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KITCHEN POTS OF THE 8TH-9TH CENTURIES IN THE PONTIC REGION AS AN ETHNIC MARKER (continuation of the discussion)

Abstract: Kitchen pots are one of the most popular categories of ceramics on archaeological sites of the 8th-9th centuries in the Black Sea region. They are typical for the Saltovo-Mayaki archaeological culture. There is a point of view that such pots can be an ethnic marker of Bulgar and Khazar tribes. The article considers this hypothesis based on a detailed morphological analysis of the shapes of kitchen pots found in different sites and different areas of the Pontic region.

The methodological basis of the research is the historical-and-cultural approach. This is a scientific direction developed by the famous Russian ceramic researcher A.A. Bobrinsky. The sources of the study were 525 vessels found on sites of various types in the Don basin: catacomb burial grounds, pit burial grounds, cremation burial grounds, as well as settlements associated with burial grounds of various types.

The article highlights two traditions of creating pot shapes. These traditions are distinguishable at all levels of analysis used. Each of these traditions must be represented on the sites with different funeral rites. This leads to the conclusion that there is no clear connection between the different traditions of creating pots and different ethnic groups of the 8th-9th centuries. It can be explained by two reasons: craft production of the kitchen pots and the distribution of these pots among the multi-ethnic population through market mechanisms.

Keywords: *Saltovo-Mayaki culture, kitchenware, kitchen pots.*

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1. INTRODUCTION

The heterogeneous ethnical composition of the Saltovo-Mayaki culture is a kind of an axiom for all researches of Khazar archeology and history. At the dawn of scientific understanding of the Saltovo-Mayaki culture, the catacomb burial grounds have been associated with Alans. It was based on the comparison of the funeral rite and paleoanthropological data between the catacomb burial grounds of the Don basin and cemeteries of the North Caucasus.¹ Alanic interpretation of the catacomb burial grounds was eventually confirmed and received strong arguments.² Approximately in that time, first decades of the 20th century, another funeral rite was discovered in the Middle Don. It was burials in simple rectangular pits. This

¹ POKROVSKY 1905, 477-478; CHUCHUKALO 1926, 212; DEBETS 1948, 256.

² AFANASYEV/RUNICH 2001, 22, 23; AFANASYEV *et alii* 2015.

served as a prerequisite for the conclusion that not only Alans were the peoples of the Saltovo-Mayaki culture. In the second half of the 20th century, not only individual pit burials became known, but also entire pit burial grounds. The most popular version of the ethnical interpretation of pit burial grounds was proposed by I. I. Lyapushkin. He believed that “... of the nomadic tribes, only Bulgarians could live here. They are, apparently, the second group of the population that we trace in the archaeological sites of the Saltovo-Mayaki culture”.³ This point of view has become very popular in Saltovo-studies. The current archaeological sources do not allow us to call this conception universally recognized. Without details, we only note that modern researchers can be divided into two camps: those who continue to adhere to the “Bulgarian” affiliation of pit burial grounds⁴, and those who consider it impossible to link all pit burial grounds of the Don region with anyone Early Medieval ethnic group.⁵

The discussion around the ethnical interpretation of different funereal rites reflected on the comprehension of Saltovo-Mayaki ceramics. The most complete ethnic interpretation was proposed by S. A. Pletneva. She believed that the polished tableware ceramics mark the pottery traditions of Alanic tribes, and kitchen ceramics show the traditions of the Turkic peoples.⁶ This vision of the ethnic interpretation of the ceramics of the Saltovo-Mayaki culture was perceived and supported by many researchers. The fact of the presence of Saltovo kitchen pots on early medieval sites began to be perceived as proof of the presence of Bulgarian or Bulgarian-Khazar groups.⁷

This concept has recently received criticism from G.E. Afanasyev. In his opinion, the origin of the Saltovo-Mayaki pots from Bulgarian or Bulgarian-Khazar traditions has no weighty arguments. He explains the similarity of the appearance of kitchen pots of the 8th-9th centuries from the North Caucasus, the Kuban, the Don, Crimea, and other territories, by “common technological and aesthetic ideas” of the population of these regions.⁸

The initiated discussion seems timely for the evaluation of the reasonableness of some long-established concepts of the Saltovo-Mayaki culture, as well as the synchronous antiquities of other regions. The author of this article would like to join this discussion by presenting new data on the topic to colleagues.

In my opinion, this discussion should be based on a comparison of kitchen pots between sites associated with obviously different ethnic/ethnocultural groups of the 8th-9th centuries. It is necessary to compare kitchen pots from burial grounds with different funeral rites, to find out what are the distinctive features of pots from sites associated with different population groups, and whether there are such differences at all. This article is devoted to solving these tasks.

An important introductory note. Due to objective reasons, the materials of the burial grounds are not available

³ LYAPUSHKIN 1958, 147.

⁴ KRASILNIKOVA/KRASILNIKOV 2012, 193-194; KRASILNIKOV 2016, 115-117.

⁵ AFANASYEV 1987, 153; RESHETOVA 2015, 50-51.

⁶ PLETNEVA 1967, 103-134.

⁷ The review with a bibliography in AFANASYEV 2013, AFANASYEV 2014.

⁸ AFANASYEV 2013, 23.

for a full-fledged technical and technological study. These are mostly whole vessels that are in museum storage. Therefore, the object of special study in this article is the *shapes* of Saltovo-Mayaki kitchen pots.

2. METHODS AND SOURCES

The technique used in this article was developed by the famous Soviet and Russian ceramic researcher A.A. Bobrinsky. He is a founder of the historical-and-cultural approach to ceramic studies in Russian archaeology.⁹ The technique is poorly covered in the English-language scientific literature.¹⁰

The technique is aimed at the identification of different cultural traditions of potters at the stage of the shaping of vessels. Objects of analysis are frontal photos of vessels, in exceptional cases – drawings of vessels. At the preparatory stage, the natural shape asymmetry is eliminated by an average contour for each vessel.

A most general level of analysis is a variety of shapes on the general proportions. The analysis of general proportions is the study of the ratio of the height of the vessel to its maximum diameter. This information shows the most common differences in the views of potters and consumers of vessels on the dimensional parameters of clay products. This level of analysis is used in the article.

According to the historical-and-cultural approach, the physiology of potter's work is a basis for the division of a vessel's shape into different functional parts. Each act of the shape creation involved two types of accented physical effort of the potter – point and spatial. Potter's point of physical effort is targeted to the separation of one part of the vessel from another. Points of application of such efforts can be identified using, for example, circular patterns (Fig. 1/2). The second level of analysis is based on this information.

A more detailed level of analysis is a variety of shapes on their «natural structures» and details of the vessel's functional parts. According to the historical-and-cultural approach, a vessel can consist of 7 functional parts (Fig. 1/1): «lip» (top edge of vessel capacity), «cheek» (part for pouring out), «neck» (dispenser of pouring out), «shoulder» (limiter of filling), «brachium» (additional storage capacity), «body» (main filler) and «base» (bottom edge of vessel capacity). Names of functional parts were borrowed from the vocabulary of real potters by A.A. Bobrinsky. In addition to these, there are two transitional functional parts. These are «cheek/neck» and «shoulder/brachium».¹¹

The shape of each functional part of the vessel can be characterized by two parameters - general proportions and angle of inclination (Fig. 1/3). General proportions are responsible for the overall ratio of altitude and latitude parameters of a particular part of the vessel. It is calculated as the ratio of the height of the part to the half-sum of the bases. The angle of inclination is measured by the slope of the line drawn between the points that distinguish a specific functional part on the left or right half of the vessel contour.

⁹ BOBRINSKY 1978; TSETLIN 2012.

¹⁰ SUKHANOV 2020, 356-357.

¹¹ TSETLIN 2018, 132-137.

