## Classification of Non-Poured Ceramics from Kazan Kremlin

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#### Abstract .

The article is devoted to the study of the most massive material during archaeological excavations - non-pouring ceramics obtained after the excavations in the Kazan Kremlin in 1994-1996.

The paper gives a brief analysis of the main historical and cultural groups of non-poured ceramics, which were identified by T.A. Khlebnikova.

The main approaches on the study the non-pouring ceramics of this monument are presented. The researcher singled out 6 historical and cultural groups of the Kazan Kremlin pottery. With the typology and the classification of ceramic material, it considered the technique of production, the composition of mixture, color, the quality of firing and surface treatment. All the selected groups of ceramics are characteristic of individual layers for the cultural strata of the Kazan Kremlin. T.A. Khlebnikova conducted the systematic and statistical analysis of the entire material. In the archaeological research of the Kazan Kremlin, non-poured ceramics were not subjected to more detailed study and analysis.

The attempts to classify non-pourable ceramics were made in the works by N.F. Kalinin, as well as in the generalizing works by A.Kh. Khalikov and L.S. Shavokhin.

The works by T.A. Khlebnikova on the processing of the Kazan Kremlin ceramics in 1994-1996 are the first ones when this most massive archaeological source has undergone quite complete processing according to the requirements of the time, and to this day the typology created by it is used by researchers.

Keywords: Archeology, Kazan Kremlin, City, Non-Pouring Ceramics, Kazan, Excavations.

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### 1. Introduction

In the mid-1990-ies due to the expansion of archaeological excavations in the Kazan Kremlin, Tamara Aleksandrovna Khlebnikova was invited as a consultant for the cameral processing and systematization of non-pourable ceramics. Due to large-scale archaeological work on the territory of the Kremlin, mass ceramic material has become increasingly important. In the Kazan archaeological expedition Tamara Alexandrovna organized a careful treatment of all material found during excavations. She also proposed a new system for ceramics classification from the Kazan Kremlin. She systematized the bulk of ceramic collections.

The study of ceramics in the region is impossible without the reference to the works by Khlebnikova (1984), made on the materials of the Bulgarian hillfort (Kokorina, 2002). Among them, the work dedicated to the ceramics of the monuments of the Volga Bulgaria (Khlebnikova, 1984) is of interest, where it defines and describes in detail the main ethnic-cultural groups of ceramics. In the 1980-ies Khlebnikova (1984) organized the preparation of a multivolume publication "The City of Bolgar". In the second volume of the publication devoted to the handicraft activities, her article is published, where the non-poured pottery of Bolgar is analyzed (Khlebnikova, 1988). In 2000 she published the article describing ceramics from the Vth pre-Mongolian layer of the Kazan Kremlin (Khlebnikova, 2000). These works have not lost their scientific significance to this day.

## 2. Methodology

The result of the excavations in the Kazan Kremlin (1994-1996) (excavations I-IV, VI-VII) is about 44,000 fragments of non-pourable ceramics and more than two thousand graphic reconstructions of vessel forms were made. This is a large material for the compilation of statistical and typological analysis. During the writing of annual reports, the analysis of the ceramic material was carried out for each excavation.

According to the passport data all obtained non-poured ceramics (section, bayonet, layer on the stratigraphic scale of cultural strata of the Kremlin) were determined by the technique of its manufacture (pottery, stucco molding, corrected stucco molding), the composition of the clay dough with the additives to it, the reception and the quality of roasting (color, a crock calcination degree) and surface treatment (glazing, smoothness). The singled-out groups of ceramics have a historical and a cultural content. They show a certain connection with the stratigraphic layers of the Kazan Kremlin and are comparable with various cultures known by medieval monuments of the Volga region and Eastern Europe or represent their development. The historical and cultural approach to non-poured pottery study of the Kazan Kremlin allows to draw this massive archaeological source to the study of an important monument of the country history and culture.

### 3. Results and Discussion

On the totality of all technical features of ceramics, considering its shape and ornamentation, Khlebnikova (1984; 1988; 2000) defined six historical and cultural groups: 1) Bulgarian, 2) in Bulgarian traditions, 3) Kazan, 4) Russian, 5) Tatar-Russian and 6) Volga-Finnish.

