement of the Final Bronze Age (early Hallstatt), it should have been fortified, because it, like Uch-Bash, is located on a high promontory above the navigable part of the river, which on one side slowly descends to the exposed part³⁹. The existence of fortifications is also supported by the reflections of its researcher I.V. Bruyako⁴⁰ regarding its settlement and the reasons for its occurrence. During the Final Bronze Age, this settlement, according to the researcher, arose on the border between the steppe world of the Bilozerka culture and the Balkan-Carpathian Eastern Hallstatt cultures of the Temeoan-Kholerkan-Balta circle. Its destruction and the subsequent settlement of the Middle Hallstatt, which demonstrates a syncretic culture in contrast to the Hallstatt of the early period⁴¹, not only actualizes its function and significance, but also indicates its exceptional similarity in terms of the dynamics of historical events to the settlement Uch-Bash, which also arose during the early Hallstatt period, in subsequent horizons acquires the features of the Bilozerka culture, primarily in the ceramic complex, after which it undergoes destruction, probably by the early nomads of Chornogorivka tipe (III-UB⁴²). I.V. Bruyako actualizes the emergence and primary function of Kartal as a point of change in the political situation, correcting Ye. Sherrat's thesis about the primacy of the change in the economic situation, and then the political one⁴³.

D. Kushtan also comes to the conclusion of a politically unstable situation in the entire steppe region, referring to the appearance of fortified settlements and hillforts "on the entire territory from the Carpathians to Western Siberia: the Gava-Holigrady culture in the Carpathians (Lysychnyky, Horodnytsia, Fedorivka, etc.)⁴⁴, the Bilozerka culture in Steppe Pobuzhzhia (Dyki Sad)⁴⁵, the Kobyakove culture on Lower Don (Safyanove)⁴⁶, Irmenska in the Ob'-Irtysk watershed (Chicha 1⁴⁷)"⁴⁸, if to consider the

³⁷ Куштан Д.П. Південь лісостепового Подніпров'я за доби пізньої бронзи... С. 183.

³⁸ Бруяко И.В. Об исторической топографии городища Картал. *Материалы по археологии Северного Причерноморья*. 2009. Вып. 9. С. 45.

³⁹ Ibid. С. 42.

⁴⁰ Бруяко И.В. Феномен Картала: динамика смысла. *Материалы по археологии Северного Причерноморья*. 2019. Вып. 14. С. 249.

⁴¹ Ibid. С. 250.

⁴² Кравченко Е.А. Кизил-кобинська культура у Західному Криму... С. 59, 91-93.

⁴³ Бруяко И.В. Феномен Картала... С. 255; Sherrat A. Economy and society in prehistoric Europe: changing perspectives. Princeton, 1997.

⁴⁴ Клочко В.І. Озброєння і військова справа давнього населення України (5000-900 рр. до Р.Х.). Київ: АртЕк. 2006. С. 258.

⁴⁵ Горбенко К.В., Гребенников Ю.С., Смирнов А.И. Степная Троя Николаевщины: Очерк. Николаев: Издательство Ирины Гудым, 2000. С. 17-22; Gorbenko K.V., Grebennikov Yu.S. The « Dykui Sad» fortified settlement as a uniting link in the context of economic, political, and cultural relation of 1200-1000 BC (The Baltic shore, the Pontic region and the Mediterranean). *Routs between seas: Baltic-Bug-Bog-Pont from the 3rd to the middle of the 1st millennium BC. Baltic-Pontic-Studies*. 2009. Vol. 14. S. 376-378, g. 2.

⁴⁶ Шарафутдинова Э.С. Заключительный этап позднего бронзового века на Нижнем Дону (памятники кобяковской культуры). *Советская археология*. 1973. № 2. С. 4.

⁴⁷ Молодин В.И. и др. Пространственно-временная динамика городища Чича-1: анализ стратиграфии и планиграфии. Исторический опыт хозяйственного и культурного освоения Западной Сибири. Книга I. Барнаул: Издательство Алтайского университета, 2003. С. 316-322.

⁴⁸ Куштан Д.П. Південь лісостепового Подніпров'я за доби пізньої бронзи... С. 183.

settlement of Dykyi Sad and other such settlements as belonging to their culture and not to speak about phenomenon of the turn of Bronze and Iron Age.

A similar conclusion about the historical circumstances of the emergence of fortified settlements and settlements with natural protection is reached by E.S. Sharafutdinova, including regarding the Kobryakovka culture settlements of the Don delta, noting also that the fortified settlements of the Late Bronze Age are located on the border of geographical zones – steppe-forest-steppe, steppe-foothills, foothills-mountains⁴⁹.

