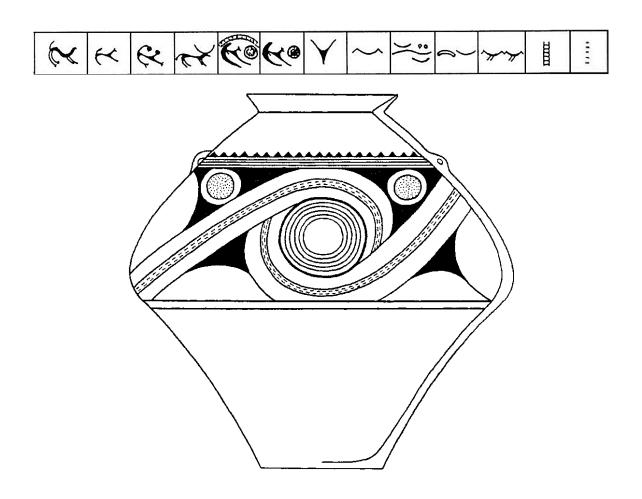


### Taras Tkachuk

# SIGN SYSTEMS OF TRYPILLIA-CUCUTENI CULTURE



Translated by Oleksandr Melnyk

> Ivano-Frankivsk «Symphony forte» 2021

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The book provides a compelling exploration of Tripillia-Cucuteni ornaments in Ukraine, Moldova and Romania. It will be of particular interest to students and researchers in semiotics, cultural studies, Eneonitic history and archeology.

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### INTRODUCTION

Due to its occurrence, ornamented pottery is an important source of the study of pre-written archaeological cultures, including the Trypillia-Cucuteni community, which existed in the territories of modern Ukraine, Moldova and Romania.

It has been studied for more than a hundred years. It is because of the uniqueness of the forms of utensils and its ornamentation that this cultural-historical community was singled out, the territory it occupied was delineated and clarified. The phases of its development were further clarified, local variants and phases of their existence were studied as well as the micro-chronology of individual settlements.

The end of  $5^{th}$  millennium BC up until the first half of the  $3^{rd}$  millennium BC (phase BII - CII,  $\gamma$ II) is the largest manifestation of significant activities of the population of the Trypillia-Cucuteni community has been recorded. Even though the painted ornamentation of utensils of this time constantly attracts the attention of researchers, the study of the whole complex of elements of its ornamentation, principles of organization and combinations of elements, the rules of formations and changes are, unfortunately, still incomplete. Without this, many issues of worldview, history and culturology of the Trypillia-Cucuteni community lose their source base.

Larger scale studies of small elements of ornament (signs), their contexts or even statistical analyses have not been conducted yet. Nonetheless, such research can serve as an integral element of research on other important subjects, such as the general culturology or the origins of writing. Recently, some authors, not related to the archaeological community of Trypillia, claim that the population of Trypillia-Cucuteni settlements likely had an advanced Sumerian script. Therefore, it is important to show what the small elements of ornamentation look like in the context of general schemes; their connections with each other, the means of their organization in blocks. All these indicators are summarized in the tables. At the end of the analysis of the sign system of each settlement, there are catalogues of these signs, which indicate the number of uses of each sign. This will finally allow a detailed comparison and juxtaposition of the sign systems of the Trypillia-Cucuteni monuments with the signs of the Sumerian pictographic writing and the linear signs of the Neo-Eneolithic of the Balkan Peninsula.

Ornament is a complex phenomenon in human activity. It can be safely attributed to such manifestations of culture, in which their adequate description can only be obtained through the principle of additionality. Niels Bohr, proposing it, believed that it is the most important aspect in the process of cognition. The principle of additionality (in the general cultural sense of the term) is further discussed by V. V. Ivanov in the introduction to the book "In anticipation of philosophy" by H. G. Frankfurt, G. A. Frankfurt, J. Wilson and T. Jacobsen, where the description of complex objects and phenomena can be obtained only by comparing seemingly contradictory images and concepts. Therefore, the statistical-positional and structural-semiotic methods of studying ornament introduced in the work do not contradict the best achievements of the retrospective method prevailing in the field of ornament research, but, on the contrary, complement them.

For the first time, a significant amount of synchronous and diachronic analyses of painted utensils of all local groups of the Trypillia-Cucuteni community of phases BII-CII,  $\gamma$ II (end of 5<sup>th</sup> millennium

BC - first half of 3<sup>rd</sup> millennium BC) are presented as "living" dynamic sign systems. An integral part of this analysis was the most complete (where the material allowed) compilation of tables of schemes of ornamentation of utensils, obtaining their quantitative indicators as well as indicators of small signs drawn on them, giving their complete graphics, creating tables of ratios, schemes of schemes and forms utensils.

The book is addressed to archaeologists, semiologists, culturologists, art critics and anyone interested in the phenomena of pre-written cultures. On the pages of catalogues, the signs on the vessels are as follows: the number at the top is the ordinal number of the sign, the number at the bottom is the number of uses of the sign.

### **ACKNOWLEDGMENTS**

The author expresses his heartfelt gratitude to the colleagues V. O. Kruts, M. Y. Videiko, N. B. Burdo, K. K. Chernysh, S. O. Gusev, I. I. Zayets', O.O. Yakubenko, C.M. Ryzhov, L. Y. Polishchuk, VG Zbenovich, O. G. Corvii-Piotrovsky, V. A. Kosakovsky, T. G. Movsha, V.O. Shumova, V. M. Bikbayev, V. O. Dergachev, V. G. Petrenko for the opportunity to get acquainted with the materials used in this work.

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## CHRONOLOGY OF MONUMENTS, PAINTED UTENSILS WHICH ARE USED IN THE WORK

	Right bank of the Prut river	Interfluve of the Prut and Dniester rivers	Middle Transnistria	Upper Transnistria	Lower Transnistria at the black sea	Middle Bug and Prut region	Bug-Dnieper interfluve
BC		Gordinești	Stina I, Zhvanets		Usatove II, Ofatinți II		
<b>CII-</b> γII 3500-2800 BC		Brînzeni III	Zhvanets	Koshilivtsi Oboz, Bilche Zolote Verteba II	Usatove I, Ofatinți I		
Târgu Ocna-	Târgu Ocna-	Hancăuți I, Bădragii Vechi	Konovka 1, 2	Bilche Zolote Verteba I			Tomashivka
BC	Podei	Barbarovka XV,	Stina IV				Maidanetske
<b>CI-</b> γ <b>I</b> 3900-3500 I	Valea Lupului II					Chechelnyk	Talne II, Talianky
39(	Văleni Piatra Neamț	a Lipchany					Dobrovody, Chycherkozivka
	·	Petreny	Bernashivka	Shypyntsi B		Cherkasiv Sad II	Sushkivka
# 800 BC			Konovka				Kolodyste, Pishchane
<b>BII</b> 4100-3900 BC				Nezvysko III		Voroshylivka	Volodymyrivka

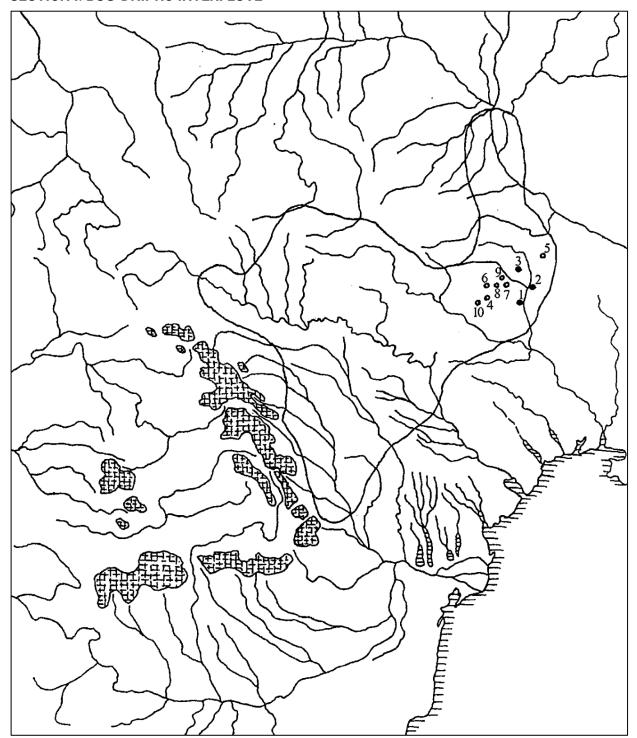


Figure 1: Map of the location of the monuments of phases BII-CI, the materials of which were used in the work

Volodymyrivska (1), Nebelivska (2-3) and Tomashivska groups (4-10).

- 1. Volodymyrivka
- 2. Pishchana
- 3. Kolodyste
- 4. Sushkivka
- 5. Chycherkozivka

- 6. Dobrovody
- 7. Talyanky
- 8. Talne settlement
- 9. Maidanetske
- 10. Tomashivka

### Volodymirivska sign system

### Phase BII Volodymirivska (Kirovograd region, Novoarkhapgelsky districts)

The work uses ceramics obtained during research by expeditions led by T. S. Passek in 1936, 1940, 1946-1947 and O. O. Yakubenko in 1989-1990. 447 units of utensils were involved in the analysis. The condition of the pottery is satisfactory, many vessels are highly fragmented.

### Schemes of paintings and signs on the vessels of the settlement Volodymirivska.

The numbers on the left side of the diagrams are the sequence numbers.

Figures on the right are the number of such schemes on the vessels involved in the analysis.

- 1-7 -schemes of painting cut-conical bowls.
- 8-22 schemes of painting cups.
- 23 schemes of painting amphorae.
- 24, 27, 28, 33-36, 43-53 schemes of painting biconical utensils.
- 25-26 schemes of the paintings of small biconical vessels.
- 29 scheme of painting 3 biconical and 1 pear-shaped vessel.
- 30, 31, 42 schemes of painting pear-shaped utensils.
- 32 schemes of painting craters.
- 37-40 schemes of the paintings on lids for pear-shaped ware.
- 41 -schemes of painting the inside of the crown of the crater.

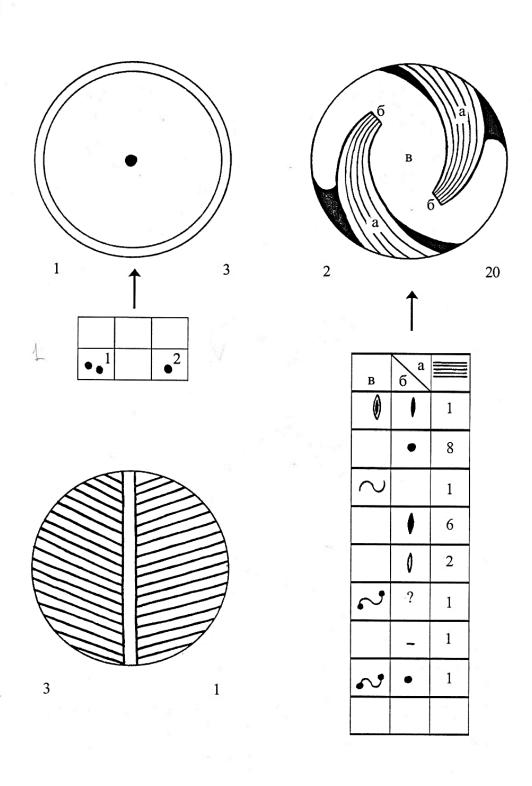


Figure 2: Volodymyrivka. Top view orthographic projections on vessels and signs

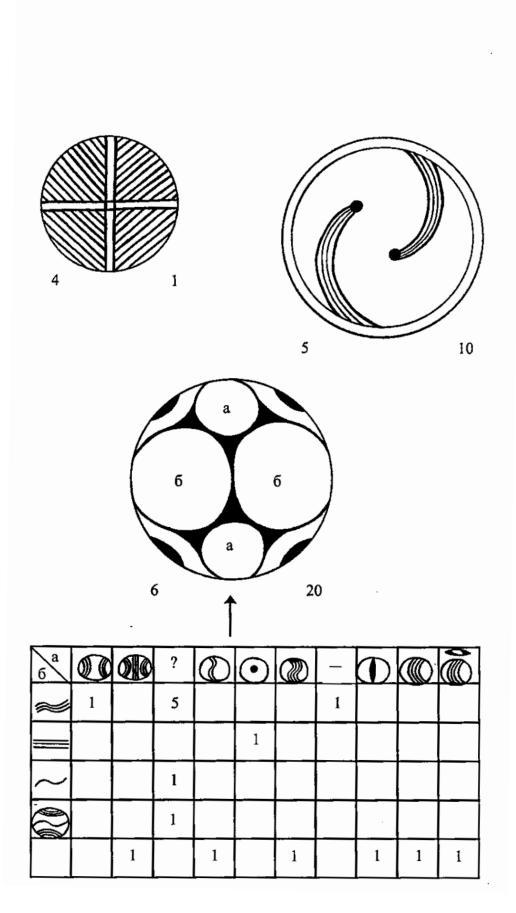


Figure 3: Volodymyrivka. Top view orthographic projections on vessels and signs

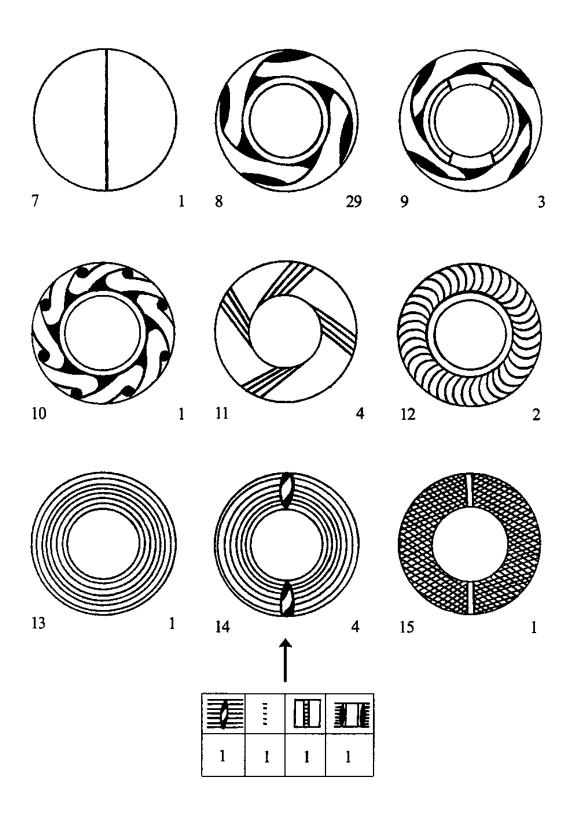


Figure 4: Volodymyrivka. Top view orthographic projections on vessels and signs

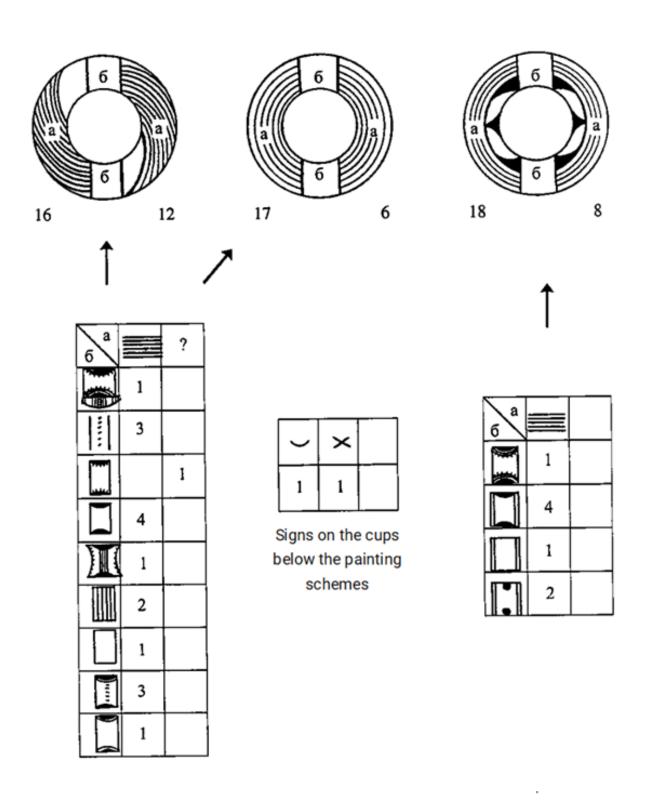


Figure 5: Volodymyrivka. Top view orthographic projections on vessels and signs

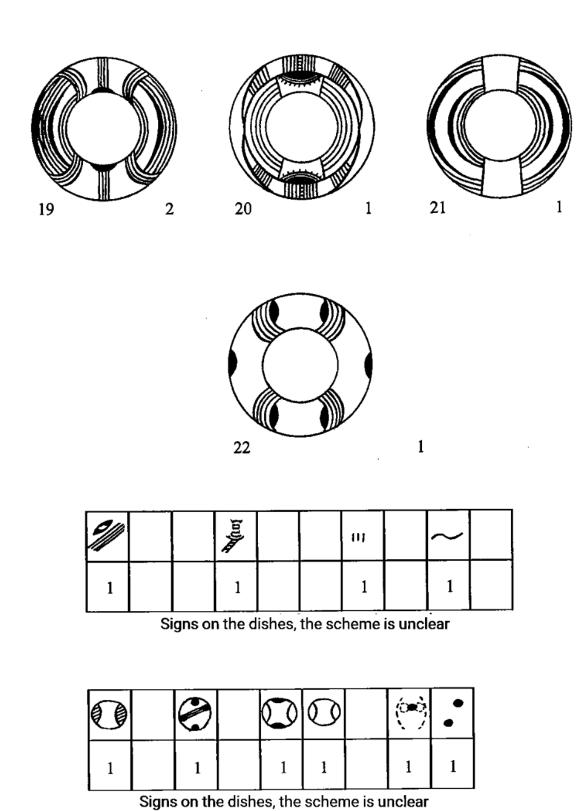


Figure 6. Volodymyrivka. Top view orthographic projections on vessels and signs

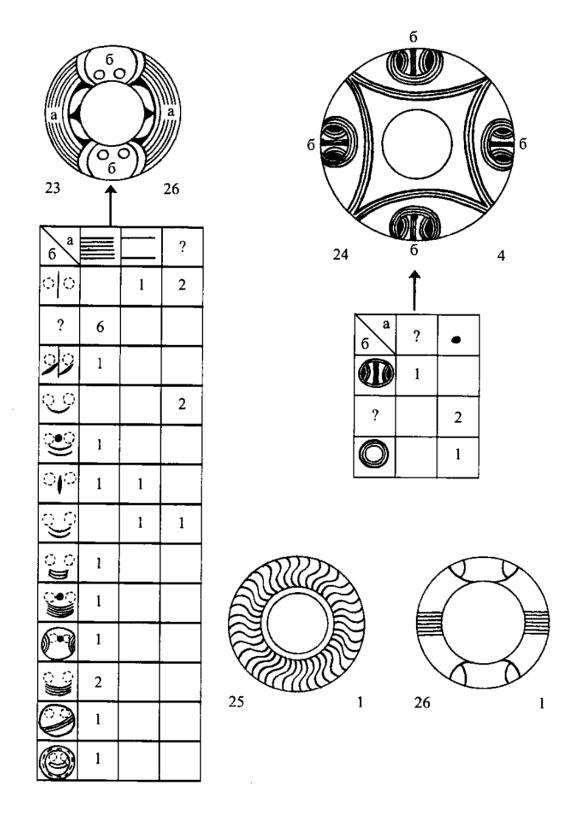


Figure 7: Volodymyrivka. Top view orthographic projections on vessels and signs

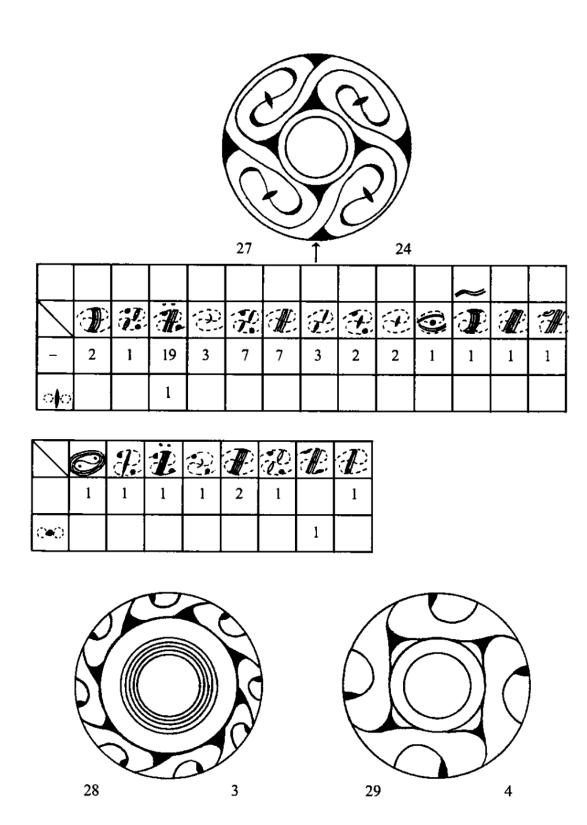


Figure 8: Volodymyrivka. Top view orthographic projections on vessels and signs

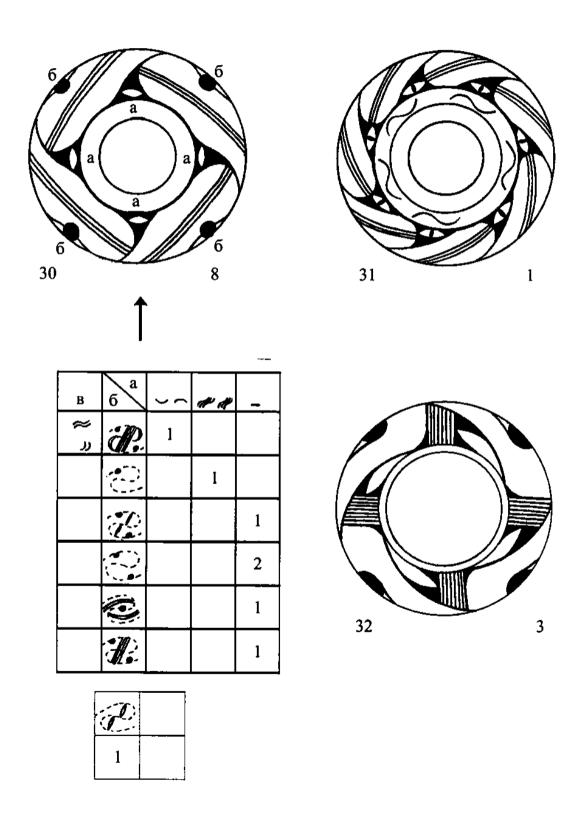


Figure 9: Volodymyrivka. Top view orthographic projections on vessels and signs

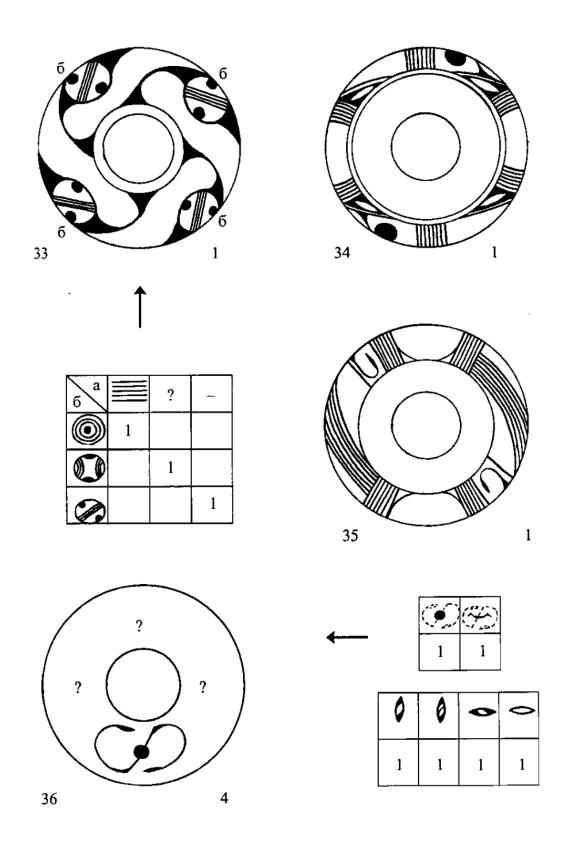


Figure 10: Volodymyrivka. Top view orthographic projections on vessels and signs

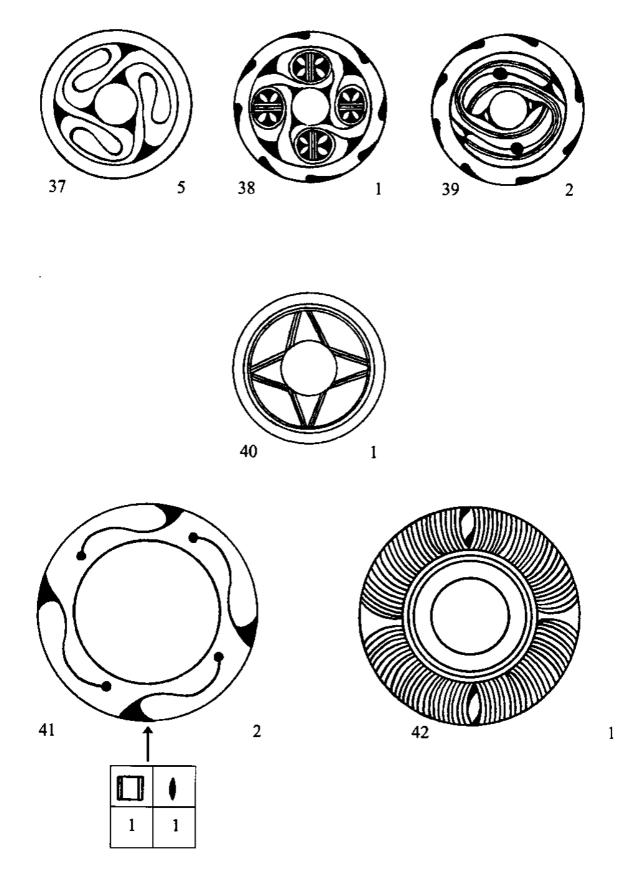


Figure 11: Volodymyrivka. Top view orthographic projections on vessels

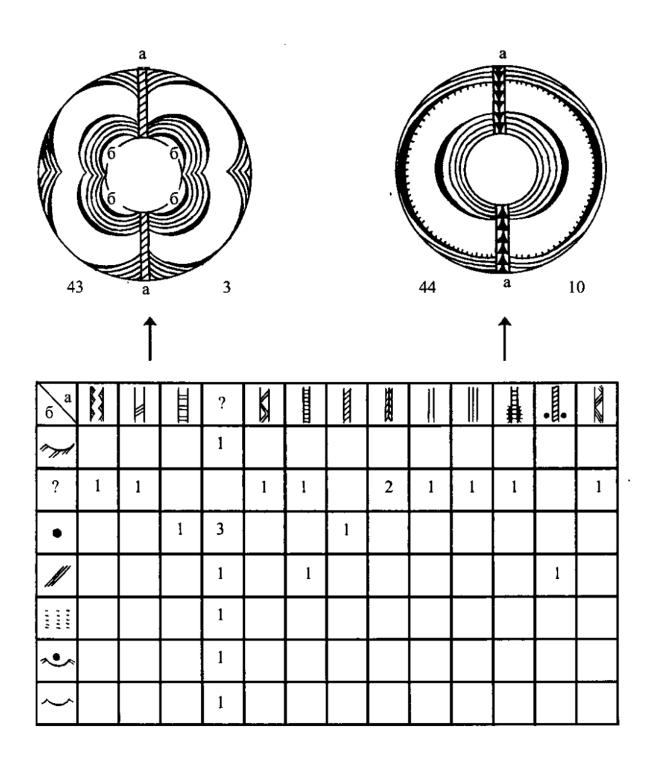


Figure 12: Volodymyrivka. Top view orthographic projections on vessels and signs

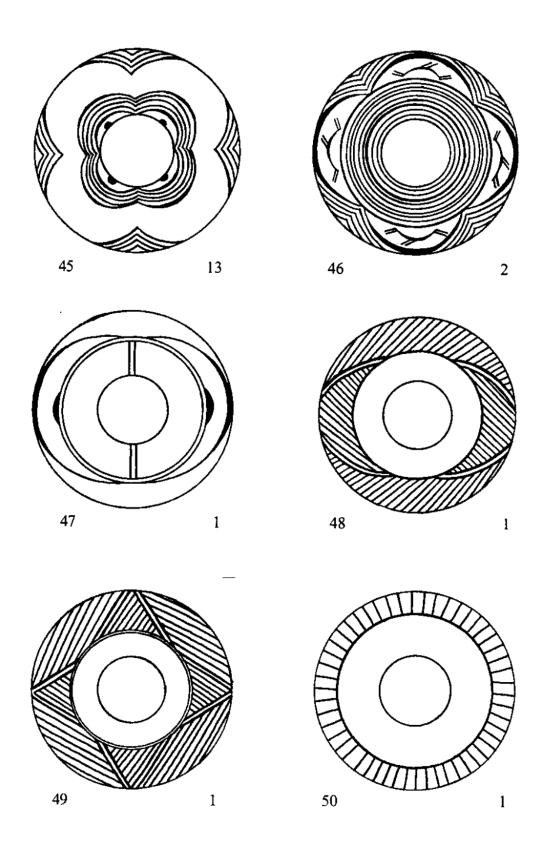


Figure 13: Volodymyrivka. Top view orthographic projections on vessels and signs

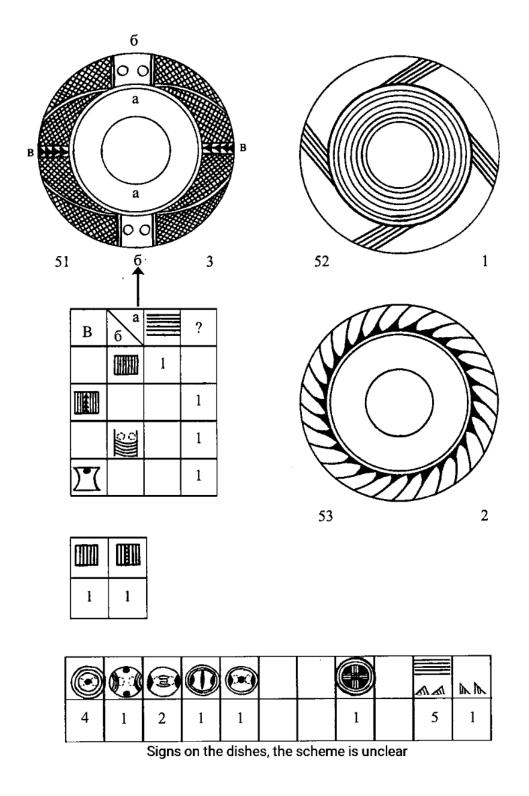


Figure 14: Volodymyrivka. Top view orthographic projections on vessels and signs

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Table 1: Volodymyrivka. Catalogue of signs on vessels

Nebelivska group

### Pishchana sign system

### Phase VII. Pishchana (Cherkasy region, Talniv district).

The work uses ceramics obtained during research by deer expeditions led by V. O. Kruts in 1984 and 1988. 95 units of utensils are involved in the analysis. 88 bowls were used in the study. The condition of the material is satisfactory.

The collection is stored at the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

### Schemes of paintings and signs on the vessels of the settlement Pishchana.

The numbers to the left of the diagrams are sequence number.

Figures on the right are the numbers of such schemes on the vessels involved in the analysis.

- 1-5 scheme of cut-conical bowls.
- 6-1 O schemes of murals of cups.
- 11 scheme of painting a small biconical vessel.
- 12 scheme of painting a small biconical vessel.
- 13-18, 20-27, 32 the scheme of a list of a biconical vessel.
- 19 scheme of painting 1 biconical and 1 pear-shaped vessel.
- 28 the scheme of a list of an amphora.
- 29, 33 schemes of painting pear-shaped utensils.
- 30 the scheme of a list of a biconical vessel.
- 31 scheme of painting the inside of the crown of the crater.
- 34 the scheme of a list of lids.