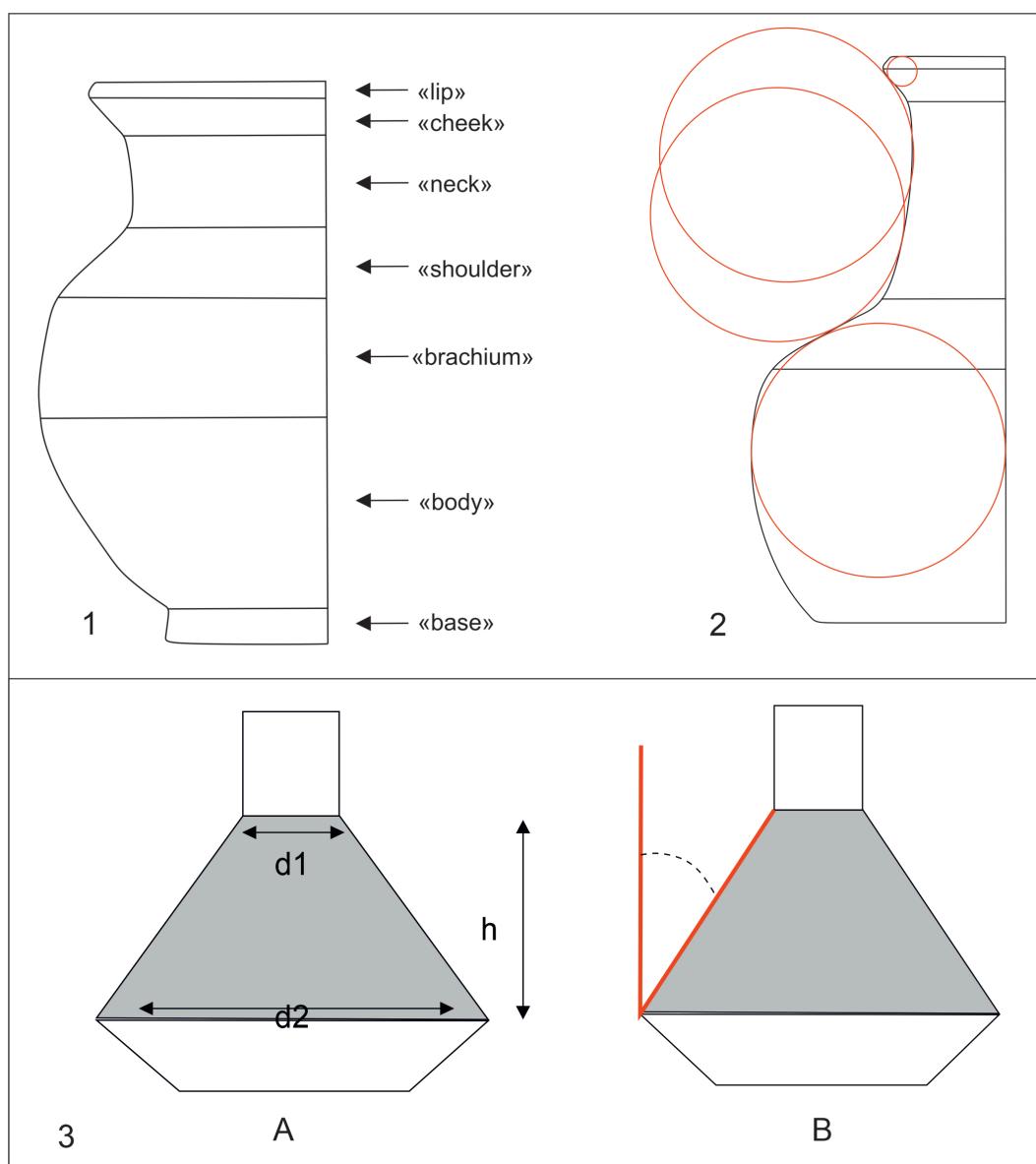


Fig. 1. Functional parts in the vessel's structure. 1 – location of functional parts; 2 - the technique of allocation of different functional parts (on the example of the jug); 3 - the technique of calculation of general proportions and angles of inclination.

In the article I will mention only parameters that give clear results for distinguishing different cultural traditions of vessel's shape creation:

1. General proportions of the whole vessel;
2. Natural structures of vessel shapes;
3. Angles of the «body»;
4. General proportions of the «cheek» or «neck».

These parameters are analyzed according to the levels of the universal scale of qualities developed by Yu. B. Tsetlin (tables 1 and 2).¹² The purpose of the scale is a translation of quantitative data into the language of qualitative concepts. Using the tool allows us to solve several tasks. First, to neutralize the role of random fluctuations and measurement errors. Secondly, the quality scale makes it possible to compare data on different sites, regions, and epochs.

¹² TSETLIN 2018, Tab 2, 3.

Now about the sources of the study. We used materials related to the sites of different Early Medieval ethnocultural groups. The study uses all the material available to the author of this article. The sites of the Alans are traditionally associated with catacomb burial grounds. They are located in the Middle Don basin. We used 53 pots from Dmitrievka catacomb burial ground and 9 pots from Nizhnie Lubyanki catacomb burial grounds. In addition, the Mayatsky archaeological complex can be attributed to the Alans, because it includes a catacomb burial ground. There were no kitchen pots in the burials, but whole forms were found in the settlement complexes. We used 24 vessels.

Pit burial grounds are located both in the forest-steppe zone of the Don region and in the steppe. These sites have long been associated by researchers with Bulgarians. Now, this interpretation has counterarguments.¹³ The forest-

¹³ RESHETOVA 2015, 50-51

Table 1. The universal scale of qualities of general proportions (after Tsetlin 2018).

Quality definition	Range boundaries	Level
I. Very very low 0,0 - 0,0441 - 0,0883	0,0 - 0,0110	1
	0,0111 - 0,022	2
	0,0221 - 0,0331	3
	0,0332 - 0,0441	4
	0,0442 - 0,0552	5
	0,0553 - 0,0662	6
	0,0663 - 0,0772	7
	0,0773 - 0,0883	8
II. Very low 0,0884 - 0,125 - 0,1767	0,0884 - 0,0967	9
	0,0968 - 0,1052	10
	0,1053 - 0,1151	11
	0,1152 - 0,1250	12
	0,1251 - 0,1369	13
	0,1370 - 0,1488	14
	0,1489 - 0,1628	15
	0,1629 - 0,1767	16
III. Low 0,1768 - 0,25 - 0,3534	0,1768 - 0,1935	17
	0,1936 - 0,2102	18
	0,2103 - 0,2301	19
	0,2302 - 0,2500	20
	0,2501 - 0,2737	21
	0,2738 - 0,2973	22
	0,2974 - 0,3254	23
	0,3255 - 0,3534	24
IV. Medium/Low 0,3535 - 0,50 - 0,7069	0,3535 - 0,3869	25
	0,3870 - 0,4203	26
	0,4204 - 0,4602	27
	0,4603 - 0,5000	28
	0,5001 - 0,5473	29
	0,5474 - 0,5946	30
	0,5947 - 0,6508	31
	0,6509 - 0,7069	32
V. Medium 0,7070 - 1,0 - 1,413	0,7070 - 0,7738	33
	0,7739 - 0,8406	34
	0,8407 - 0,9203	35
	0,9204 - 1,0000	36
	1,001 - 1,094	37
	1,095 - 1,188	38
	1,189 - 1,301	39
	1,302 - 1,413	40

Table 2. The universal scale of qualities of the angle of inclination of functional parts (after Tsetlin 2018).

Quality definition	Range boundaries	Level
Horizontal	0-3°	1
	4-8°	2
Очень сильный	9-12°	3
	13-16°	4
	17-21°	5
Very strong	22-26°	6
	27-32°	7
Medium/Strong	33-38°	8
	39-45°	9
Medium	46-51°	10
	52-57°	11
Medium/Weak	58-63°	12
	64-68°	13
Weak	69-73°	14
	74-77°	15
Very weak	78-81°	16
	82-86°	17
Vertical	87-90°	18

steppe zone is represented by cemeteries of Mandrovo – 24 vessels, Volokonovka – 9 vessels, Rzhevka – 8 vessels, Chervonaya Gusarovka¹⁴ – 17 vessels, Rozhdestvenovo – 11 vessels, Tishanka – 3 vessels, Utinoe – 3 vessels.

Among the sites of Steppe Seversky Donets we used materials of burial grounds Novodachnoe¹⁵ – 16 vessels, Dronovka¹⁶ – 8 vessels, Chernikovo ozero /Serebryanskoye¹⁷ – 6 vessels, Zheltoe¹⁸ – 17 vessels, Krasnogorovsky¹⁹ – 4 vessels. In addition, the materials of the Sidorovsky settlement are involved.²⁰ They are presented by 149 vessels, 17 of them are available for studying the general proportions of the whole vessel and the angles of inclination of the body, 78 for studying of structures, and all 140 for analyzing the «cheek» or «neck».

Cremation burial grounds are located on the border of the forest-steppe and steppe of the Don basin. Among the various versions about the ethnic attribution of the cremation burial grounds of the Saltovo-Mayaki culture, the most convincing is the Adygo-Abkhazian. This version connects the emergence of cremation burial grounds in the Seversky Donets region with the relocation of the population with this rite from the Kuban-Black Sea region.²¹ The most

¹⁴ AKSYONOV 2017.

¹⁵ KRASILNIKOVA/KRASILNIKOV 2012.

¹⁶ TATARINOV/KOPYL 1981; TATARINOV/FEDYAEV 2001.

¹⁷ SHVETSOV/SANZHAROV/PRYN 2001.

¹⁸ KRASILNIKOV 1991.

¹⁹ STADNIK/STADNIK 2013.

²⁰ KRAVCHENKO/DAVYDENKO 2001.

²¹ AKSYONOV 2007.