It seems that during the Final Bronze Age, with the development of shipping, the sea coast became another frontier of geographical zones, where fortified settlements (Babadag, Tudorov, Bolgrad, Dykyi Sad, Safyanove) also appeared in convenient bays closed from storms, to which it is worth adding Uch-Bash (fig. 9). The hillfort of Kartal belongs to the same group of settlements, despite its relative distance from the sea coast. It is likely that the fortified settlements of the Late Bronze Age – Early Iron Age of the Lower Danube, as well as the Lower Don, should be considered as a continuous historical phenomenon, components of a single historical process.

It was not for nothing that we noted the cultural belonging of the Dykyi Sad, since it and the settlement of Safyanove in the delta of Don combine both land and river (located at the headwaters of the Southern Buh estuary) and sea routes of communication among those cited by D. Kushtan. The rest – Vovkivske, Lysychnyky, Horodnytsia, Fedorivka, Chicha – are located along the rivers in the depths of the mainland along the entire steppe corridor of Eurasia from Prykarpattia to Siberia. The only settlement that can also be part of the coastal group is Safyanove on the Lower Don, which is located at the mouth of the Don near the coast of the Sea of Azov. In other words, a group of fortified settlements or settlements that arose during the Final Bronze Age on the sea coast near convenient for navigation bays on the border of the Final Bronze Age tribes of the Northern Black Sea region is distinguished – Kartal in the Lower Danube, Dykyi Sad in the upper reaches of the Southern Buh estuary, Uch-Bash in the upper reaches of Sevastopol Bay, Safyanove near the mouth of Don. This group includes the settlement of Babadag near the mouth of the Danube. There is no doubt that such a historical phenomenon, when all the large rivers of the Northern Black Sea region and the most convenient bay of the Crimea turned out to be covered by fortified settlements at about the same time, which were later transformed into settlements with fortifications, is not accidental. Who founded these settlements? As can be seen from the previous publications of Kartal and Dykyi Sad, researchers associate the earliest materials with the cultures of Eastern Hallstatt⁵⁰ and with the Bilozerka culture of the Northern Black Sea region⁵¹. Likewise, the most earlier horizon of Uch-Bash is from Eastern Hallstatt⁵². At the same time, already in the second horizon of Uch-Bash, features of Bilozerka culture appear in ceramics, primarily kitchen ones, and certain influences in the decoration of table and container

⁴⁹ Шарифутдинова Э.С. Памятники предскифского времени на Нижнем Дону (кобьяковская культура). Археология СССР. Свод археологических источников. Вып. В1-11. Москва: Наука, 1980. С. 9.

⁵⁰ Бруяко И.В. Об исторической топографии городища Картал... С. 39-47; Бруяко И.В. Феномен Картала... С. 245-263.

⁵¹ Горбенко К. Залишки будівельних споруд «цитаделі» городища Дикий Сад... С. 5-44.

⁵² Кравченко Е.А. Кизил-кобинська культура у Західному Криму... С. 45, 91.

ceramics⁵³. There are no signs of destruction between the first and second horizons at Uch-Bash. However, the end of the second horizon is marked by destruction and the appearance at the settlement of the Chornogorivka-type psalium lost in the process of use and bone arrowheads, also characteristic of the Chornogorivka types⁵⁴. The ruins between the Early Hallstatt and Middle Hallstatt horizons were also traced at the Kartal hillfort⁵⁵. Unfortunately, according to the materials of the Dykyi Sad, it is currently impossible to clearly trace the horizons or periods of its existence, it is also not clear when and at what time the periods of destruction fall. It remains to be seen when the material of this extraordinary site will be completely analyzed and published.