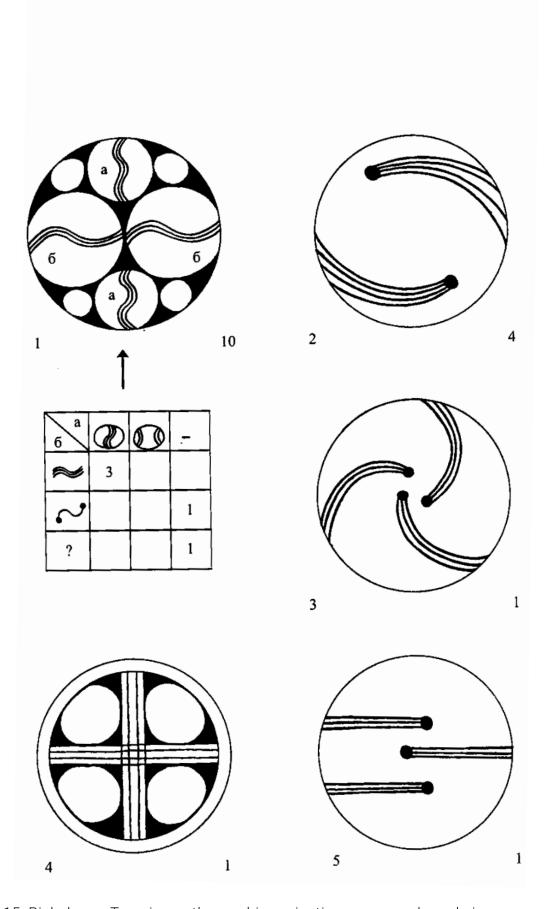


Figure 15: Pishchana. Top view orthographic projections on vessels and signs

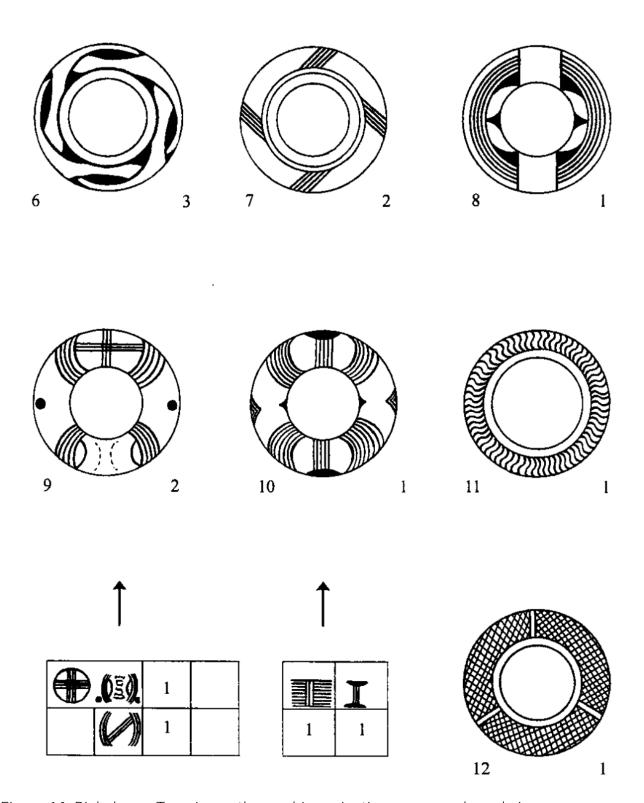


Figure 16: Pishchana. Top view orthographic projections on vessels and signs

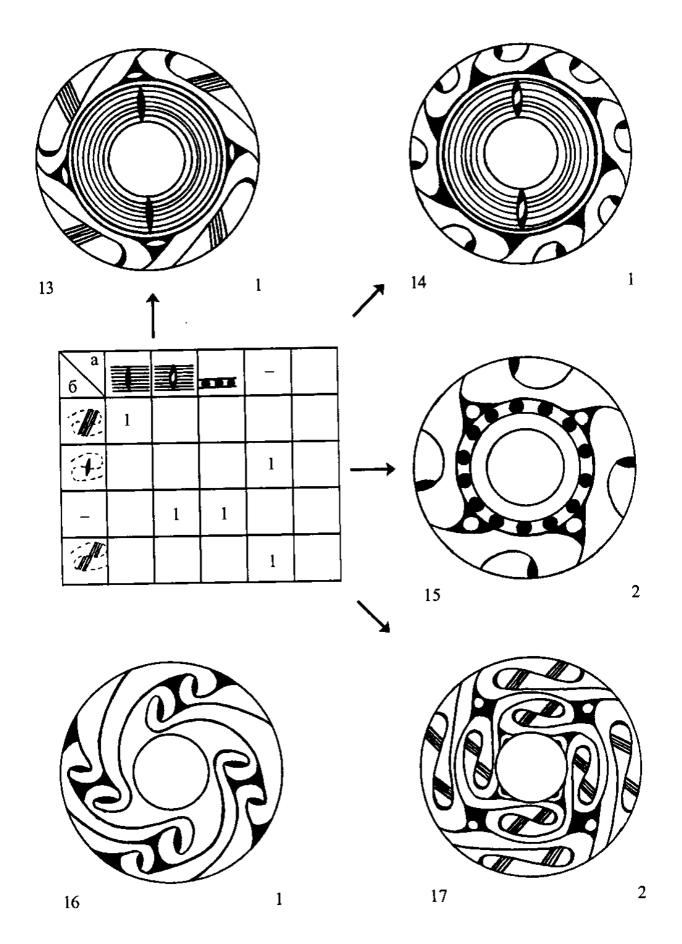


Figure 17: Pishchana. Top view orthographic projections on vessels and signs

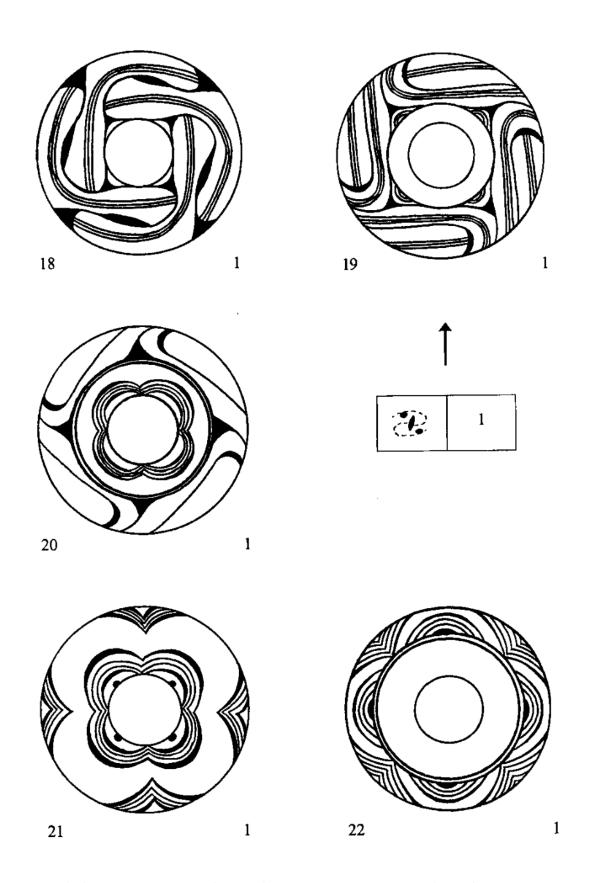


Figure 18: Pishchana. Top view orthographic projections on vessels and signs

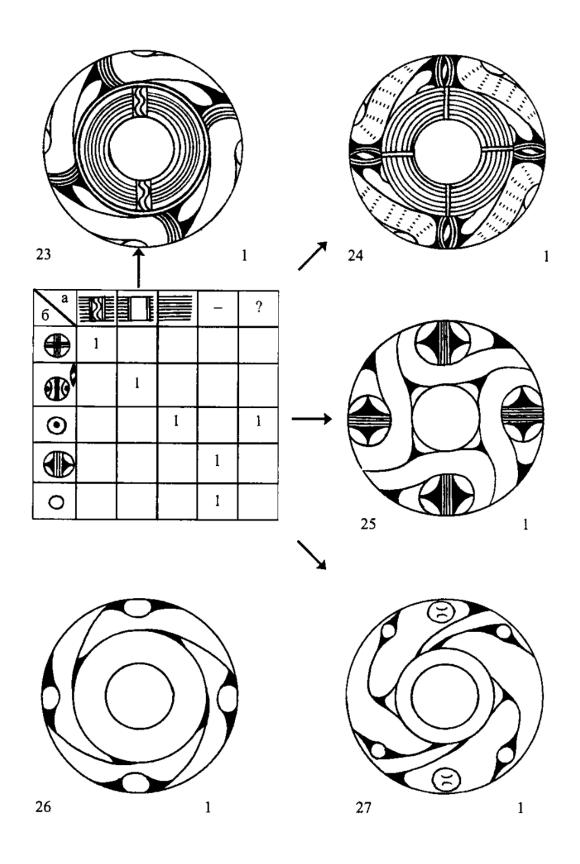


Figure 19: Pishchana. Top view orthographic projections on vessels and signs

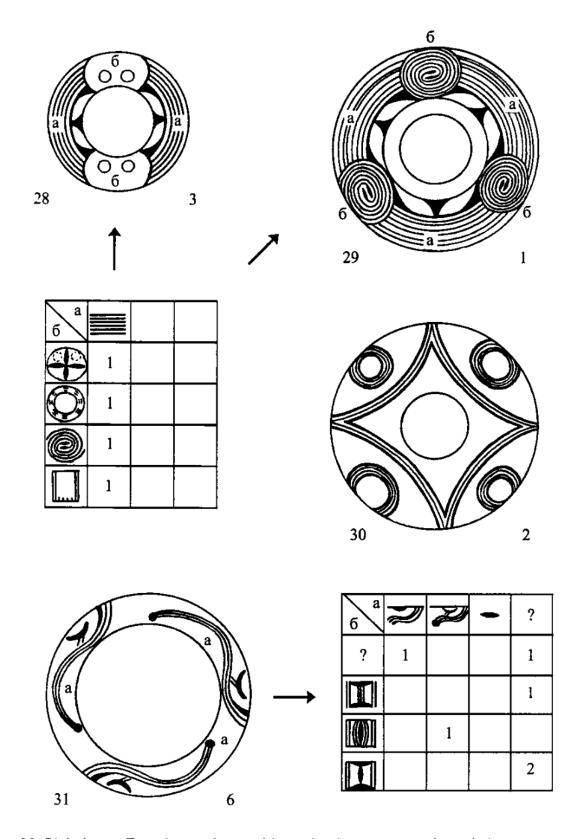
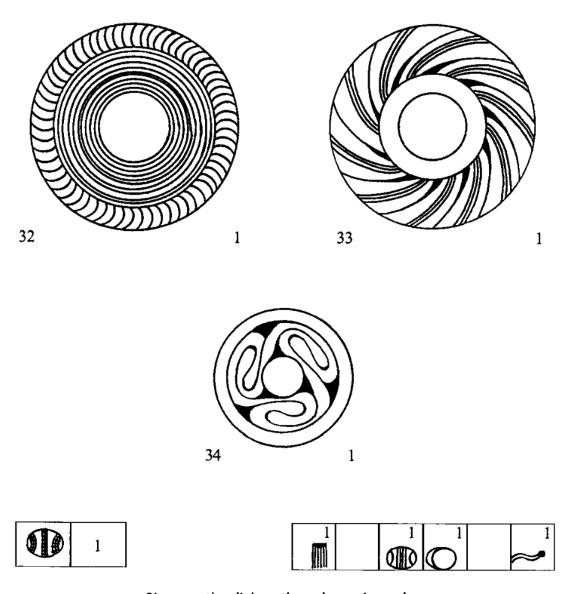


Figure 20: Pishchana. Top view orthographic projections on vessels and signs



Signs on the dishes, the scheme is unclear

Figure 21: Pishchana. Top view orthographic projections on vessels and signs

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38 1		39 ** 1	40	41 1	42 1	43 1						

Table 2: Pishchana. Catalog of signs on vessels

### Kolodyste sign system

### Stage BII. Kolodyste (Cherkasy region, Talniv district).

The work uses ceramics obtained during the study of the settlement in 1900 by an expedition led by M. F. Bilyashivsky. 56 vessels were involved in the analysis. The condition of the ceramics is satisfactory.

The material is stored in the funds of the National Museum of History of Ukraine, Kyiv.

### Schemes of paintings and signs on the vessels of the settlement Kolodyste.

The digits to the left of the diagrams are the serial number.

Figures on the right are the numbers of such schemes on the vessels involved in the analysis.

- 1-4 schemes of paintings on cut-conical bowls.
- 5-9 schemes of paintings of cups.
- 10 schemes of painting amphorae.
- 11-15, 17-20 schemes of paintings of biconical ware.
- 16 scheme of painting pear-shaped utensils.
- 21 schemes of painting lids.

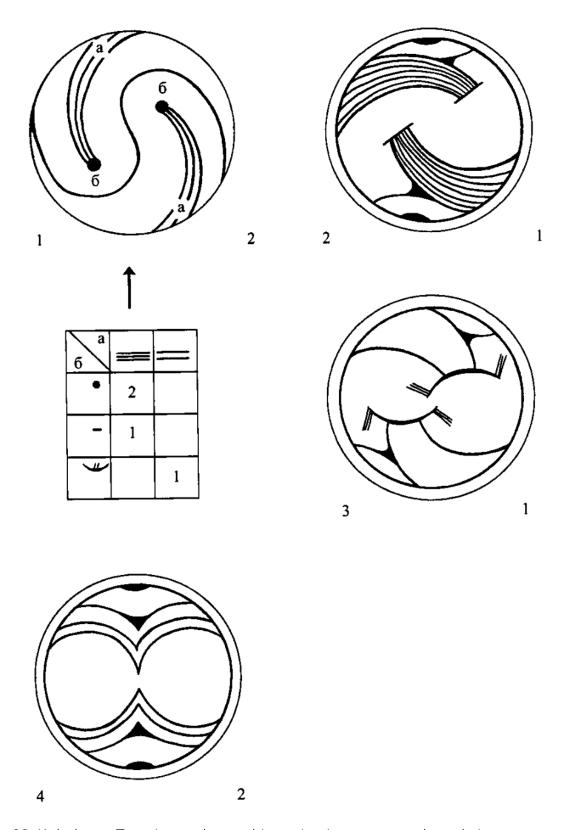


Figure 22: Kolodyste. Top view orthographic projections on vessels and signs

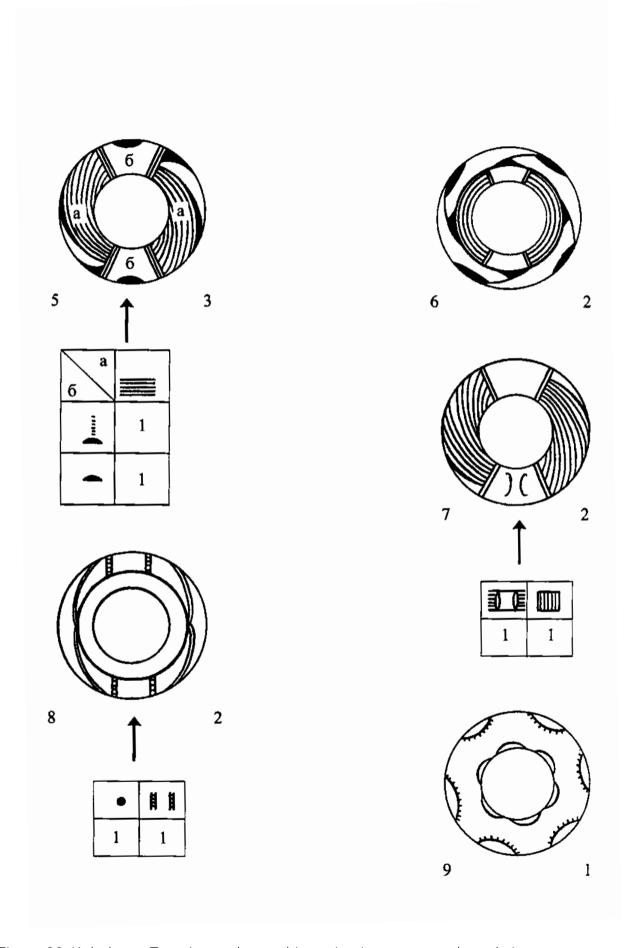


Figure 23: Kolodyste. Top view orthographic projections on vessels and signs

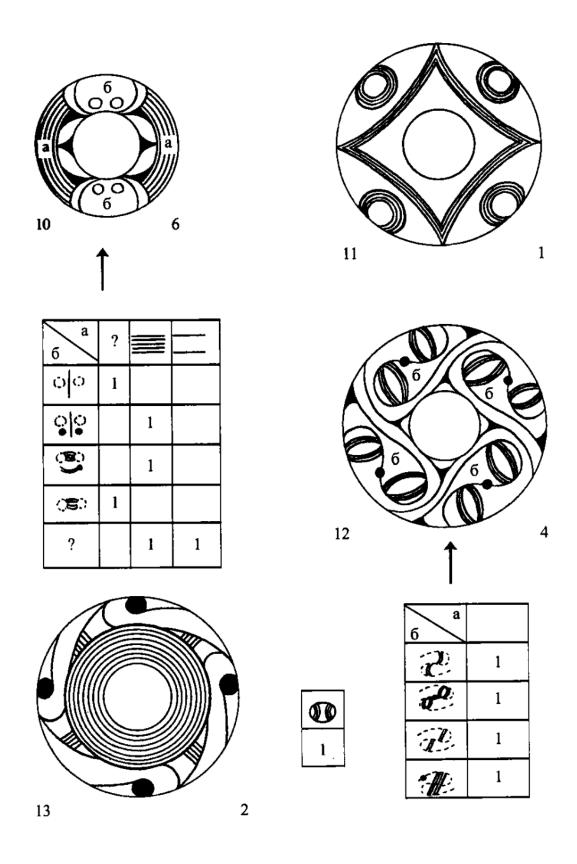


Figure 24: Kolodyste. Top view orthographic projections on vessels and signs

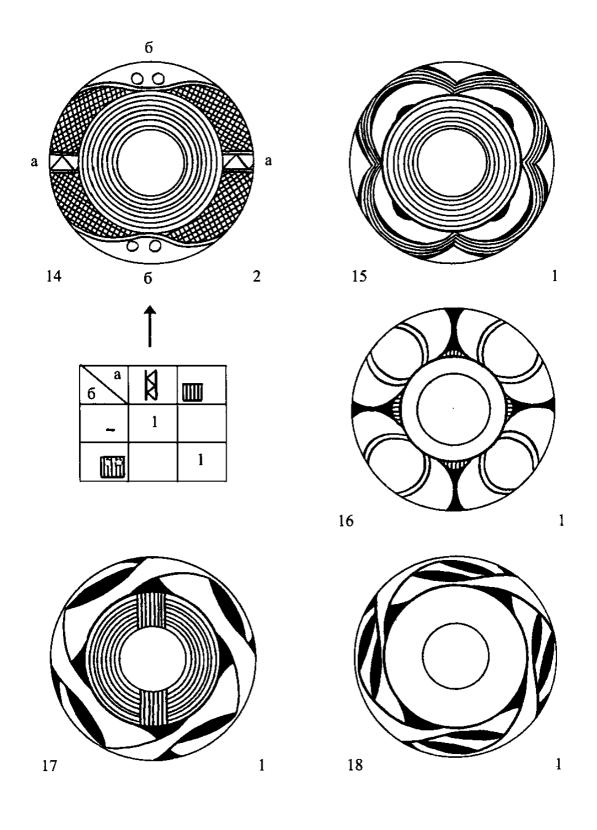


Figure 25: Kolodyste. Top view orthographic projections on vessels and signs

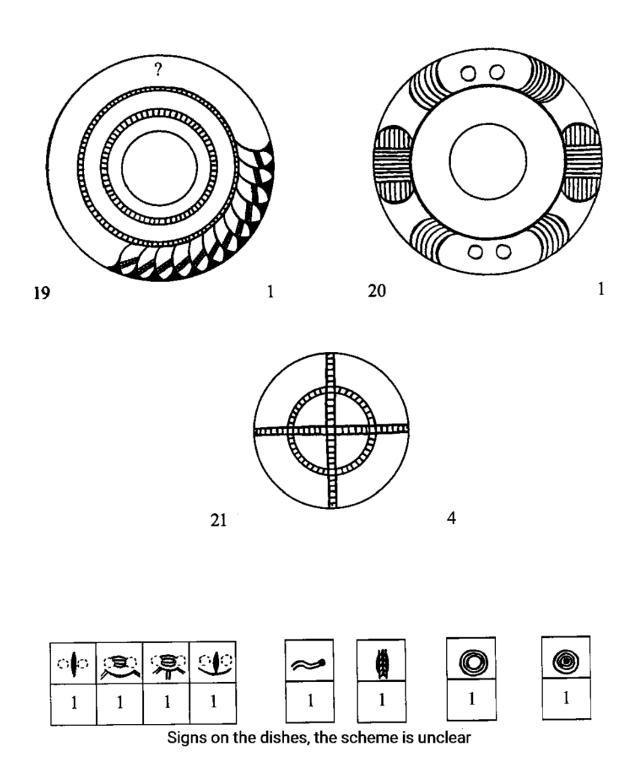


Figure 26: Kolodyste. Top view orthographic projections on vessels and signs

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Table 3: Kolodyste. Catalogue of signs on vessels

## Sushkivka sign system

## Stage Cl. Sushkivka (Cherkasy region, Uman district).

The pottery obtained during the excavations of the settlement by an expedition led by V. S. Kozlovskaya was used. 124 vessels were involved in the analysis. The state of preservation of ceramics is good.

The collection is stored in the funds of the National Museum of History of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement Sushkivka.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

- 1-3 schemes of paintings of cut-conical bowls.
- 4-10 schemes of paintings of cups.
- 11 schemes of painting amphorae.
- 12, 15-20, 22-26 schemes of paintings of biconical ware.
- 13, 14 schemes of painting pots.
- 21 schemes of painting pear-shaped utensils.

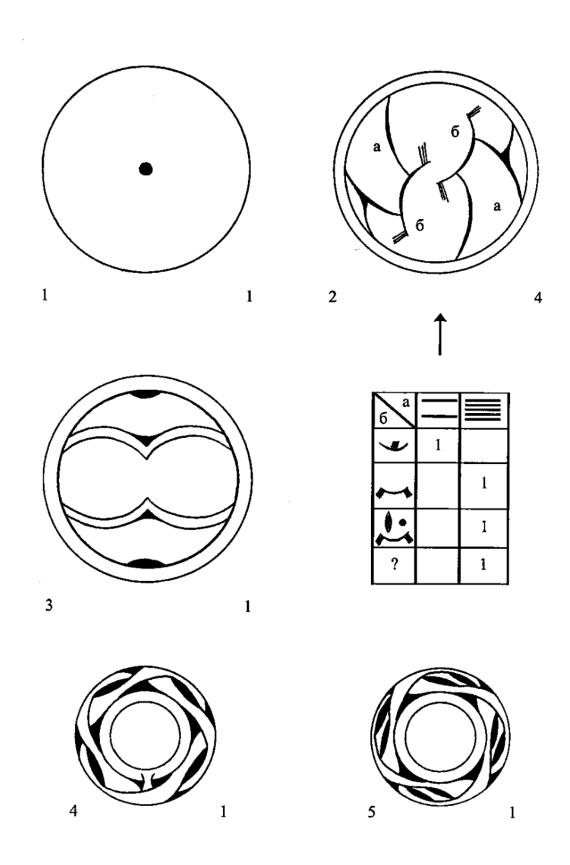


Figure 27: Sushkivka. Top view orthographic projections on vessels and signs.

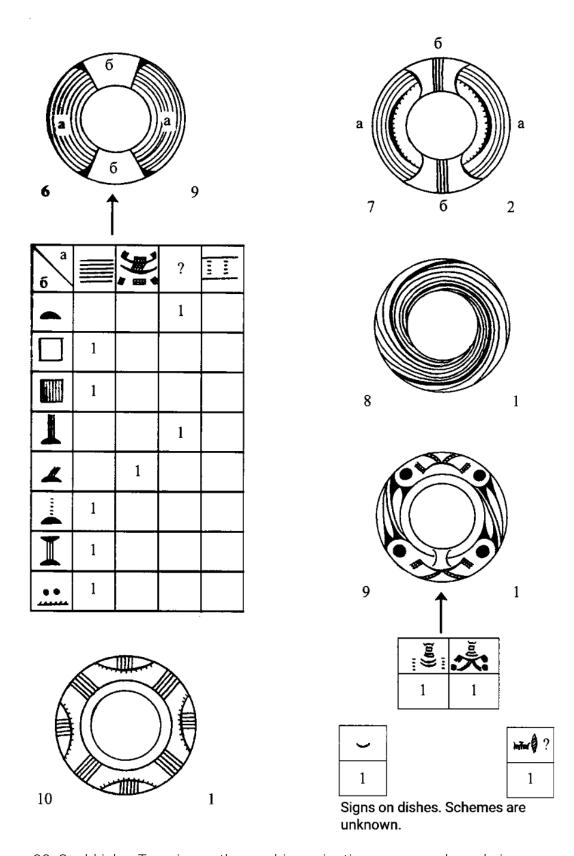


Figure 28: Sushkivka. Top view orthographic projections on vessels and signs.

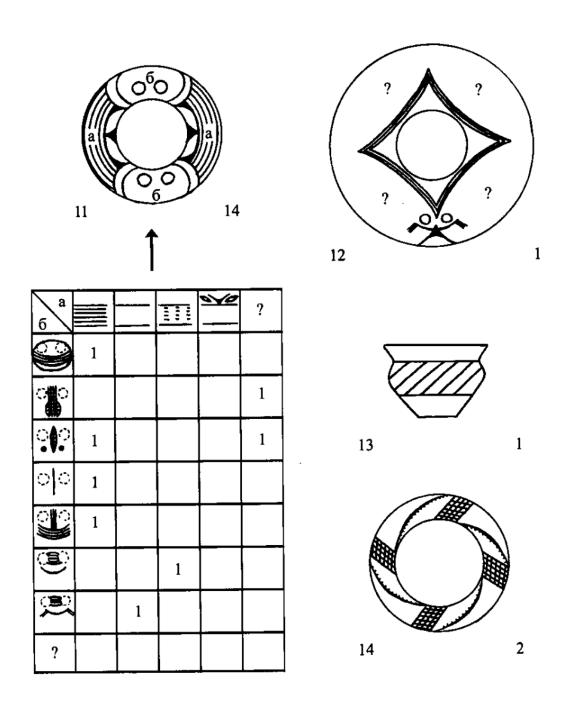


Figure 29: Sushkivka. Top view orthographic projections on vessels and signs.

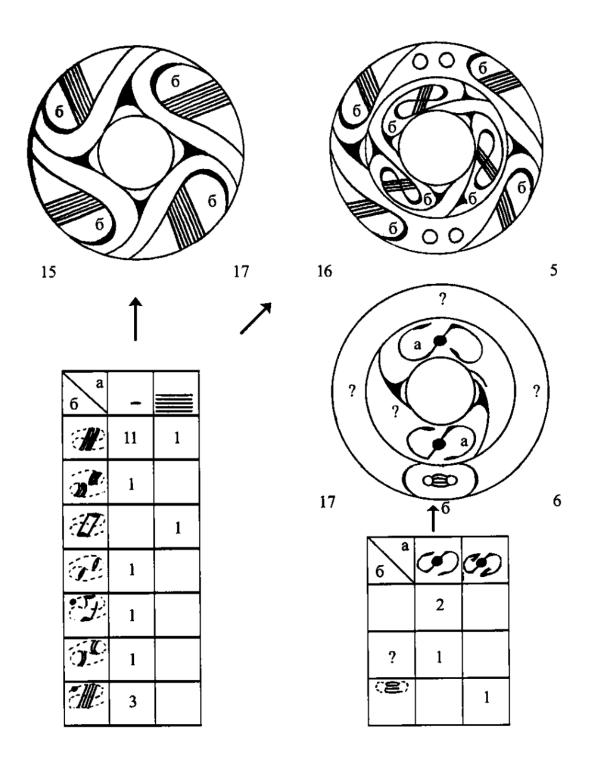


Figure 30: Sushkivka. Top view orthographic projections on vessels and signs.

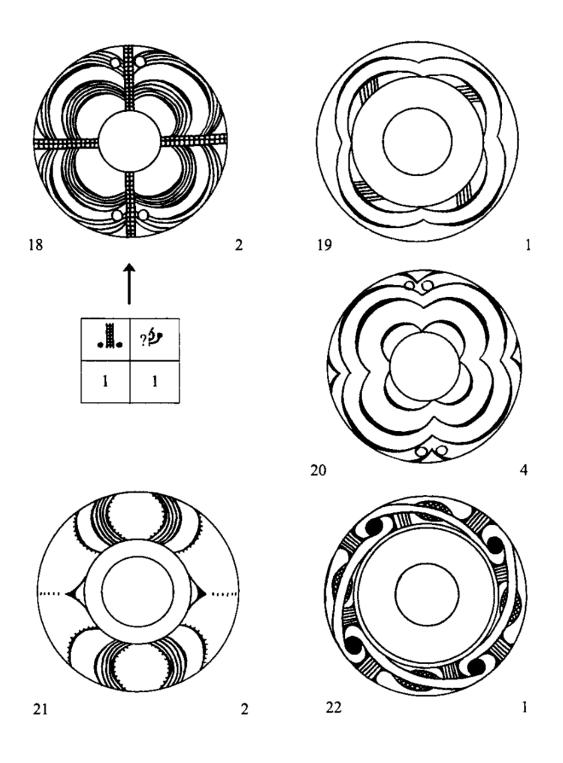


Figure 31: Sushkivka. Top view orthographic projections on vessels and signs.

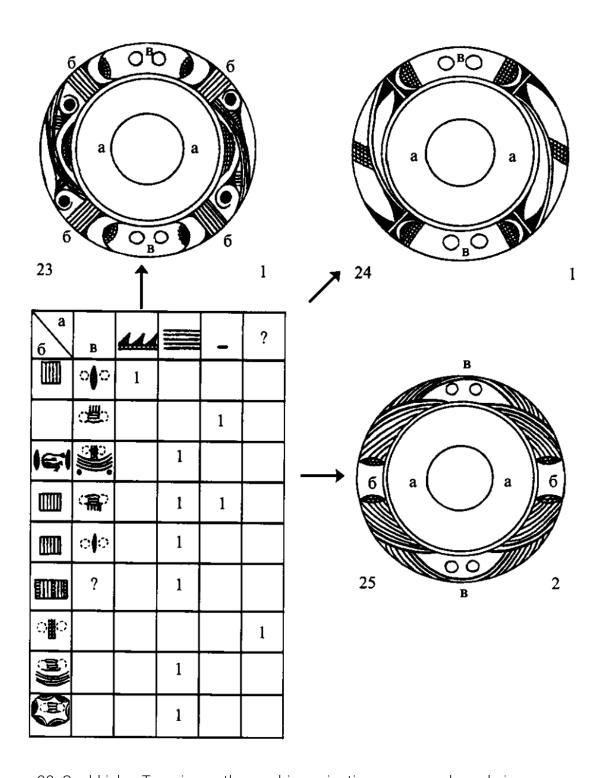


Figure 32: Sushkivka. Top view orthographic projections on vessels and signs.

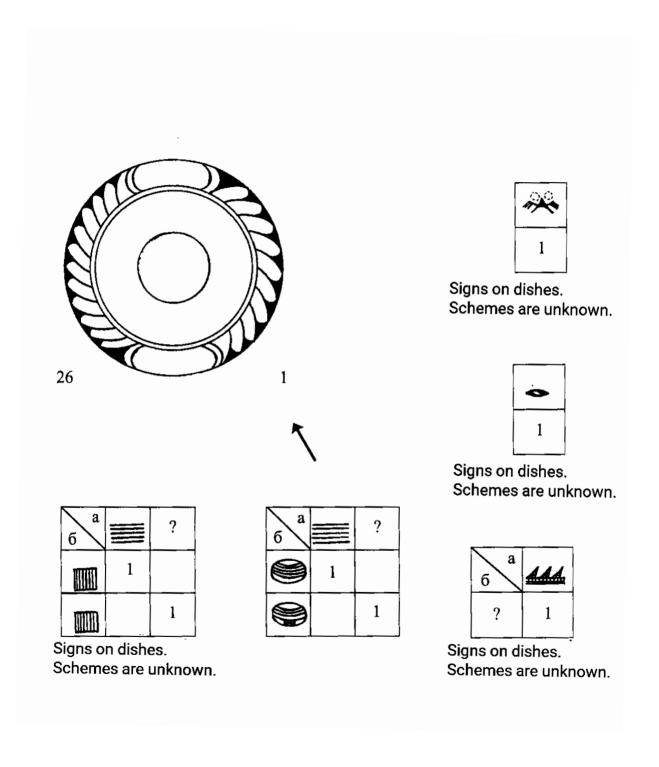


Figure 33: Sushkivka. Top view orthographic projections on vessels and signs.

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Table 4: Sushkivka. Catalogue of signs on vessels.

# Chicherkozivka the sign system

### Stage CI. Chicherkozivka (Cherkasy region, Zvenigorod district).

The work uses ceramics obtained during excavations of the settlement in 1984 by an expedition led by V. O. Kruts. 97 units of utensils were involved in the analysis. The condition of the material is satisfactory. Many vessels are highly fragmented.

The collection is stored at the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement Chicherkozivka.

The digits to the left of the diagrams are the serial number.

Figures on the right - the number of such schemes on the vessels involved in the analysis.

- 1-5 schemes of paintings of cut-conical (1, 3, 4) and cut-spherical (2, 5) bowl.
- 6, 7 schemes of painting cups.
- 8 scheme of painting pots.
- 9 is a diagram of the crater painting.
- 10 scheme of painting amphorae.
- 11 painting schemes of 5 biconical and 2 pear-shaped vessels.
- 12-20 schemes of paintings of biconical ware.

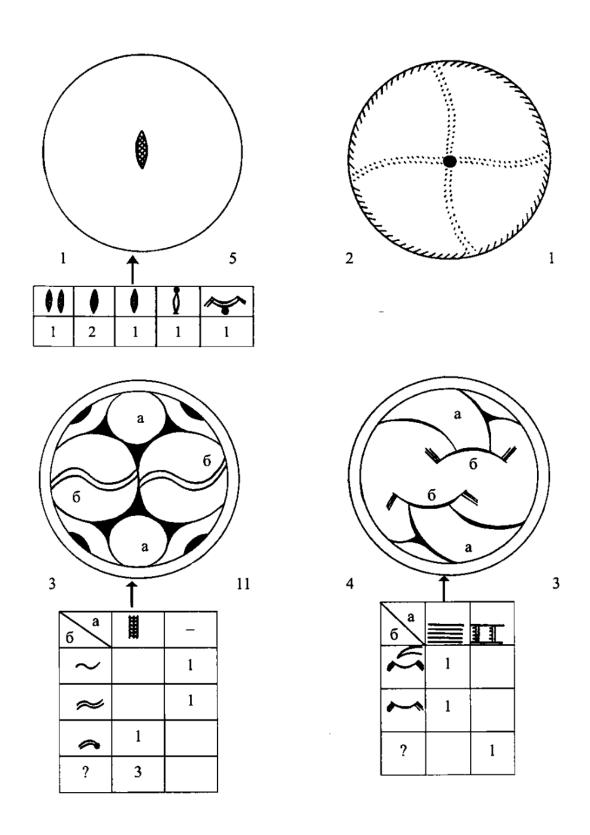


Figure 34: Chicherkozivka. Top view orthographic projections on vessels and signs.

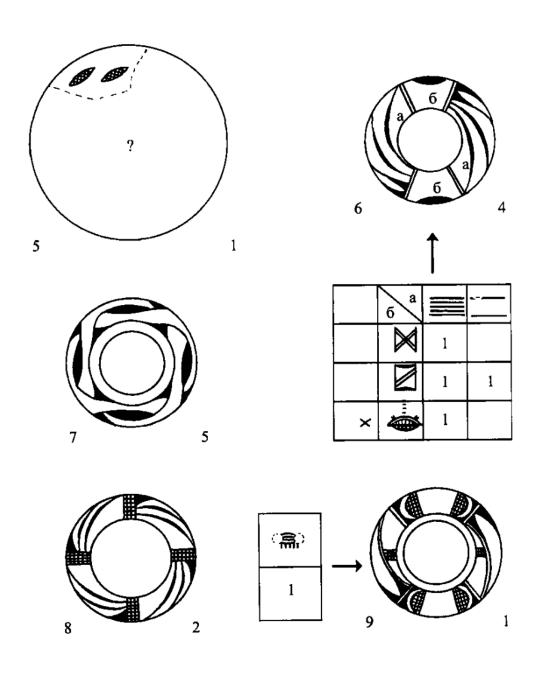


Figure 35: Chicherkozivka. Top view orthographic projections on vessels and signs.