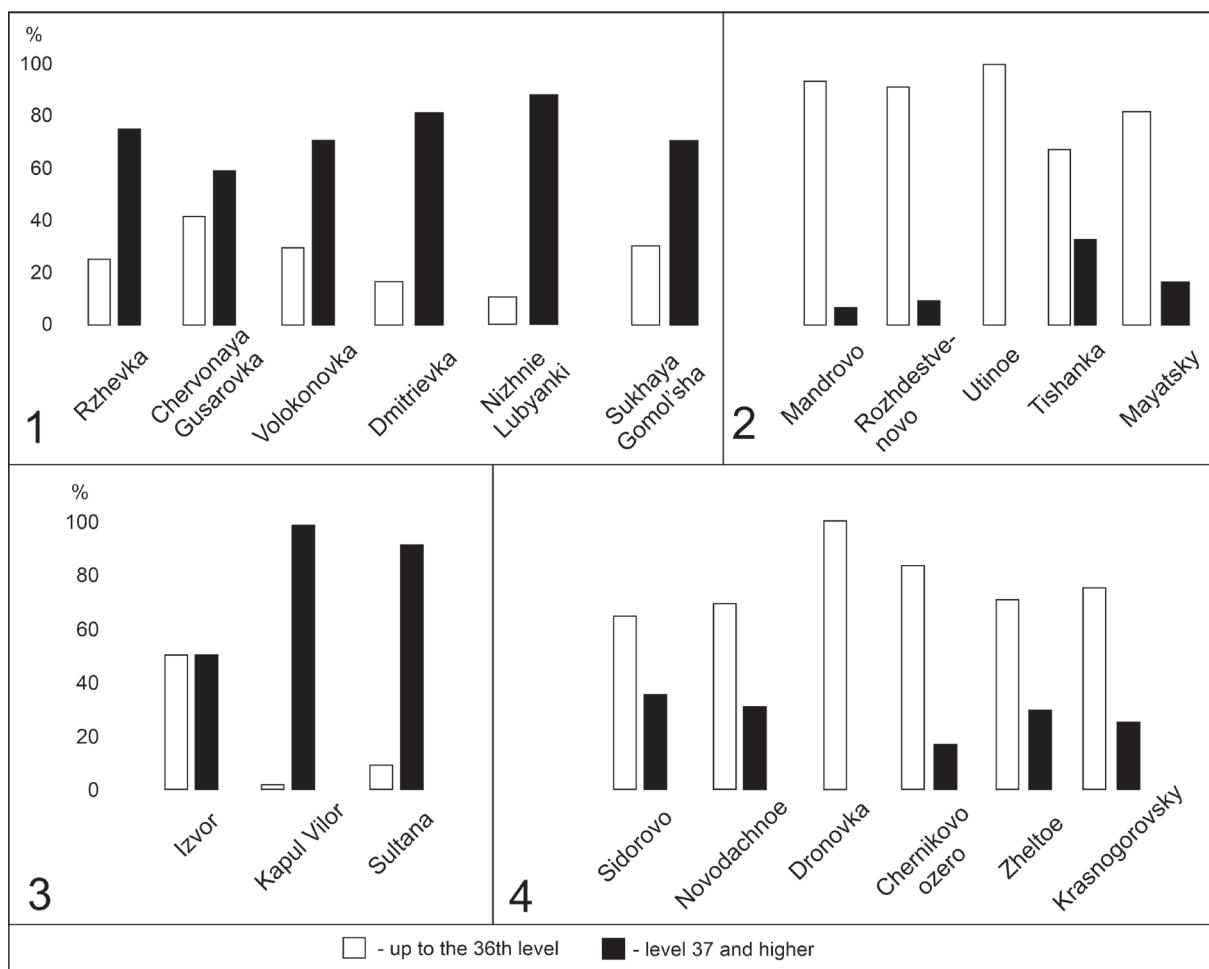


Fig. 2. General proportions of the pots. 1, 2 – Middle Don; 3 – Lower Danube; 4 – Steppe Seversky Donets.

studied cremation cemetery is Sukhaya Gomol'sha.²² We used 33 vessels from this site.

These are the materials of the Saltovo-Mayaki culture used in this study. For comparison, we used materials from the Lower Danube Basin. For a long time, it was believed in the scientific literature that there was a special local version of the Saltovo-Mayaki culture in this region. Later, this point of view lost popularity. In the 8th-9th centuries biritual burial grounds are known in the Lower Danube region which consist of cremations and inhumations in pits. The ceramics of the 8th-9th centuries, found in the cemeteries of the Lower Danube, visually has much in common with the Saltovo-Mayaki pottery. In this study we used the published frontal photographs of pots from the burial grounds Izvor²³ – 40 vessels, Capul Viilor²⁴ – 58 vessels, Sultana²⁵ – 33 vessels were studied.

Thus, 525 vessels are used in this study to some extent.

3. ANALYSIS

3.1. General proportions of the vessels.

Following the methodology, the analysis is performed according to the levels of general proportions proposed by

²² AKSYONOV/MIKHHEEV 2006.

²³ MITREA 1989.

²⁴ ZIRRA 1963.

²⁵ MITREA 1988.

Yu.B. Tsetlin. The most significant differences between the Saltovo-Mayaki sites are obvious when we divide all steps of the quantity scale²⁶ into two clusters:

- pots with general proportions up to level 36;
- pots with general proportions of level 37 and higher.

The Middle Don. According to general proportions, the sites of this region are divided into two groups. The first group includes burial grounds where pots have relatively higher proportions: level 37 and/or higher (Fig. 2/1). An important detail is that the predominance is very significant, from 60 to 80 % of the total number of vessels. This group includes pit burial grounds Rzhevka – 75.5 %, Volokonovka – 70 %, catacomb burial grounds Dmitrievka – 80 %, and Nizhnie Lubyanki – 83 %, cremation burial ground Sukhaya Gomol'sha – 69 %. Formally, the pit burial ground Chervonaya Gusarovka can be attributed to this group, although the predominance of «higher» pots is not so significant – 58 %.

The situation is opposite among the second group of sites (Fig. 2/2). Here we fix the significant dominance of pots of lower proportions (up to level 36). There are 70-80 % of such vessels on each site. This group includes mainly pit burial grounds: Mandrovo – 94 %, Rozhdestvenovo – 90%, Utinoe – 100%, Tishanka – 67%, as well as Mayatsky complex – 71 %.

²⁶ TSETLIN 2018, Tab. 2.

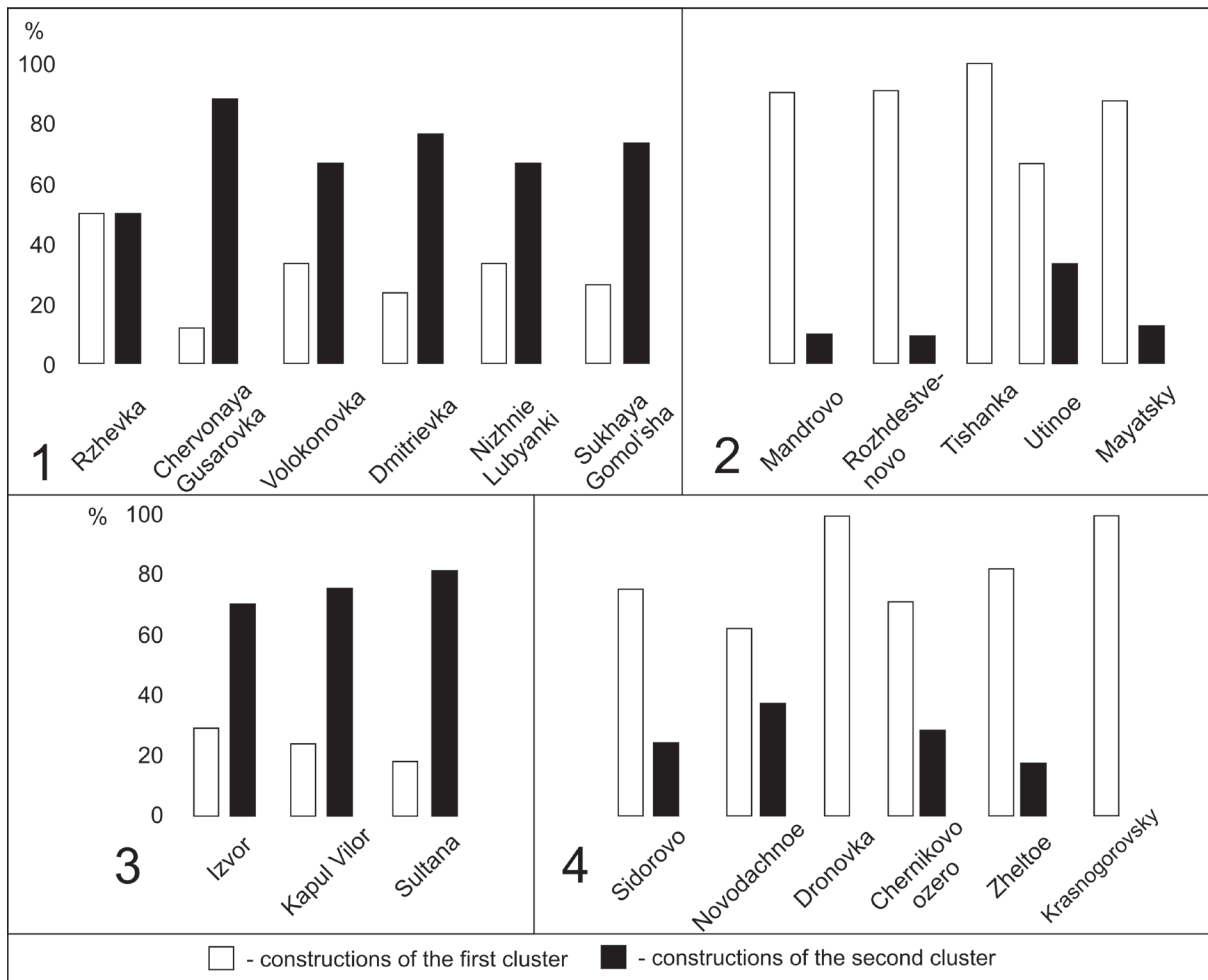


Fig. 3. Vessel's structures. 1, 2 – Middle Don; 3 – Lower Danube; 4 – Steppe Seversky Donets.

