

Minaret of Medieval City Aktobe

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Abstract—In the article the remains of the base of the minaret, found in 2009 at the medieval fortress shakhristan Aktobe, which is located along the courses of the rivers Balta and Aksu. The minaret, which consists of two parts: the stylobate in the pit and base part refers to the XI-XII centuries. The preserved height of the building is 3.6 meters. Volume stylobat quadrangular minaret, the corners of which are aimed at the four corners of the world amounts to 8,65 x 8,5 m, height – 2.6 m. Diameter octagonal upper cap of 7.85 m and a height of preserved – 1 m. This minaret is of particular importance among the historical and architectural monuments of Kazakhstan, as it is so far the only minaret belonging to Karakhanid epoch in which Islam was the state religion.

Key words—Aktobe, medieval, minaret, stylobate.

I. INTRODUCTION

THE origin of the term “munara” (minaret) in Kazakh language comes from arabic word “manara” (منارة – word-for-word-lighthouse). Medieval minarets are divided in three groups according to the types of their functions: 1. Observation tower minaret (the purpose is for signaling to other towers or minarets, using signals such as fire, etc.); 2. Fortified minaret (its purpose for protection and security); 3. Mosque minaret (its religious function is for reading namaz).

Basically, Observation and fortified minarets have similar functions, i.e. protection and security, but each type is situated on the landscape differently. The key specifications for the location of minarets are: 1. Independent, separate minaret constructions (both observation and mosque minaret); 2. Minarets incorporated into a fortress structure usually located at the corner of fortress construction (fortified minaret).

Aside from the cultural and religious importance of minarets, medieval period minarets play an important role in architectural and archeological studies, providing important information about the history, socio-economic nature of society and the politics of Medieval settlements in Central Asia.

II. DATA ORIGIN

The written historical sources discussing the minarets of southwest Zhetisu includes the XVI century historical work “Tarikh-i-Rashidi”. Muhammed Khaidar Dulati wrote in his works about the ruins of several towns, including the remains

of minarets, hanaka and madrasah at a place called “Yangi” [1]. The city of Taraz was called “Yangi” by Moguls, strongly suggesting it was part of Mogolstan. Therefore part of Mogolstan territory included the Zhetisu region. Although many Medieval cities and outlying areas have been destroyed in this region, some architectural constructions and buildings have remained intact. Some of these have been discovered recently at the result of archaeological excavations. However, the minaret is better preserved in Burana monuments in Kyrgyzstan. There are no preserved constructions of medieval minarets or even the remains of such places in the territory of Kazakhstan. Many of the public buildings described in the historical sources have been destroyed over the centuries. Actually locating and identifying these places described in the historical texts is a major problem for research.

III. PROCEDURE FOR PAPER SUBMISSION

Recent surveys and excavations have been directed at finding and identifying architectural constructions made of fired mud brick. One such project is my archaeological excavations at the medieval site of Aktobe, situated along the Aksu River which flows into the Chu River.

G.I.Patsevich mentions the fact that in 1941 local residents noted undamaged household brick fragments associated with the Aktobe site were found on collective farm land areas in areas identified as the citadel and shakhristan where minaret were constructed [2]. This indicates that the upper part courses of mud bricks of the minaret constructions must have been preserved until the mid of the XX century.

The citadel, called the mosque by the local residents today is located 50 m to the west. In 1976 a block excavation of 15x15m, to a depth 0,6-0,8m was conducted, revealing the ruins of the wall constructed of burnt bricks in the north part [3]. A peculiar building constructed of fired mud brick, was identified during these 1976 excavations. Research in this area of Medieval Aktobe was resumed in 2007 sponsored by the State program «Madani mura» (“The Cultural Heritage”). In 2007 an excavation block of 14,5x13,5m was opened, exposing the surface of the architectural constructions. In the northern part of the excavations, at a 20 cm depth. we discover a building 15-25 m in height and with dimensions of 42x21x8-9 cm, comprised of walls made of fired brick. The south part of the excavation trench was excavated deeper, exposing a 6x6,5 m concentration of fired clay bricks. Several ruins of walls less than 0,7 m thick were identified, as well as an area of scattered fired bricks [4].

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IV. RESEARCH METHODOLOGY AND THEORETICAL FRAMEWORKS

In 2009, the unsystematically built construction was identified as a significant place, as more trenches were excavated in the northeast and southwest parts of the excavation block. These test excavations reached the depth of 3,5-4,2 m. At the bottom two sections of walls were uncovered.

In order to discover the corners and other walls of this building, the excavation block was expanded to an area of 10,4x10,3m. Consequently the ruins of the minaret building dating to the XI-XII centuries was discovered. The minaret consists of two parts: the foundation or base (stylobate) and the upper part (socle) (see Fig. 1, 2).