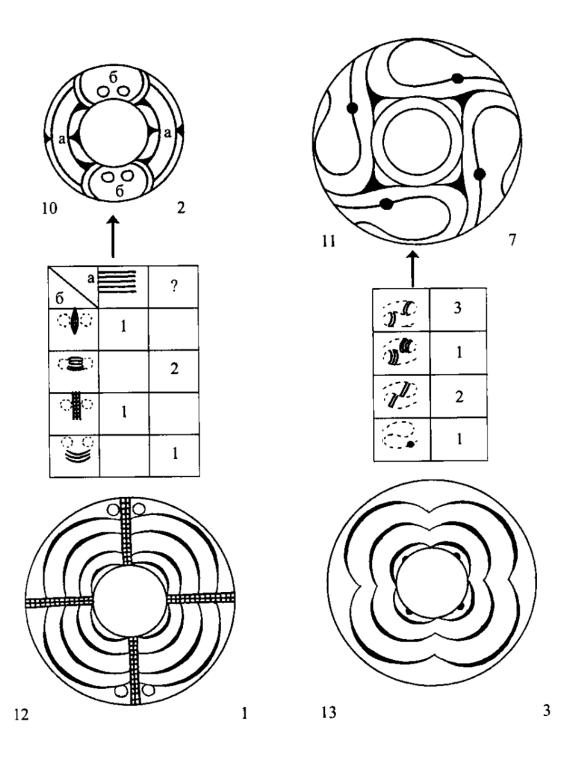


Figure 36: Chicherkozivka. Top view orthographic projections on vessels and signs.

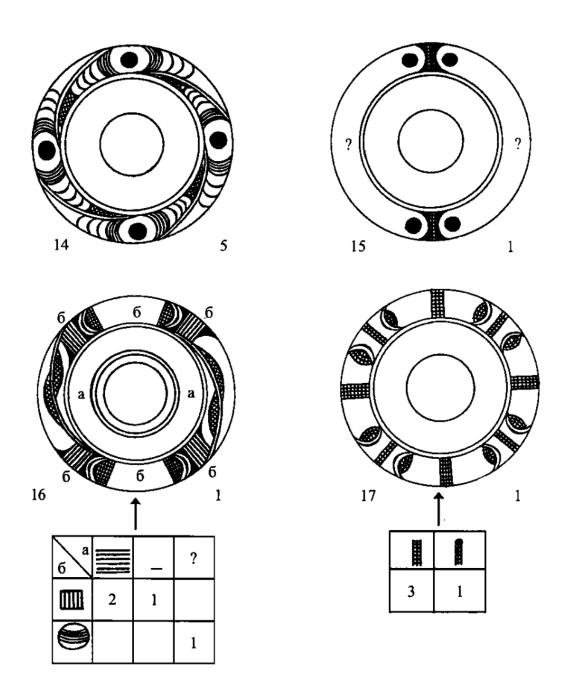


Figure 37: Chicherkozivka. Top view orthographic projections on vessels and signs.

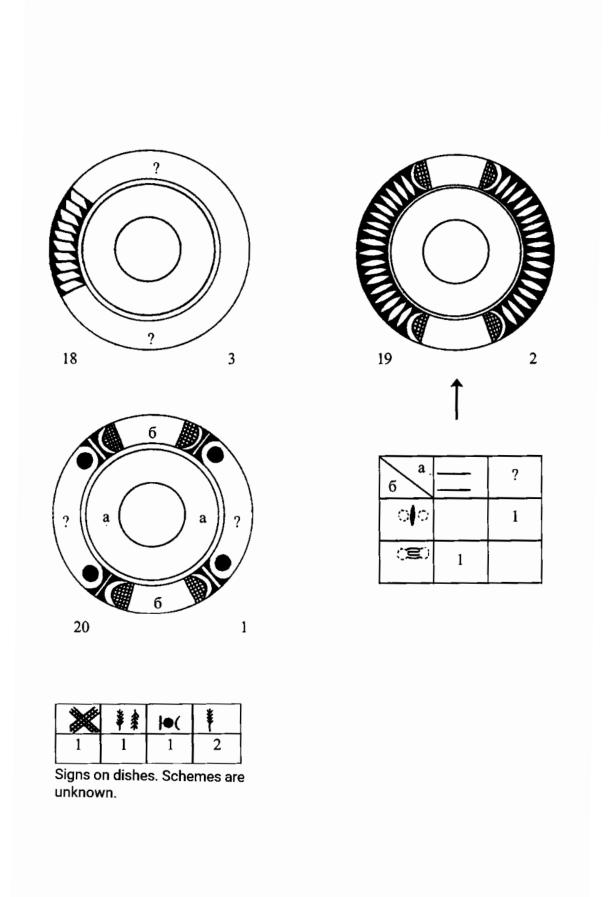


Figure 38: Chicherkozivka. Top view orthographic projections on vessels and signs.

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Table 5: Chicherkozivka. Catalogue of signs on vessels.

# Dobrovody sign system

### Stage CI. Dobrovody (Cherkasy region, Uman district).

The work uses ceramics obtained during excavations of the settlement by expeditions led by MM Shmagli in 1971 and 1974, and by expeditions led by TG Movsha in 1981-1982. 108 units of utensils were involved in the analysis. The condition of the material is satisfactory.

The collection is stored in the funds of the Cherkasy Museum of Local History and the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

### Schemes of paintings and signs on the vessels of the settlement of Dobrovody.

The numbers to the left of the diagrams are the sequence number.

Records on the right are the numbers of such schemes on the vessels involved in the analysis.

- 1-3 schemes of paintings of cut-conical bowls.
- 4-7 schemes of paintings of cups.
- 8 scheme of painting pots.
- 9 the scheme of a list of amphorae.
- 10 -scheme of the cup.
- 11-20, 22, 23 -schemes of painting biconical utensils.
- 21 schemes of painting craters.

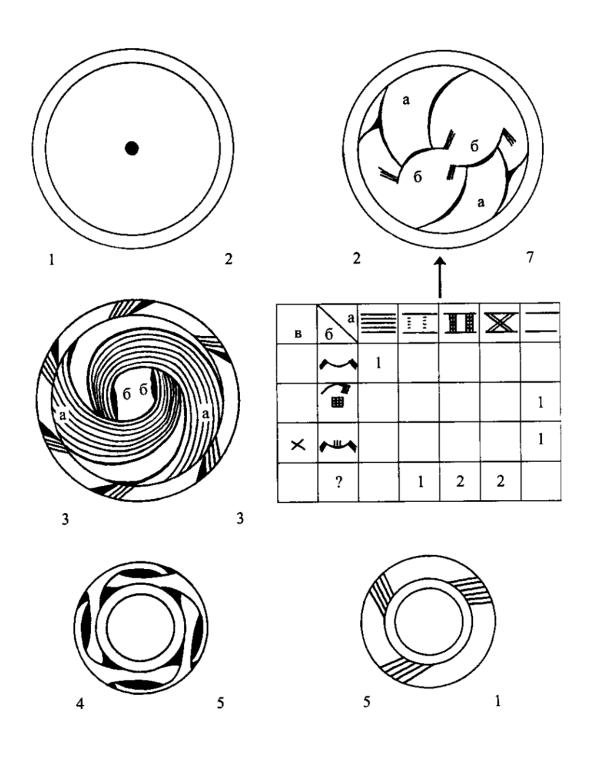


Figure 39: Dobrovody. Top view orthographic projections on vessels and signs.

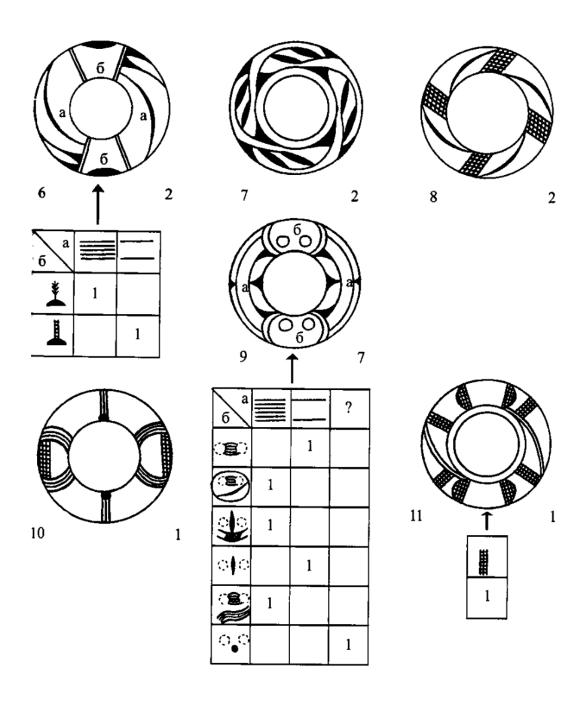


Figure 40: Dobrovody. Top view orthographic projections on vessels and signs.

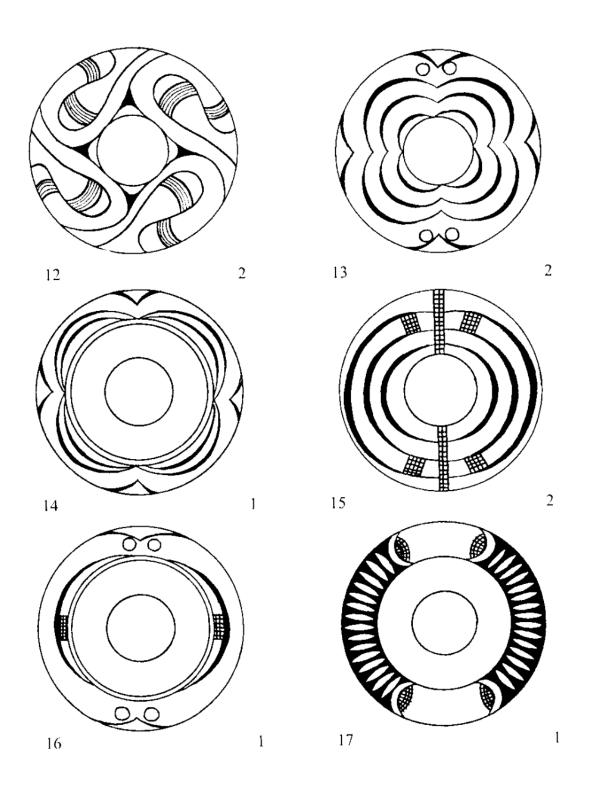


Figure 41: Dobrovody. Top view orthographic projections on vessels and signs.

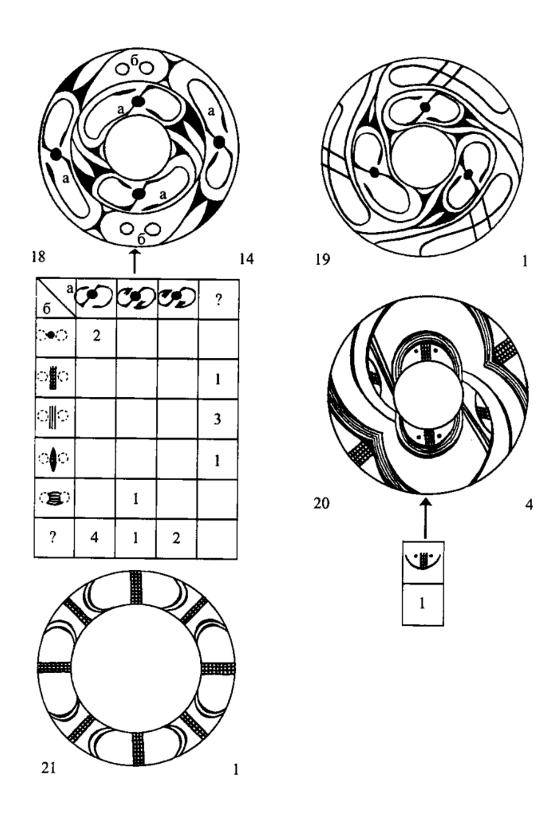


Figure 42: Dobrovody. Top view orthographic projections on vessels and signs.

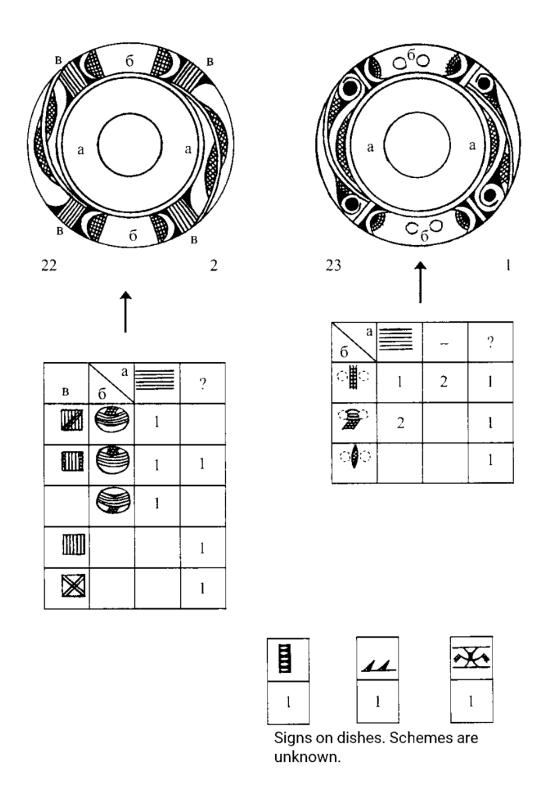


Figure 43: Dobrovody. Top view orthographic projections on vessels and signs.

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Figure 44: Dobrovody. Catalogue of signs on vessels. Tomashivska group

## Talyanky sign system

#### Stage CI. Talyanky (Cherkasy region, Talniv district).

The work uses ceramics obtained during the research of the settlement by expeditions led by V. O. Kruts in 1981-1992. 833 vessels were involved in the analysis. The state of preservation of the material is good.

The collection is stored in the funds of the Museum of Local History in Cherkasy, the Museum of Bread in Talne, the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

#### Schemes of paintings and signs on the vessels of the settlement of Talyanky.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such schemes on the utensils involved in the analysis.

- 1, 3, 5-7 schemes of paintings of cut-conical bowls.
- 2 scheme of paintings of cut-spherical bowls.
- 4 schemes of painting 1 cut-conical and I cut-spherical bowl.
- 8, 9, 12, 14-17, 19-24 schemes of painting cups.
- 10 painting schemes of 33 cups and 7 craters.
- 11 painting schemes of 23 craters, 5 cups and 2 craters with handles.
- 13 schemes of painting 4 cups and 2 biconical vessels.
- 18 scheme of painting 15 pots and 1 cup.
- 25, 27, 29-31, 33-38, 43-45, 49-53, 59-63, 65-73 painting schemes biconical utensils.
- 26 scheme of painting amphorae.
- 28 scheme of painting 4 biconical vessels, 1 pot and 1 pear-shaped vessel.
- 32, 41, 42, 54 schemes of painting craters.
- 39 painting scheme of 9 biconical vessels and 4 craters.
- 40 painting scheme of 5 biconical vessels and 1 crater.
- 46 scheme of painting a pear-shaped vessel.
- 47 scheme of painting a small biconical vessel.
- 48 scheme of painting 2 biconical vessels and 1 crater with a handle.
- 55 schemes of painting 2 cups and 1 crater with a handle.
- 56 scheme of painting 1 biconical vessel and 1 crater with a handle.

- 57 painting scheme of 1 crater with a handle, 1 crater, 1 biconical vessel.
- 58 scheme of painting 5 craters with handles, 1 pear-shaped vessel and 3 biconical vessels.
- 64 painting scheme of 2 biconical vessels and 1 crater.
- 70 painting scheme of 4 biconical vessels, 1 crater and 1 crater with a handle. 74 scheme of painting a biconical vessel ("import").
- 75 scheme of painting a pear-shaped vessel ("import").
- 76 painting scheme of "imported" cut-conical bowl.

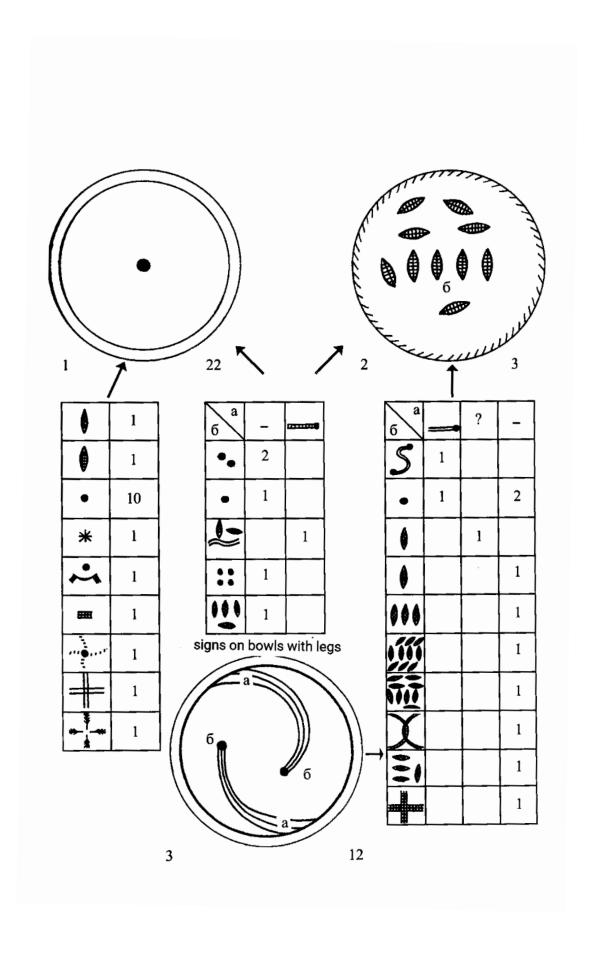


Figure 45: Talyanky. Top view orthographic projections on vessels and signs.

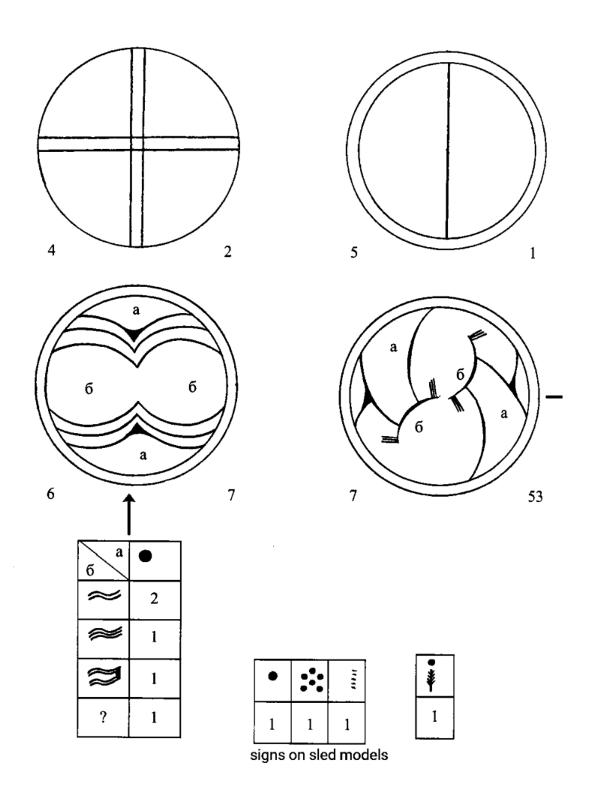


Figure 46: Talyanky. Top view orthographic projections on vessels and signs.

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Figure 47: Talyanky. Signs on vessels.

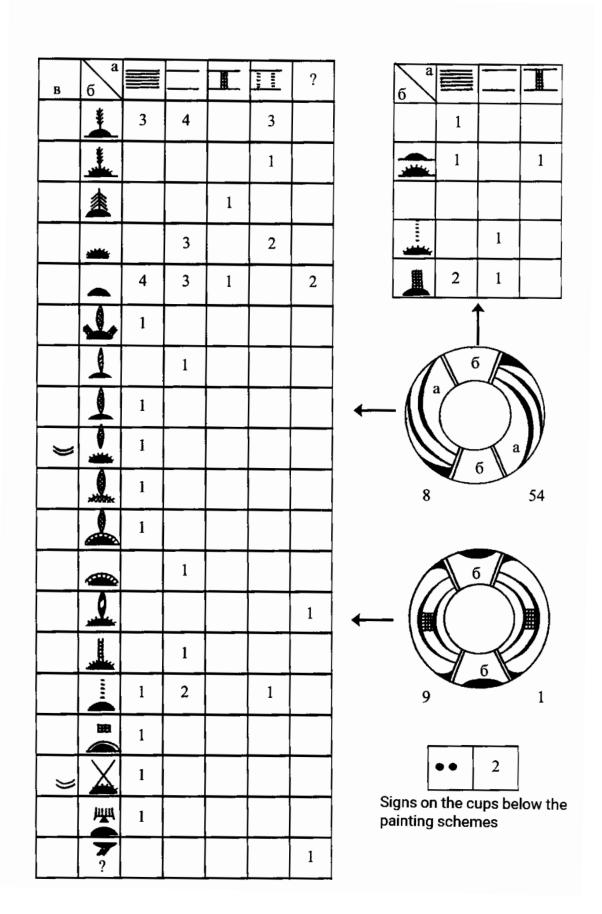


Figure 48: Talyanky. Signs of top view orthographic projections on vessels.

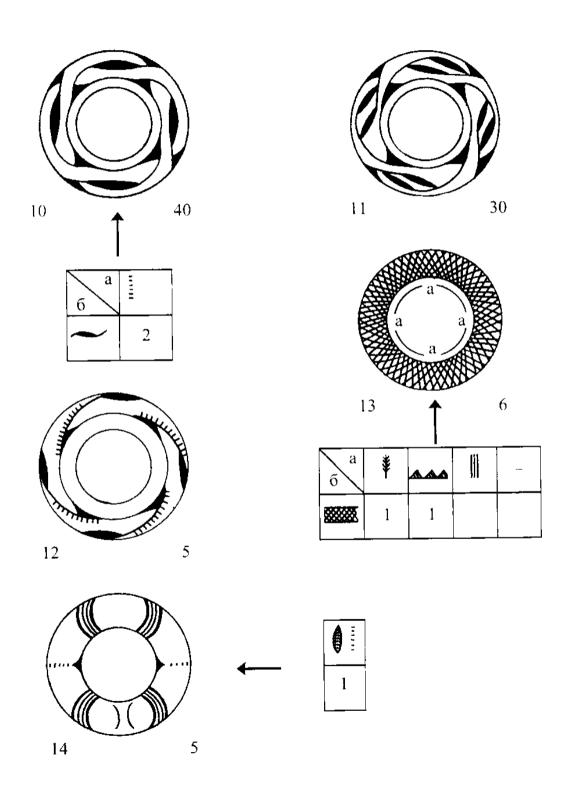


Figure 49: Talyanky. Top view orthographic projections on vessels and signs.

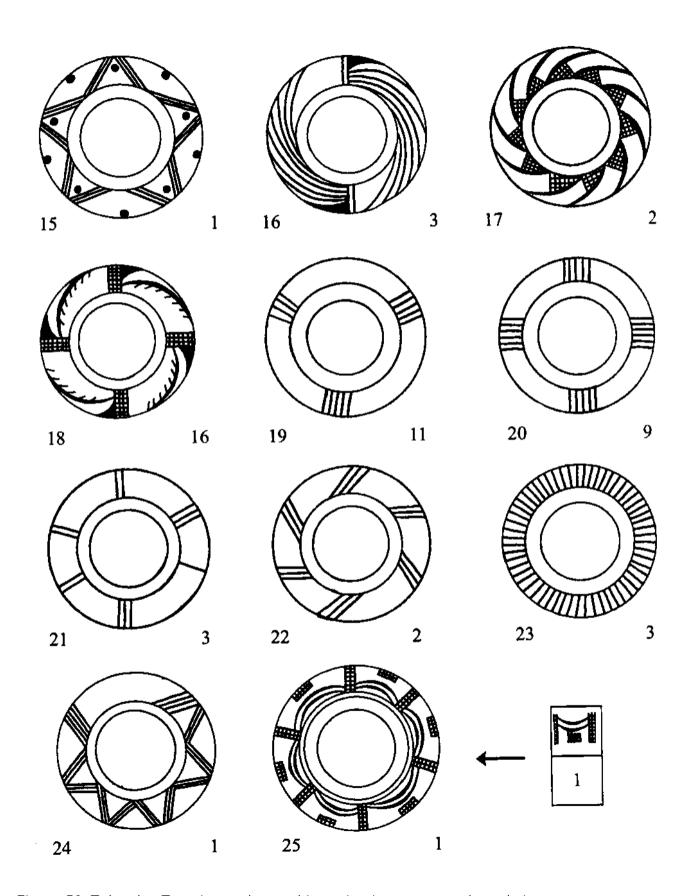


Figure 50: Talyanky. Top view orthographic projections on vessels and signs.

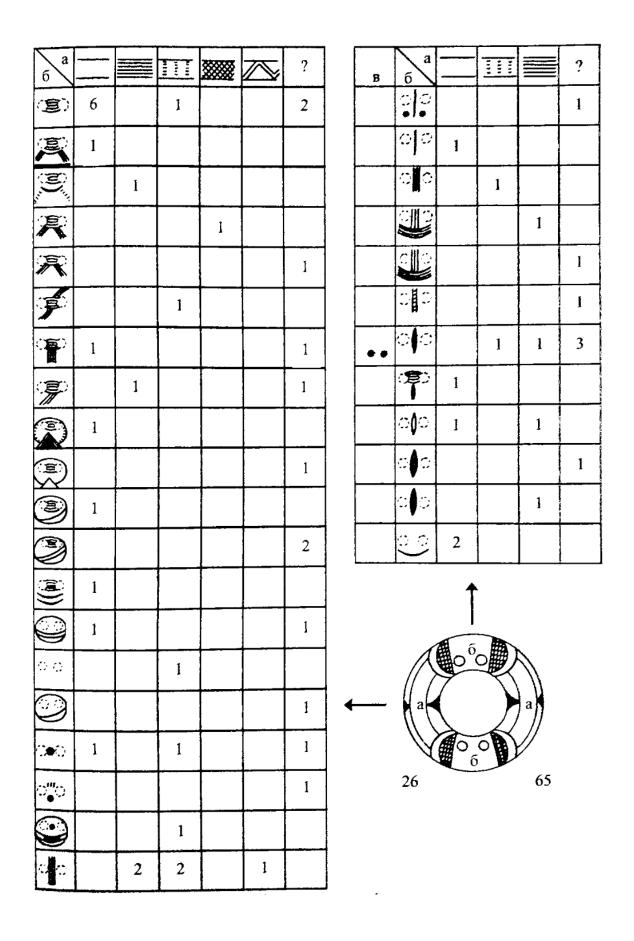


Figure 51: Talyanky. Signs and top view orthographic projections on vessels.

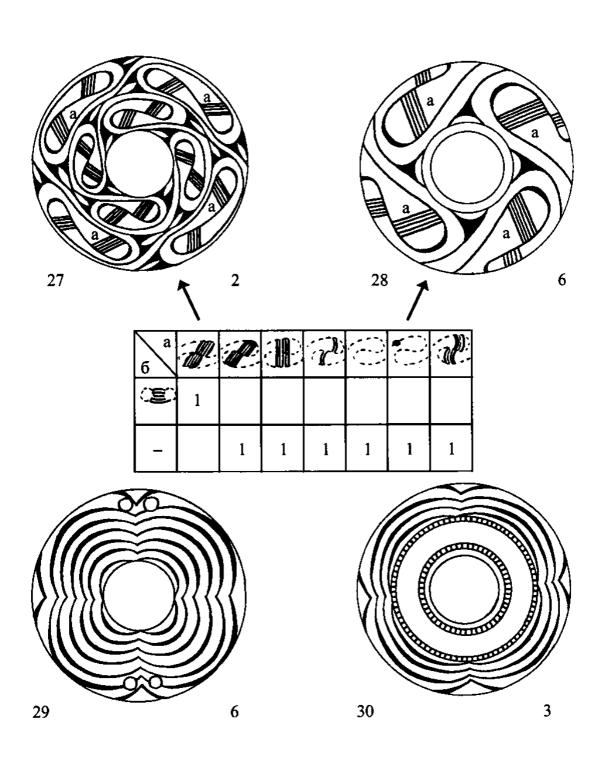


Figure 52: Talyanky. Top view orthographic projections on vessels and signs.

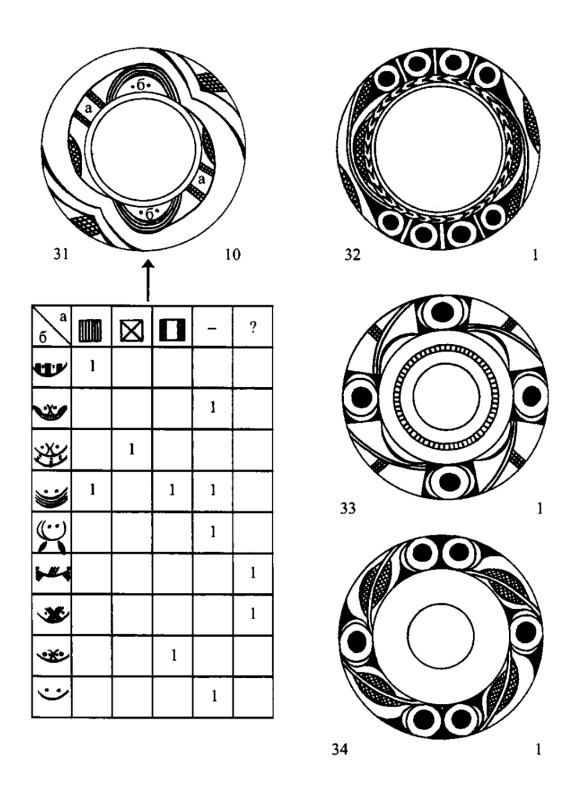


Figure 53: Talyanky. Top view orthographic projections on vessels and signs.

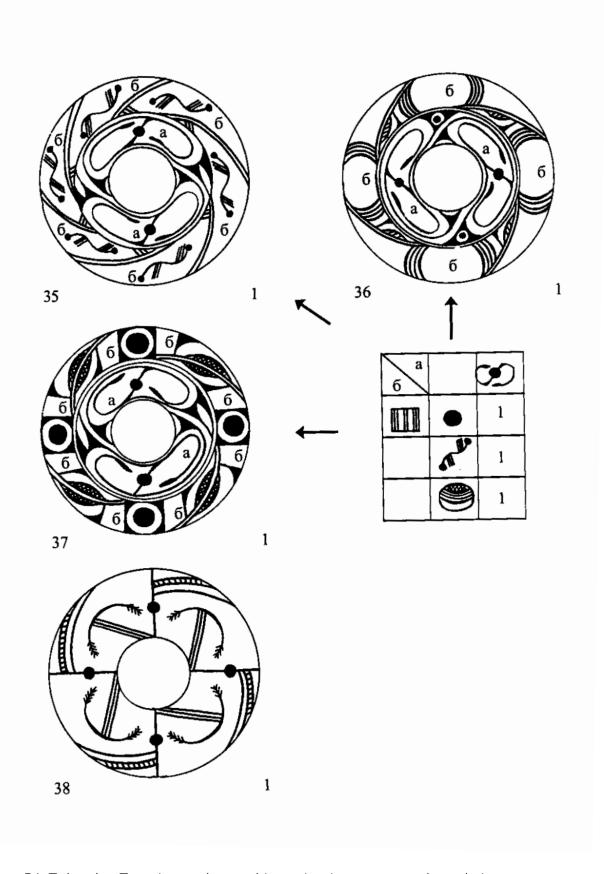


Figure 54: Talyanky. Top view orthographic projections on vessels and signs.

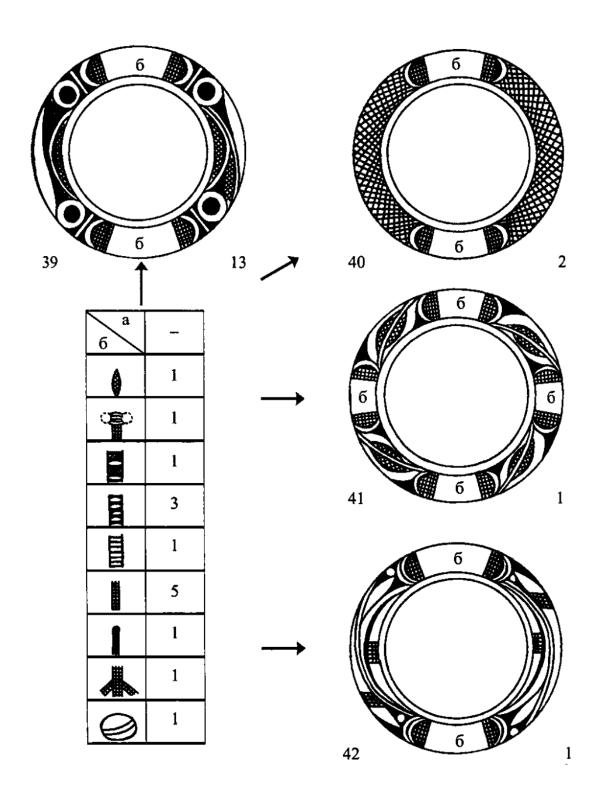


Figure 55: Talyanky. Top view orthographic projections on vessels and signs.