The Bulgarian existed among the Volga Bulgarians of X-XIVth centuries (Khalikov, 1983). In the Kremlin excavation, it represented mainly the Bulgarian pottery, formed on a hand wheel with a stand, fine-grained utensils, mostly of oxidative roasting, with surface treatment by a wide frequent polishing, various forms peculiar to Bulgarians. Only 393 fragments were obtained for statistical analysis, of which the majority (368 fragments) was found in the IInd and the IIIrd excavations of 1994-1996. More than 21% of it was found in the IIIrd layer of the Kazan Khanate era. The remaining finds (about 13%) come from the upper layers. Here they were the result of the Bulgarian period stratum processing. This pottery is represented by jugs, large earthenware pots, dishes, a cup, glass-like vessels, tuvaks and lids. Along with it the ceramics of various ethnic-cultural groups of Volga Bulgaria population was met at many excavations of the historical center of the Kremlin:

- Djuketau type sandy pottery of oxidative roasting, a characteristic three-layer crock for its form and ornament (13th group according to the classification of ethnic-cultural groups of Volga Bulgarian ceramics) (Khlebnikova, 1984). These are pot-shaped vessels with a subcylindrical and block-shaped neck decorated with a multicolored ornament in the form of a shallow wave on the upper part of a body.
- Slavic pottery, small-sandy one, from local ferric clays (the 2nd subgroup of the XIVth ethnic-cultural group) (Khlebnikova, 1988; Sitdikov, 2006).
- The pottery of Slavonicoid shell mixture (XVIth ethnic-cultural group).
- Prikamsk-Priuralsk stucco fine-grained cylinder necked with a carved ornamentation on the neck (VIIth group) (Khlebnikova, 1988, p. 25).
- Salto-Mayacian (forest-steppe) stucco chamotte with carved ornamentation on the body of pots (XIth group); Salto-Mayacian (nomadic) stucco and chamotte-vegetative mixture along a crown (IInd group) (Khlebnikova, 1988, p. 17-22).

Ceramics in the Bulgarian traditions is a pottery fine-grained, close to the all-Bulgarian, but often more sanded, of oxidizing roasting (often worse than Bulgarian) with glazing on many vessels, usually narrower and rarer than in Bulgarian (Classification of ceramics). The forms are typologically comparable with the Bulgarian ones. 1417 fragments were obtained from the excavations for the statistical analysis (Sitdikov and Khuzin, 2009). It is present at all excavations, but unevenly. It was obtained most of all from the IInd (416 fragments) and the IVth (519 fragments) excavations in 1995-1996 (Khuzin and Sitdikov, 2011). It is found

in all layers, beginning from the boundary of III-IV and higher. Reconstructed forms - jugs, small jugs, kurgans, cups, pots, large earthenware pots, dish cups, tubas, spherical cones and a water pipe (Sitdikov and Khuzin, 2014).

Kazan ceramics is the pottery of sand dough, "dry" from a large amount of sand in it, with a rough surface, predominantly with oxidizing roasting and a good calcification of a crock, without an interlayer, without glazing, but occasionally with a very thin and rare vertical glazing, with a characteristic multi-zone thin carved ornament for these ceramics. The isolation of this pottery by its distinction from the red clay Bulgarian and the ceramics in the Bulgarian traditions was outlined by Khlebnikova (2000) also according to the materials of the first excavation in 1994. And since it related to the depths of layer bedding of the Kazan Khanate era, and the origins of it were not clear yet, it was called "Kazan" conditionally. Technologically, it is comparable to the late Bulgarian ceramics and could be its development if it was not closer ceramics of the Golden Horde monuments of the Lower Volga region and not only in terms of technique. It is presented by 3464 fragments from excavations.

Most of it was given during the 1st excavation in 1995 (913 fragments), the 3rd excavation in 1995 (730 fragments) and the 4th excavation in 1995-1996 (982 fragments). Its distribution is uneven like other groups of non-pouring ceramics. Thus, according to Khlebnikova (2000), this group of ceramics appears in Kremlin during the formation of the fourth layer of the Golden Horde time, constitutes a very noticeable quantity in the composition of its ceramics. During the period of the Kazan Khanate (the 3rd layer) in the considered group of ceramics within the composition of the non-pourable ceramic layer, it makes about half of the total amount of ceramics or more on the average, i.e. it characterizes the 3rd layer more than the ceramics "in the Bulgarian traditions". As for the 2nd layer, there are a few of Kazan ceramics in it, and, apparently, most of it is redeposited from below. This ceramic was reconstructed in the number of 126 samples. Its forms are jugs and cupshaped vessels, pots, cup-shaped vessels and bowls, lids and a water pipe. The predominant form is the pitchers. They are quite diverse in size and shape. But the majority are large ones with the height of 45-50 cm, wide-necked with a neck of 12-15 cm in diameter, with a high elongated body, which has the largest diameter for 2/3 of a body height. There are jars more narrow-necked with the neck diameter of 8.5-10 cm, both large and smaller ones.

