HORN PROCESSING IN WESTERN TEMENOS OF OLBIA PONTICA

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On the territory of Olbia, three areas reserved for the worship of the gods were studied at different times, and the traces of craft activity were found in each of them: in the Eastern and Western temenes – bronze foundries, and in the Southern temenos the bronze foundry some time later was replaced by ceramics workshop. The possibility of horn processing workshop functioning on the territory of the Western temenos of Olbia in the 5th century BCE is analyzed in the paper.

This assumption is based on the discovery of a number of processed antlers in one of the complexes (bothros № 9). The range of these artifacts is represented by wastes of horn primary splitting, blanks, and semi-finished produced items. In addition, fragmented remains of the bone processing process (primarily processed horn) were found in other objects and layers of the Western temenos.

Of course, the most convincing argument in favor of the horn being processed in the Temenos area would be the founding of an object there that could be convincingly interpreted as a workshop. However, it cannot be localized; one can only assume that it should have been, like other industries, at the side. The relatively small amount of processed horn and bone does not allow us to say that the craft activity that took place in the temenos could not be a specialized bone-cutting craft, but it could not be a household production for self-consumption either. Most likely, its production volume was dictated by the needs of the sanctuary, rather than a wide range of consumers: so there could not be a large specialized bone-cutting workshop.

In addition, we cannot exclude that the horn was processed by a multi-skilled craftsman who also worked with other materials (for example, wood), or was focused on the production of specific produced items, rather than on certain raw materials. Such opinions are also caused by the predominance of semi-finished onlay plates at different stages of the production process. Specialized bone processing workshops have not been found yet, not only in the temenes but also in other parts of Olbia. We know about only a few objects (Tyritake, Myrmekion, Chersonesus) in the Northern Black Sea region, which can be convincingly associated with bone processing craft, but not specialized in it.

Based on the available sources, we can conclude that the bone processing activity in the poleis of the Northern Black Sea region in general, and Olbia in particular, did not have the characteristics of a specialized craft. It is possible that the craftsmen were specialized not in raw materials, but in types of produced items. This is evidenced by the finding of complex works of art, not all of which could be imported as goods from other places.

Keywords: Olbia, bone processing, Western temenos, horn processing

On the territory of Olbia polis at different times, three areas reserved for the worship of the gods – temene were studied. In the central part of the city opposite each other, there are the so-called Eastern and Western temene. Various deities were worshiped on their territory, but the central sanctuary in the Eastern was the temple of Apollo
Delphinius, and in the Western, it was the temple of Apollo Ietros\textsuperscript{1}. The third cult area is located in the southern part of the Upper Town and was dedicated to Aphrodite\textsuperscript{2}.

The results of studies of the cult area of the Western temenos are described in detail in the reports and are relatively well presented in the publications. However, the vast amount of material obtained during the excavations of this site has not petered out its informative potential, and some issues still need additional attention. One of them is the detailed study of various aspects of the temenos functioning, on the territory of which, in addition to the structures associated with sacral activities (altars, fences, temples), there were other minor objects not directly related to cult practices, but served their needs. As a result of constant restructuring, and consequently – poor preservation of layers, it is rather difficult to determine exactly what function they performed: storage, utility rooms, or workshops\textsuperscript{3}.

Despite frequent changes in historical topography, scholars have been able to find evidence of craft activity in each of the three Olbia temene. In some cases, there were separate complexes with special facilities, in others, numerous production wastes. In the Eastern temenos, a construction was found, which the authors interpret as a ‘workshop of votive products’\textsuperscript{4}, on the northeastern periphery of the Western temenos, numerous wastes of metalworking were found: bronze and iron slag, blooms, fragments of casting molds, faulty dolphins-coins, three-edged arrowheads, etc. The large quantities of the latter, both in layers and in separate objects, as well as the finding of a rare mold for the production of the above-mentioned arrowheads with them, allowed the author to assume that there was a small workshop for their production nearby\textsuperscript{5}. In the Southern temenos, a production area was studied, which was initially specialized in the processing of non-ferrous metals and was later rebuilt for the needs of ceramic production\textsuperscript{6}.

In the context of the craft activity in the Western temenos study, a small but informative series of processed antlers from bothros № 9 sparks much interest. The bothros was located near the western fencing wall of the sanctuary of Apollo. According to the nature of the archeological material, it belongs to the pits typical for Olbia temene – 'burials of sacred garbage’. It contained not the offerings from a particular sanctuary, but garbage from different parts of the temenos, as evidenced, among other things, by the votives to various deities having separate sanctuaries: Apollo, Dioscuri, Mother of the Gods.