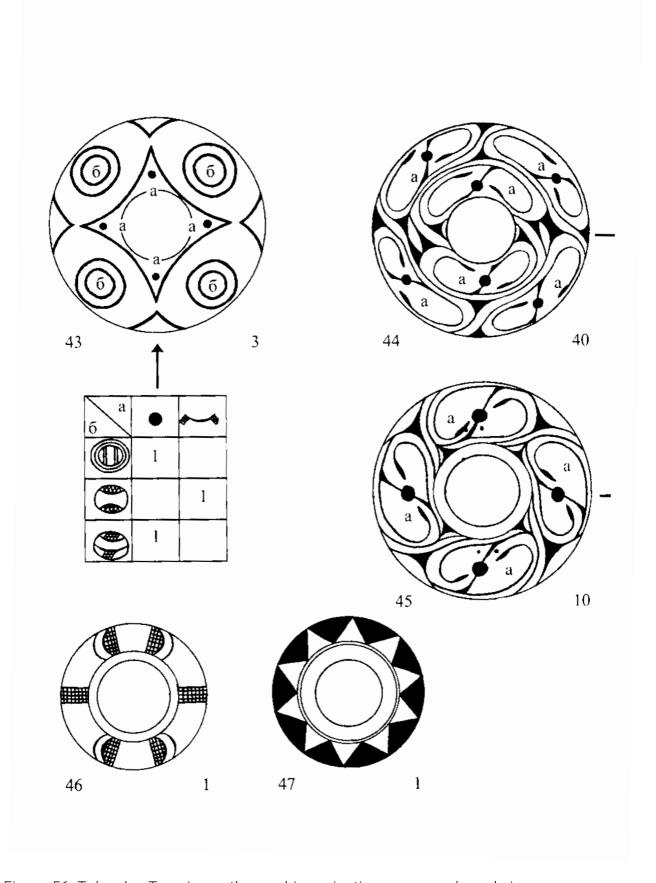


Figure 56: Talyanky. Top view orthographic projections on vessels and signs.

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Figure 57: Talyanky. Signs on biconical vessels.

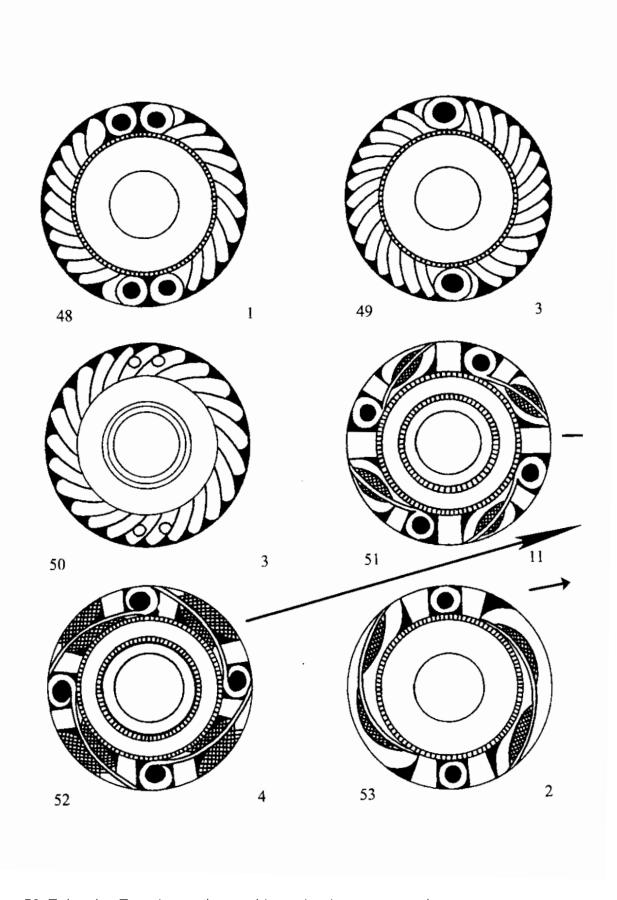


Figure 58: Talyanky. Top view orthographic projections on vessels.

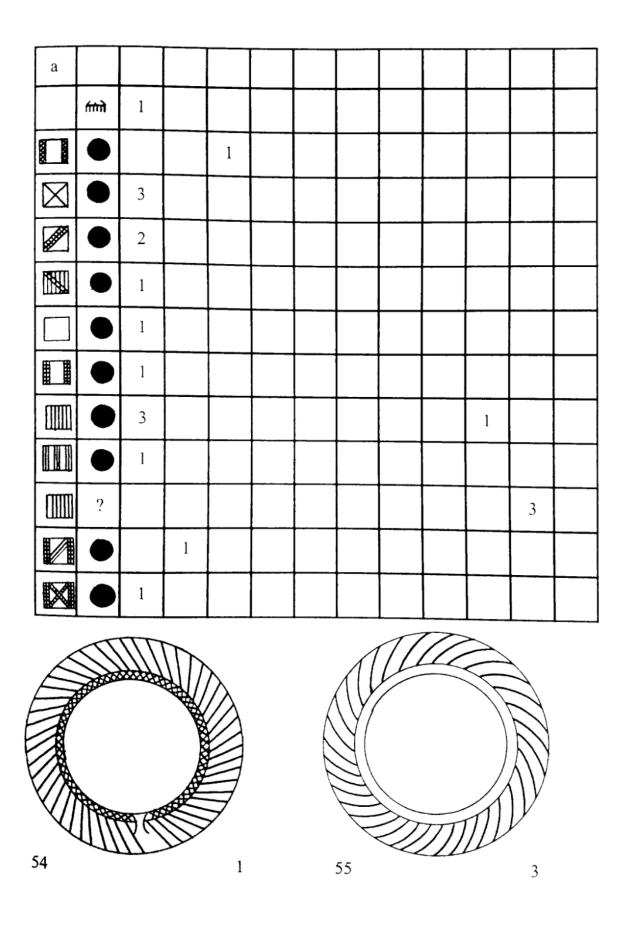


Figure 59: Talyanky. Signs and top view orthographic projections on vessels.

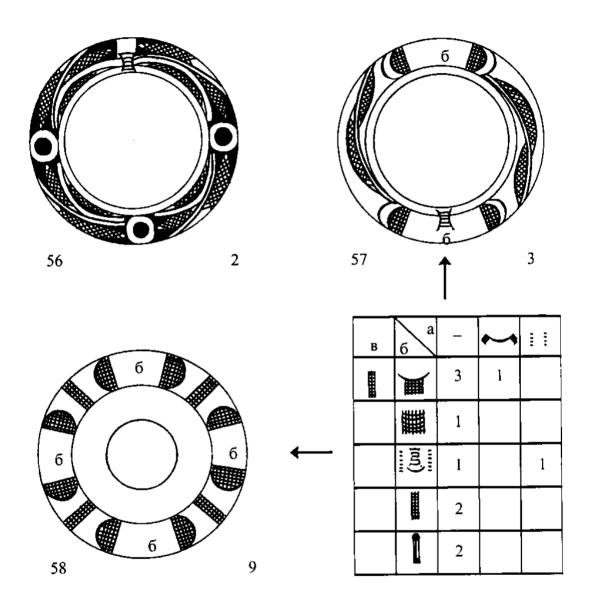


Figure 60: Talyanky. Top view orthographic projections on vessels and signs.

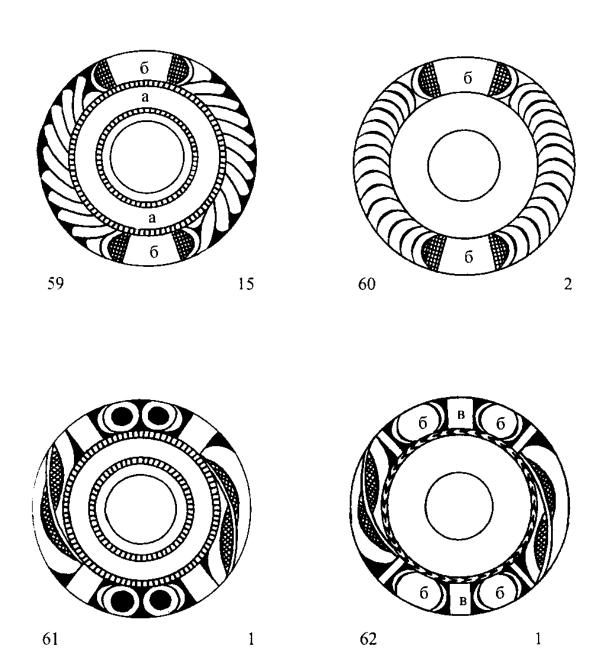


Figure 61: Talyanky. Top view orthographic projections on vessels.

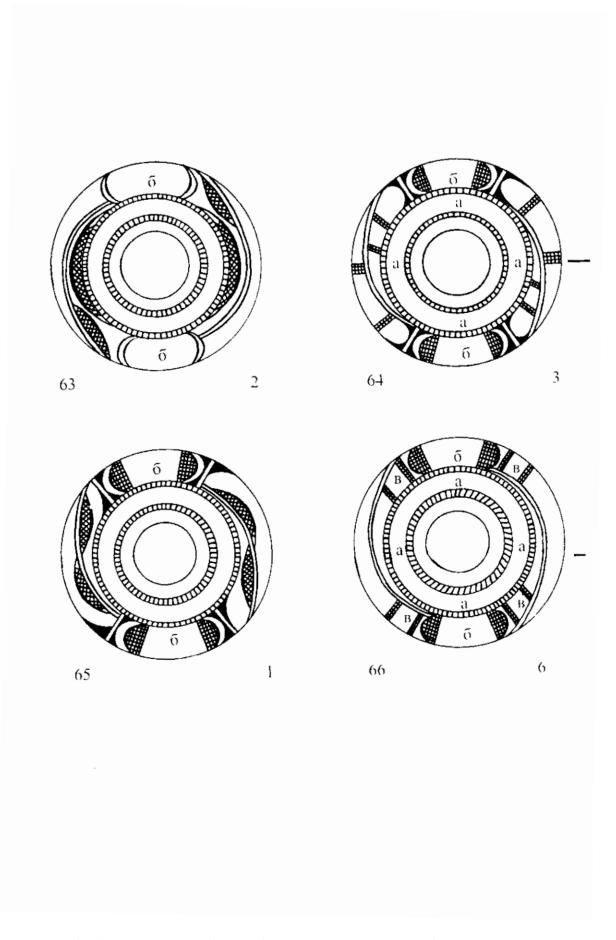


Figure 62: Talyanky. Top view orthographic projections on vessels.

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Table 6: Talyanky. Signs.

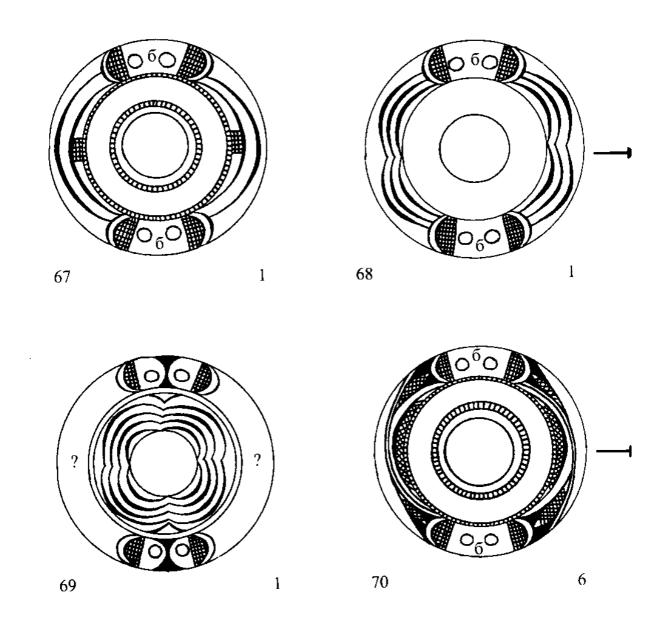


Figure 63: Talyanky. Top view orthographic projections on vessels.

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Table 7: Talyanky. Signs on biconical vessels. (\*a, 1 - the signs are located in the upper tier of the paintings of the biconical ware between the handles).

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Table 8: Talyanky. Signs on biconical vessels.

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Table 9: Talyanky. Signs on biconical vessels.

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Table 10: Talyanky. Signs on biconical vessels.

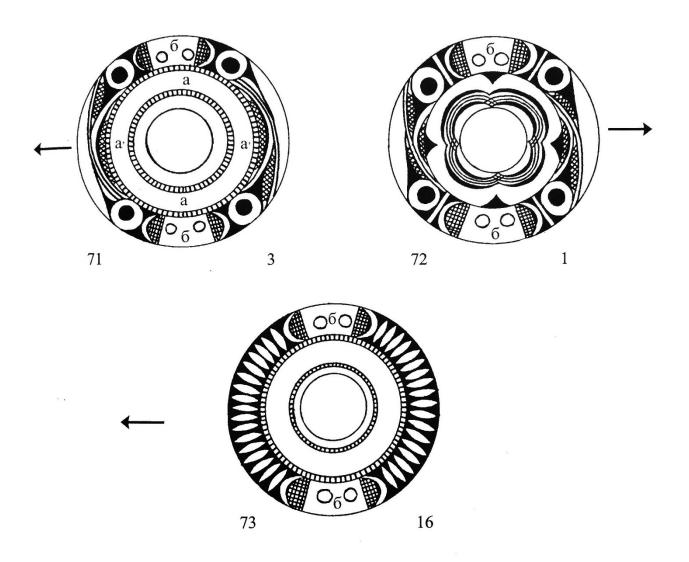


Figure 64: Talyanky. Top view orthographic projections on vessels.

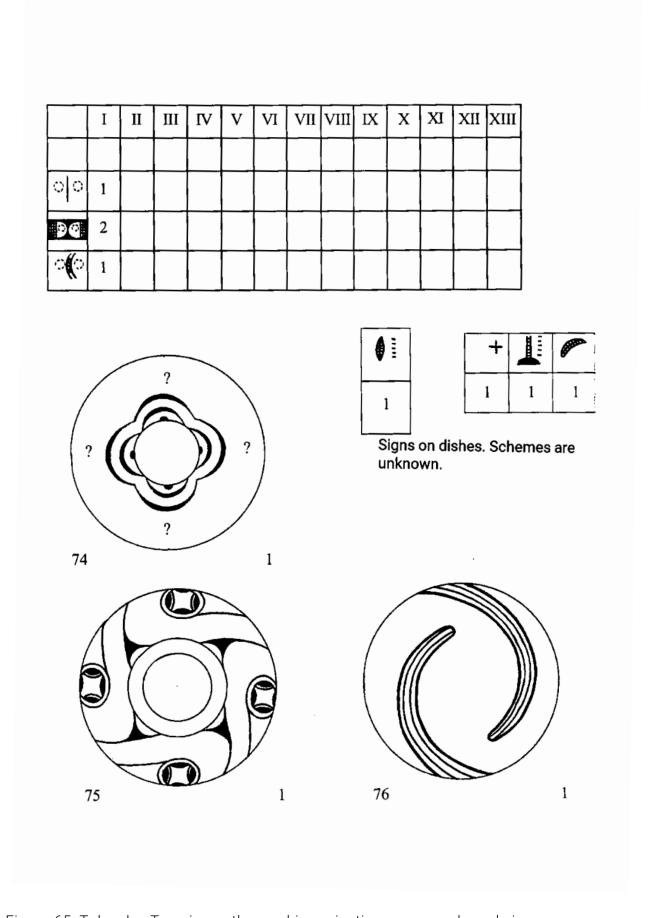


Figure 65: Talyanky. Top view orthographic projections on vessels and signs.

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Table 11: Talyanky. Catalogue of signs on vessels.

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183 1	184 1				185 1	186 1		187 1		188 1		189 1

Table 12: Talyanky. Catalogue of signs on vessels.

# Talne II sign system

### Stage CI. Talne II (Cherkasy region, Taliev district)

The work uses ceramics obtained during excavations of the settlement in 1990 by an expedition led by V. O. Kruts. 65 units of utensils were involved in the analysis. The state of preservation of the material is satisfactory. Many utensils are fragmented and have a damaged ornament.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

### Schemes of paintings and signs on the vessels of the settlement Talne II.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such schemes on the utensils involved in the analysis.

- 1-4 schemes of paintings on cut-conical bowls.
- 5-9 schemes of paintings on cups.
- 10 scheme of paintings on amphorae.
- 11, 13-18 schemes of paintings on biconical ware.
- 12 a diagram of the crater painting.
- 19 diagram of the painting of the "imported" cut-conical bowl.
- 20 a diagram of a painting of an "imported" cut-spherical bowl.
- 21-22 the scheme of a list of "imported" cups.

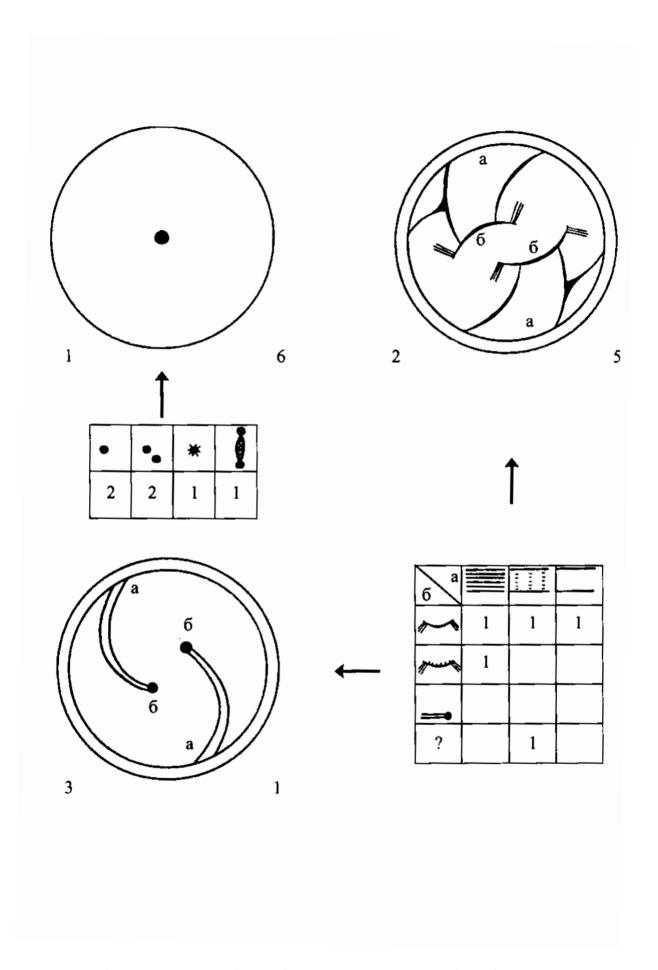


Figure 66: Talne II. Top view orthographic projections on vessels and signs.

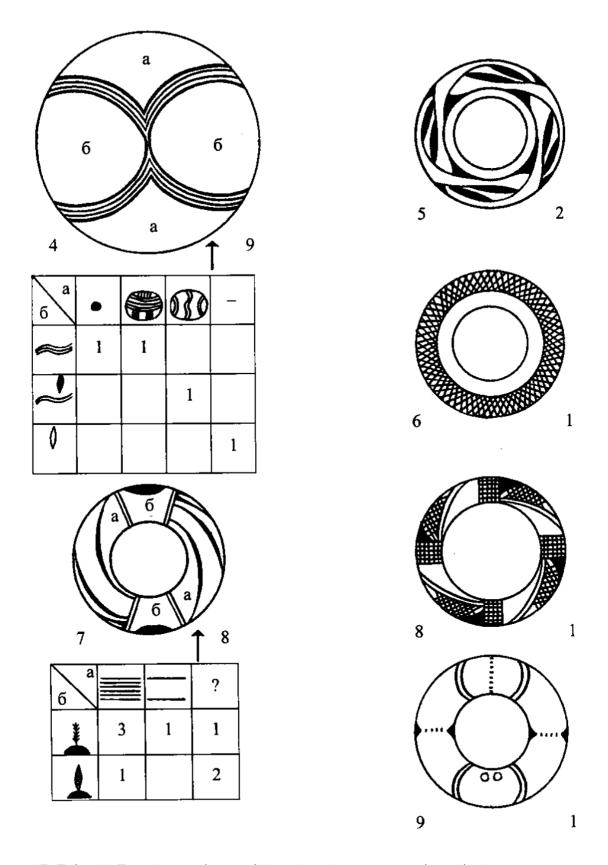


Figure 67: Talne II. Top view orthographic projections on vessels and signs.

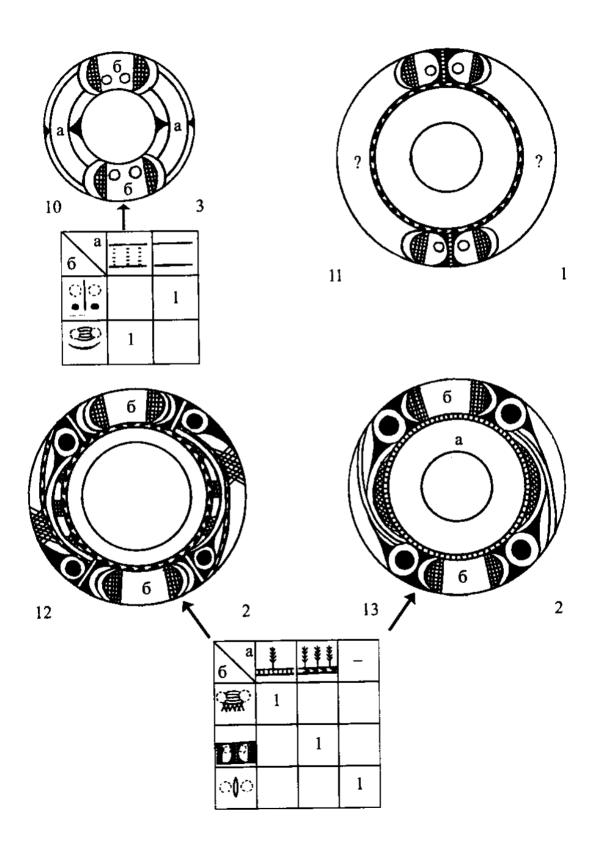


Figure 68: Talne II. Top view orthographic projections on vessels and signs.

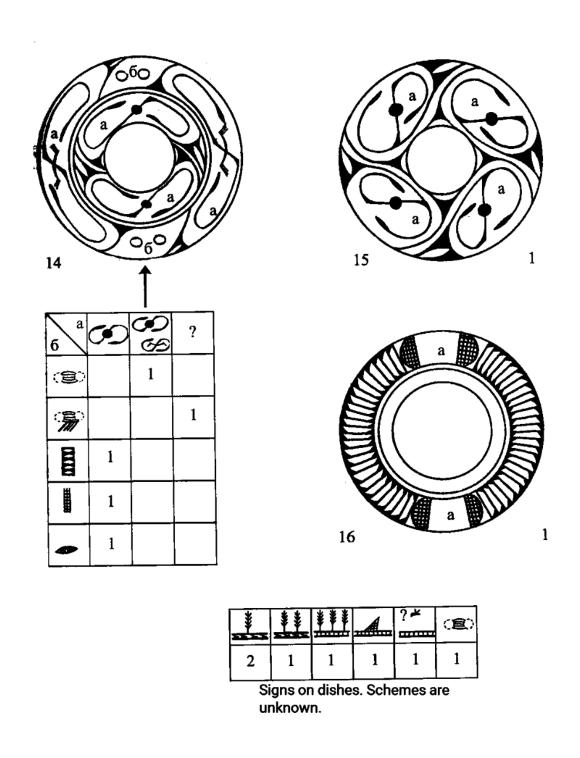


Figure 69: Talne II. Top view orthographic projections on vessels and signs.

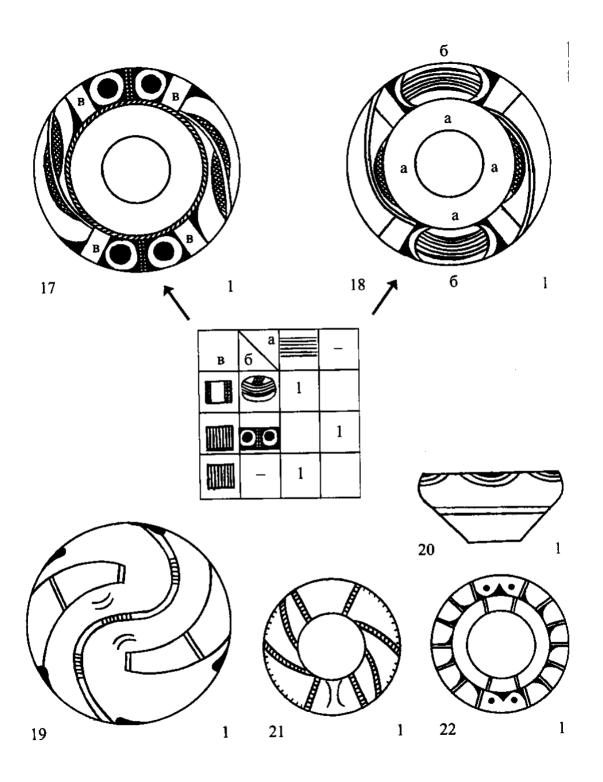


Figure 70: Talne II. Top and lateral projections on vessels and signs.

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Table 13: Talne II. Catalogue of signs on vessels.

## Maidanets sign system

### Stage CI. Maidanets (Cherkasy region, Taliniv district)

The work uses ceramics obtained during the research of settlements and expeditions led by M. M. Shmagli in 1971, 1973-1976, 1979-1980, 1984-1990. 1259 vessels were involved in the analysis.

The condition of the material is satisfactory, many vessels are highly fragmented or have a very damaged ornament.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine and the Museum of Local History in Cherkasy.

### Schemes of paintings and signs on the vessels of the settlement Maidanets.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the cookware involved in the analysis.

- 1 painting scheme 62 cut-conical bowls, 4 cut-spherical bowls and 1 cut-conical bowl on legs.
- 2, 3, 5, 6, 8, 14, 17, 18, 20-22, 24, 25 schemes of painting of cut-conical bowls.
- 4 painting schemes of 5 cut-spherical and 4 cut-conical bowls.
- 7, 10-13, 16 schemes of paintings on cut-spherical m juice.
- 9 painting schemes of 2 cut-conical and 2 cut-spherical bowls.
- 15 schemes of paintings on cut-conical bowls (1 on legs).
- 19 schemes of paintings on 42 cut-conical bowls, 3 cut-spherical cut-conical bowls on legs.
- 23 schemes of paintings on 41 cut-conical, 4 cut-spherical bowls and 2 cut-conical bowls on legs.
- 26 schemes of paintings on cups.
- 27 painting schemes of 13 cups and 3 craters.
- 28 painting schemes of 22 pots and 3 craters.
- 29, 34-41 schemes of painting cups.
- 30 schemes of painting 1 gutus, 2 cups, 1 biconical vessel.
- 31-33 schemes of painting cups with handles.
- 42 scheme of painting amphorae.
- 43, 45, 46, 48, 49, 51, 52, 56-63, 65-69, 73-78, 80 schemes of painting on biconical utensils.

- 44 painting scheme of 2 biconical vessels, 2 pear-shaped vessels and a crater.
- 47 scheme of painting pear-shaped utensils.
- 50 is a diagram of a painting of a pear-shaped vessel and a crater.
- 53 scheme of painting 10 pots, 1 pot on legs, 1 gutus.
- 54, 64, 70 schemes of painting craters.
- 55 scheme of painting 39 biconical and 1 pear-shaped vessel.
- 71 scheme of painting 15 biconical vessels and 12 craters.
- 72 scheme of painting 30 biconical vessels and 18 craters.
- 79 scheme of painting pots.
- 81-85, 88 schemes of paintings on cut-conical "imported" bowls.
- 86 87 schemes of paintings on cut-spherical "imported" bowls.
- 89 91 schemes of painting "imported" cups.
- 92-103, 106-108 schemes of painting "imported" biconical vessels.
- 105 scheme of painting a pear-shaped "imported" vessel.

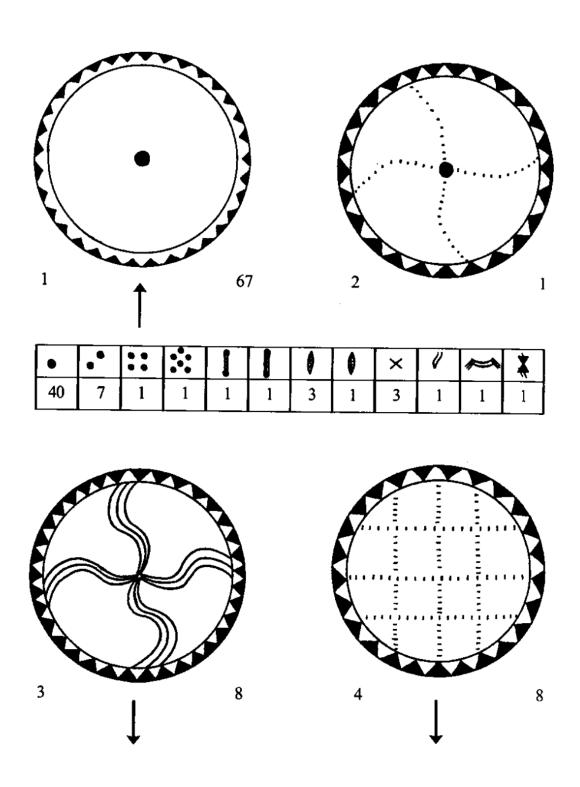


Figure 71: Maidanetske. Top view orthographic projections of signs on vessels.

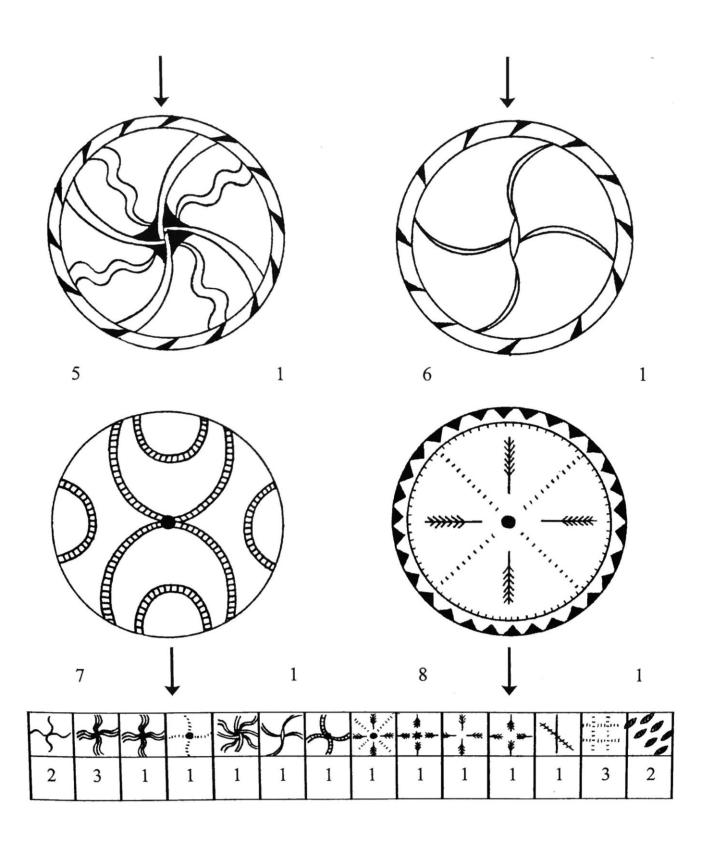


Figure 72: Maidanetske. Top view orthographic projections of signs on vessels.

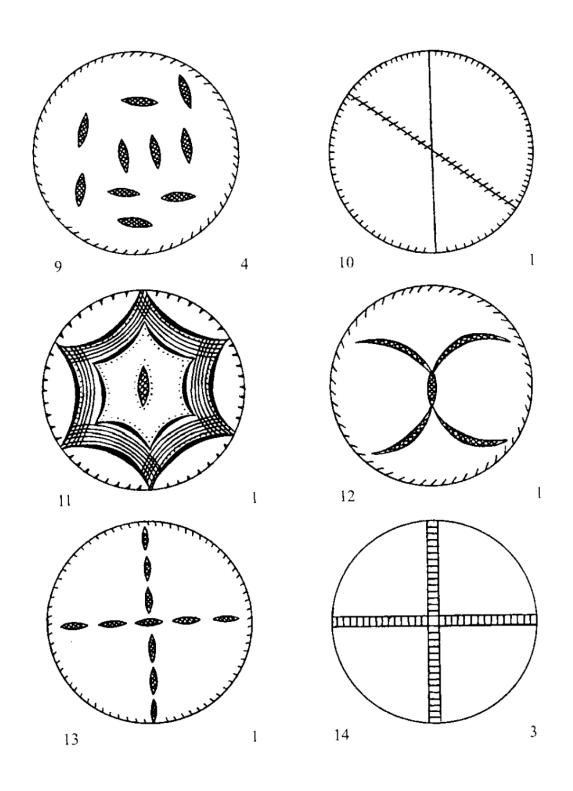


Figure 73: Maidanetske. Top view orthographic projections of signs on vessels.

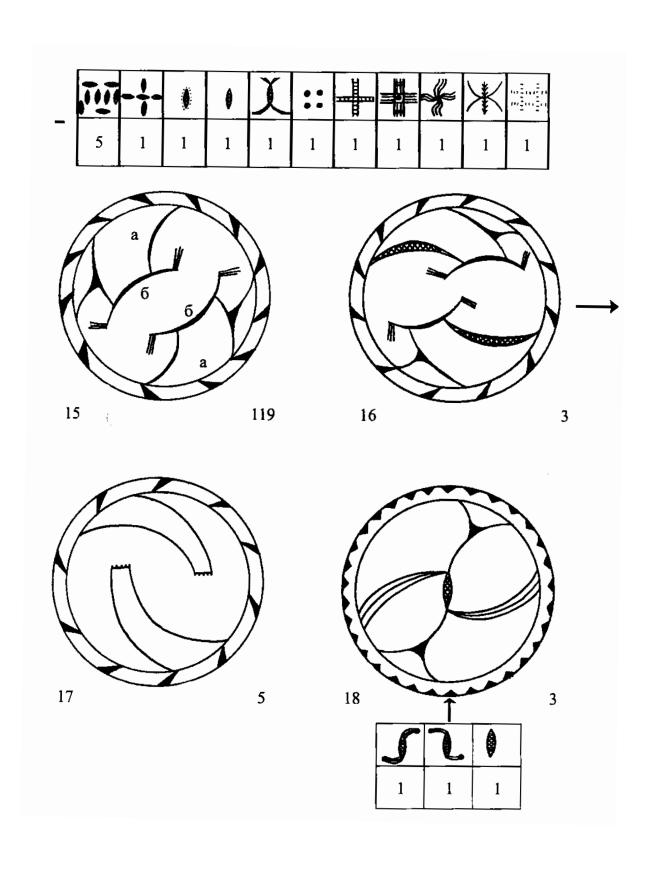


Figure 74: Maidanetske. Top view orthographic projections of signs on vessels.

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Table 14: Maidanetske. Signs on vessels.