What was happening at that time north of the sea? This is the territory of the spread of the Bilozerka culture, whose tribes also related with the sea coasts and mouths of navigable rivers, but the settlements of the Bilozerka culture did not have fortifications. Cemeteries of the Bilozerka culture contain a few cases of burials with weapons, but in general, weapons are not common in their burials. On the other hand, at the last stage of the culture's existence, which ends at the same time as the early Hallstatt horizons of the hillforts we have described, elite burials appear in the funeral custom. In them, in addition to luxury items, such as jewelry made of precious metals and prestigious jewelry made of amber, carnelian, gesheer, etc., the burial structure itself changes – a barrow mound appears, the burial chamber can be larger in area, and pillar pits from hearse can be traced in the burial chamber⁵⁶. Can this indicate the emergence of a military elite – unlikely. Rather, we are talking about the emergence of tribal elite, the military component of which was not pronounced. And we are inclined to explain the emergence of the Bilozerka elite precisely by the active communication of the tribes of Bilozerka culture with population of the fortified settlements of the sea coasts. Accordingly, the disappearance of the Bilozerka culture, fires and the destruction of the early horizons of the coastal settlements should be connected with the appearance of the early nomads of Chornogorivskyi stage of pre-Scythian culture in the region. This was the early steppe impulse in the development of these seaside centers. The reason that these centers did not disappear after the fires is precisely the fact that they were not the centers of the local population of Bilozerka culture, essentially torn apart by nomads, – the basis of functioning of this fortified settlements was the sea, which is also confirmed by the finds of anchors, marine fauna and the remains of sea fisheries in the early and in overlying horizons⁵⁷. Through sea routes, they most likely communicated with each other and with the areas from which these settlements were removed, representing something like a network of colonies, which are well known to us on the example of the great Greek colonization. It is likely that a similar process took place in the Black Sea earlier, but it stopped completely with the arrival of the nomads of the early Scythian period.

⁵³ Ibid. С. 53.

⁵⁴ Тереножкин А.И. Киммерийцы. Киев: Наукова думка. 1976. С. 181; Кравченко Е.А. Кизилкобинська культура у Західному Криму... С. 59.

⁵⁵ Бруяко И.В. Феномен Картала... С. 250.

⁵⁶ Лесков О.М., Кравченко Е.А., Гошко Т.Ю. Могильник білозерської культури біля с. Широке... С. 18 et seq., 155.

⁵⁷ Кравченко Э.А. и др. От бронзы к железу... С. 246, 253-254.

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Fig. 2. Uch-Bash hillfort, view from the Inkerman. Photo by E. Kravchenko, 2012.



Fig. 3. Rests of fortification, excavated by S. Strzheletskiy in 1952-1954
(*Strzheletskiy, 1952. Otchet...*).