The Steppe Seversky Donets (Fig. 2/4). Pots with relatively lower general proportions predominate on all burial grounds. There are %64.7 such pots in Sidorovo, 69.2 % in Novodachnoe, 100 % in Dronovka, 83.3 % in Chernikovo ozero, 70.6 % in Zheltoe, 75 % in Krasnogorovsky.

The Lower Danube (Fig. 2/3). In Izvor burial ground, the ratio of two general proportions groups is equal: 50 % of the vessels belong to the levels up to the 36th, and the other 50% to the 37th level and/or higher. Capul Viilor and Sultana show dominance of higher proportions pots. There are 98.3 % of such vessels in Capul Viilor, 91 % in Sultana.

3.2. Natural structures of vessel's shapes

9 kinds of structures are defined. According to the predominance of certain structures on different sites, they can be divided into two cluster. The first cluster is formed by structures with a «shoulder»:

- «lip+check+shoulder+body+base»,
- «lip+check/neck+shoulder+body+base»,
- «lip+neck+shoulder+body+base», and also
- «lip+check+shoulder/brachium+body+base».

The second cluster is formed mainly by structures with a «brachium»:

- «lip+check+brachium+body+base»,
- «lip+check/neck+ brachium+body+base»,
- «lip+neck+ brachium+body+base», as well as
- «lip+neck+shoulder/brachium +body+base»,
- «lip+ check/neck+shoulder/brachium +body+base».

Now let's look at the factual data on the distribution of these types of structures among the sites of different regions.

The Middle Don. The constructions of the second cluster show a noticeable predominance in the pit burial grounds Chervonaya Gusarovka and Volokonovka – 88 % and 67 % each, in the catacomb burial grounds Dmitrievka and Nizhnie Lubyanki – 76 % and 67 % each, as well as in the cremation burial ground Sukhaya Gomol'sha – 73 % (Fig. 3/1). All other sites of the Middle Don (except Rzhevka) show the dominance of constructions of the first cluster. Among the pit burial grounds these are Mandrovo – 90 %, Rozhdestvenovo – 91 %, Tishanka – 100 %, Utinoe – 67 % (Fig. 3/2). The pots with structures of the first cluster are also widely represented in Mayatsky complex – 87 %.

The Steppe Seversky Donets (Fig. 3/4). We fix the predominance of pots with the first cluster of structures on all sites of this region. There are 75.6 % of such pots in Sidorovo, 62.5 % in Novodachnoe, 100 % in Dronovka, 71.4 % in Chernikovo ozero, 82.4 % in Zheltoe, 100 % in Krasnogorovsky.

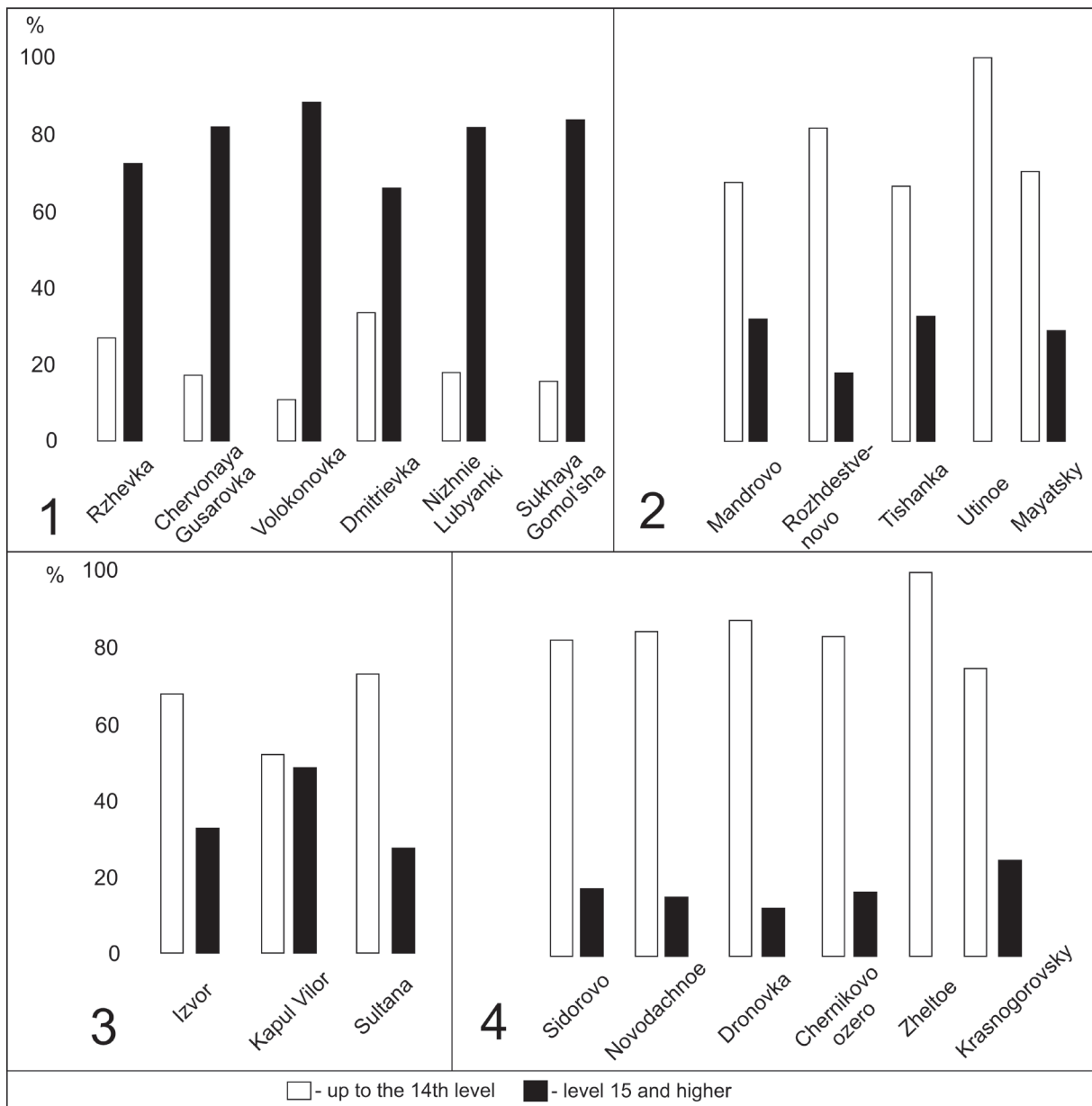


Fig. 4. Angles of inclination of the body of the pots. 1, 2 – Middle Don; 3 – Lower Danube; 4 – Steppe Seversky Donets.

The Lower Danube (Fig. 3/3). All burial grounds are dominated by the structures of the second cluster. There are 70.7 % of such pots in the Izvor, 75.9 % in Capul Viilor, 81.8 % in Sultana.

3.3. Angles of inclination of the «body».

The range of values is quite wide, from level 13 to level 18. During the comparative analysis, it was found that the most noticeable differences between the sites are manifested when these levels are divided into 2 clusters:

- up to the 14th level;
- from the 15th level and higher.

The Middle Don. Two possible cases are discovered. The first is the dominance of pots with the angles of the body from the 15th level and higher (Fig. 4/1). It was noted in the pit burial grounds Rzhevka, Volokonovka, and Chervonaya Gusarovka - 72 %, 87 %, and 81 % respectively, in the

catacomb burial grounds Dmitrievka and Nizhnie Lubyanki - 65 % and 81 % respectively, in the cremation burial ground Sukhaya Gomol'sha - 83 %.

The second case is the dominance of pots with the angle of the body up to the 14th level (Fig. 4/2). It was noted in the pit burial grounds Mandrovo - 66 %, Rozhdestvenovo - 81 %, Tishanka - 67 %, Utinoe - 100 %, and also in Mayatsky complex - 70 %.

The Steppe Seversky Donets (Fig. 4/4). The predominance of pots with the angles of the body up to the 14th level is recorded on all sites. There are 82.4 % of such vessels in Sidorovo, 84.6 % in Novodachnoe, 87.5 % in Dronovka, 83.3% in Chernikovo ozero, 75 % in Krasnogorovsky, 100 % in Zheltoe.