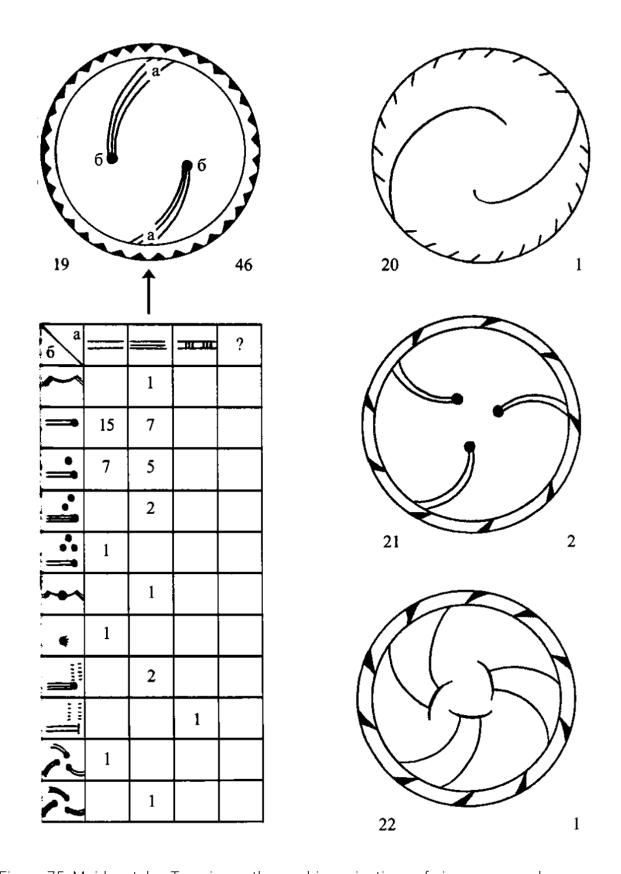


Figure 75: Maidanetske. Top view orthographic projections of signs on vessels.

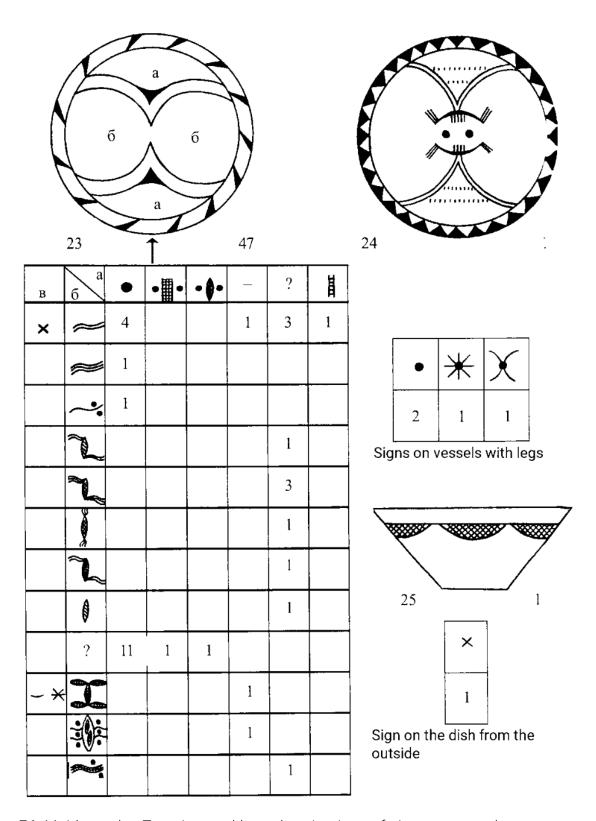


Figure 76: Maidanetske. Top view and lateral projections of signs on vessels.

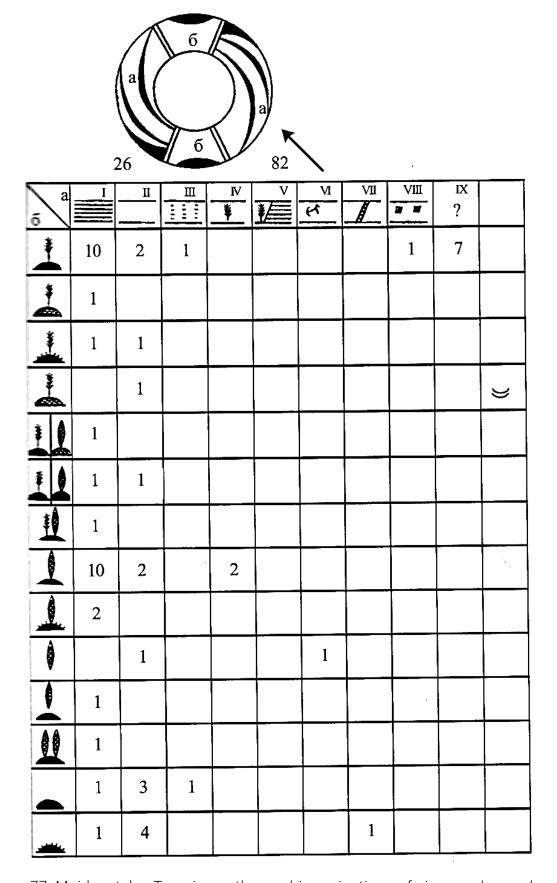


Figure 77: Maidanetske. Top view orthographic projections of signs and vessels.

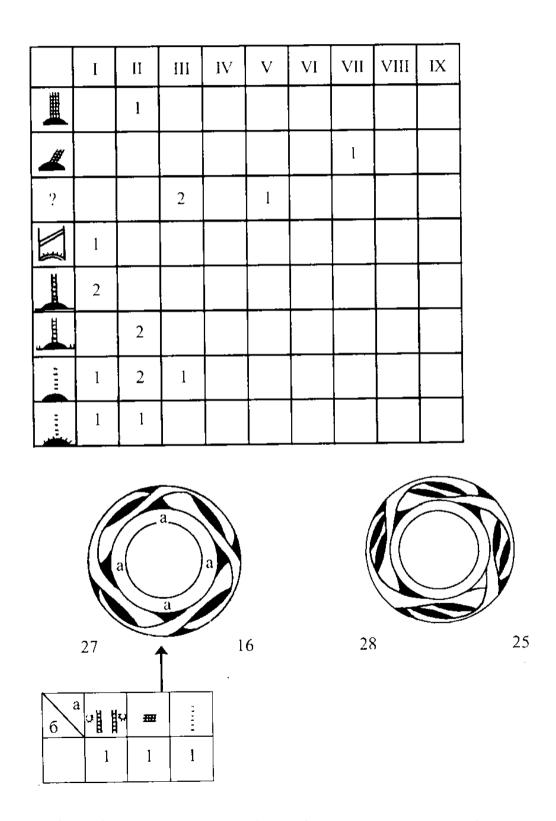


Figure 78: Maidanetske. Signs Top view orthographic projections on vessels.

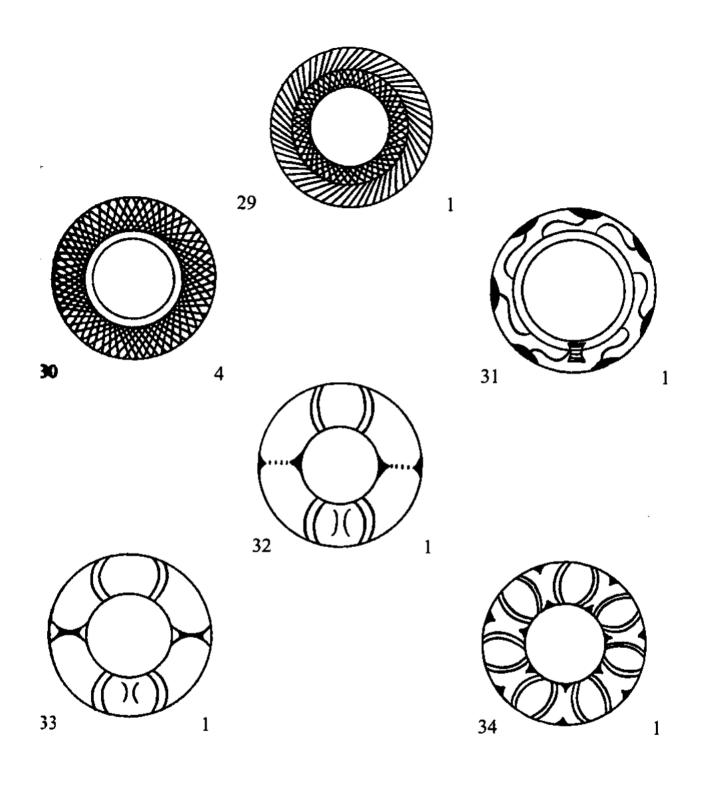


Figure 79: Maidanetske. Top view orthographic projections on vessels.

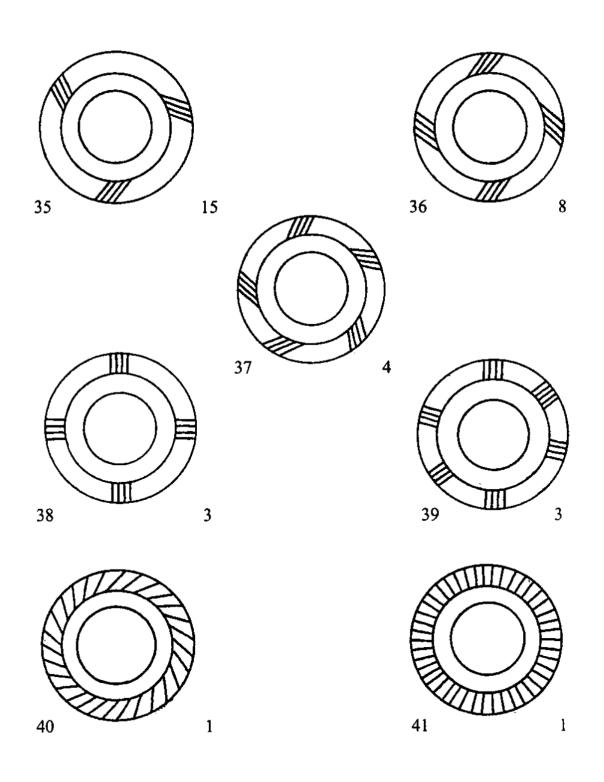


Figure 80: Maidanetske. Top view orthographic projections on vessels.

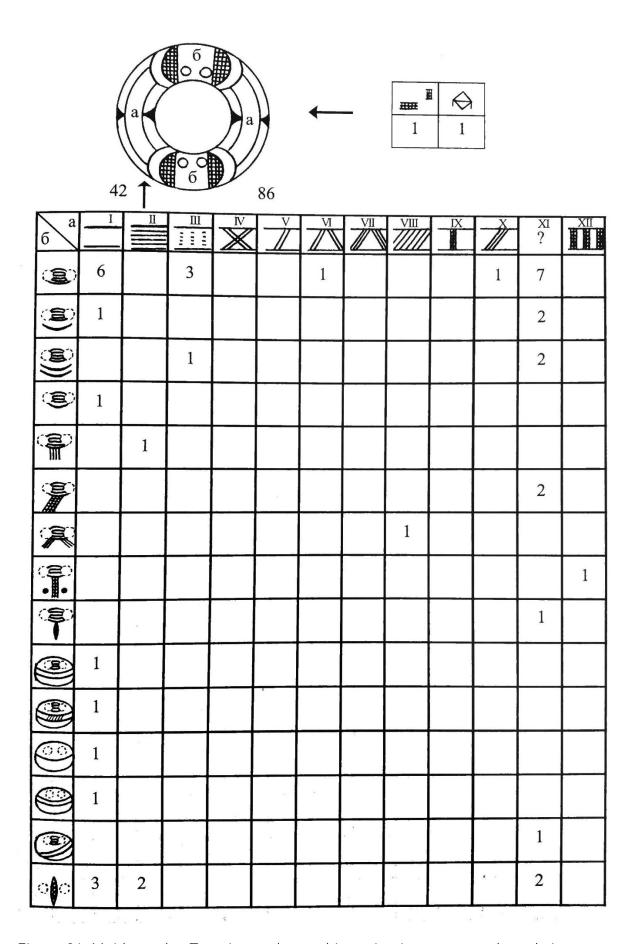


Figure 81: Maidanetske. Top view orthographic projections on vessels and signs.

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Table 15: Maidanetske. Signs on amphorae.

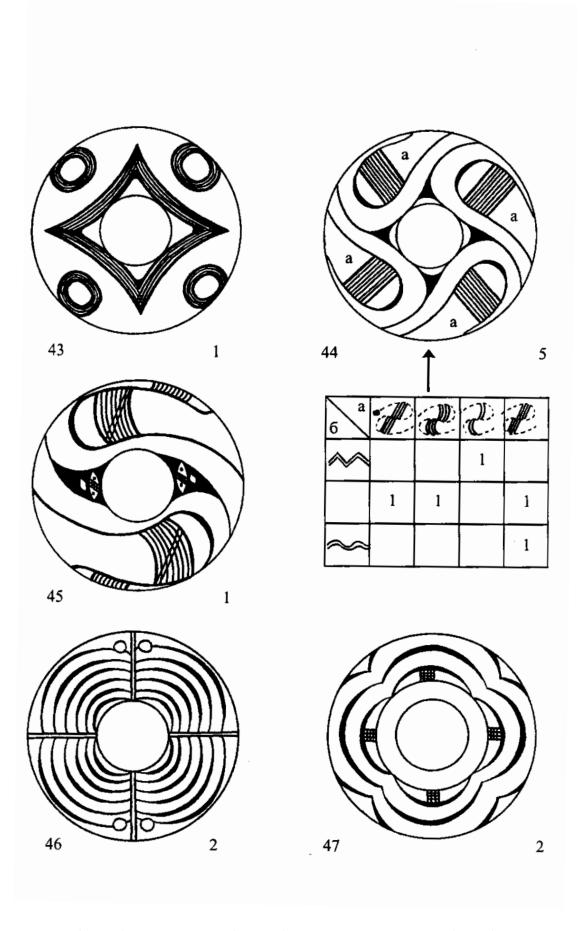


Figure 82: Maidanetske. Top view orthographic projections on vessels and signs.

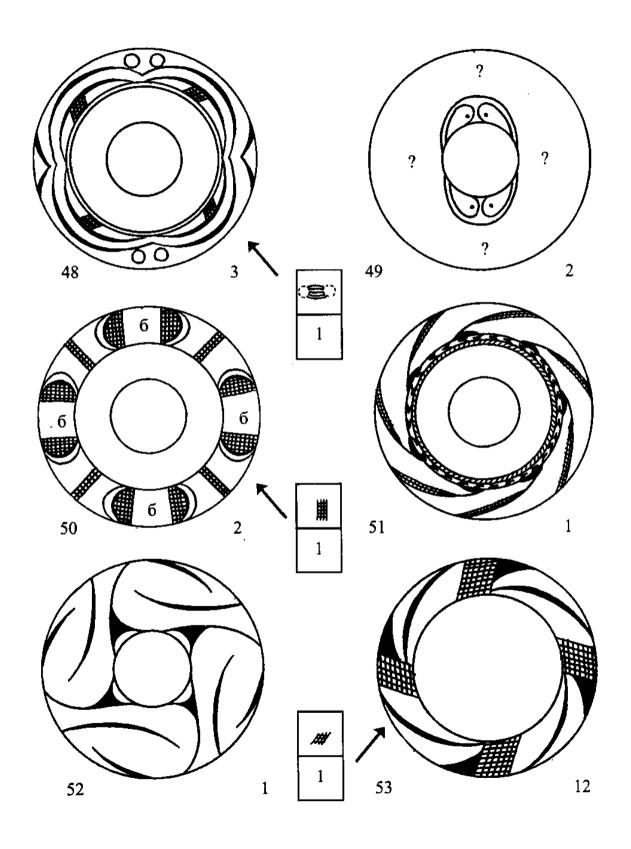


Figure 83: Maidanetske. Top view orthographic projections on vessels and signs.

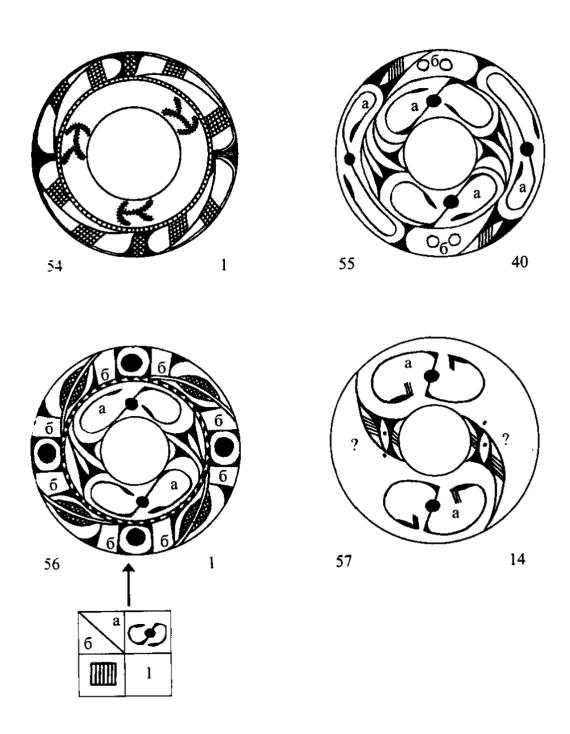


Figure 84: Maidanetske. Top view orthographic projections on vessels and signs.

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Table 16: Maidanetske. Signs on biconical vessels.

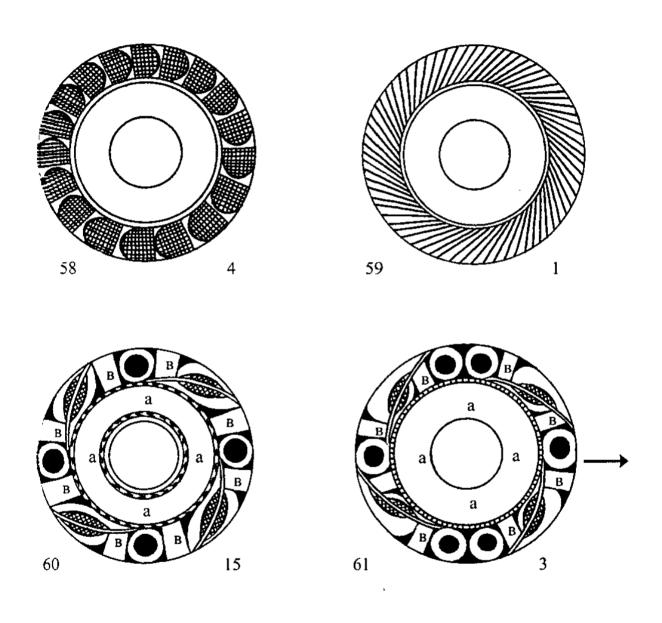


Figure 85: Maidanetske. Top view orthographic projections on vessels.

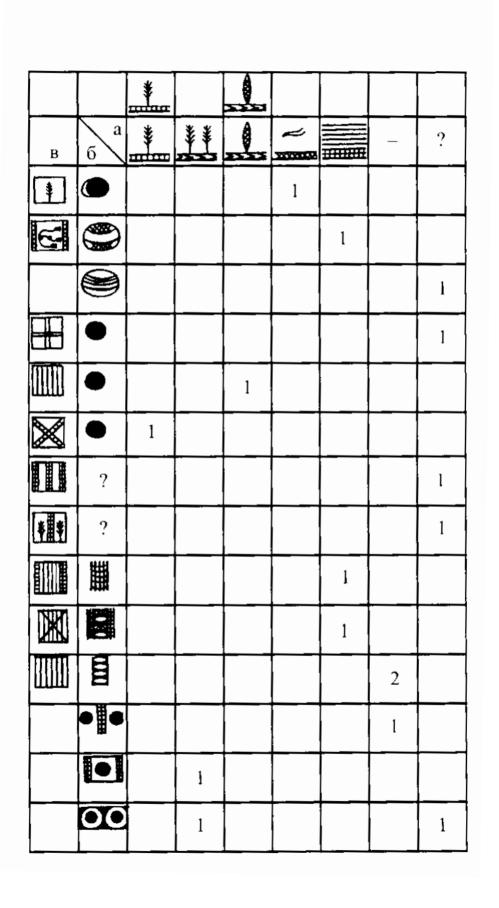


Table 17: Maidanetske. Signs on biconical vessels.

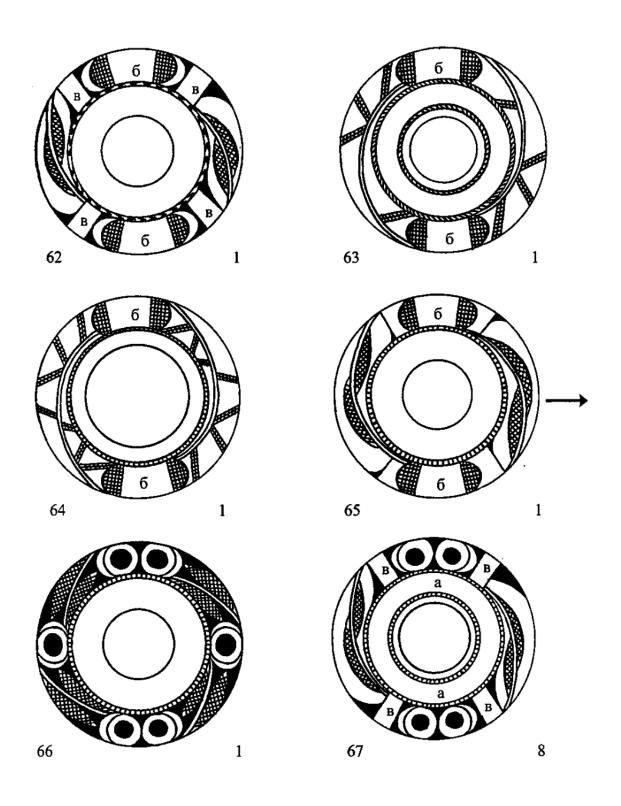


Figure 86: Maidanetske. Top view orthographic projections on vessels.

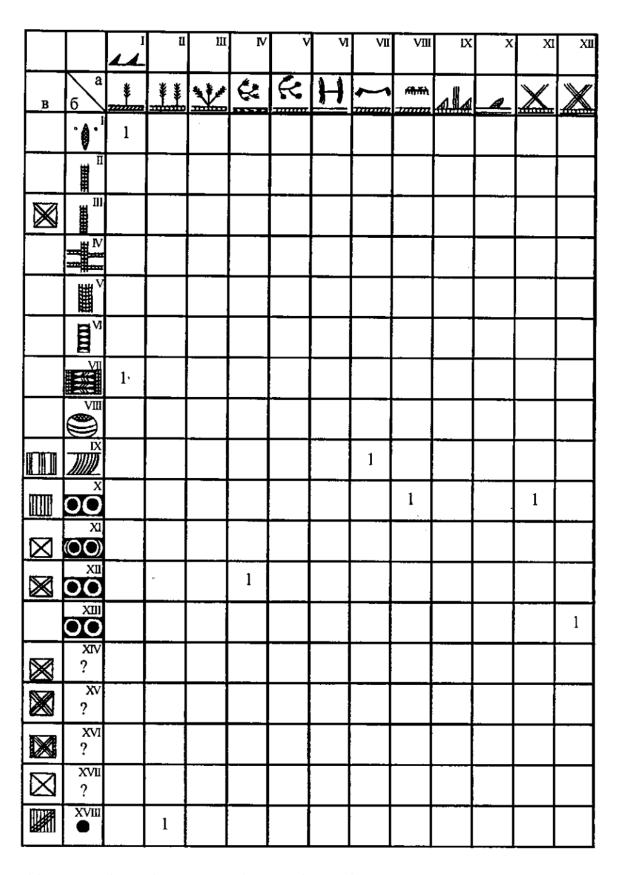


Table 18: Maidanetske. Signs on biconical vessels.

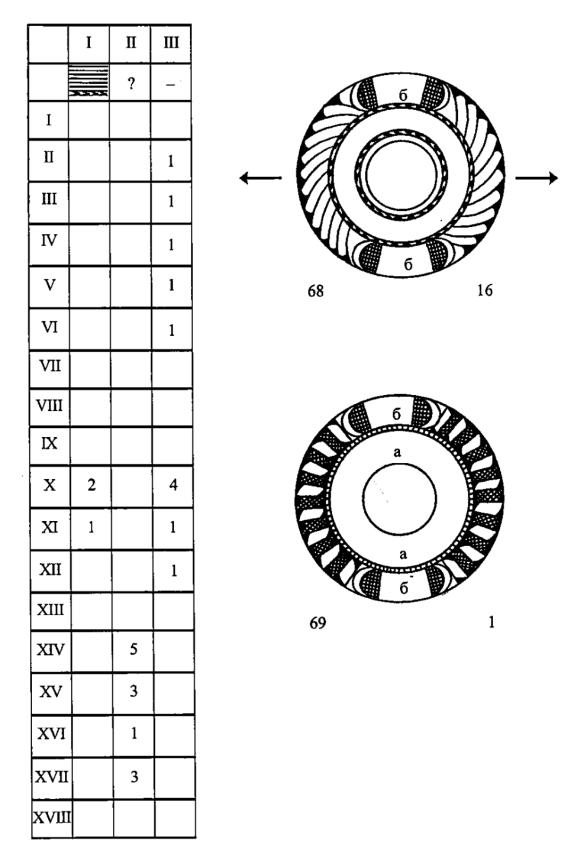
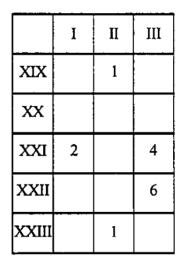


Figure 87: Maidanetske. Signs and top view orthographic projections on vessels.

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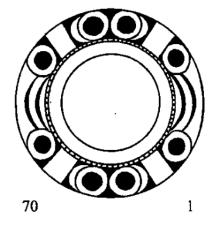


Figure 88: Maidanetske. Signs and top view orthographic projections on vessels.

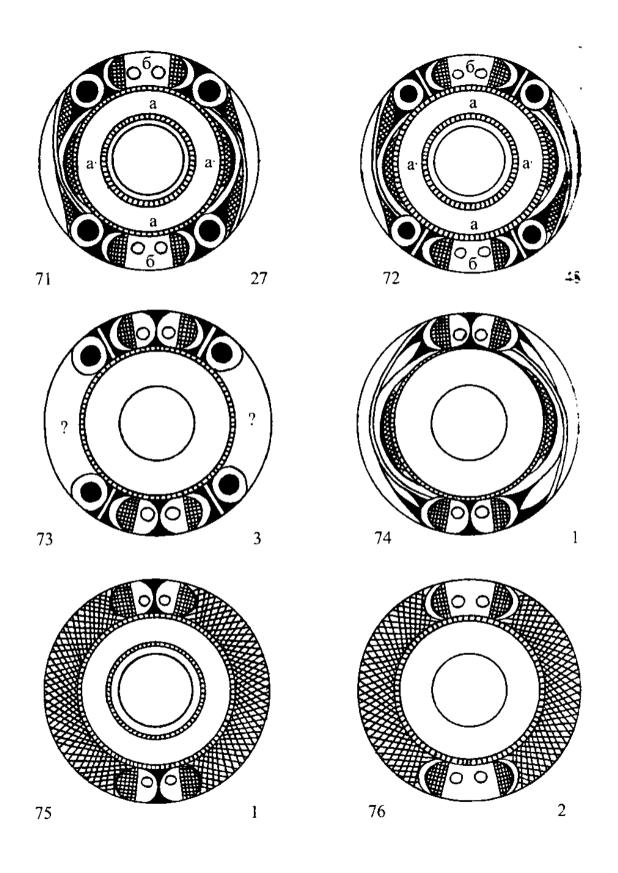


Figure 89: Maidanetske. Top view orthographic projections on vessels

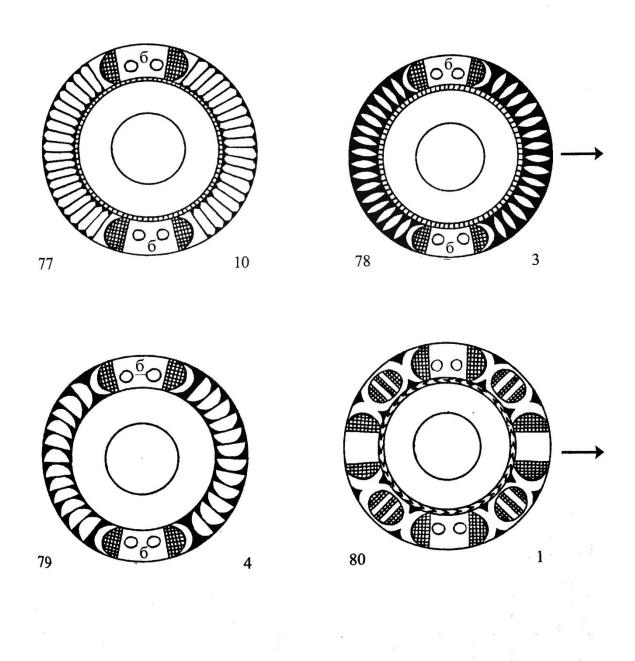


Figure 90: Maidanetske. Top view orthographic projections on vessels.

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Table 19: Maidanetske. Signs on biconical vessels.

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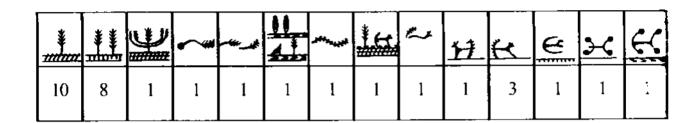
Table 20: Maidanetske. Top view orthographic projections on vessels and signs.

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Table 21: Maidanetske. Signs on biconical vessels.

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Table 22: Maidanetske. Signs on biconical vessels.

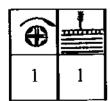


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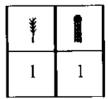


Table 23: Maidanetske. Signs on vessels. Schemes are unknown.

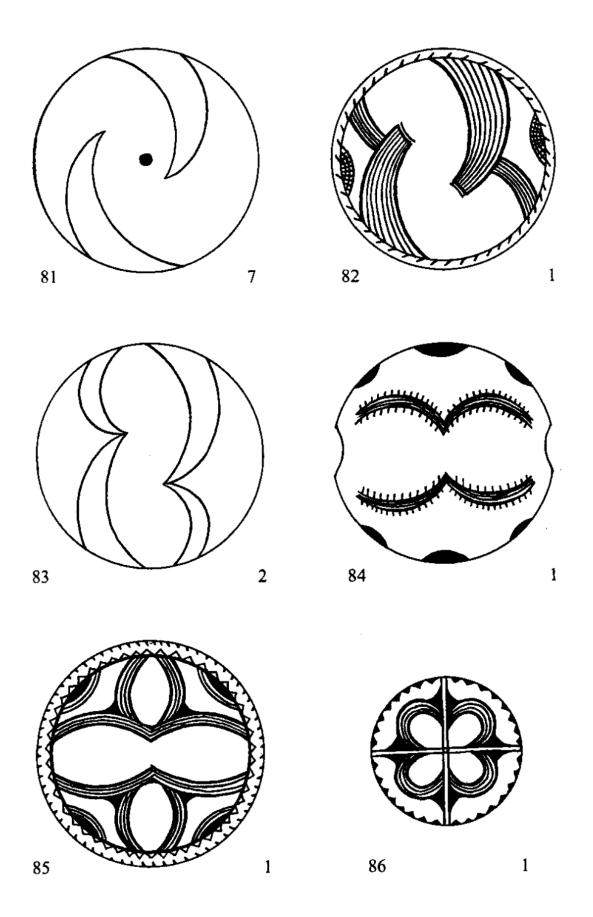


Figure 91: Maidanetske. Top view orthographic projections on "imported" vessels.

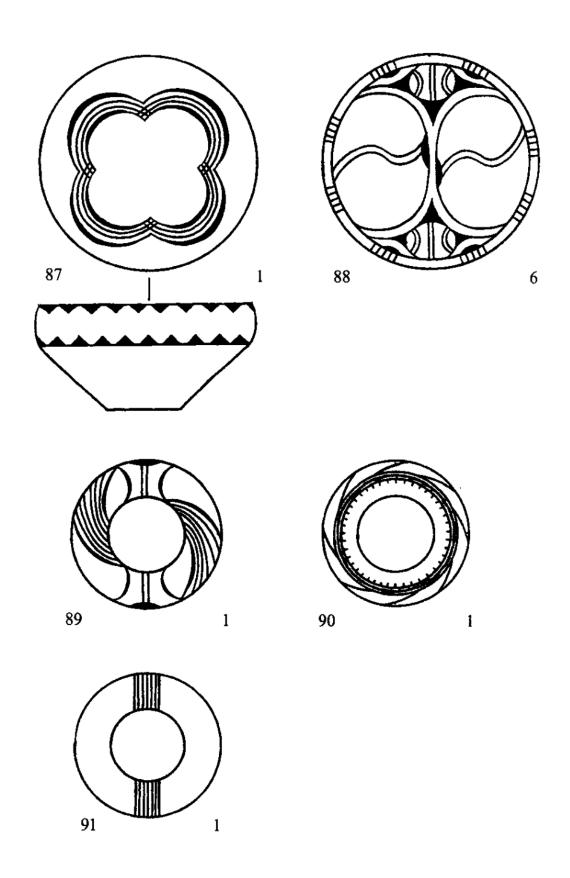


Figure 92: Maidanetske. Top view orthographic and lateral projections on "imported" vessels.

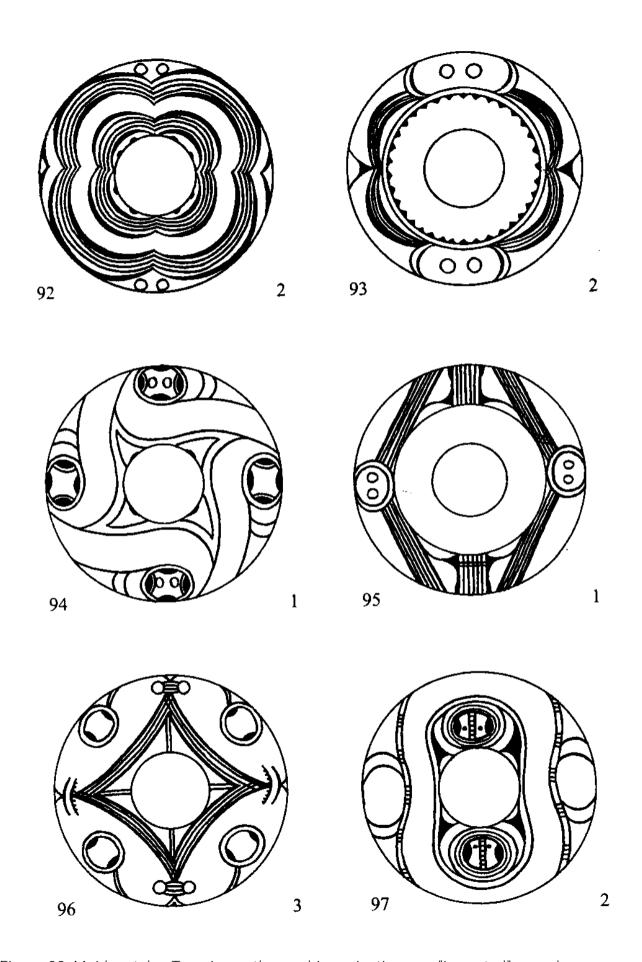


Figure 93: Maidanetske. Top view orthographic projections on "imported" vessels.