Fig. 1 The view of the minaret basis from the East

The height of the preserved tower is 3,6 m. The construction consists of the fragments of 1-1,5 m thick fired bricks. It is clear that the undamaged bricks were removed from the area and taken elsewhere.

The four-sided minaret's measures 8,65x8,5m, and its height measures 2,6 m. The corners are oriented to the cardinal directions (north, south, east, west). The interior and central parts were built of fired clay bricks. The brick work was constructed so that there is no space between each brick. The walls were constructed of undamaged bricks, except for the interior part of the wall construction that was made of broken and different sized bricks. The sizes of the re-cycled bricks are not uniform: 22x11x4,5; 22-22,5x22-22,5x4,5; 23x23x4,5-5; 24-24,5x24-24,5x4,5-5,5; 24x12x5; 25x25x4,5-5; 31-32x13,5-14x5,5m.

In the upper section of the building, only some remains of the western wall and two bricks of the eastern wall have been preserved. The architectural peculiarities of the shape of the building suggests that this part of the minaret (socle) was octagonal. The height of preserved part in the middle section is 1m. The length of the preserved wall in the western corner of the octagon is 1,8 m, and its height is 0,33 m. This wall faces the cornerstone which forms the triangle. To the opposite of the western wall, there are two bricks situated in the upper part of the eastern corner and were placed in such a way as to form

one corner of the octagonal construction. One brick was placed in the eastern corner forming the triangle, and the second brick was built 0,35 m parallel to the interior part of the southeast wall. This means that four walls of the upper section of the minaret were placed 0,35 m to the interior of the cornerstone walls. The rest of the four walls were then build up from these four corners. It is 7,85 m. between the western wall and eastern brick. These wall remains and bricks then allow us to suppose that the octagonal socle diameter of minaret measured 7,85 m.

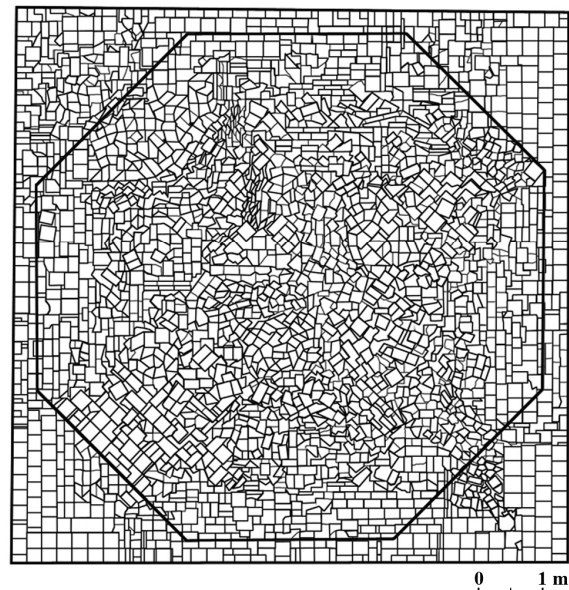
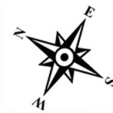


Fig. 2 Project of Minaret construction

When laying the fired bricks, a special clay mortar was used. The thickness of the black colored clay between bricks was 0,5-2 sm. The preserved area of the construction, indicates the existence of a small, but high construction in the middle of the building. While the three walls (south, east and west) were better preserved, the north corner is badly destroyed.

The wall located opposite the northeast is built of dozen bricks (40-42x20-21x8-9 sm). There is a 0,8m distance between the northeast and southwest walls, a 56x7,5 cm sized broken half clay brick was found there.

A 2,6x1m size excavation trench was dug in the northeastern wall, that measures 0,5m in height. and 2,4m away is an area of a dozen fired bricks (40-42x20-21x8-9sm). Here the excavators found the foundation building trench place. In the upper layers of the original foundation building trench, was an ashy soil lens, located about 2,1 m from the building construction.

At the northwest boundary of the excavation was another part of the construction made of a dozen bricks. It also appears that the foundation building trench also existed in this area.

The excavations have not yet been expanded so that this wall of the construction remains buried.

The minaret was built on a packed ground surface. While the minaret was being built, the foundation building trench was filled with ashes once, and then in a more recent sequence filled with ashy soils. Fragments of thin clay bricks have been found associated with the areas of packed ground surface. The core or interior of this wall is filled with up to 2,6m of soil, indicating that the wall formed a straight surface, against the corners. The thin layer of densely packed ground floor is an indication that the building floor was at the same level as the four sided corners.

