

On the human remains from the medieval fortification of Tver Kremlin (Russia)

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Abstract

We report the human bones, found during the excavations near the medieval fortification (12th – 13th cent.) of Tver Kremlin. Comparison with several medieval cities of Russia suggests that bones belong to the people, who defended the stronghold against Mongols in 1238.

Keywords: archaeoanthropology; Tver Kremlin; Mongols; fortification; mass graves

Introduction

In the field season of 2013 an expedition of Tver Research Historical, Archaeological and Restoration Center undertook a series of excavations on the area of medieval stronghold of Tver, so called Tver Kremlin (fig. 1) [1]. Aside for many artifacts, several thousand bones, primarily belonging to domestic animals and fishes, have been collected [2]. Human bones, although not numerous, were of particular interest.

Historical account

Wooden stronghold, Tver Kremlin, has been built at the confluence of the river Volga and its right tribute, river Tmaka in 12 cent. along with the foundation of the city of Tver in about 1135 AD (Figures 1 and 2). The stronghold was destroyed by the Mongolian invaders in 1238. The wooden Kremlin was rebuilt sometime between 1238 and 1285. It was expanded in 1317 by the Count of Tver Mikhail Yaroslavich. The year 1327 was tragic for the Kremlin, when it was again burned down by Mongols during the revolt against Chol-Khan, the brother of the Golden Horde Khan Uzbek. The Kremlin was rebuilt again by the Tver Count Mikhail Alexandrovich. He ordered to dig a ditch between river Volga and river Tmaka to encircle the Kremlin by the water. Inhabited by the nobility and administration, Tver Kremlin in its best years hosted about thousand and a half people (Figure 3). It was again demolished in 1609 during Polish-Muscovite War. Rebuilt again in its wooden entity, Tver Kremlin was significantly fortified by the order of Peter the Great in 1707. This was the last time, when the stronghold of Tver has been repaired. After the Great Fire in 1763 it was gradually dismantled (fig. 3). Only remains of a ground wall and ditch can be now traced in the Tver midtown [3]. Since the first archaeological excavations in 1934, the area of Kremlin is a subject of sparse archaeological studies. The first birch bark document of Tver was found here during excavations in 1983 [4].

Time, materials and methods

Investigations of skeletal remains have been carried out in summer of 2015 at the

osteological collection of Department of Zoology of Tver State University.

22 human bones in satisfactory state of preservation were found during the excavations on the area of 36 m². Only fragmented bones of shoulder and pelvic girdles as well as bones of limbs were discovered.

Sex of the individuals was determined by pelvic bones and limb bones. The age of buried individuals has been determined by combination of several methods using postcranial features (list of sources see in [5]). The stature estimation was not calculated due to the lack of the complete long bones.

All the bones were scrutinized for the traces of ante- and postmortem traumas, pathologies etc.

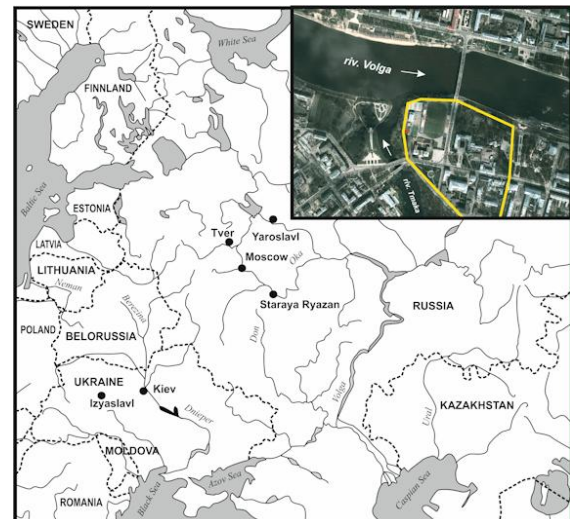


Figure 1. Map with the cities, mentioned in the article. Google Map insertion with Tver midtown shows borders of the former Tver Kremlin (yellow line) and the excavation site (red circle).

Results and discussion

Table shows, that most of the bones belong to the adult males. Belonging to shoulder and pelvic girdles and the limbs, bones originate primarily from two layers – layer of 13th cent. and that of the end of 18th – beginning of 19th cent. The bones of 13th century are mostly associated with the remains of the wooden wall of 12-13th cent., while “the younger” bones are

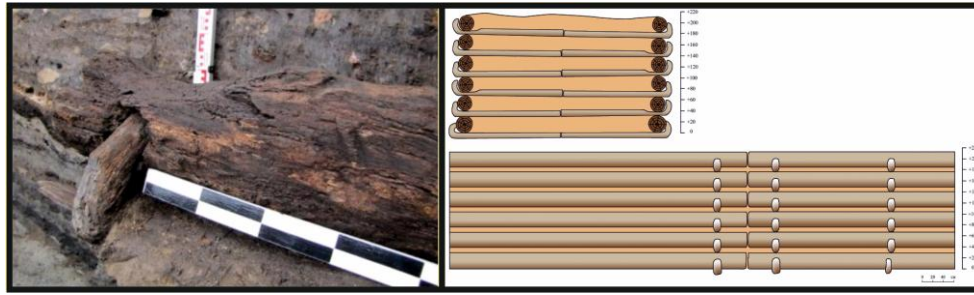


Figure 2. Fragment of the wooden fortification of Tver Kremlin of 12th – 13th cent. and its reconstruction.