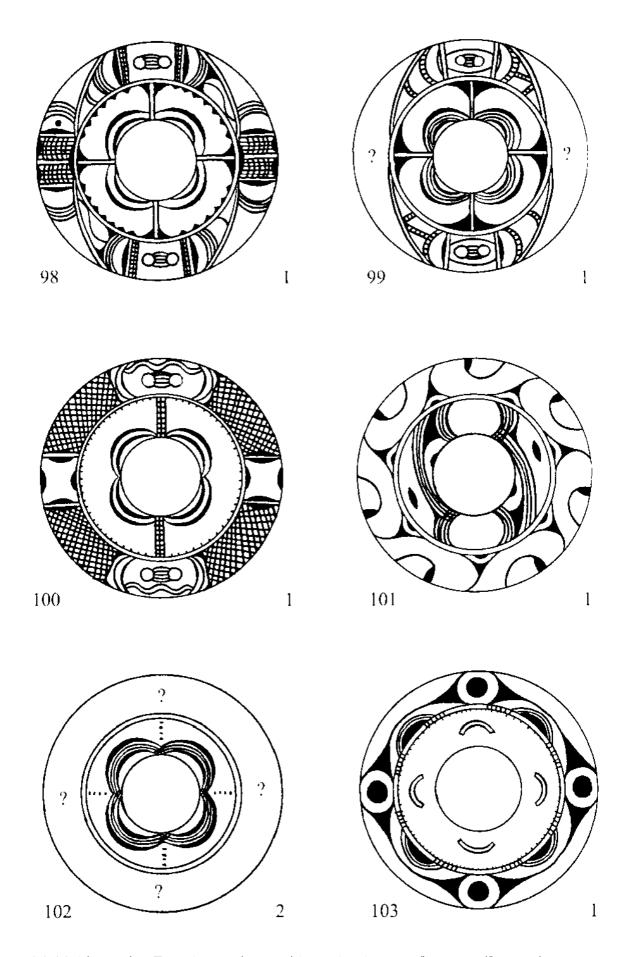


Figure 94: Maidanetske. Top view orthographic projections on "imported" vessels.

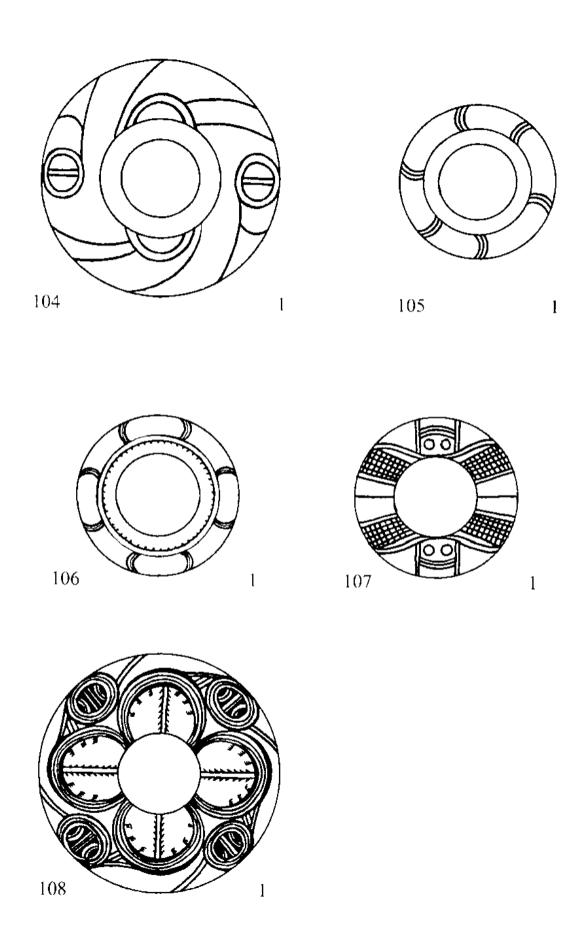


Figure 95: Maidanetske. Top view orthographic projections on "imported" vessels.

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Table 24: Maidanetske. Catalogue of signs on vessels.

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191 1	192 1	193 1	194 1	195 1	196 2			197 1	198 1			
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199 1	200 2	201 1	202 1	203	204	205	206 2	207 1	208 1	209	210	211
$\boxtimes$	$\boxtimes$		$\boxtimes$		X			***		****	***	****
212 7	213 6	214	215	216 1	217 1	218	219 1	220 1	221 1	222 1	223 1	224 1

Table 25: Maidanetske. Catalogue of signs on vessels.

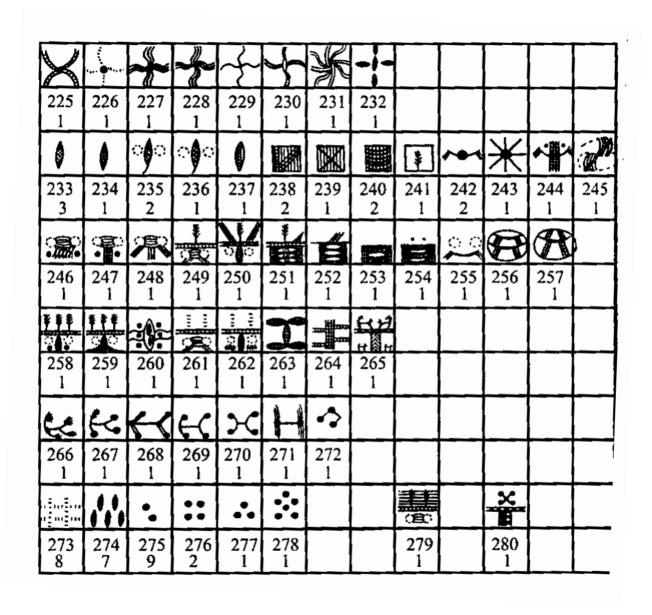


Table 26: Maidanetske. Catalogue of signs on vessels.

## Tomashivka sign system

## Stage CI. Tomashivka (Cherkasy region, Uman district)

The work uses pottery from the excavations of the settlement by an expedition led by P. P. Kurinny. 227 units of utensils were involved in the analysis. The condition of the ceramics is satisfactory.

The collection is stored in the funds of the National Museum of History of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement Tomashivka.

The digits to the left of the diagrams are the serial number.

Numbers on the right are the number of such schemes on the vessels involved in the analysis.

1, 3-5 - cut-conical bowls.

2 - cut-spherical bowl.

6-16 - cups.

17 -18 - pots.

20 - biconical and pear-shaped utensils.

19, 21-24, 26, 28-30 - biconical ware.

25, 27, 31 - craters.

32, 33 - biconical "imported" ware.

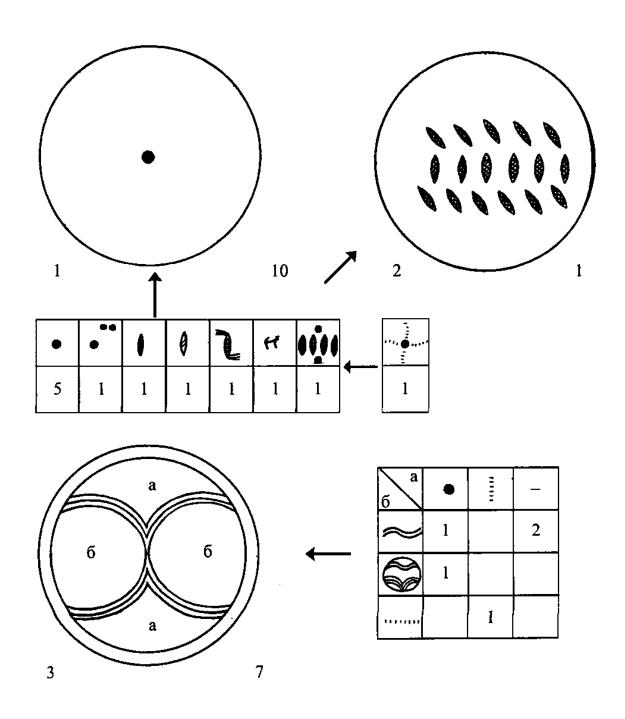


Figure 96: Tomashivka. Top view orthographic projections on vessels and signs.

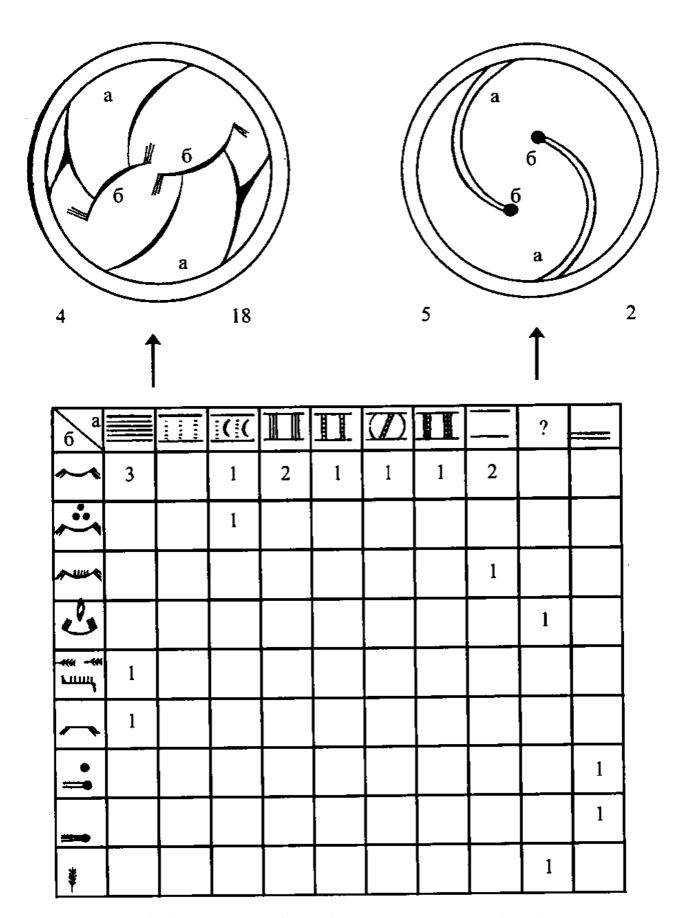


Figure 97: Tomashivka. Top view orthographic projections on vessels and signs.

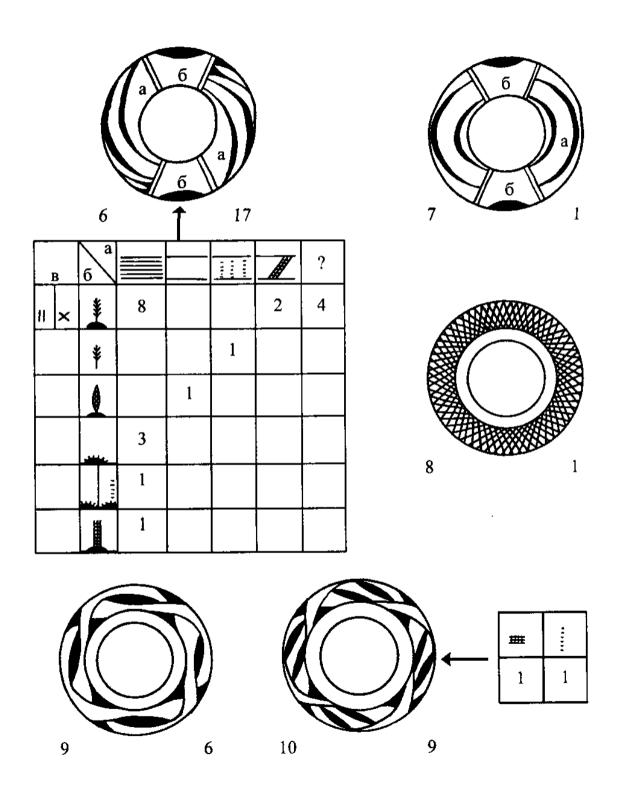


Figure 98: Tomashivka. Top view orthographic projections on vessels and signs.

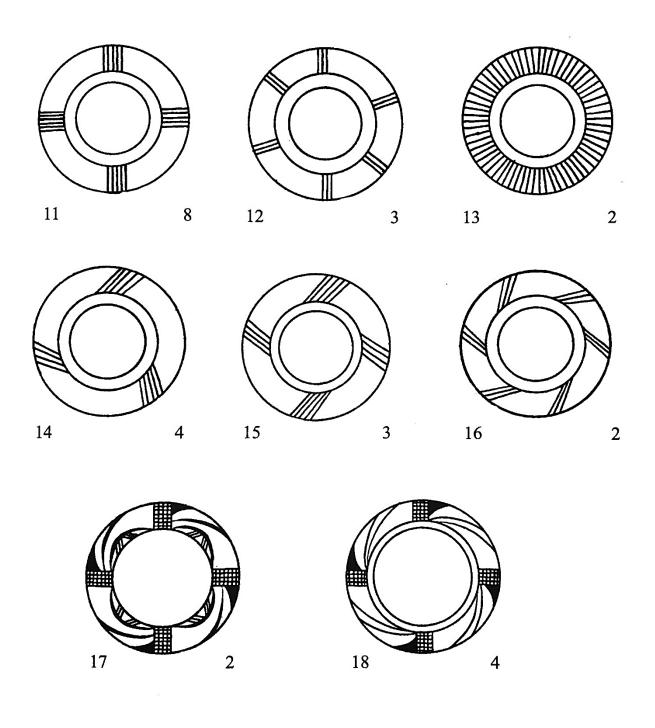


Figure 99: Tomashivka. Top view orthographic projections on vessels and signs.

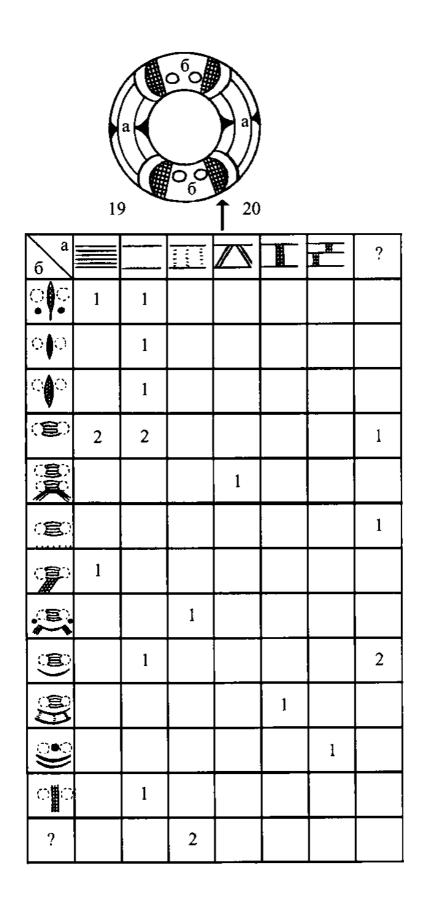


Figure 100: Tomashivka. Top view orthographic projections on vessels and signs.

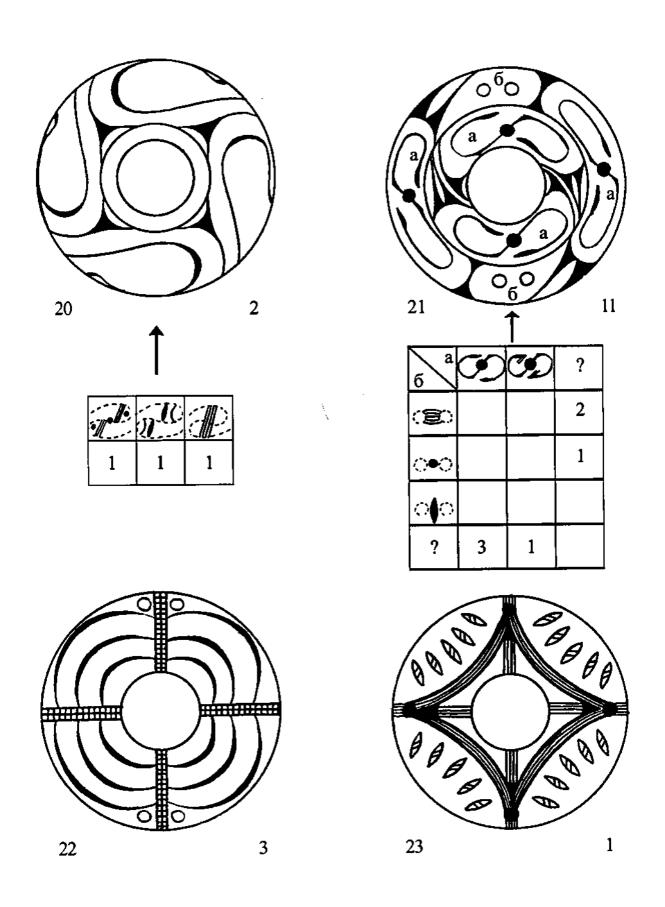


Figure 101: Tomashivka. Top view orthographic projections on vessels and signs.

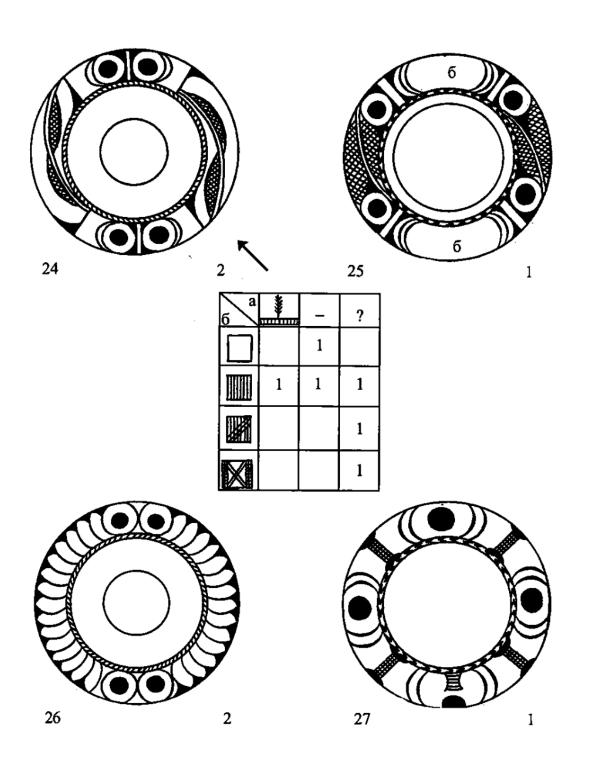


Figure 102: Tomashivka. Top view orthographic projections on vessels and signs.

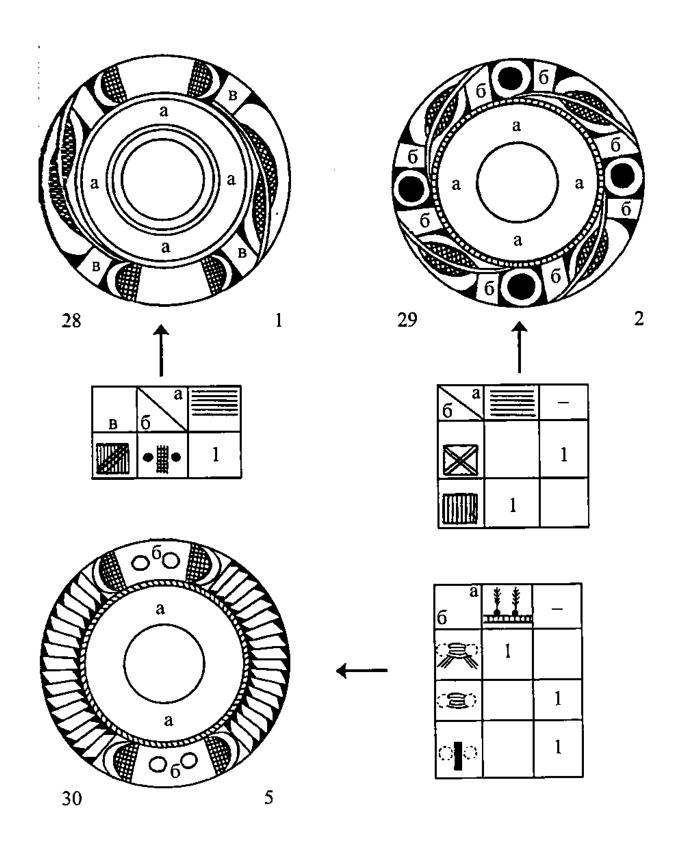


Figure 103: Tomashivka. Top view orthographic projections on vessels and signs.

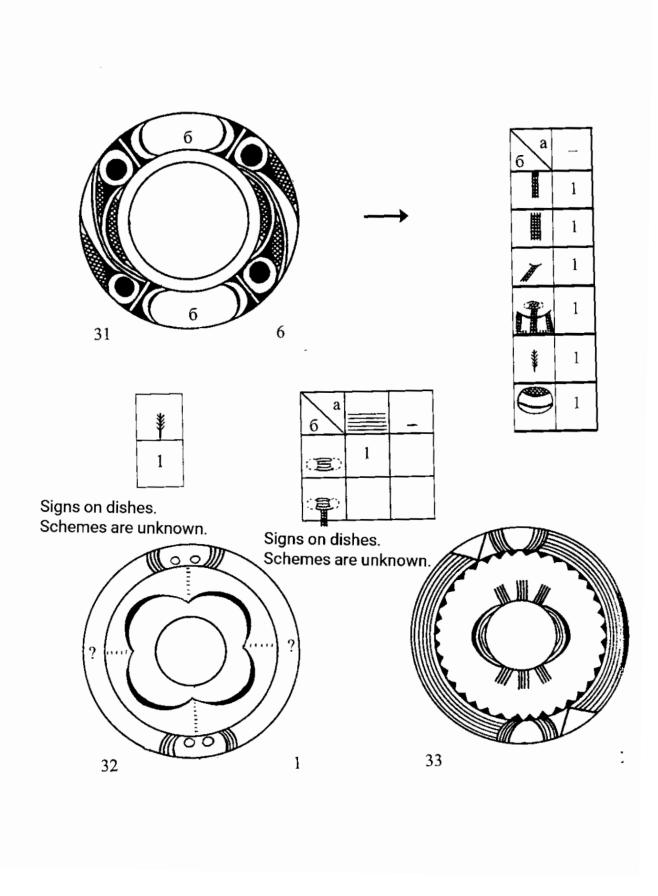


Figure 104: Tomashivka. Top view orthographic projections on vessels and signs.

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Figure 105: Tomashivka. Catalogue of signs on vessels.

# SECTION II. UPPER AND MIDDLE TRANSNISTRIA, INTERFLUVE OF DNIESTER AND SOUTHERN BUG, INTERFLUVE OF DNIESTER AND PRUT

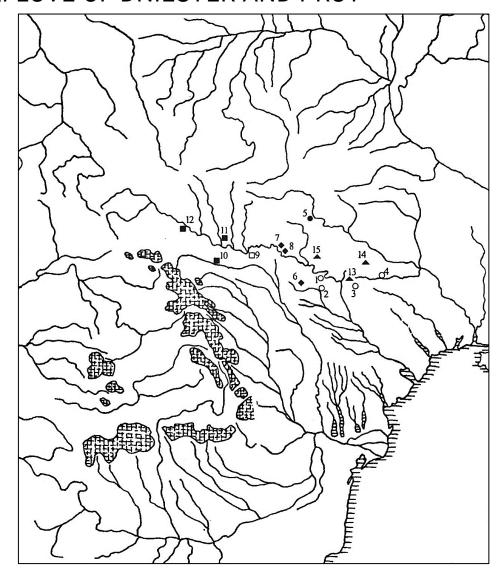


Figure 106: Map of the location of excavations of the CI stage, the materials of which were used in the work.

- o Sights of Rakovets group of the I phase
  - 1. Rakovets
  - 2. Florești V
  - 3. Stanislavka
  - 4. Nemyrivske V
- Sights of Rakovets group of the II phase
  - 5. Voroshilivka
- ♦ Sights of the Petren group
  - 6. Petreny
  - 7. Bernashivka
  - 8. Lipcani

- □ Sights of the contact zone Shipinetska and Petrenska
  - 9. Konovka
- Sights of Shipynets group
  - 10. Shipintsi B
  - 11. Bilche Zolote Park III Bilche Zolote Verteba I
  - 12. Nezvysko III
- ▲ Sights of the Chechelnytsia group
  - 13. Cherkasiv Sad II
  - 14. Chechelnyk
  - 15. Stina IV

# Nemyrivske sign system

## Stage VII. Nemyrivske (Odessa region, Baltic district).

The work uses ceramics obtained during the study of the settlement by an expedition led by M. M. Shmagli in 1986. 36 vessels were involved in the analysis. The condition of the material is satisfactory, many vessels are highly fragmented.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement Nemyrivske.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1-6 - cut-conical bowls.

7, 8, 11, 12, 14, 15 - round vessels.

9, 10 - lids.

13 - amphora.

16 - binocular vessel.

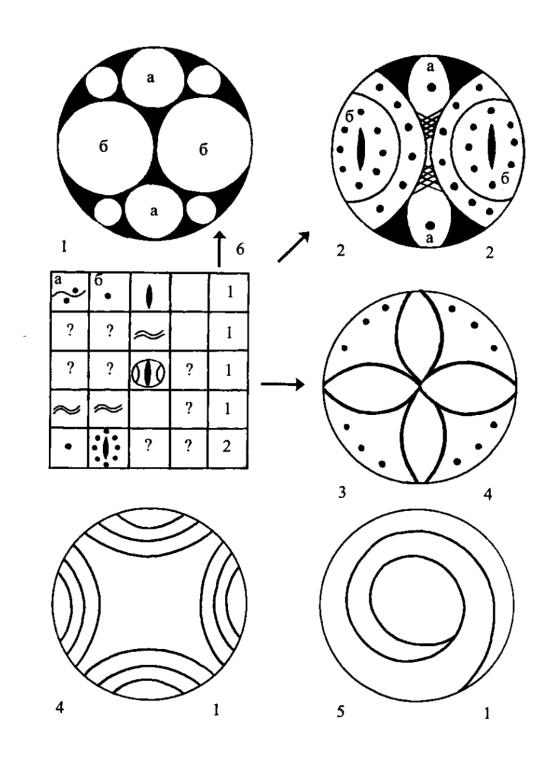


Figure 107: Nemyrivske. Top view orthographic projections on vessels and signs.

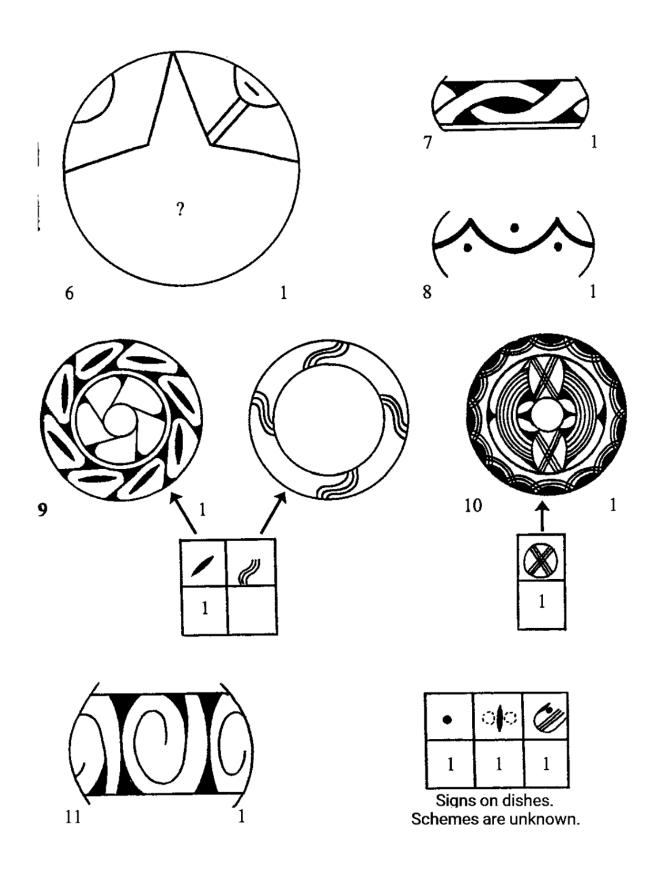


Figure 108: Nemyrivske. Top view orthographic projections on vessels and signs.

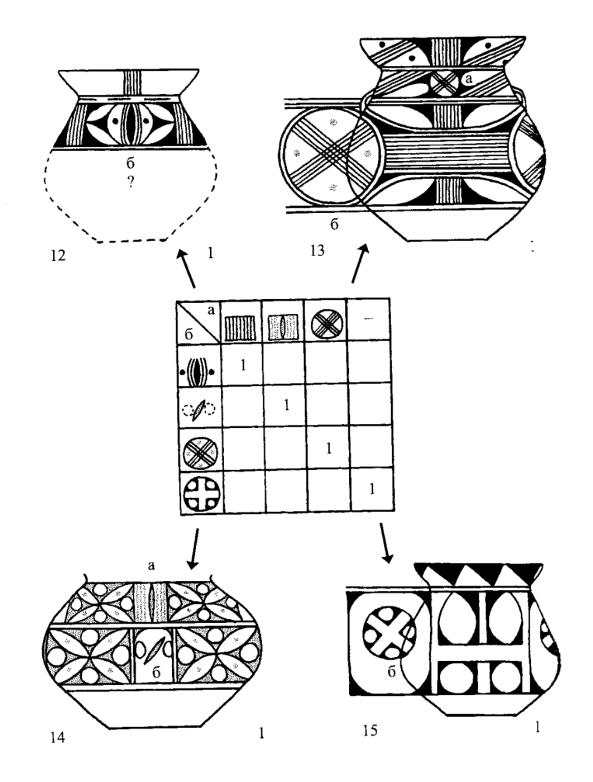


Figure 109: Nemyrivske. Vessels and signs<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Here and henceforth the colour is referred to as - (red line), solid red color

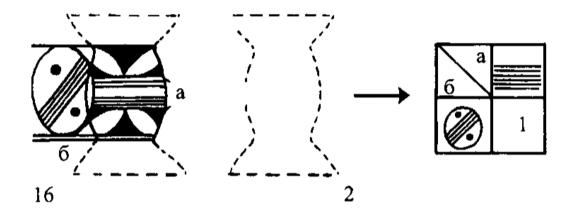


Figure 110: Nemyrivske. Binocular vessel and signs on it.

# Stanislavka sign system

## Stage BII. Stanislavka (Odessa region, Baltic district).

The settlement was explored in 1986 by an expedition led by M. M. Shmagli. 50 vessels were involved in the analysis. The condition of the ceramics is rear. many utensils are highly fragmented.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement

The numbers to the left of the diagrams -sequence number.

Figures on the right -the number of such schemes on the vessels involved in the analysis.

- 1 bowls.
- 2, 3, 7 round vessels.
- 4 amphora with "front" painting.
- 5 pear-shaped vessel.
- 6 cover.
- 8 binocular vessel.

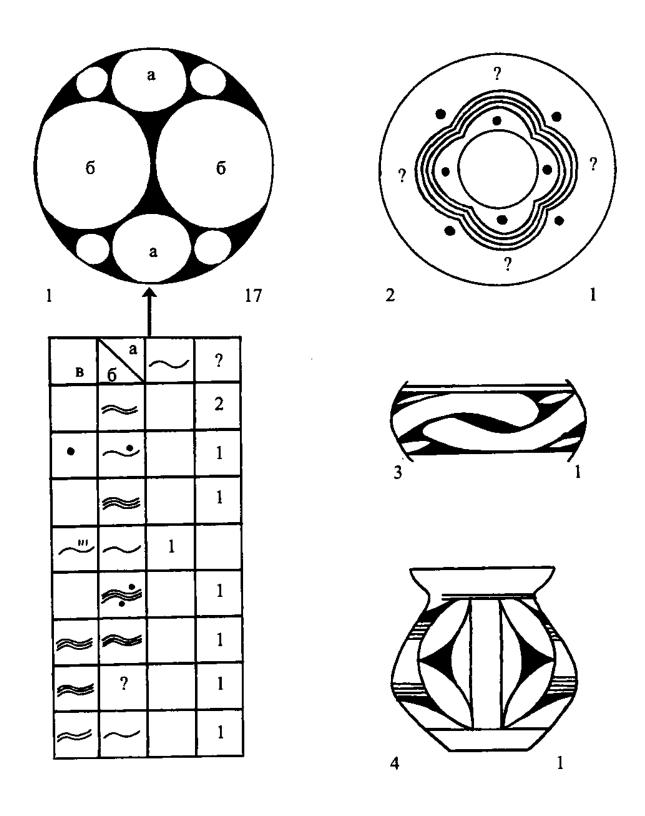


Figure 111: Stanislavka. Top and lateral view orthographic projections on vessels and signs.