Russian ceramics is represented by pottery white-clay imported or from imported raw materials, a fine-grained dough, sometimes with the addition of crushed ferrous slag and pottery sand gravel dough. Both have their own distinctive shapes and patterns. Some pitcher-like forms of white-clay ceramics have a flattened glazed appearance. Both white-sanded and sand-and-gravel ceramics are Russian ceramics by origin, and are associated with the Russian population of the Kremlin. It is found

in the amount of 3669 fragments. 2907 of them are white clay, 762 are sandy-gravel. The fourth excavation of 1995-1996 has the largest quantity of Russian ceramics. It accounts for 46% from the total amount of the same ceramics found in all excavations. The forms of white-clay ceramics are almost exclusively pots, although there are the fragments of large earthenware pots, jugs, a dish and a lid. Sand-gravel ceramics also consist almost exclusively of pots, but there are also the samples of large earthenware pots. Pots are varied in size and shape: small, medium and large, of medium height and high.

The Tatar-Russian group of ceramics is all pottery fine-grained, made from local ferric clays (Borozdin, 1929). In respect of firing and surface treatment, considering its shapes, there are:

- 1. Re-firing ceramics of gray and brown-gray crock with a black smoky surface, often covered with continuous glazing;
- 2. the ceramics of regenerative roasting, gray, often with banded glazing;
- 3. the ceramic of oxidative roasting, a red one, with dense crock;
- 4. brown-gray and red (or brown) ceramics with a white engobe or without an engobe on the pattern and in the development of white-clay and sand-and-gravel Russian ceramics:
- 5. red clay pottery with a glazed coating on one or both sides.

Tatar-Russian group of ceramics, associated mainly with the late bedding of the Kremlin, has the traditions of local pottery, introduced Russian one and their development in close interaction (Archaeological observations in the Kazan Kremlin, 1948). According to Khlebnikova (2000), these ceramics have a wide existence, both among Russian and local people. The Tatar-Russian group of ceramics is the most numerous one - 33551 fragments from all excavations. Most of all this group of ceramics occurs in the 7th (11558 fragments) and the 4th excavation (7503 fragments), least of all this group is represented in the 6th excavation (942). Gray and brown gray ceramics with a black surface consists of 1392 fragments (it is represented by jugs, cups, kurgans, pots, large earthenware pots, cup-shaped vessels, dishes, lamps, basin vessels, braziers, aquamanile, capsule and lids), gray ceramics – 20980 fr. (jugs, cans, goblets, pots, large earthenware pots, cup-shaped and dishshaped vessels, lamps, tripods, basins, braziers, aquamanile, capsule and caps), red dense – 2519 fr. (jugs, pots, large earthenware pots, dish-like vessels, lamps, lids and aquamanile drains), brown gray, red and brown according to the pattern and in the development of white-clayed – 7,475 fragments (these are exclusively brown-gray pots, as well as red and brown ones, often covered with a white englobe. In addition to the pots, only I pitcher is found), red glazed – 1185 fragments (pots, dish-shaped vessels, bowl, basins and lid).

Thus, most of all "Tatar-Russian" group is represented by gray recovery firing pottery, polished and not polished one. It makes up almost 60% of the whole group content (Aidarov, 1985).

The Volga-Finnish group of ceramics is mostly made by hand or with a correction on a potter's wheel, a rough dough with the addition of a large chamotte and limestone. But there is also wheel made with lesser chamotte and limestone addition in a dough. The firing of this ceramics is low and furnace one. The color is browngray one. The predominant form is a slightly profiled wide-bottomed pot. The cultural origins of this ceramics relate to the Finnish population of the Volga region and, possibly, of the Kama region (The history of Kazan). It is represented only by 851 fragments. Most of it is at the 4th excavation in 1995-1996, on the northern slope of the Kremlin - 240 fragments or 28% of the total amount of ceramics. The least amount of it is in the 6th and the 7th excavations in 1996 in the western part of the Kremlin - 41 and 43 fragments, or 4.9 and 5% of the total amount. The first excavation of 1995 in the northwestern part of the Kremlin gave 132 or 15.5% of the total ceramic within the group. At the excavations in the historic center of the Kremlin - 8-14.6 and 24% or as in the 1st excavation on the average, 15.5% from the total amount.