The Lower Danube (Fig. 4/3). In Izvor burial ground there are a lot of pots with the angle up to the 14th level. However, the predominance is not so pronounced - 67.5 %. In Capul Viilor, the distribution between the two compared

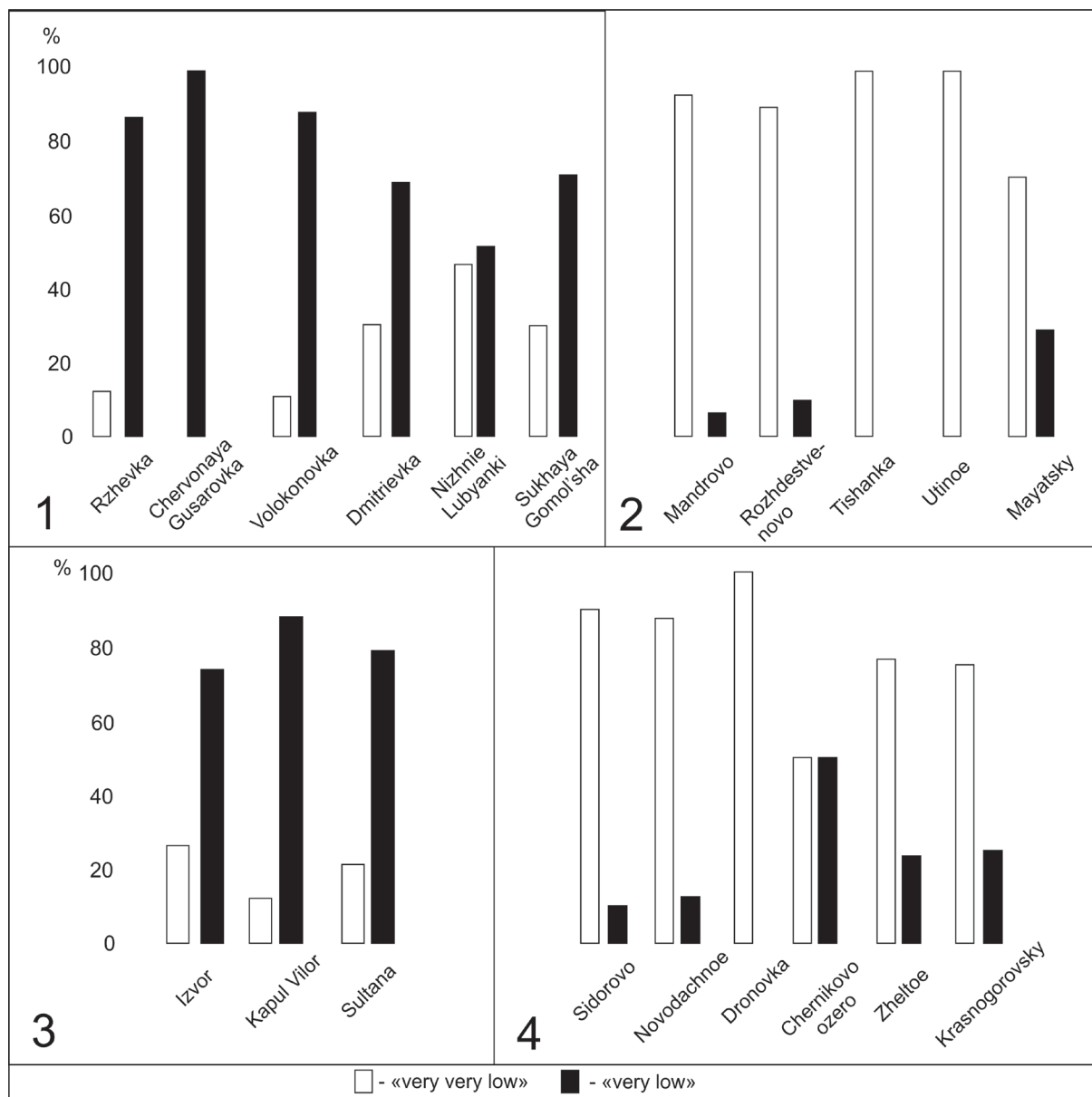


Fig. 5. General proportions of the cheek or neck of pots. 1, 2 – Middle Don; 3 – Lower Danube; 4 – Steppe Seversky Donets.

clusters is approximately equal. In Sultana pots with the angle of the body up to the 14th level predominate – 72.7% of vessels.

3.4. General proportions of the «cheek» or «neck».

The range of values is generally very wide: from the 3rd level to the 22nd level. Therefore, it seems reasonable to compare at a more generalized level – the «quality» of general proportions.²⁷ These levels fit into the framework of two qualities: «very very low» (levels 1-8), and «very low» (levels 9-16) (see table 1).

The Middle Don. As in the previous parameter, the sites of this region were divided into two groups. The composition of these groups is similar. The first group is distinguished by the dominance of pots with the «very very low» cheek or neck (Fig. 5/1). It includes the pit burial

grounds Rzhevka, Chervonaya Gusarovka, and Volokonovka: they have 86 %, 100%, and 88% of such vessels respectively; catacomb burial ground Dmitrievka – 69 %; cremation burial ground Sukhaya Gomol'sha – 71 %.

The second group is distinguished by the dominance of pots with «very low» cheek or neck (Fig. 5/2). This was noted on all other pit burial grounds, is 90-100 %, each of them. Mayatsky complex contains 70.4% of such pots.

The ratio of «very very low» and «very low» proportions of the «cheek» or «neck» are almost equal in Nizhnie Lubyanki catacomb burial ground.

The Steppe Seversky Donets (Fig. 5/4). Almost all the studied sites demonstrate the predominance of «very very low» proportions of the cheek or neck. There are 89.9% of such vessels in Sidorovo, 87.5% in Novodachnoe, 100% in Dronovka, 76.5% in Zheltoe, 75% in Krasnogorovsky. Only Chernikovo ozero burial ground does not fit into this trend. One half of the pots have «very very low» cheek or neck, and the other half has «very low».

²⁷ TSETLIN 2018, Tab. 2.

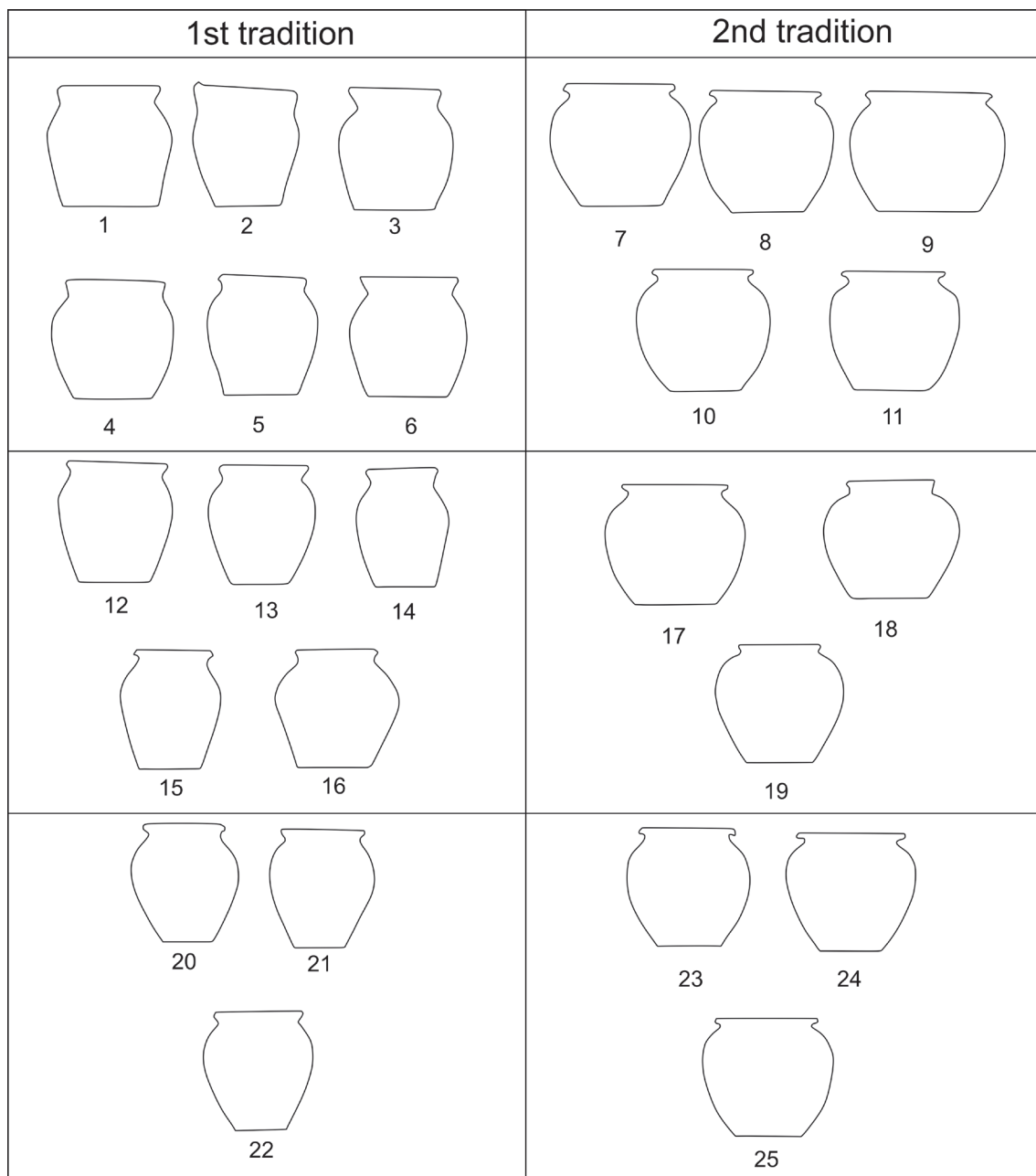


Fig. 6. Examples of pot shapes of different traditions (without scale). 1, 2 – Chervonaya Gusarovka; 3, 4 – Rzhevka; 5, 6 – Volokonovka; 7, 8 – Mandrovo; 9 –Rozhdestvenovo; 10 – Utinoe; 11 – Tishanka; 12-14 – Dmitrievka; 15-16 – Nizhnie Lubyanki; 17-19 – Mayatskoe; 20 – Izvor; 21 – Kapul Viilor; 22 – Sultana; 23 – Chernikovo ozero; 24 – Dronovka; 25 – Sidorovo.