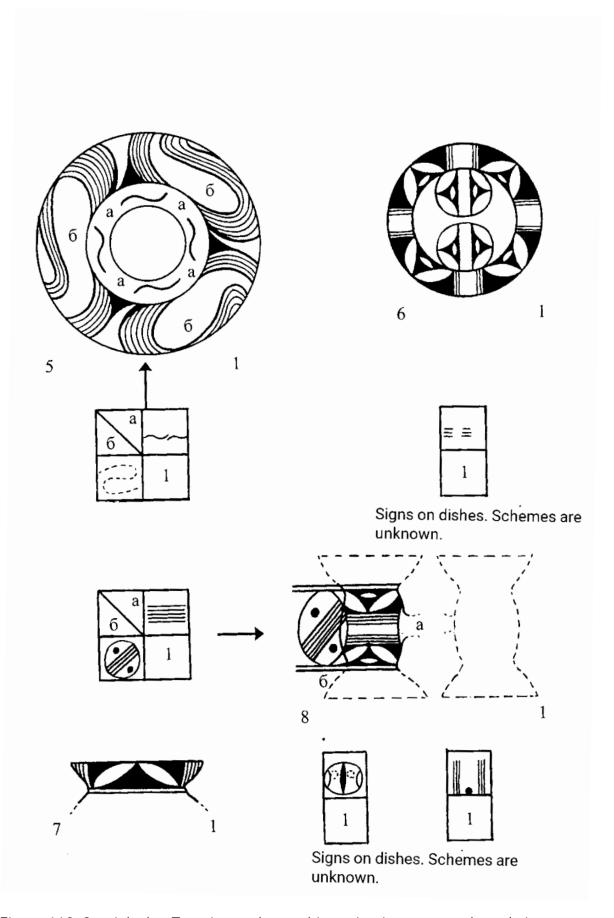
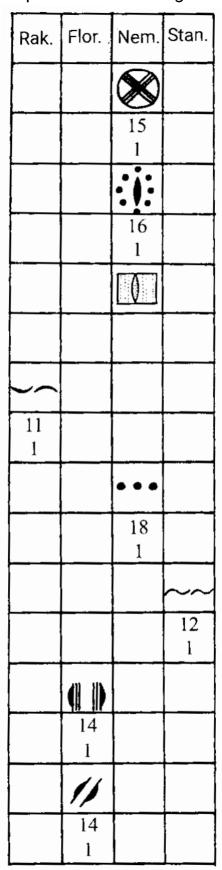


Figure 112: Stanislavka. Top view orthographic projection on vessels and signs.

Rak.	Flor.	Nem,	Stan.		Rak.	Flor.	Nem.	Stan.		Rak.	Flor.	Nem.	St
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Table 27: Comparison table of signs of the Rakovets group

# Comparison table of signs of the Rakovets group



Rak. - Rakovets

Flor. - Florești

Nem. - Nemyrivske

Stan. - Stanislavka

Table 28: Comparison table of signs of the Rakovets group

## Nezvisko III sign system

## Stage BII. Nezvysko III (Ivano-Frankivsk region, Horodenka district).

The work uses ceramics obtained during dos. of settlements by an expedition led by KK Chernysh in 1951, 1953-1954, 1956-1957. 515 vessels were involved in the analysis. The condition of the material is satisfactory, many vessels are fragmented.

The collection is stored in the funds of the Museum of Local History in Ivano-Frankivsk.

## Schemes of paintings and signs on the vessels of the settlement Nezvisko III.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1-5,7-9 - bowls.

6 - bowl (external painting).

10-15 - cups.

16 - amphorae with a "front" painting and a cup.

17 - biconical vessels and crater.

18-24, 26-29 - biconical ware.

25 - 6 biconical vessels, 7 craters, 3 bowls.

30 - a small vessel.

31 - binocular utensils.

32, 37, 38 - craters.

33-37 - lids.

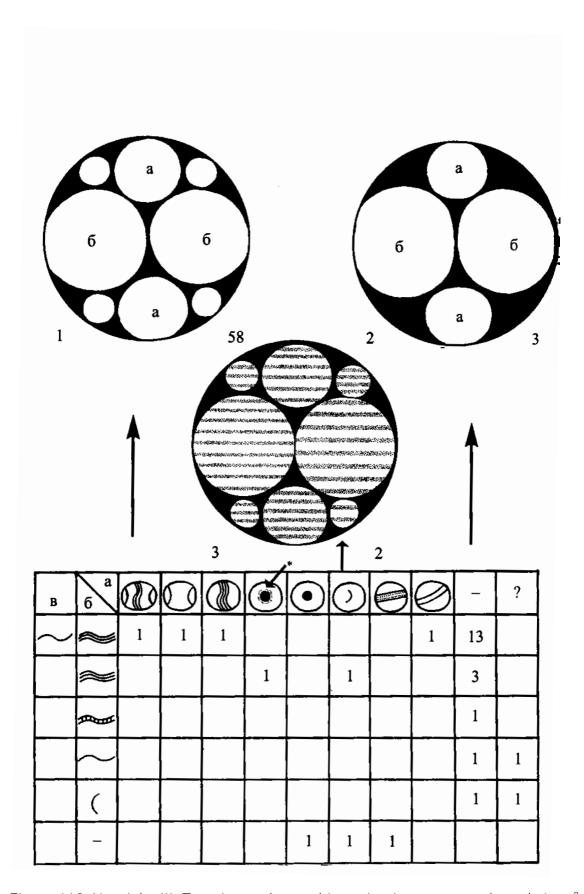


Figure 113: Nezvisko III. Top view orthographic projections on vessels and signs<sup>2</sup>.

<sup>2</sup> Here and henceforth the white colour is represented as

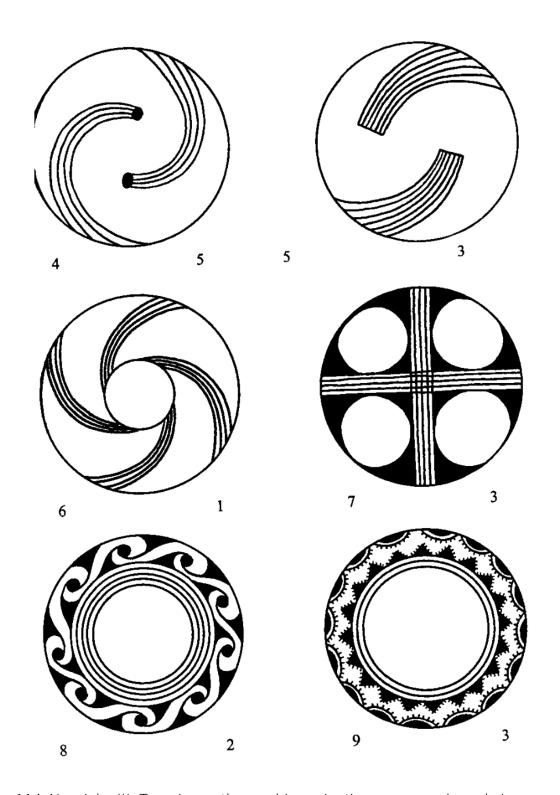


Figure 114: Nezvisko III. Top view orthographic projections on vessels and signs.

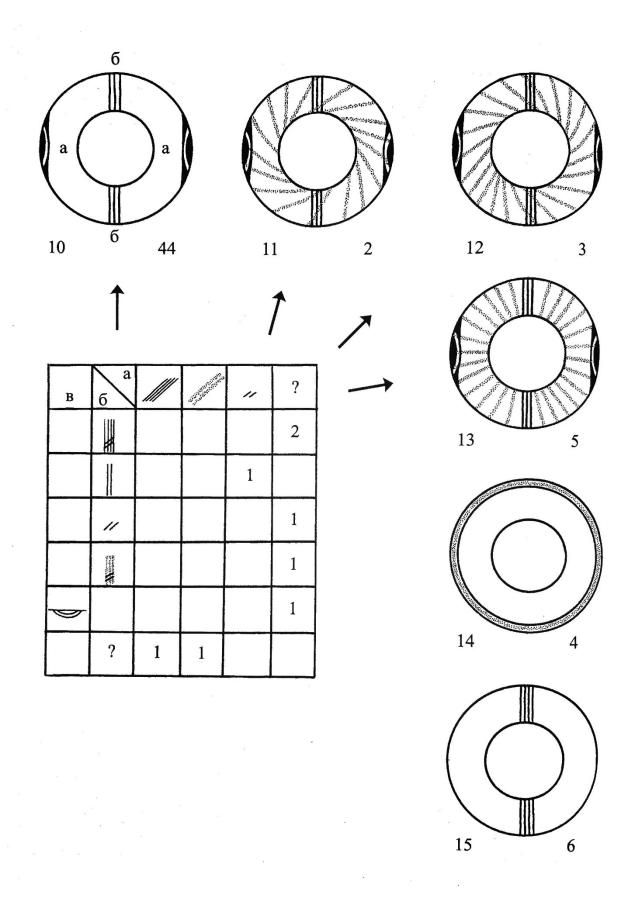


Figure 115: Nezvisko III. Top view orthographic projections on vessels and signs.

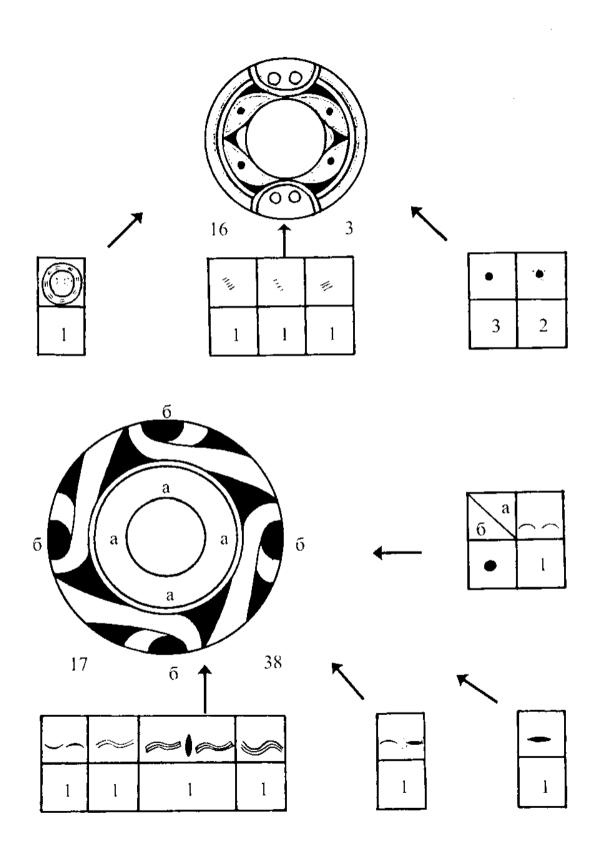


Figure 116: Nezvisko III. Top view orthographic projections on vessels and signs.

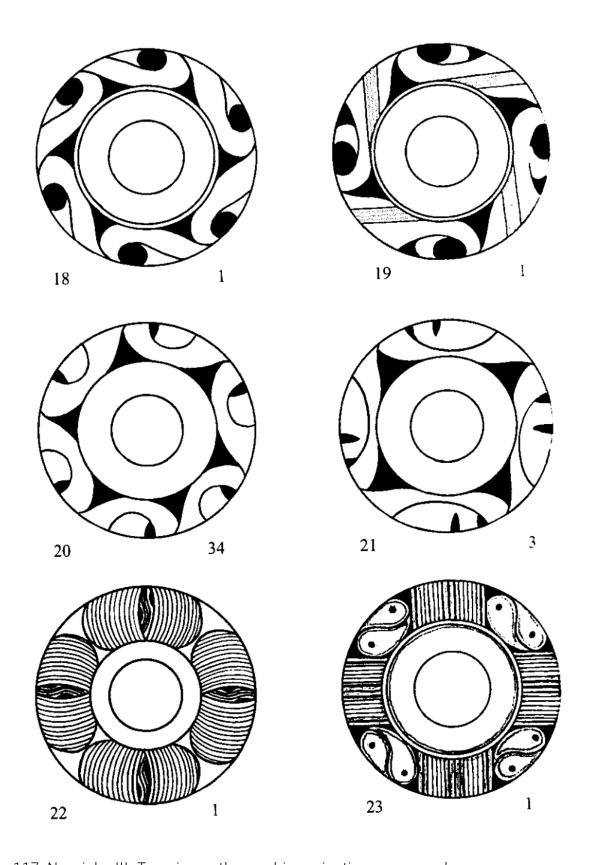


Figure 117: Nezvisko III. Top view orthographic projections on vessels.

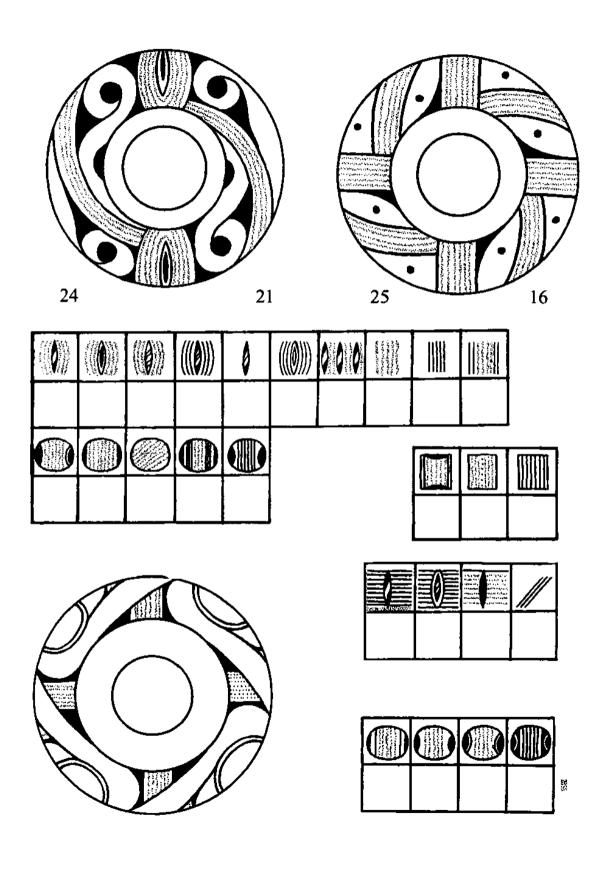


Figure 118: Nezvisko III. Top view orthographic projections on vessels and signs.

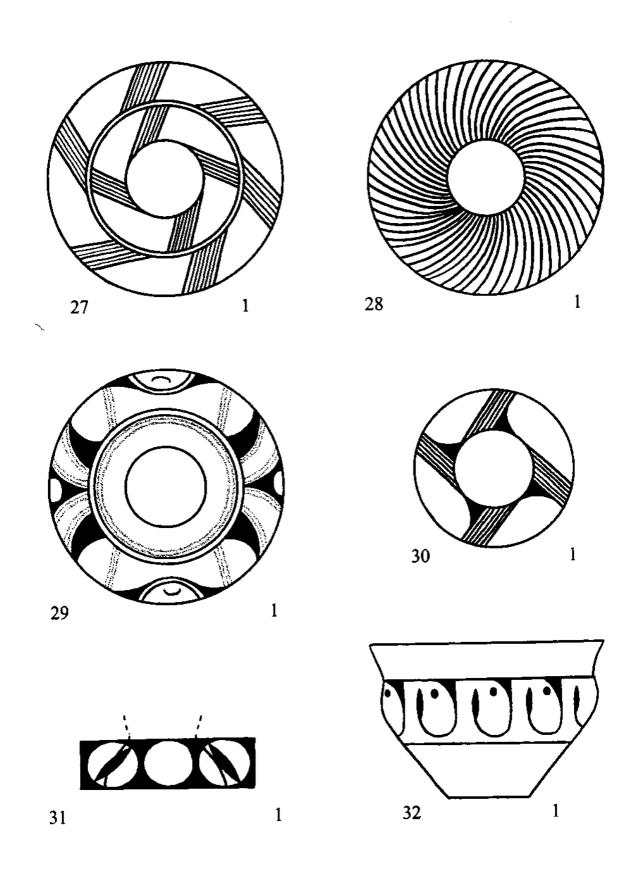


Figure 119: Nezvisko III. Top view orthographic projections on vessels.

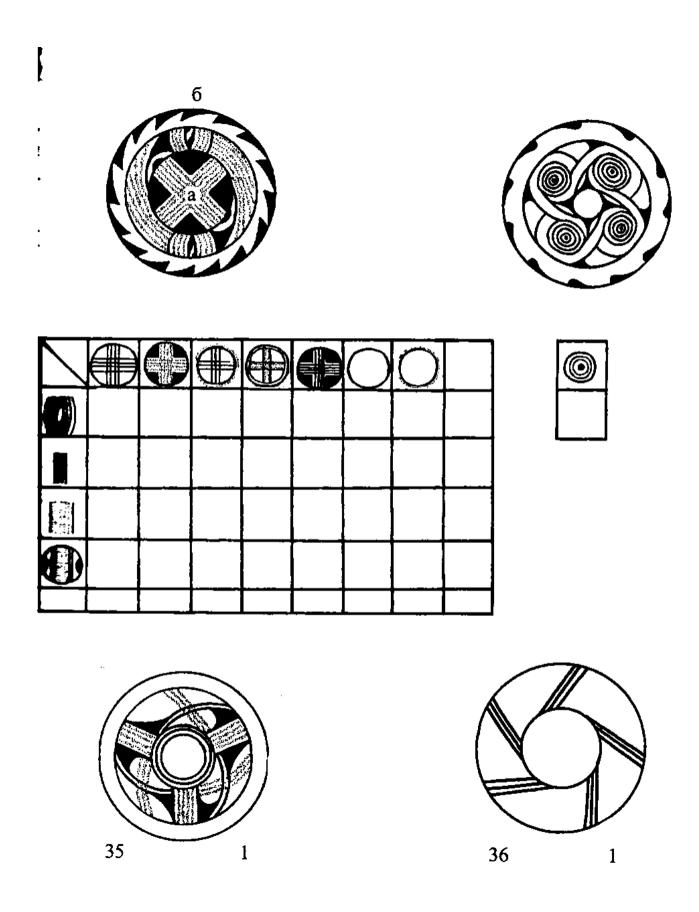


Figure 120: Nezvisko III. Top view orthographic projections on vessels and signs.

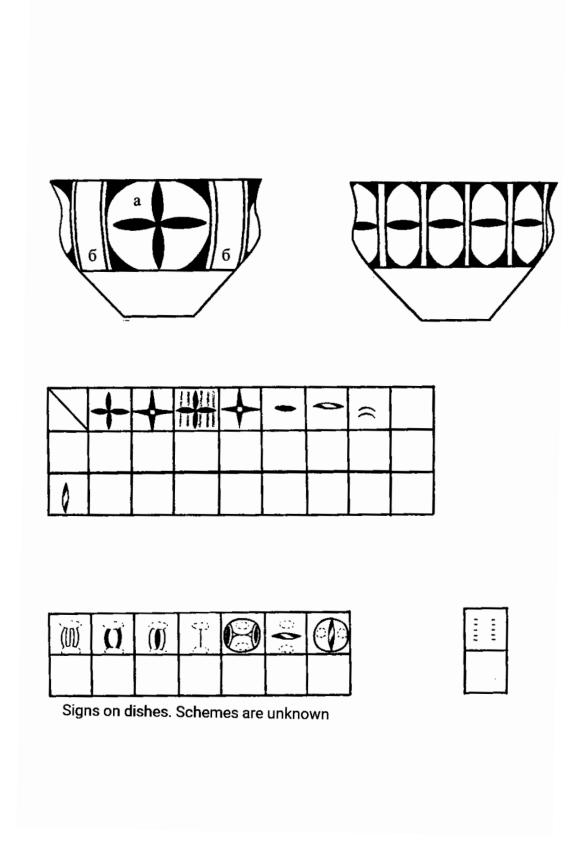


Figure 121: Nezvisko III. Craters with signs.

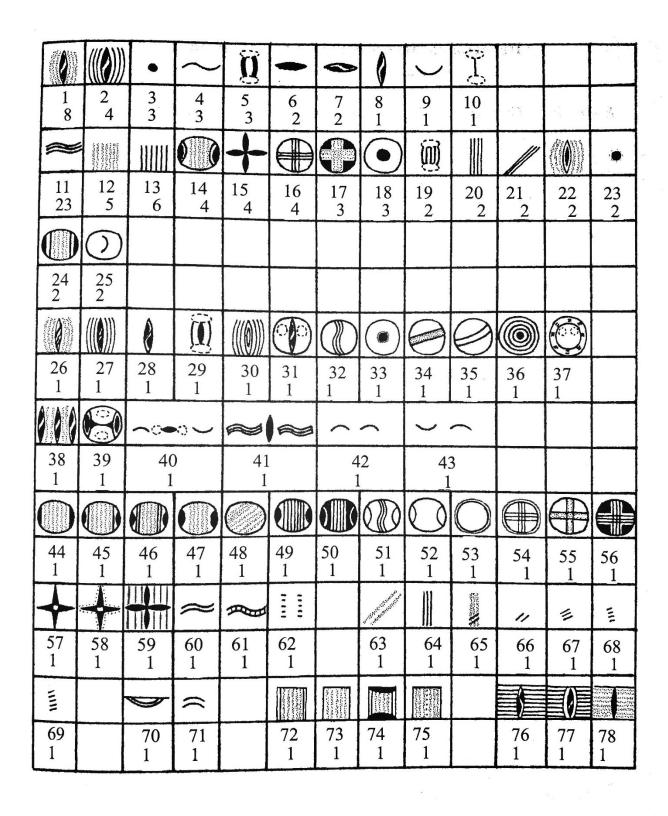


Table 29: Nezvisko III. Catalogue of signs on vessels.

## Konovka sign system

#### Stage BII. Konovka (Chernivtsi region, Kelmenets district).

The work uses ceramics obtained during the study of the settlement by expeditions led by M. M. Shmagli in 1976, 1978 and 1980. 157 vessels were involved in the analysis. The condition of the material is good.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement Konovka.

The numbers on the left of the diagrams - sequence number.

Figures on the right -the number of such schemes on the vessels involved in the analysis.

1-4 -cut-conical bowls. 5 -cylindrical-conical bowl.

6-7 -cups.

8, 9, 11-14, 16, 17, 20, 22-25, 29-31, 38-40 - biconical ware. 1 O -9 biconical vessels, 5 craters.

15 -6 biconical vessels, 1 pear-shaped vessel.

18 -1 About pear-shaped vessels, 5 biconical vessels.

19, 21, 26, 27, 34 -pear-shaped utensils.

27 -2 pear-shaped vessels, 1 biconical vessel.

28 - 2 pear-shaped vessels, 1 crater.

32, 33, 35-37, 41, 53-55 - craters.

42-52 - covers.

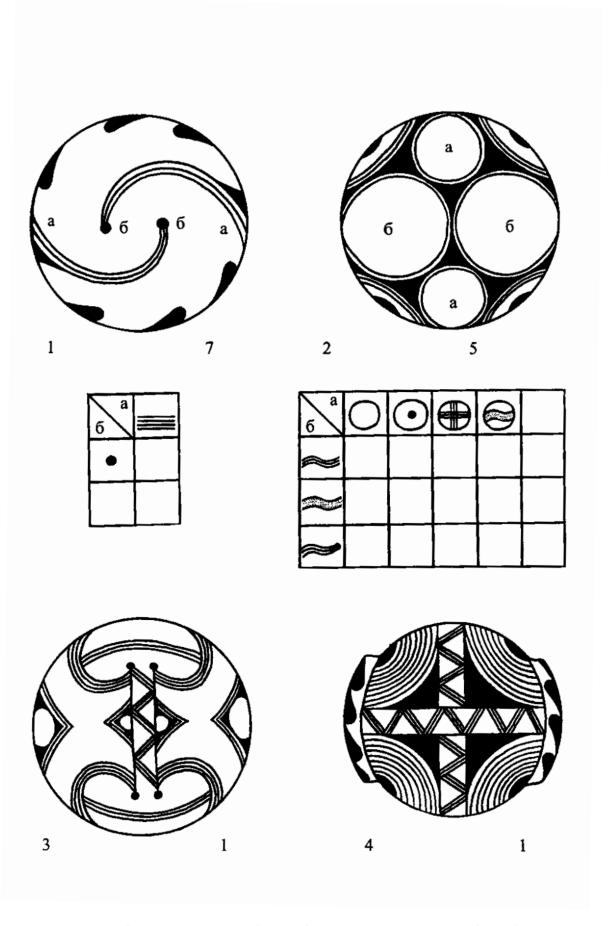


Figure 122: Konovka III. Top view orthographic projections on vessels and signs.

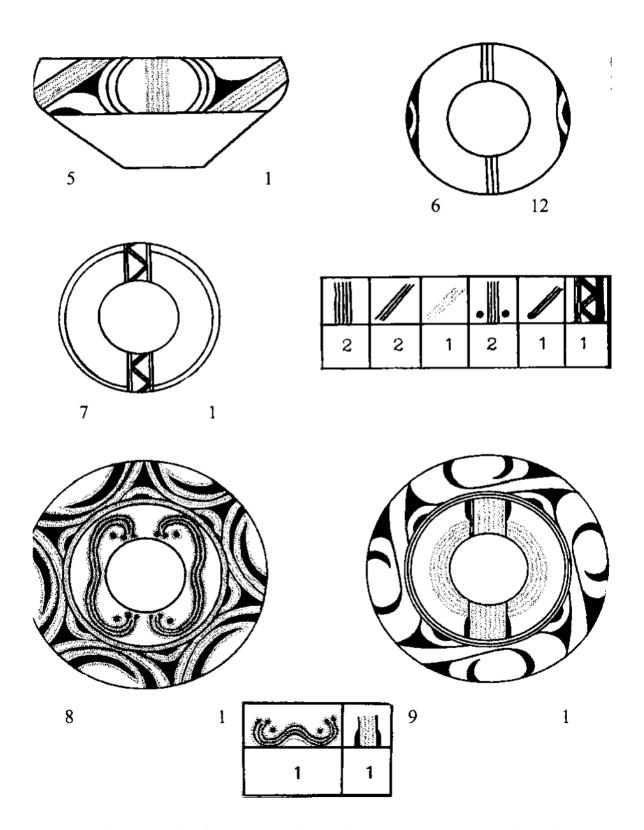


Figure 123: Konovka. Lateral and top view orthographic projections on vessels and signs.

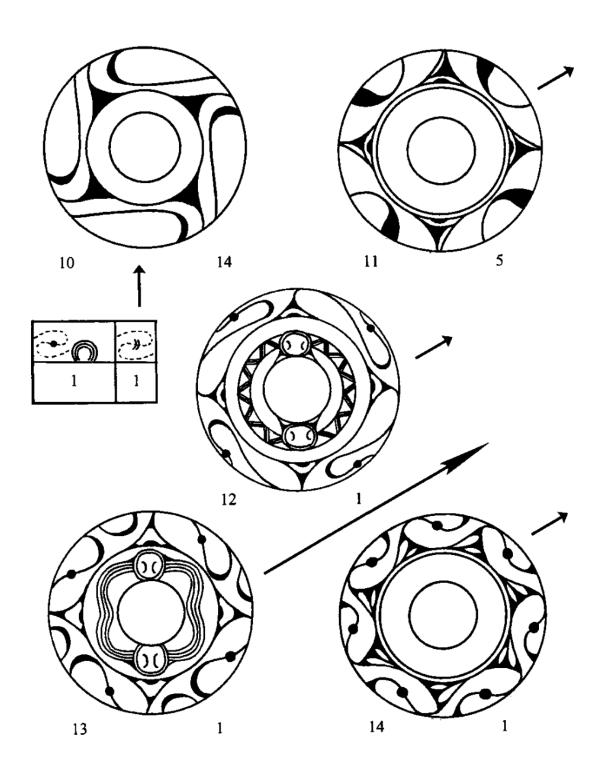


Figure 124: Konovka. Top view orthographic projections on vessels and signs.

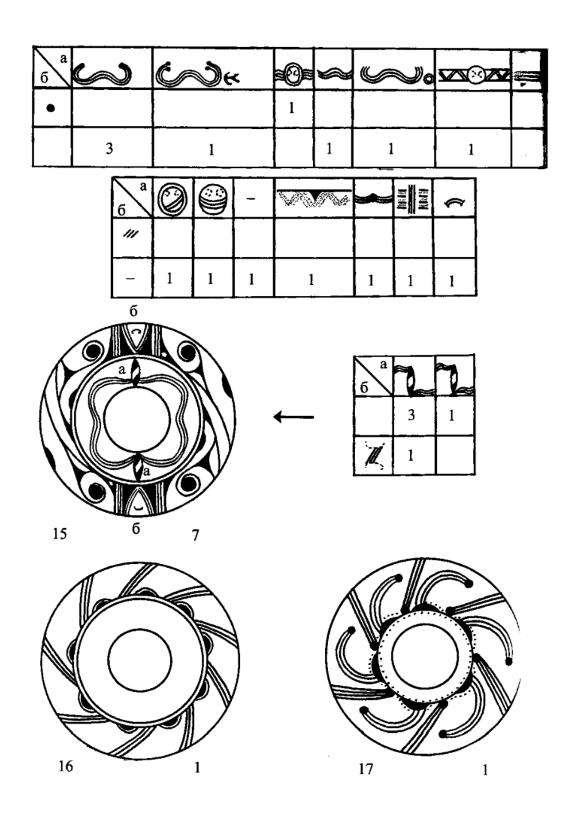


Figure 125: Konovka. Top view orthographic projections on vessels and signs.

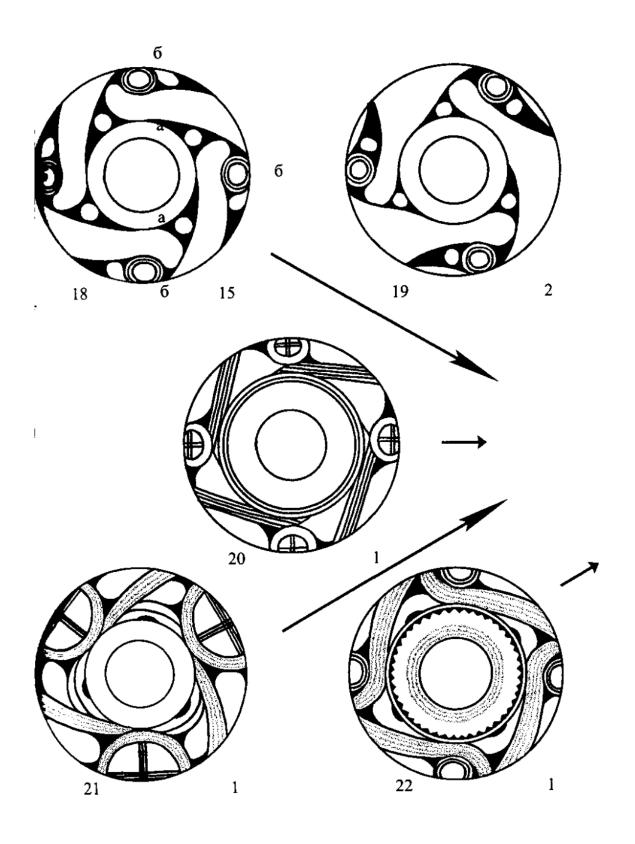
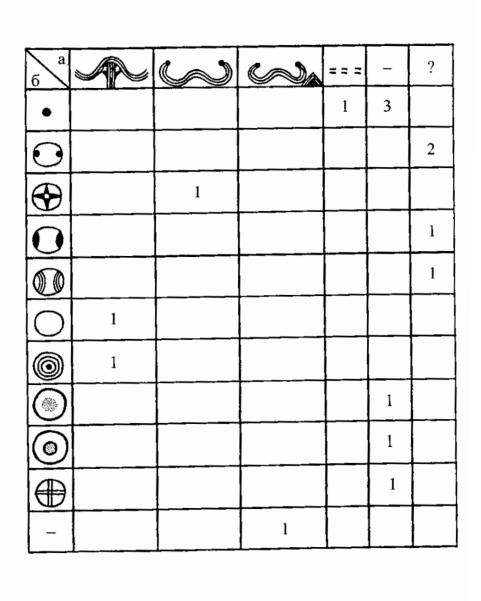


Figure 126: Konovka. Top view orthographic projections on vessels and signs.



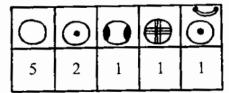


Table 30: Konovka. Signs on vessels.

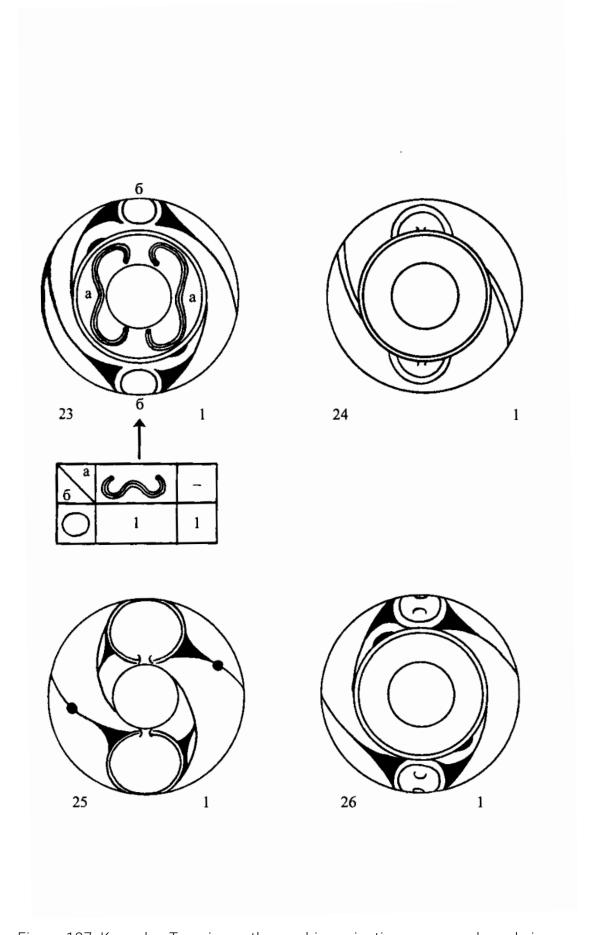


Figure 127: Konovka. Top view orthographic projections on vessels and signs.

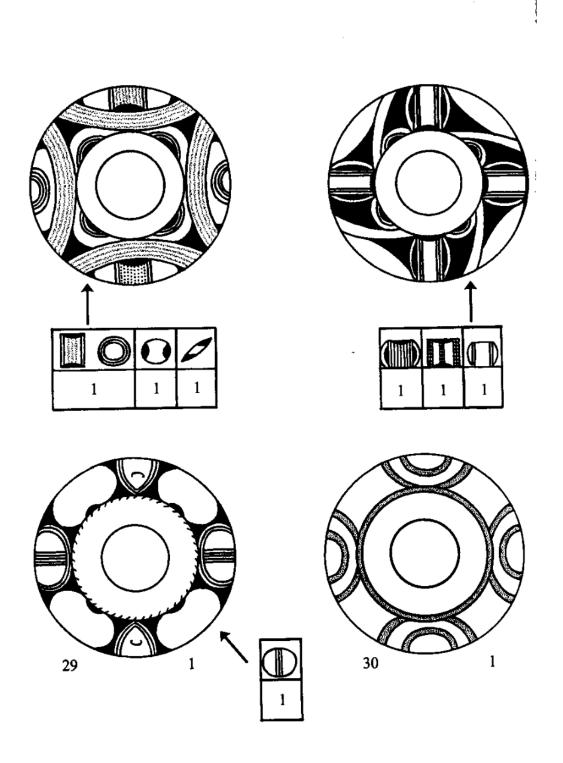


Figure 128: Konovka. Top view orthographic projections on vessels and signs.