Thus, it is more characteristic of the 4th excavation, quite noticeable in the central parts of the Kremlin. Discovered in all layers, this ceramic predominates in the lower strata, making up the largest percentage on some excavations in the 4th-5th layers of the Bulgarian period of the Kremlin history. Its quantity is less above and a part of it is made on a wheel, whereas in the lower layers it is all stucco one. Volga-Finnish ceramics is presented by pots of small and average sizes with the diameter from 9 to 18 cm. Their form is various enough. Vessels can have a can form with a slightly outlined neck. The ornament may be wavy on the upper part of a body. In the opinion of Khlebnikova (2000), the Volga-Finnish ceramics of the Kazan Kremlin is diverse, its difference in shape from can forms to a fairly developed one with a well-defined neck and a slender expansive body in the upper part, the difference in the technique of molding can be explained, first of all, by the duration of existence time and the development of this ceramics on the spot, and, secondly, by different initial regions of the Volga-Finnish world (Materials on archeology of the Kazan Kremlin).

### 4. Conclusions

So, the archaeological works of 1994-96 allowed to obtain a large amount of non-poured ceramics. According to the totality of characteristics, Khlebnikova (2000) managed to divide all ceramic material into several historical and cultural groups that existed in different periods of Kremlin history. The statistical and typological analyzes of the groups that emerged allowed us to represent the shape of each of them, and their connection with the layers made it possible to reveal the ceramic complexes of each stratigraphically separated cultural layers in the Kremlin, i.e.

various historical periods. As the result of the study, Kremlin ceramics received a cultural and ethnic definition. According to Khlebnikova (1984; 1988), if the origin of Bulgarian ceramics is undoubtedly associated with the culture of Volga Bulgaria of the 10th-13th centuries, then the identification of the origins of other groups requires additional research and concretization. According to the combination of technical and typological features, the origin of the "Kazan" group ceramics is associated with the monuments of the Golden Horde. However, more in-depth comparative analysis is needed for a more reasoned solution of this issue. The study of white-clayed and sand-gravel, unquestionably, Russian ceramics also requires the search for the closest analogies.

As for the ceramics "in the Bulgarian traditions", according to Khlebnikova (1984; 1988), its roots in Bulgarian ceramics are indisputable. It shows the preservation of Bulgarian pottery traditions during the Kazan Khanate and the early Russian period of the Kremlin history. Naturally, when resembling Bulgarian ceramics, it reveals certain changes in technique, form and ornamentation, which resulted from the development and influence of another pottery, not by the local population, the Horde one. Probably, the continuation of local pottery traditions is also the "red dense" ceramics in the "Tatar-Russian" group, but during the period of the 2nd – 1st layer deposition, i.e. during XVI-XX centuries.

According to Khlebnikova (2000), the preservation of the Russian white-clay and sandy-gravel traditions is small-sand ceramics from local raw materials, brown-gray and red or brown "patterned for the development of white-clay" within the "Tatar-Russian" group. Produced according to the sample forms of white Russian pots, it served as the initial form for the late forms of pots, mostly red clay ones, defined as "the development of white-clay ceramics". They appeared in the XVIII-XX century, spread in the XVIII-XX centuries, especially in the XIX-XX centuries, replacing the original form.

The studies conducted by Khlebnikova (1984; 1988; 2000) obtained some data on the development of ceramics with "black surface" and "gray one" in the group "Tatar-Russian". A number of forms of these ceramics are comparable with the forms of ceramics "in the Bulgarian traditions" and "Russian" one, indicating the perception of local ceramic features and introduced into the local environment. One must say that the texture of the ceramic dough "with a black surface" and "gray one" is like the texture of traditional local ceramics. The surface treatment by polishing is traditional one. Even if we consider the production of this ceramics as introduced one, its formation took place under the influence of local traditions, both in technique and in form. However, this issue requires further study.

### 5. Summary

Khlebnikova's results, obtained from the study of the Kremlin non-poured pottery, are important not only for the history of Kazan study, but also for the study of the region history. And now the statistical analysis of non-pouring ceramics on the territory of Kazan, Sviyazhsk and on the sites of the Republic of Tatarstan is carried out according to the methodology developed by Tamara Aleksandrovna Khlebnikova.

### 6. Acknowledgements

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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