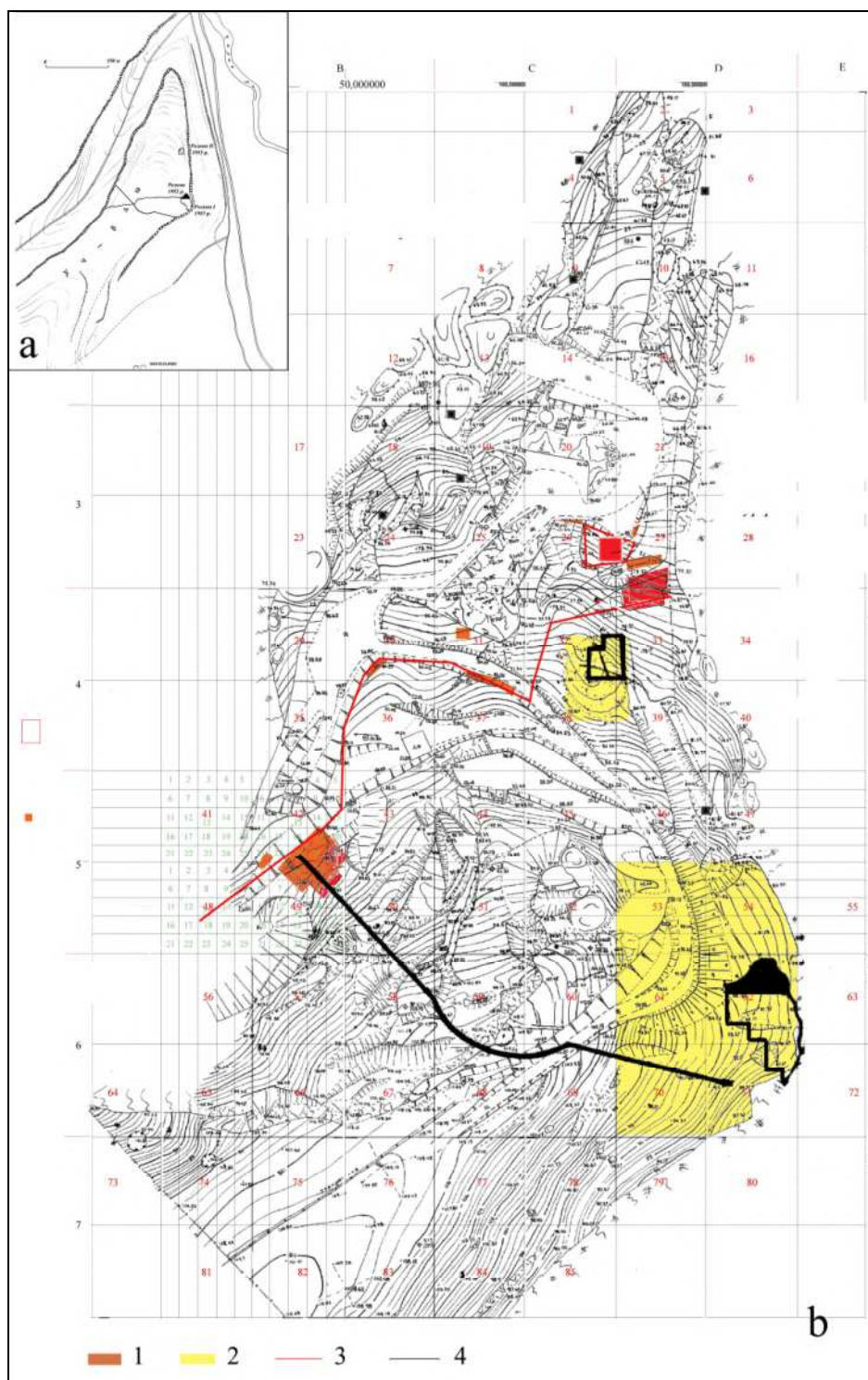


Fig. 4. Plan of Uch-Bash by Strzheletskiy with fortified line (a), topographic plan of Uch-Bash (b) with morden excavation (2006-2013) (1 – excavated areas, 3 – line of preserved archaeological complex to the South of destruction) and squares, excavated by Strzheletskiy (2 – squares with excavations 1952-1953, 4 – fortified line with defense site in the center).



Fig. 5. Plan of fortification area with rests of walls: outer wall (I), inner wall (II), transverse wall (III) (2006-2013 excavations).



Fig. 6. Destruction of the defensive walls: outer wall (a), transverse wall (b), inner wall (c) (2006-2013 excavations).