The Lower Danube (Fig. 5/3). All burial grounds are dominated by pots with «very low» cheek or neck. There are 73.7 % of them in Izvor, 87.9% in Capul Viilor, and 78.8% in Sultana.

4. TRADITIONS OF CREATING POT SHAPES IN DIFFERENT REGIONS: COMPARISON AND GENERALIZATION

We explored traditions of shapes creating the kitchen pots found on the sites of the 8th-9th centuries whose are related to different funeral rites. In this part of the article we can return to the main question of this article: can the morphological features of these pots mark different ethnic or ethnocultural groups of South-Eastern Europe?

Let's start with the materials of the Middle Don. As already noted, this region is the most diverse of types of funerary rites. Probably, here was the most diverse ethnic situation. The analysis showed that the sites of the Middle Don are divided into two groups at all levels of analysis. They have significant differences between themselves. There is an important detail: each group includes burial grounds with different funeral rites and probably associated with different ethnocultural groups of the population.

Thus, the first group is characterized by relatively higher general proportions of pots (37th level and higher), the dominance of structures with brachium, high angles of the body (15th level and higher), and «very low» cheek or neck. These trends are recorded in the pit burial grounds of Rzhevka, Chervonaya Gusarovka, and Volokonovka, in the

catacomb burial grounds Dmitrievka and Nizhnie Lubyanki, and also in the cremation burial ground Sukhaya Gomol'sha (Fig. 6/1-6, 12-16).

The second group is characterized by a relatively lower general proportion of pots (up to 36th level), the dominance of structures with shoulder, low angles of the body (up to 15th level), and «very very low» cheek or neck. This group consists mainly of the pit burial grounds: Mandrovo, Rozhdestvenovo, Tishanka, Utinoe. In addition to the mentioned sites, Mayatsky complex belongs to the second group (Fig. 6/7-11, 17-19).

Thus, in the Middle Don, there are 2 different traditions of creating shapes of kitchen pots. Each of these traditions is not associated with any particular funeral rite or ethnic group of the early medieval population.

The materials of the steppe zone of the Seversky Donets are more homogeneous. Almost all sites, at all levels of analysis, have a set of features that diagnose the second tradition of the Middle Don. First, it is the dominance of relatively lower proportions of pots. Secondly, it is the dominance of the first cluster structures, i.e. with «shoulder» or a combination of «cheek» and «shoulder/brachium». Thirdly, the predominance of pots with an angle of the body up to the 14th level. Finally, fourth, the dominance of «very very low» cheek or neck proportions.

Thus, according to all the parameters studied, the traditions of creating pot shapes in the Steppe Seversky Donets are almost similar to the traditions of the second group of the Middle Don (Mandrovo, Rozhdestvenovo, etc.) (Fig. 6/23-25).

On the general background, the results of the analysis of pots from the burial grounds of the Lower Danube (Fig. 6/20-22) are interesting. According to most of the studied parameters, the materials of this region have a great similarity with the first group of the Middle Don. This is the predominance of «high» general proportions of the entire vessel, structures with brachium and «very low» cheeks or necks. The data of angles of the body is not very clear. On the one hand, the variant with a lower angle of inclination (up to the 14th level) dominates here, which is typical for the Steppe Seversky Donets and the second group of the Middle Don. On the other hand, the predominance of this variant is not as significant as in the two groups of sites mentioned above.

These observations can be verified using quantitative methods to assess the degree of similarity of traditions among different sites and different regions. Based on the 4 parameters of analysis we made 8 traits for comparison: 1) the dominance of «low» general proportions of the vessel (up to the 36th level); 2) the dominance of «high» general proportions of the vessel (37th level and more); 3) the dominance of the structures of the first cluster; 4) the dominance of the structures of the second cluster; 5) the dominance of the angle of the body up to the 14th stage; 6) the dominance of the angle of the body from the 15th level and more; 7) the dominance of «very very low» cheeks or

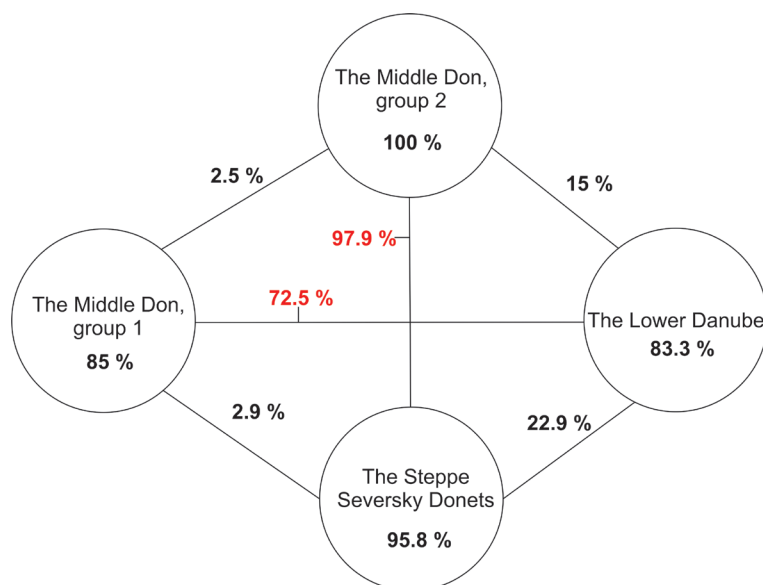


Fig. 7. The degree of similarity of traditions.

necks; 8) the dominance of «very low» cheeks or necks. The sites were compared with each other according to the listed traits. Since there are 8 signs in total, the coincidence on one trait means similarity of 12.5 %, on two – 25 %, and so on.

Now let's consider the results of the calculations (Fig. 7). The highest values of similarity between the sites are noted within the groups: 100 % between sites of the second group of the Middle Don, 95.8 % between sites of the Steppe Seversky Donets, 85 % between sites of the first group of the Middle Don, and 83.3 % for burial grounds of the Lower Danube.

If we talk about the connections between the groups, two «pairs» showed the highest. The first pair: The Middle Don, group 2 & The Steppe Seversky Donets – 97.9% similarity. The second pair: The Middle Don, group 1 & The Lower Danube – 72.5 % similarity. In that way, the results of calculations confirm our observations on the directions of the similarity of traditions of different regions.

We additionally used two methods: cluster analysis and principal component analysis. The dendrogram of cluster analysis (Euclidean distance, Ward's method) divides all sites into 2 clusters (Fig. 8). Cluster 1 includes the first group of the Middle Don and the burial grounds of the Lower Danube. The second group of the Middle Don and sites of the Steppe Seversky Donets were included in cluster 2. The only «discrepancy» is the position of the Chernikovo ozero burial ground from the Steppe Seversky Donets. It ended up in cluster 1. The graph with the results of the principal component analysis allows us to estimate the degree of similarity of different monuments in two-dimensional space (Fig. 9). According to the first principal component, which contains 64% of the dispersion, the sites are grouped into two zones. The left zone includes the sites of the first group - the catacomb burial grounds of the Middle Don, the pit burial grounds of Rzhhevka, Chervonaya Gusarovka, Volokonovka, and the biritual burial grounds of the Lower Danube. The right zone includes sites of the Steppe Seversky Donets and the second group of the Middle Don.