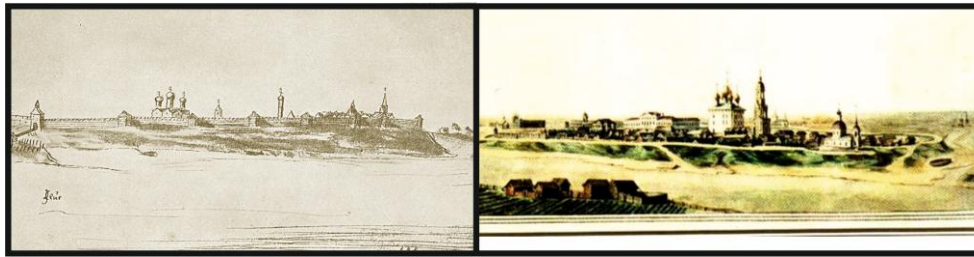


Figure 3. Tver Kremlin (view from the left bank of river Volga): 1661 [10] (left) and around 1776 (right). Note, that the Kremlin is dismantled after the Great Fire of 1763, but its ground wall is still preserved.

Sex	Age	Cent.	Clav.	Scap.	Ulna	Rad.	Phal.	Pelvis	Femur	Fibula	Metatar.	Total	
m?	ad	17-18									1	1	
?	ad	15									1	1	
?	ad	mid. 13					1					1	
?	ad	mid. 13					1					1	
m	ad	mid. 13			1							1	
m	ad	mid. 13							1			1	
m	ad	mid. 13						1				1	
m	ad	mid. 13	1									1	
?	ad	mid. 13									1	1	
?	ad	mid. 13					1					1	
m	20-25	17-18				1						1	
m	40-60	17-18						1				1	
m	60-65	17-18						1				1	
?	ad	17-18									1	1	
m	ad	17-18								1		1	
m	ad	17-18				1						1	
m	ad	17-18		1								1	
?	juv	17-18						1				1	
m	20-25	17-18							1			1	
m	40-60	17-18						1				1	
?	ad	17-18									1	1	
Total				1	1	1	2	3	6	2	1	5	22

Table. Data on human bones, discussed in the article.

scattered widely. It is reasonable to suggest, that “younger” bones originate from non-existent cemetery, which once was located near the church “Nikola on Cabbage”. However, the horizontal migration of bones on the considerable distance from the church cemetery is highly improbable. The absence of identifiable women bones, which otherwise should be within the “migrants” from the cemetery, strengthens this thesis. Thus should be the other source of the bones.

It is known, that Peter Friedrich Georg, Duke of Oldenburg (1784-1812), who once was a General-Governor of Tver Governance, started in 1810 leveling the ground walls, preserved after the destruction of the wooden walls (fig. 3). The layers of 12th-13th cent., including all the osteological content, were thus scattered over the wider area in layers of the beginning of 19th cent. That is why, the human bones, found in layers of the beginning of 19th cent. most probably originate from the layers of 12th-13th cent., as do the rest of the human bones.

Studies in other medieval cities, such as Kiev [6], Staraya Ryazan [7], Izyaslavl [8], Yaroslavl [8], which underwent the Mongolian devastation in 13th cent., revealed so called mass graves with specific demographic dispersal. Occasional graves, remains of fortification constructions and adjacent buildings contain bones of adult males, probably, defenders of the city. Graves, located further inside the city walls, closer to churches and other ambushes, contain bones of females, children and younger and older males. This is the normal distribution during the assault on the town: warriors are fighting and primarily dying on fortifications, while other people die seeking the protection in the relatively fortified buildings, including churches. It was also noted, that skeletons of people, buried in the mass graves are not always complete [9]. Besides having cuts and other marks of violent death, they are simply not complete. This suggests that carcasses of dead lay unburied for a considerable amount of time, before the devastated cities were populated again. Sanitary reburial of the decaying carcasses is not an easy task. The carcasses are often falling apart. It is easy to imagine, that some parts of decaying carcasses, primarily limbs, may have been left in the debris of the destroyed and partially burned fortifications and associated buildings. The new building process did not always

suggest the complete removal of the previous material. Thus, at least parts of the skeletons can be found in such places. Mass graves of Yaroslavl, where skeletons sometimes miss limbs or fragile parts of the skull, support this idea [9].

Conclusion

Although mass graves were not found in Tver Kremlin so far, it still shows the notion of warriors, dying on the fortifications during the Mongolian invasion in 13th cent. (most probably in 1238). Further excavations are necessary to support or discard findings. For example, due to the scarcity of the material we did not record any traumas on the bones. However, even a scarce material, carefully collected and identified, can give an evidence of the important events of the past.

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