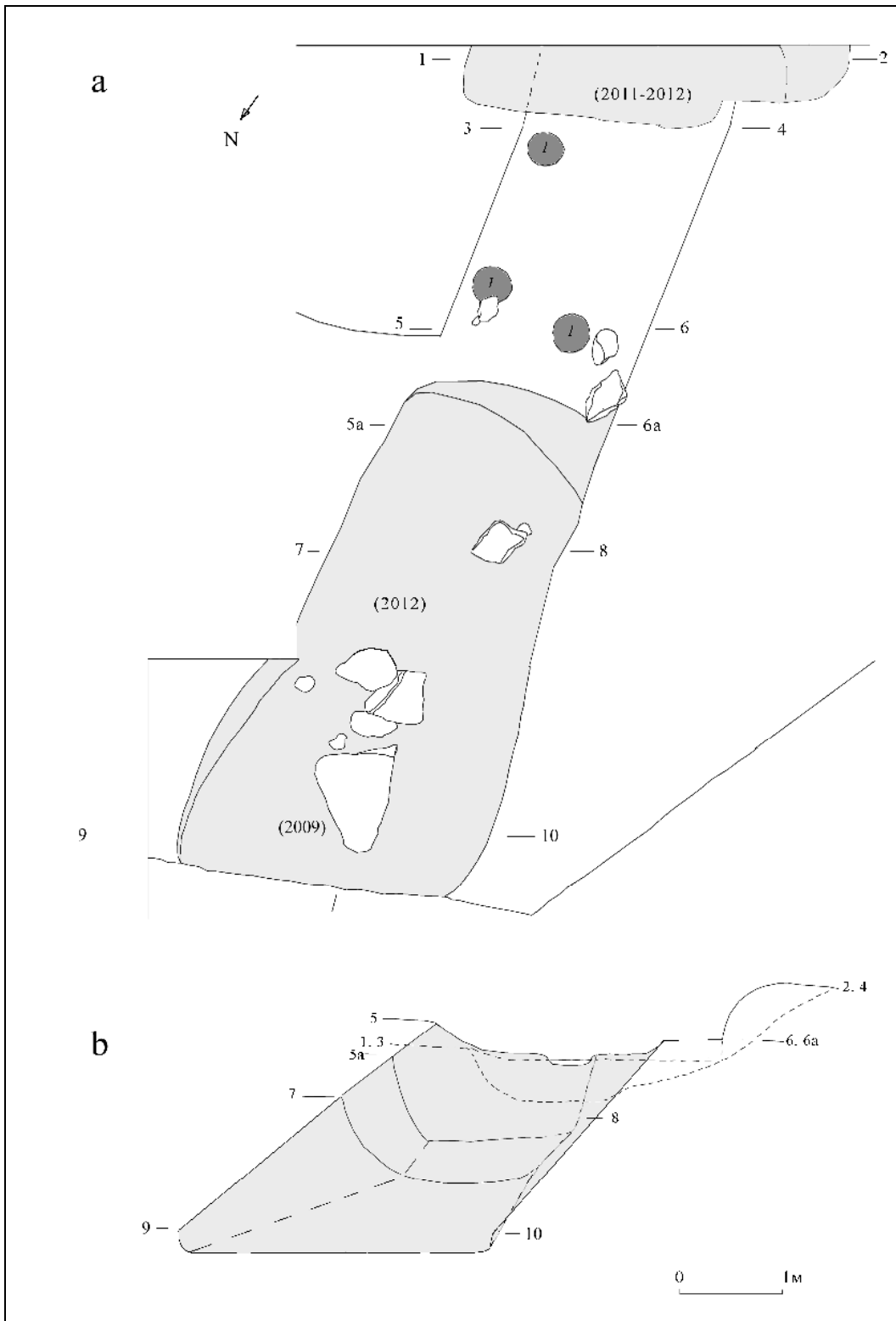


Fig. 7. Plan of ditch with enter bridge (a), reconstruction (b): 1 – pits in the bridge construction, 1-2, 3-4, 5-6, 5a-6a, 7-8, 9-10 – sections and profiles (2006-2013 excavations).



Fig. 8. Rests of bridge: place of bridge and ditch (a), rests of bridge (b), section of ditch filling (c) (2006-2013 excavations).

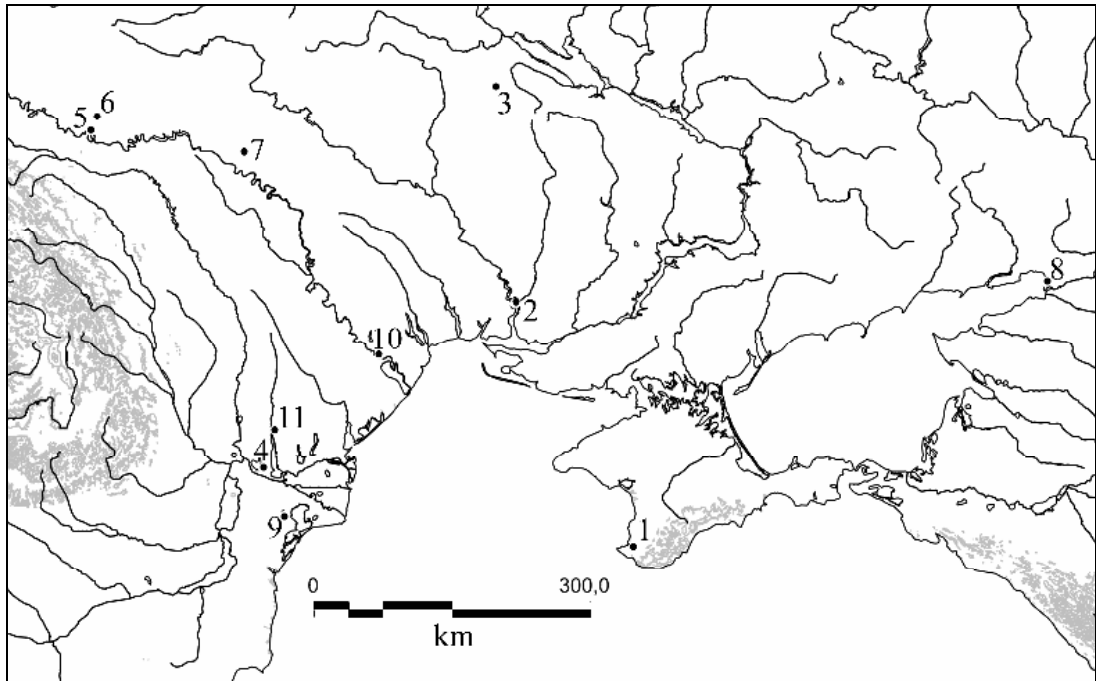


Fig. 9. Settlements in the upper reaches of estuaries, bays, etc. with natural protection, fortified settlements and hillforts of the Final Bronze Age in the Northern Black Sea region: 1 – Uch Bash, 2 – Dykyi Sad, 3 – Vovkivka, 4 – Kartal, 5 – Lysychnyky, 6 – Gorodnytsia, 7 – Fedorivka, 8 – Safianove, 9 – Babadag, 10 – Tudorove, 11 – Bolgrad.