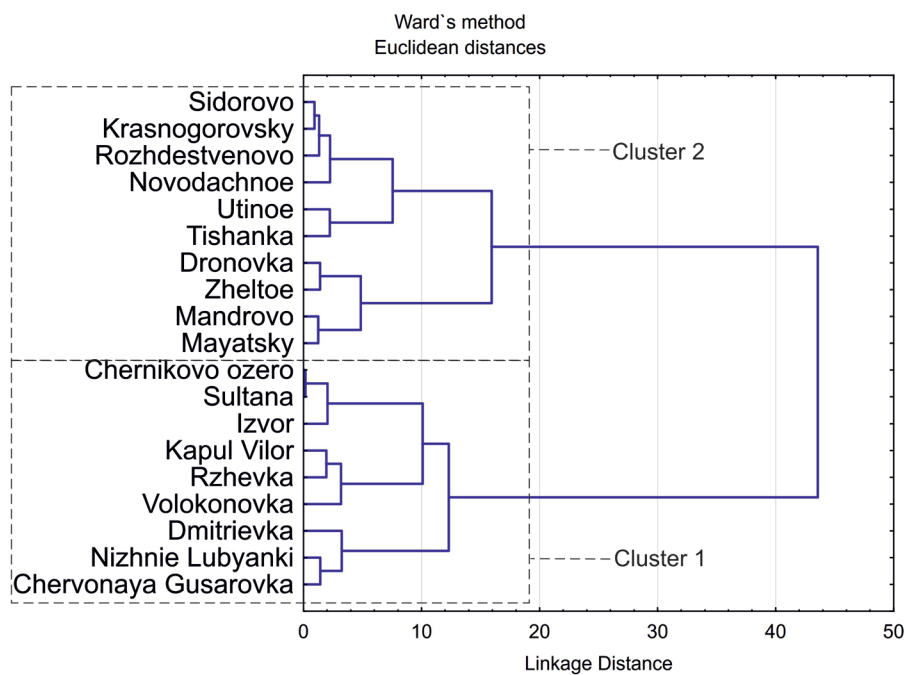


Fig. 8. Comparison of traditions of different sites. Cluster analysis.

5. CONCLUSION

The analysis of the kitchen pots of the 8th-9th centuries found on different sites of the south of Eastern Europe showed two cultural traditions of creating the shape of these vessels. These traditions differ at all levels of analysis: from the most general, describing the proportions of pots, to the most detailed, characterizing the features of the shape of vessel's parts.

However, it was not possible to identify a clear connection between different traditions and specific types of funeral sites. The first tradition dominates in the catacomb Alan burial grounds, the cremation burial ground of Sukhaya Gomol'sha, and the pit burial grounds of Rzhevka, Volokonovka, and Chervonaya Gusarovka. The second tradition dominates in the pit burial grounds of the Mandrovo-Rozhdestvenovo type on the Middle Don, the Mayatsky complex, and in the pit burial grounds of the Steppe Seversky Donets.

All of the above leads to the conclusion that there is no clear connection between the different traditions of creating forms of pots of the 8th-9th centuries and different ethnic groups of the early medieval population.

The most likely explanation of the obtained results may include 2 components. The first is the functioning pottery centers in the studied regions, where representatives of both cultural traditions were engaged in the production of kitchen pots. The second is the distribution of these pots among the multi-ethnic population through market mechanisms. A.A. Bobrinsky identified three main economic forms of pottery production in Eastern Europe: home-made, custom-made, and craft production with market sales. Unlike home production, where there are kindred relations between manufacturers and consumers of

pottery, the ceramic vessels of craft production are not limited in their distribution by the framework of ethnic differences between potters and consumers of ceramics.²⁸ An important argument in favor of this explanation is the evidence of the existence of craft production of pottery in

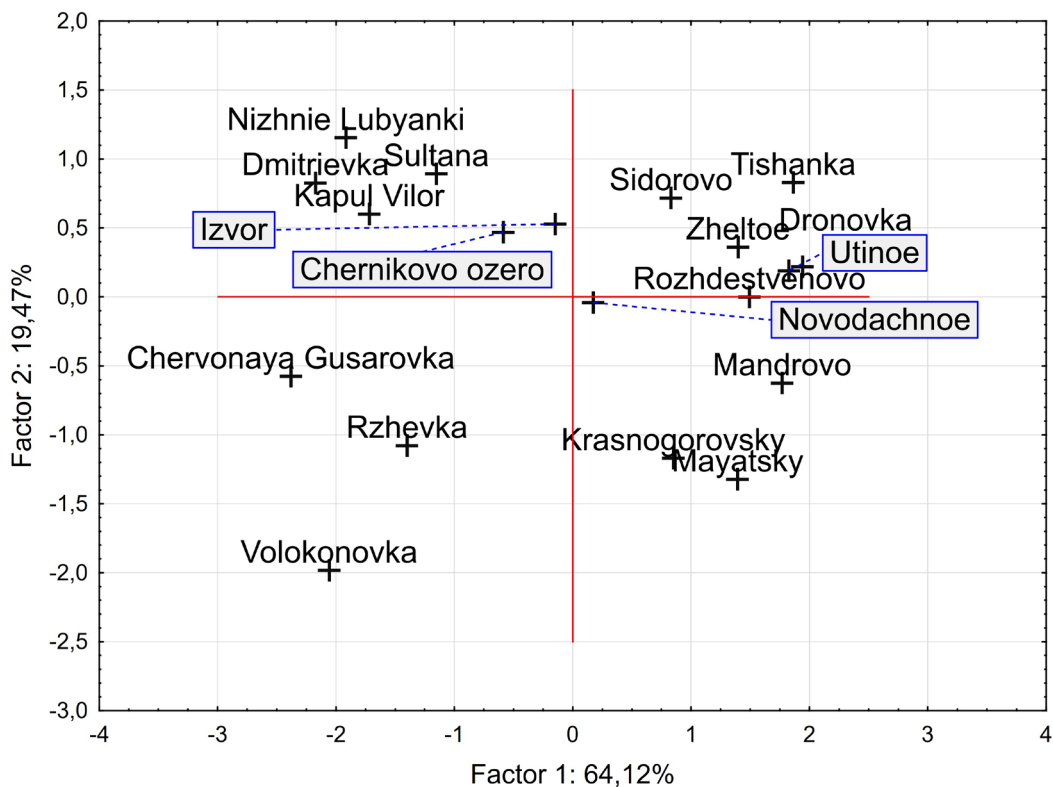


Fig. 9. Comparison of traditions of different sites. Principal component analysis.

²⁸ BOBRINSKY 1978, 26.

the 8th-9th centuries, which were recorded by researchers both in the Don region and the Dniester-Danube interfluvium.²⁹

The complicated and probably unresolved question is the ethnicity of the manufacturers of kitchen pots who lived in different regions of the Black Sea basin. We must admit that there is no reliable data to resolve this question. Some assumptions are possible only the origins of the identified traditions and the directions of the cultural impulse that led to the spread of the traditions over a vast territory. It is known that the formation of the Saltovo-Mayaki culture was associated with large-scale migrations of at least two groups of the population around the middle of the 8th century. The Alans relocated from the Central Pre-Caucasus to the Middle Don basin. In addition to the Alans, cremation rite representatives have moved to this region. Among the various versions of the ethnic attribution of the Saltovo-Mayaki cremation burial grounds, the most convincing is the Adygo-Abkhazian. It binds the emergence of cremation burial grounds in the Don region with the relocation of the carriers of this rite from the Kuban-Black Sea region.³⁰

Thus, the spread of two traditions of creating pot shapes in the steppe and forest-steppe zones of southern Eastern Europe coincides with the large-scale movement of population groups from the territory of the Western and Central Pre-Caucasus. This is important because the earliest pots, which are similar to Saltovo, are known in the Central Pre-Caucasus.³¹ Unfortunately, these vessels are isolated, since the funeral rite of the Alanic meant placing not kitchen, but polished tableware in the graves. However, the value of these few copies lies in their early date relative to the materials of other territories. It can be assumed that the wide spread of these traditions in the Pontic region, especially in the Don basin, was associated with these large-scale migrations of the 8th century.

As for the sites of the Lower Danube, the researchers record several waves of the new population in the 8th-9th centuries. During these waves, the considered pottery traditions could get to this region. The first refers to the second half of the 8th century and is synchronous with the period of formation of the Saltovo-Mayaki culture. The second wave refers to the 9th century and is associated with the consequences of the so-called Kabar uprising and «The Civil War» in the Khazar Khaganate.³² Anyway, our results show that the potters of the Lower Danube at some stage of their history were well acquainted with the pottery traditions that were common among the population of the Don region.

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²⁹ VASILYEVA 1993, 42; VINNIKOV/PLETNEVA 1998, 157; SARAPULKIN 2003, 149; KRASILNIKOV 1976; KRASILNIKOV 1980; KOZLOV 1988, 30.

³⁰ AKSYONOV 2007.

³¹ AFANASYEV 2013, 18-19.

³² PLETNEVA 1997, 47-49.