Finds from the filling are dated from the first half of the 6\textsuperscript{th} to the first quarter of the 5\textsuperscript{th} century BCE; the last date can obviously be considered as the time of archaeologisation of this object. According to the scholars, its filling took place in one

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stage, as evidenced by the fragments of the same vessels, which were found at different depths\(^7\).

Artifacts related to bone and horn processing can be divided into two groups. The first contains objects related to cult practices: four astragalii (one of which is with graffiti), a fragment of an unidentified bone, and one cut hollow horn of a domestic animal (probably an ox). In addition, a series of processed deer antlers (Cervus elaphus) deserves special attention: a total of 17 items, which belong to the second group – artifacts related to production activities.

The range of these artifacts is represented by wastes of horn primary cutting, blanks, and semi-finished produced items. The first include the lower part of the main beam with traces of fire (Fig. 1, 1) and the tine split-off (Fig. 1, 2), which hardly could have been used in the future. Blanks are represented by four items: part of the main beam with cut off tines (Fig. 1, 3), a tine cut on both sides (Fig. 1, 4), and two narrow splits of tines (Fig. 1, 5-6). Semi-finished produced items are the largest group (11 items), the main part of which are blanks of different production stages of horn onlay plates making (Fig. 1, 8-12; Fig. 2, 1-4), which were used to decorate pyxides, furniture, and more. One of them is partially polished on one side (Fig. 2, 4), which was, obviously, the last stage of processing. One more fragment of the processed antler tine can be attributed to production wastes (Fig. 1, 7). Such a specific range of items can serve as indirect evidence of the existence of a production area for horn processing within the Western temenos.

In addition, 7 more antler bony cores were found among the osteological material in bothros № 9. It could be assumed that this may be associated with specific cultic practices when a particular species of animal was sacrificed to a particular deity. Such conclusions were made based on a comparison of the finds of bones of domestic and wild animals in different bothros\(^8\). However, the occurrence of antlers in this complex, together with the wastes from their processing, allows us to assume that it is a raw material from the workshop, which remained unused and, along with other wastes, was thrown into the pit.

Of course, it can be supposed that the processed and unprocessed bones could get to the bothros as offerings. However, this variant does not seem very convincing: why should one make a wastes disposal on the territory of temenos, if only the production process did not take place on the territory of the sanctuary and serve its needs? In addition, occasional remnants of bone processing (primarily processed antler) were found in other objects and layers of the Western temenos. Of course, the most convincing argument in favor of the horn being processed on the territory of temenos would be the founding of an object there that could be convincingly interpreted as a workshop. However, it cannot be localized; one can only assume that it should have been, like other industries, at the side. The fact that the workshop has not been found so far can be explained by several factors: first, the great construction activity in this area, and secondly – the specifics of bone processing, which does not require special conditions or special structures by contrast with foundry or ceramic workshop. Of course, during the preparation, the bone and antler were degreased and steam-treated, but this process did

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\(^8\) Журавльов О.П., Маркова О.В. Остеологічні матеріали із культових комплексів Ольвії // Археологія. 1995. № 2. С. 74-76.
not require extremely high temperatures. At the same time, the workshop premises could be cleaned from time to time: in this case, the place for disposal of a significant amount of wastes should have been somewhere nearby, but it has not been found so far as well.

Scholars have identified different sets of features of specialized bone processing, which should be focused on the mass production of large quantities of produced items. Among them – the availability of raw materials, blanks, and production wastes, and their significant accumulation within one workshop complex. Based on such features, the production that took place in the temenos could not be a specialized bone processing craft, but it could not be a household production for self-consumption either. Most likely, its production volume was dictated by the needs of the sanctuary, rather than a wide range of consumers, so there could not be a large, specialized bone processing workshop. The size of the production area in Southern temenos also testifies to the focus exclusively on the needs of the sanctuary.

In addition, we cannot exclude that the horn was processed by a multi-skilled craftsman who also worked with other materials, for example, wood. Or, in general, he was focused on the production of specific produced items, rather than on certain raw materials. Such opinions are also caused by the predominance of semi-finished onlay plates at different stages of the production process.

Finding probable details of the pyxides decorations on the territory of the Western temenos is interesting for us in this context as well. During the removal of the earthen floor, which the scholars taking part in the excavations, dated to the first half of the 4th century BCE, a series of onlay plates of various sizes, shapes, and proportions were found (a total of 16 pieces). One of the larger plates, which has a carved ornament on the outside, is probably the lid of a pyxis. Most of the plates have scratched lines on one side, which were applied on the reverse side for a more secure attachment to the base. Unfortunately, these artifacts are not a set and do not allow to reconstruct the visual appearance of the pyxis itself.