V. COMPARATIVE ANALYSES

The thin cultural layer associated with the minaret so close to the surface of the site, indicates that the minaret was probably built during the final stages of medieval Aktobe.

the rectangular shape of the construction and the preserved walls of equal length appear quite similar to the minarets found at Burana and Uzgen dating back to XI–XII centuries [5]. Basically the four-sided walls and the octagonal part's projects look much like the Burana [6], Termez [7] minarets dating to XI century.

The Burana minaret is larger than the Aktobe minaret, but it also has the foundation building trenches, the same type of walls, and the plan of an octagon.

The current height of the minaret basement is 3,6m. The original height is unknown. According to B.N. Zasyrkin, the height of Burana minaret was not less than 40 m [8]. Comparing material written by D.F. Vinnik, the preserved parts of the Burana minaret reached a height of 22m [9]. As a consequence, it seems like Aktobe minaret must have been 3,65m lower than the Burana minaret constructed of stones. Nevertheless, the Aktobe minaret described here, must have been high also.

The evidence for the architectural constructions at Aktobe strongly suggest that this sector of the shahristan consisted of a very large architectural complex. The original building collapsed and fell towards the east, of the discovery of many fired clay bricks, often found directly adjacent to the standing walls, indicates that these could be part of an even larger construction. On the contrary, large amount of clay vessel fragments were found within the northwest part of the excavations.

A specific type of fired bricks have been found in the upper end of the excavation block among the ruins of the building. They are: on one side were square bricks and on the other side rounded bricks. Moreover, decorated ornamental brick and fragments of overlapping brick constructions fragments have also been found (3rd picture). The form of an ornamental brick is similar to that of a plain brick. The size of the clay is 13x13 sm, thickness is 5 sm. If you look at the flat side of the brick, its shape looks like the $\frac{1}{4}$ of the circle. Triangular shaped clay bricks have decorations on the rounded side, not the flat side. It can be used to form patterns that are similar to the Kazakh decorative motif of the ram's horns. The size of fragment of

one corner of the overlapping bricks is 20x20 sm, thickness is 4 cm. According to its degree of angle, it is clear that it forms one angle of a six-sided geometrical pattern. The surface of the incised exterior brick is about for 0,5-1,2 cm. This type of incised decoration was found on a brick fragment [10] found at room N 11 during the excavations conducted in Saray complex located at the centre of the medieval city in 1977 and also on a clay brick at the Burana mausoleum N 1 [11], dating to the X–XII century. G.A. Pugachenkova noted that constructions with incised decorated bricks and decorative mortar, as well as interlocking or overlapping bricks was characteristic of North Turkestan monuments [12].



Fig. 3 Ornamented brick and ornamented clap board

Most of the vessels were ceramic. The vessel forms include: kumsha, jar, big deep cup, cylinders, kettle, dish covers, jars and etc. Basically, there were several types of spheres or cones. Cylindrical vessels were the most frequently discovered ceramics. We can divide them into several groups according to their size, shape, and incised decorations. Among the painted ceramic vessels, there were plate fragments. Also, there were possible bracelets made of the iron.

VI. GENERALIZATION

However, the function of the current minaret is unknown (was it used as an observation tower, a military installation or only for religious purposes). We put forth three different interpretations for the function of the Aktobe minaret.

1. The excavation showed there were brick constructions around the minaret, only a wall along the northeast boundary of the excavation unit. This wall was constructed with a dozen bricks, and is located directly opposite of the fundaments of the minaret. This wall could be the wall of the mosque. If so, it would be similar to the small section of the mosque situated to the west of the eight-sided Zharkorgan minaret (XII c.) built of rammed clay [13].
2. Several dozen brick observation tower minaret places have been identified, all located at high places on the landscape surrounding the long fortress of the city. They are: Bozhorga, Zhetizhar, Kamysbek, Kyrykui, Ortatobe and could have been used for security purposes. The Aktobe observation tower minaret might have been used

to receive signals from those other observation tower minarets.

3. The topographical project conducted for the central part of a city in 1946 by G.I.Patsevich, showed a moat surrounding the western part of the citadel [14]. The construction of a reservoir and dam was carried out in 1967-1968, however the moat is no longer visible today. In 1974-1977 and 1979 excavations, water pipes and the street were found in the western section of the citadel [15]. Therefore the minaret could have been installed near the gate, probably as the minaret served to protect the city.

VII. CONCLUSION

In conclusion we can return to the written sources that mention the existence of minarets at the medieval cities of Zhetisu. The discovery of this minaret holds great importance for research on the historical monuments and landmarks of Kazakhstan. It is the only minaret that dates to the Karakhanid epoch, the historical period in which Islam became the state religion throughout the region.

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