REFERENCES

- AFANASYEV 1987
Afanasyev, G.E., *Naselenie lesostepnoj zony bassejna Srednego Dona v VIII-X vv. (alanskij variant saltovo-mayatskoj kul'tury)* (Moskva: Nauka).
- AFANASYEV 2013
Afanasyev, G.E., *Kukhonnaya posuda saltovo-mayatskoj kul'tury – etnomarkiruyushchij priznak? Rossijskaya arkhologiya* 3, 13-25.
- AFANASYEV 2014
Afanasyev, G. E., *Rol' kukhonnaj posudy v markirovke bulgaro-khazarskikh pamyatnikov (istoriograficheski aspekt)*. In: Munchaev, R.M. (ed.), *Drevnie kul'tury yugo-Vostochnoj Evropy i Zapadnoj Azii. Sbornik k 90-letiyu so dnya rozhdeniya i pamyati N.Ya. Merperta* (Moskva), 354-369.
- AFANASYEV et alii 2015
Afanasyev, G. E./Dobrovolskaya, M. V./Korobov, D. S./Reshetova, I.K., *Novye arkhologicheskie, antropologicheskie i geneticheskie aspekty v izuchenii donskikh alan, Kratkie soobshcheniya Instituta arkhologii* 237, 64-79.
- AFANASYEV/RUNICH 2001
Afanasyev, G. E./Runich, A. P., *Mokraya Balka. Vypusk 1: Dnevnik raskopok* (Moskva: Nauchnyj mir).
- AKSYONOV 2007
Aksyonov, V. S., *Pogrebal'nyi obryad mogil'nika Sukhaya Gomol'sha (k probleme etnicheskoi prinadlezhnosti saltovskikh krematsionnykh zakhronenij iz bassejna Severskogo Dontsa)*. In: Rashev, R. (ed.), *Problemy na prablgarskata istoriya i kultura* (Sofia), 371-402.
- AKSYONOV, 2017.
Aksyonov, V.S., *Mogil'nik saltovo-mayatskoj kul'tury u s. Chervonaya Gusarovka na Severskom Dontse* (Kharkiv).
- AKSYONOV/MIKHEEV 2006
Aksyonov, V. S./Mikheev, V. K., *Naselenie khazarskogo kaganata v pamyatnikakh istorii i kul'tury. Sukhogomol'shanskij mogil'nik VIII-X vv., Khazarskij al'manakh* 5, 4-297.
- BOBRINSKY 1978
Bobrinsky, A. A., *Goncharstvo Vostochnoj Evropy. Istochniki i metody izucheniya* (Moskva: Nauka).
- CHUCHUKALO 1926
Chuchukalo, G. I., *Cherepa iz Verkhne-Saltovskogo mogil'nika* (Kharkiv: Kharkiv-Druk. Persha derzhdrukarnya).
- DEBETS 1948
Debets, G. F., *Paleoantropologiya SSSR* (Moskva: Izdatel'stvo Akademii nauk SSSR).
- KOZLOV 1988
Kozlov, V. I., *Goncharnaya keramika poselenii balkano-dunajskoj kul'tury VIII-X vv. v primorskoj chasti Dnestrovsko-Dunajskogo mezhdurech'ya*. In: Byrnya, P. P. (ed.), *Srednevekoveye pamyatniki Dnestrovsko-Prutskogo mezhdurech'ya* (Kishinev: Shtiinta), 28-54.
- KRASILNIKOV 1976
Krasilnikov, K.I., *Goncharnaya masterskaya saltovo-mayatskoj kul'tury, Sovetskaya arkhologiya* 3, 267-278.
- KRASILNIKOV 1980
Krasilnikov, K. I., *Novye dannye o goncharnom proizvodstve v saltovskoe vremya na Severskom Dontse, Kratkie soobshcheniya Instituta arkhologii* 160, 60-69.

- KRASILNIKOV 1991
Krasilnikov, K. I., Mogil'nik drevnikh bolgar u s. Zheltoe. In: Rashev, R. (ed.), *Problemy na prablgarskata istoriya i kultura* (Sofia).
- KRASILNIKOV 2016
Krasilnikov, K. I., „Bulg-r... vse oni mne sluzhat i platyat mne dan” (nekotorye arkhologicheskie kommentarii). In: Vinnikov, A. Z. (ed.), *Divnogorskiy sbornik 6* (Voronezh), 112-125.
- KRASILNIKOVA/KRASILNIKOV 2012
Krasilnikov, K. I./Krasilnikova, L. I., Pogrebal'nye obryady prabolgar po materialam stepnoj i lesostepnoj zony saltovo-mayatskoj kul'tury (SMK) (predvaritel'nye zamechaniya). In: Vinnikov, A. Z. (ed.), *Divnogorskiy sbornik 3* (Voronezh), 193-208.
- KRAVCHENKO/DAVYDENKO 2001
Kravchenko, E. E./Davydenko, V. V., Sidorovskoe gorodishche. In: Evglevsky, A. V. (ed.), *Stepi Evropy v epokhu srednevekov'ya. Khazarskoe vremya 2* (Donetsk), 233-302.
- LYAPUSHKIN 1958
Lyapushkin, I. I., Pamyatniki saltovo-mayatskoj kul'tury v basseine r. Dona, *Materialy i issledovaniya po arkheologii SSSR 62*. (Moskva-Leningrad: Izdatel'stvo Akademii nauk SSSR), 85-150.
- MITREA 1988
Mitrea, B., La nécropole birituelle de Sultana - résultats et problèmes, *Dacia N. S. 32*, 91-139.
- MITREA 1989
Mitrea, B., Das Gräberfeld aus dem VIII. Jahrhundert von Izvoru, jud. Giurgiu, *Dacia N. S. 33*, 145-219.
- PLETNEVA 1967
Pletneva, S. A., *Ot kochevij k gorodam. Saltovo-mayatskaya kul'tura* (Moskva: Nauka).
- PLETNEVA 1997
Pletneva, S. A., Drevnie bolgary v vostochnoevropejskikh stepyakh, *Tatarskaya arkheologiya 1*, 32-63.
- POKROVSKY 1905
Pokrovsky, A. A., Verkhne-Saltovskij mogil'nik. In: Uvarova, P. S. (ed.), *Trudy Dvenadtsatogo Arkheologicheskogo s'ezda v Khar'kove 1902 g.* (Moskva), 465-491.
- RESHETOVA 2015
Reshetova, I. K., *Naselenie Donetsko-Donского mezhdurech'ya v rannem srednevekov'e: paleoantropologicheskoe issledovanie* (Sankt-Peterburg: Nestor-Istoriya).
- SARAPULKIN 2003
Sarapulkin, V. A., *Keramika i keramicheskoe proizvodstvo lesostepnogo varianta saltovo-mayatskoj kul'tury*. PhD thesis (Voronezh).
- SHVETSOV/SANZHAROV/PRYN 2001
Shvetsov, M. L./Sanzharov, S. N./Pryn, A.V., Dva novykh sel'skikh mogil'nika v Podontsov'e. In: Evglevsky, A. V. (ed.), *Stepi Evropy v epokhu srednevekov'ya. Khazarskoe vremya 2* (Donetsk), 333-346.
- STADNIK/STADNIK 2013
Stadnik, O. V./Stadnik, A. I., Krasnogorovskij gruntovij mogil'nik saltovo-mayatskoj kul'tury na r. Ajdar. In: Sanzharov, S. N. (ed.), *Materialy ta doslidzhennya z arkheologii Skhidnoj Ukrainy 12* (Luhansk), 254-263.
- SUKHANOV 2020
Sukhanov, E. V., A new approach to the periodization of polished ceramics of the Saltovo-Mayaki culture, *Studia Antiqua et Archaeologica 26* (2), 343-370.
- TATARINOV/FEDYAEV 2001
Tatarinov, S. I./Fedyayev, S. V., Novye rannebolgarskie pogrebeniya iz mogil'nika Dronovka-3 (Limanskoe ozero) na Severskom Dontse. In: Evglevsky, A. V. (ed.), *Stepi Evropy v epokhu srednevekov'ya. Khazarskoe vremya 2* (Donetsk:), 365-374.
- TATARINOV/KOPYL 1981
Tatarinov, S. I./Kopyl, A. G., Dronovskie drevnebolgarskie mogil'niki na r. Severskij Donetsk, *Sovetskaya arkheologiya 1*, 300-307.
- TSETLIN 2012
Tsetlin, Y. B., *Drevnyaya keramika: teoriya i metody istoriko-kul'turnogo podkhoda* (Moskva: IA RAN).
- TSETLIN 2018
Tsetlin, Y. B., Ob obshchem podkhode i metodike sistemnogo izucheniya form glinyanykh sosudov. In: Tsetlin, Y. B. (ed.), *Formy glinyanykh sosudov kak ob'ekt izucheniya. Istoriko-kul'turnyj podkhod* (Moskva), 124-179.
- VASILYEVA 1993
Vasilyeva, I. N., Goncharstvo Volzhskoj Bolgarii v X-XIV vv. (Ekaterinburg: UIF "Nauka").
- VINNIKOV/PLETNEVA 1998
Vinnikov, A. Z./Pletneva, S. A., Na severnykh rubezhakh Khazarskogo kaganata: Mayatskoe poselenie (Voronezh: Izdatel'stvo Voronezhskogo gosudarstvennogo universiteta).
- ZIRRA 1963
Zirra, V., Dvuobryadovyi mogil'nik rannefeodal'noj epokhi v Kapul Viilor – Istriya, *Dacia 7*, 355-412.