Specialized bone processing workshops have not been found yet, not only in the temenos but also in other parts of Olbia. We know about only a few objects in the Northern Black Sea region, which can be convincingly associated with bone processing craft, but not specialized in it. B.H. Peters mentions the bone processing workshop at the site of Bosporus settlement of Mykhailivka. Unfortunately, the author does not provide specific information on the premises of the workshop or on the quantitative state of the assemblage. He only points out that near the exit of the construction was found the disposal of faulty bone produced items and their blanks, broken grindstones, fragments of various ceramics. A pit, dated to the first half of the 4th century BCE, with the disposal of bone processing wastes was also found in Myrmekion (a total of 79 items). A construction was found in Tyritake (the last quarter of the 6th – the first half of the

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5th century BCE), which the head of the excavations interprets as a bone processing workshop where about 80 artifacts related to bone processing were found15. A construction excavated by N.V. Piatysheva in Chersonesus is dated to a later time (the 1st century BCE – the 1st century CE), but we know nothing about it except that it contained a large number of bones and horns with traces of processing, with the predominance of the latter16.

Based on the available sources, we can conclude that the bone processing activity in the poleis of the Northern Black Sea region in general, and Olbia in particular, did not have the characteristics of a specialized craft. However, in this case, it is not entirely clear how household production can be combined with the processing of horn in the cult area. It is possible that the craftsmen were specialized not in raw materials, but in types of produced items. This is evidenced by the finding of complex works of art, not all of which could be imported as goods from other places.

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Обробка рогу на Західному теменосі Ольвії Понтійської

На території Ольвії в різний час було досліджено три культові ділянки і на кожній з них було зафіксовано ремісничу активність: на Східному, Західному теменосах – бронзоловарні майстерні, а на Південному – бронзоловарну через деякий час змінила керамічна. У статті ж розглядається можливість існування у V ст. до н. е. на території Західного теменосу Ольвії осередку з обробки рогу.

Таке припущення ґрунтується на знахідці серії оброблених рогів оленя в одному з комплексів – ботросі № 9. Асортимент цих артефактів представлений відходами первинного розкрою рогів, заготовками, напівфабрикатами. Крім того, розрізнені залишки косторізного ремесла (у першу чергу – обробленого рогу) фікуються і в інших об’єктах і шарах Західного теменосу.

Звичайно, найбільш переконливим аргументом на користь того, що обробка рогу відбувається саме на території теменосу, було б відкриття тут об’єкту, який міг би переконливо інтерпретуватись як майстерня. Проте, локалізувати її не вдається; можна лише припустити, що вона мала знаходитись, як і інші виробництва, на периферії. Порівняно невелика кількість обробленого рогу та кістки не дозволяє говорити, що ремісничка активність, яка здійснювалася на території теменосу, не могла відноситись до спеціалізованого косторізного ремесла, але й домашнім виробництвом вона теж не могла бути. Скоріш за все, об’єми її були продиктовані потребами святилища, а не широкого кола споживачів: тому тут і не могло знаходитись великої спеціалізованої косторізної майстерні.

Крім того, не можна відкидати, що обробкою рогу тут займався майстер ширшого профілю, який працював також із іншими матеріалами (наприклад – деревиною), або взагалі був орієнтований на виготовлення конкретних виробів, а не спеціалізацію на певній сировині. На такі думки насить не переважного процесу. Спеціалізованих косторізних майстерень поки не відкрито не тільки на теменосі, але й на інших ділянках Ольвії. Нам відомо всього кілька об’єктів (Тірітака, Мірмекій, Херсонес) у Північному Причорномор’ї, які можна переконливо пов’язати з косторізним ремеслом, але не спеціалізовані.

Орієнтується на наявні джерела, можемо зробити висновок, що косторізна справа у полісах Північного Причорномор’я загалом, та Ольвії зокрема, не мала характеру спеціалізованого ремесла. Можливо спеціалізація майстрів відбувалась не за сировиною, а за типами виробів. На користь цього свідчить й знахідки складних у своєму виконанні художніх виробів, не всі з яких могли бути привезені в якості товарів з інших місць.

Ключові слова: Ольвія, косторізне ремесло, Західний теменос, обробка рогу

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Fig. 1. Processed antlers.
1-2 wastes of primary splitting of antlers; 4-6 blanks; 7 production wastes; 8-12 semi-finished produced items.
Fig. 2. Semi-finished produced items made of antlers.