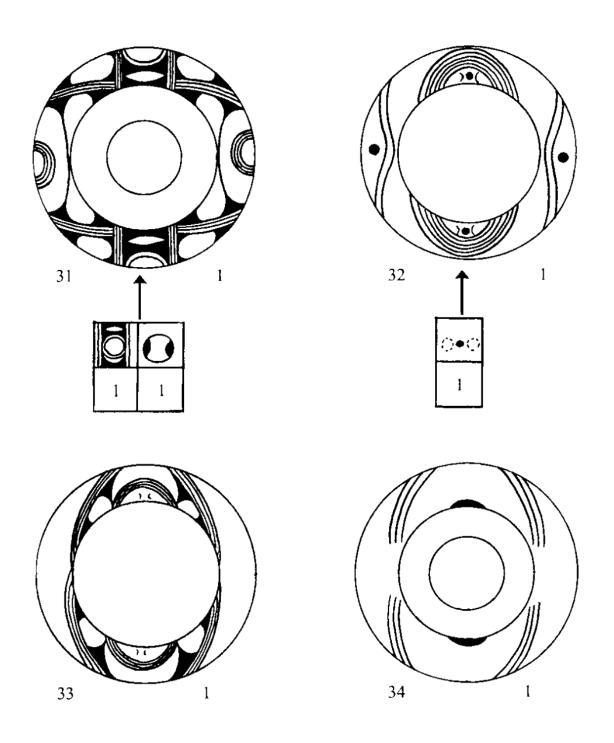


Figure 129: Konovka. Top view orthographic projections on vessels and signs.

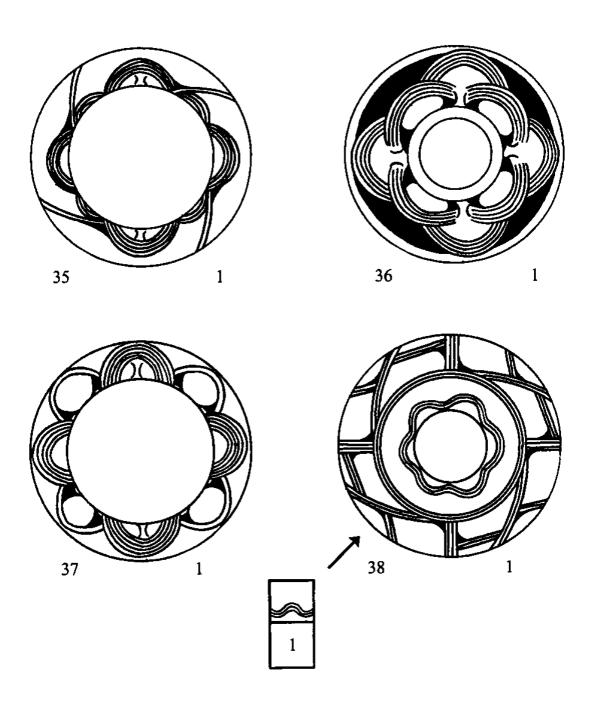


Figure 130: Konovka. Top view orthographic projections on vessels and signs.

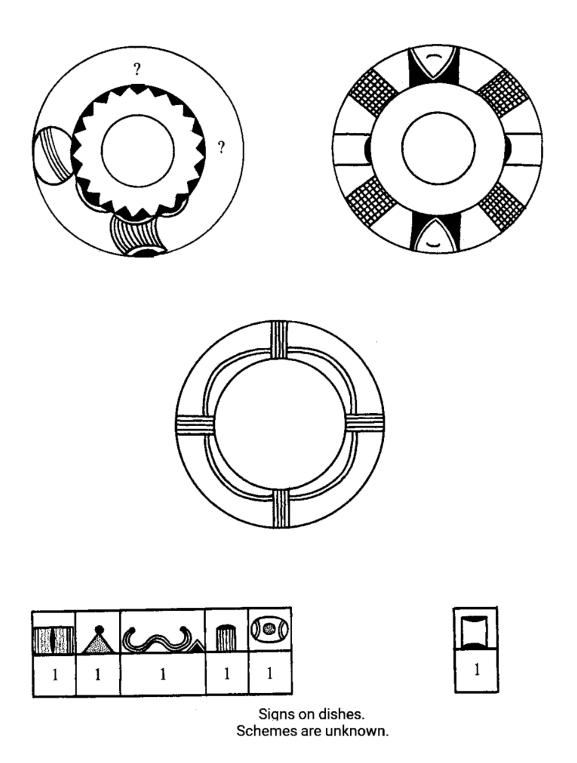


Figure 131: Konovka. Top view orthographic projections on vessels and signs.

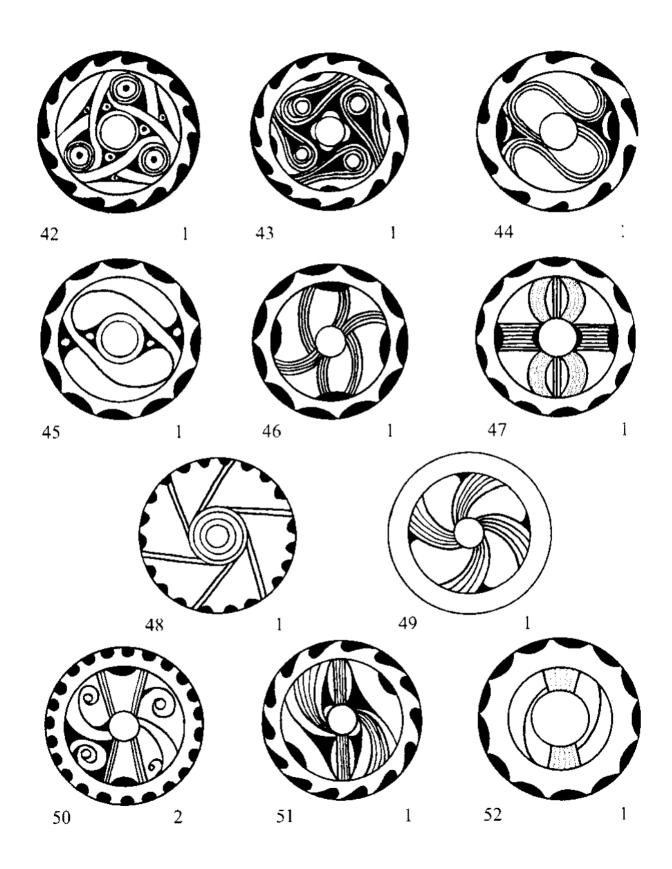


Figure 132: Konovka. Top view orthographic projections on vessels and signs.

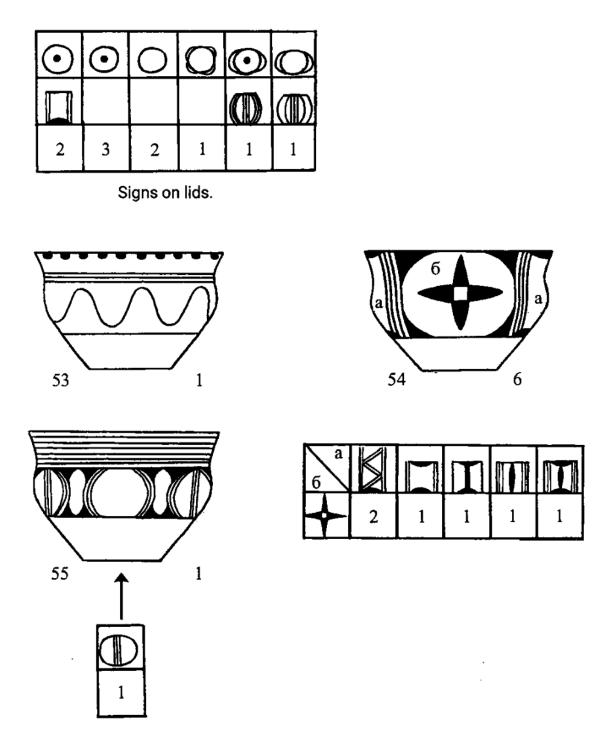


Figure 133: Konovka. Craters with signs.

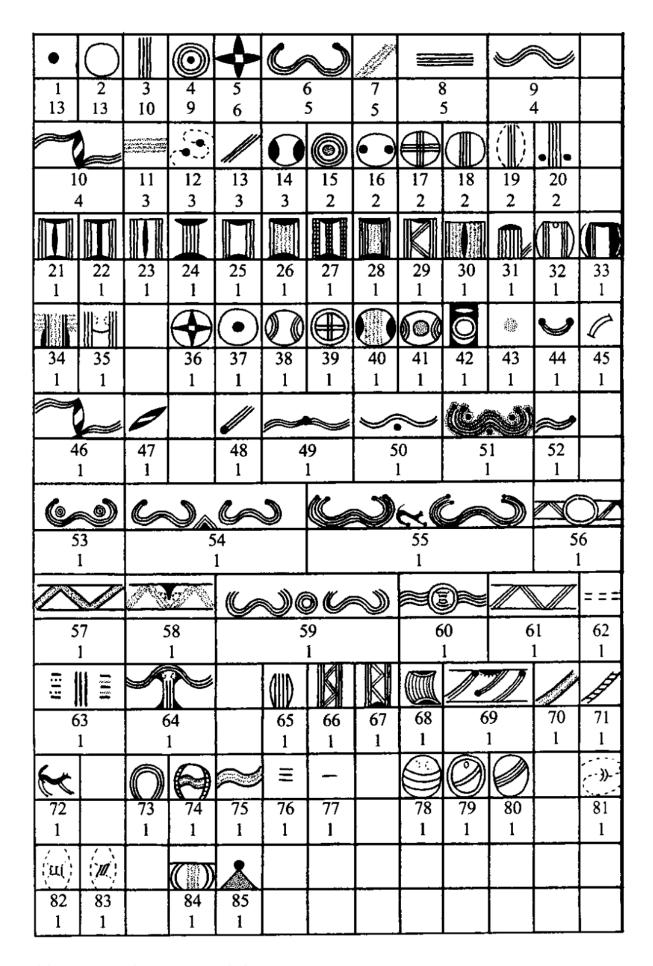


Table 31: Konovka. Signs on dishes.

# Shipintsi B sign system

### Stage CI. Shipintsi (Chernivtsi region, Kitsman district).

3 works used utensils published by G. Child (Child G. -1923) Kandyba (Kandyba O. -1937). 185 vessels were involved in the analysis.

### Schemes of a list and signs on ware of the settlement of Shipinitsa B.

The numbers on the left of the diagrams - sequence number.

Figures on the right -the number of such schemes on the vessels involved in the analysis.

1-6 - cut-conical bowls.

7 - cylindrical-conical bowl.

8 - cups.

9 - amphorae with "front" paintings (6 copies), a pear-shaped vessel with "front" paintings (1 copy).

10-12, 14, 15, 18, 21, 23, 28, 29 - biconical utensils.

13, 16, 17, 19, 20, 22, 24, 25, 27, 36 - pear-shaped utensils.

26 - 11 pear-shaped vessels, 4 lids.

28 - craters.

30-35 - craters.

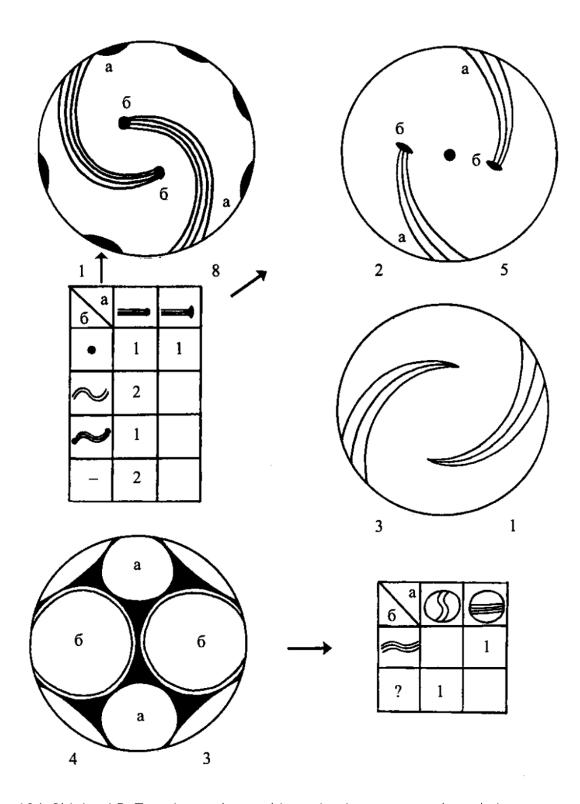


Figure 134: Shipintsi B. Top view orthographic projections on vessels and signs.

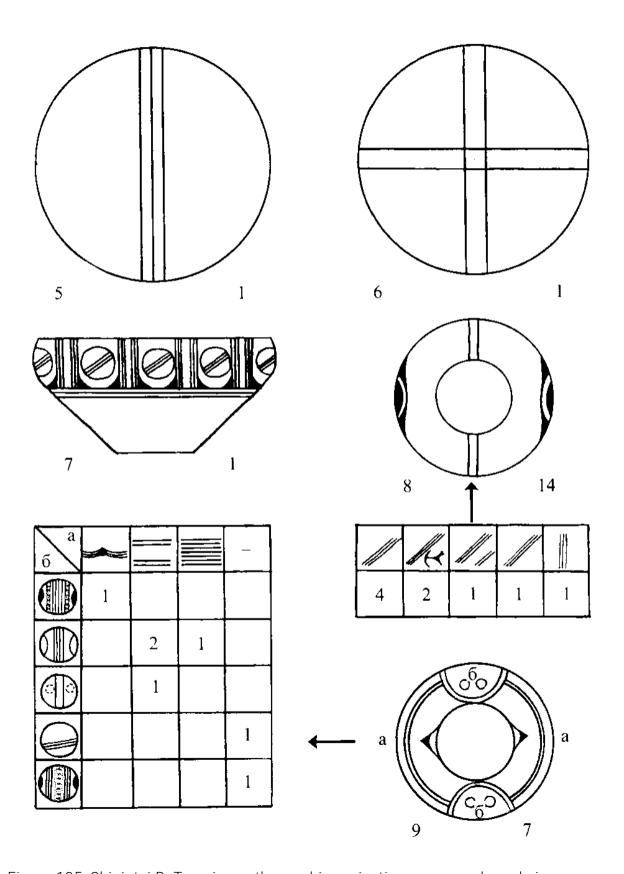


Figure 135: Shipintsi B. Top view orthographic projections on vessels and signs.

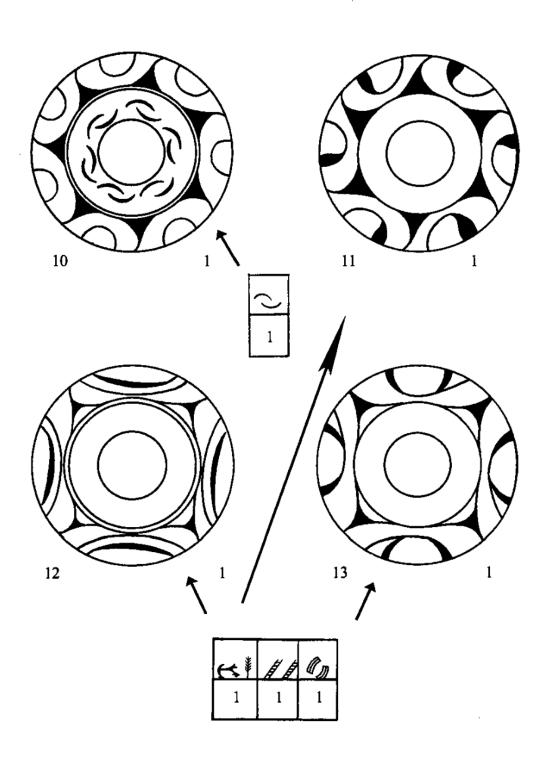


Figure 136: Shipintsi B. Top view orthographic projections on vessels and signs.

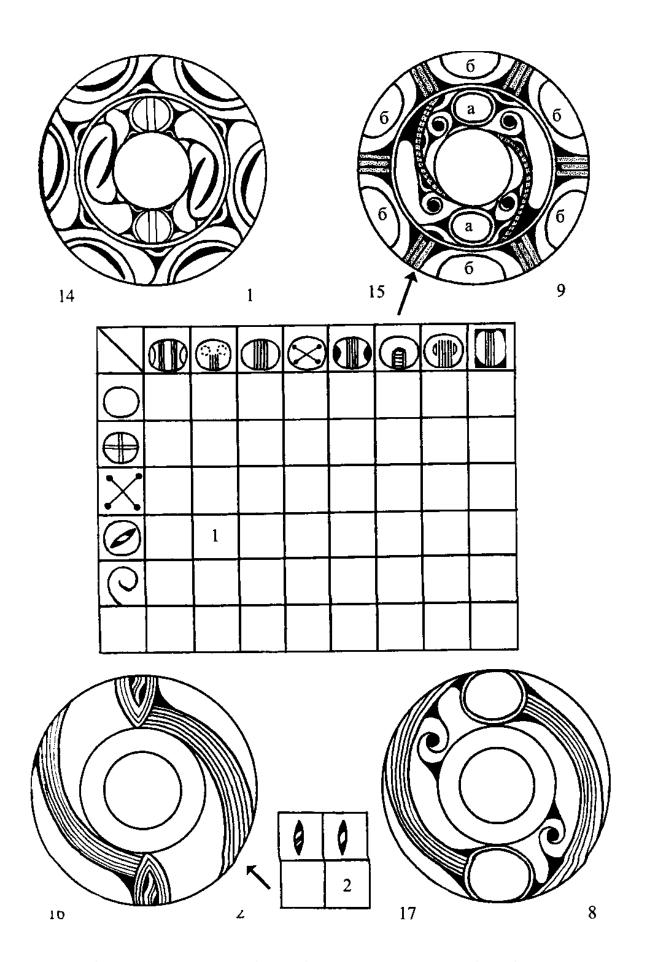


Figure 137: Shipintsi B. Top view orthographic projections on vessels and signs.

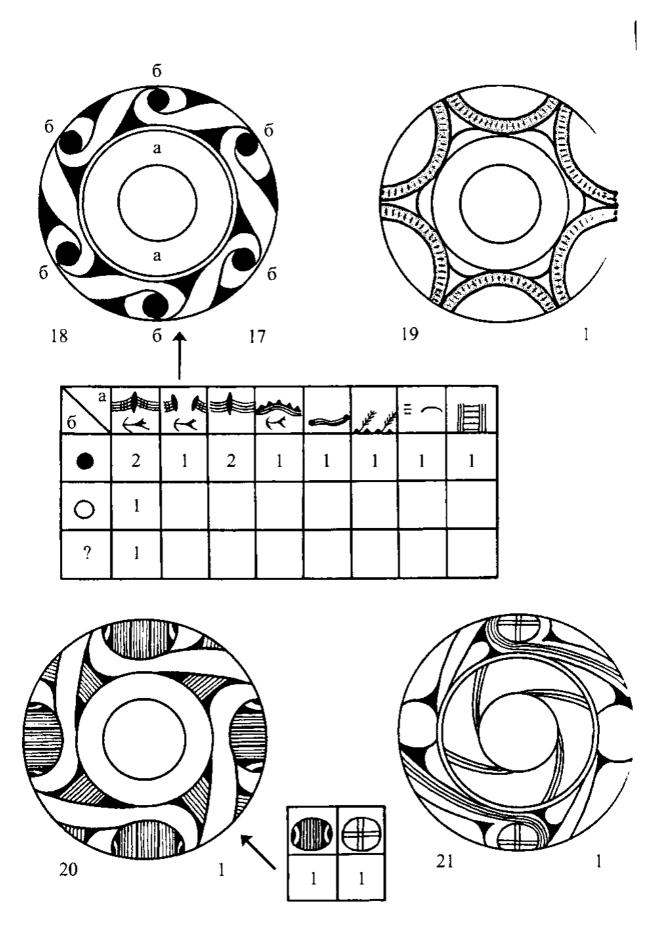


Figure 138: Shipintsi B. Top view orthographic projections on vessels and signs.

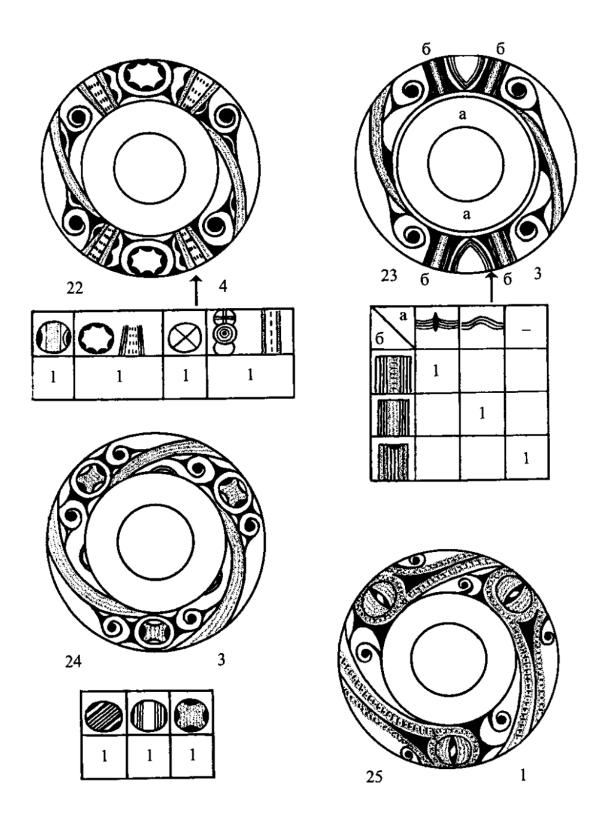


Figure 139: Shipintsi B. Top view orthographic projections on vessels and signs.

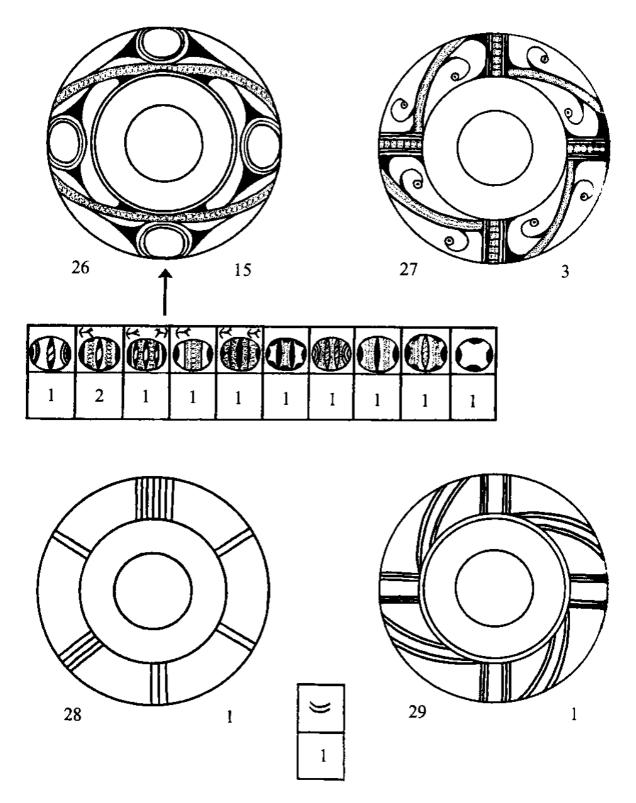


Figure 140: Shipintsi B. Top view orthographic projections on vessels and signs.

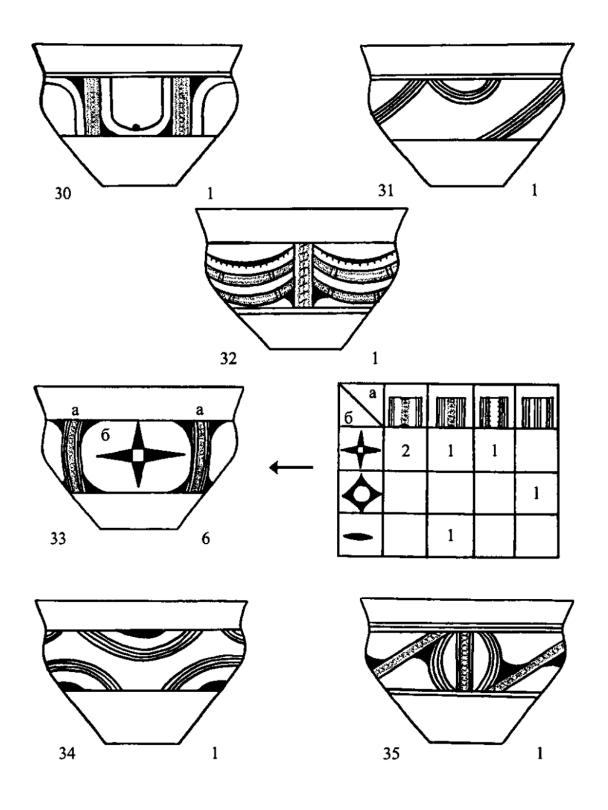


Figure 141: Shipintsi B. Top view orthographic projections on vessels and signs.

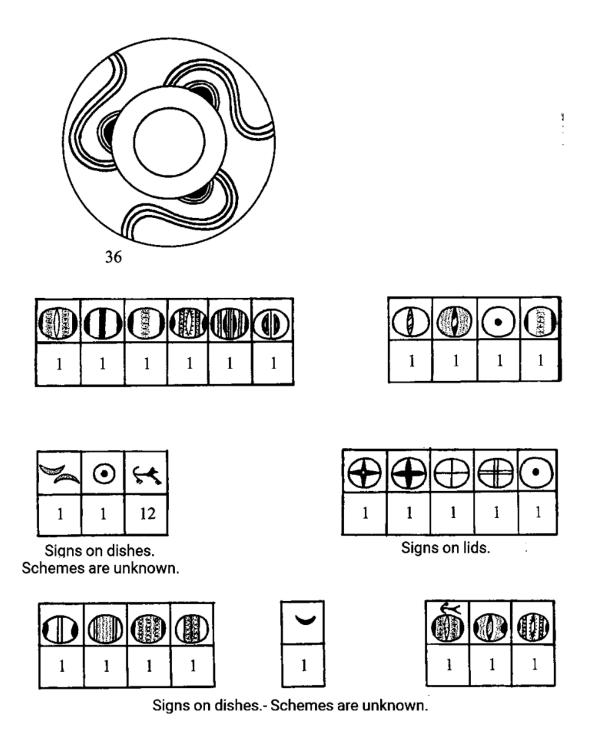


Figure 142: Shipintsi B. Top view orthographic projections on vessels and signs.

Table 32: Shipintsi B. Catalogue of signs on vessels.

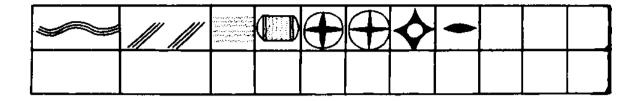


Table 33: Shipintsi B. Catalogue of signs on vessels.

# Bilche Zolote Park III sign system

## Stage CI. Bilche Zolote Park III (Ternopil region, Borshchiv district)

The work uses ceramics published by G. Ossovsky. 23 vessels were involved in the analysis.

## Schemes of paintings and signs on the vessels of the settlement Bilche Zolote Park III.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such schemes on the vessel involved in the anal.

1-3 - bowls.

4- cups.

5 - amphora with "front" painting.

6--8, 1 O, 11 - biconical ware.

9 - pear-shaped utensils.

12-15 - lids.

16 - crater.

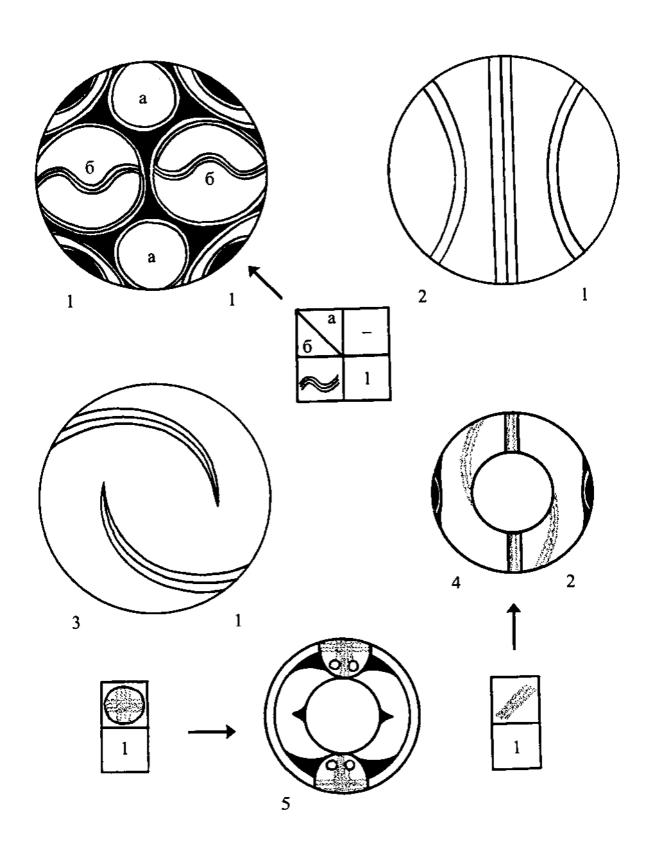


Figure 143: Bilche Zolote Park III. Top view orthographic projections on vessels and signs.

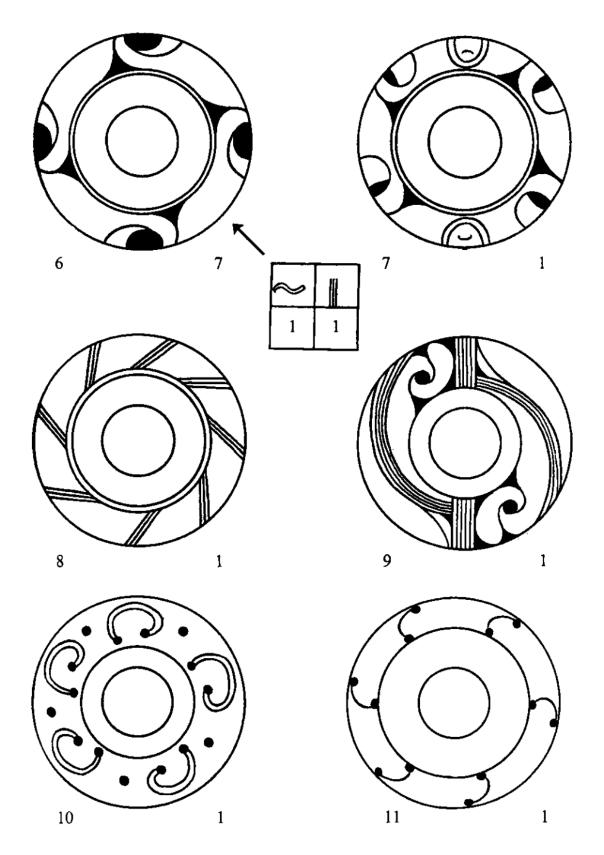


Figure 144: Bilche Zolote Park III. Top view orthographic projections on vessels and signs.

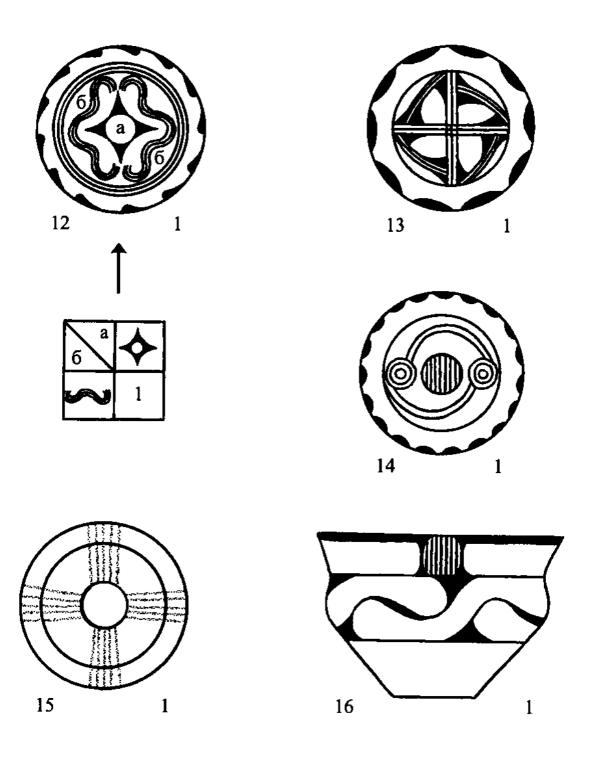


Figure 145: Bilche Zolote Park III. Top view and lateral orthographic projections on vessels and signs.

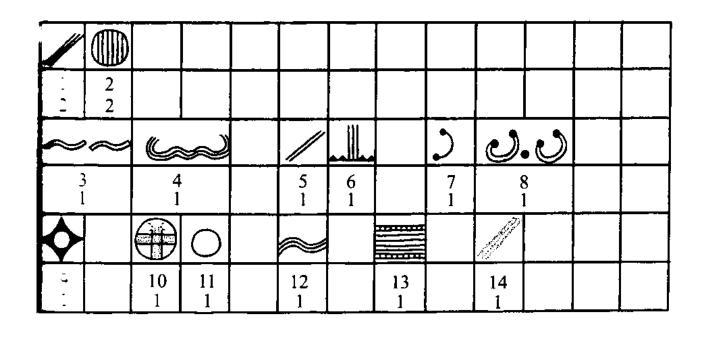


Figure 146: Bilche Zolote Park III. Catalogue of signs on vessels.

# Bilche Zolote Verteba I sign system

## Stage CI. Bilche Zolote Verteba I (Ternopil region, Borshchiv district).

Ceramics published by L. Kozlovsky and M. Gimbutas were used in the work, and 15 vessels were involved in the analysis.

## Schemes of paintings and signs on the vessels from the cave Bilche Zolote Verteba I.

The numbers on the left are the serial number of the diagram.

Figures on the right -number of schemes involved in the analysis.

- 1-3 cut-conical bowls.
- 4-5 biconical utensils.
- 6-7 amphorae.
- 8 cup.
- 9 pear-shaped vessels.
- 10 cover.

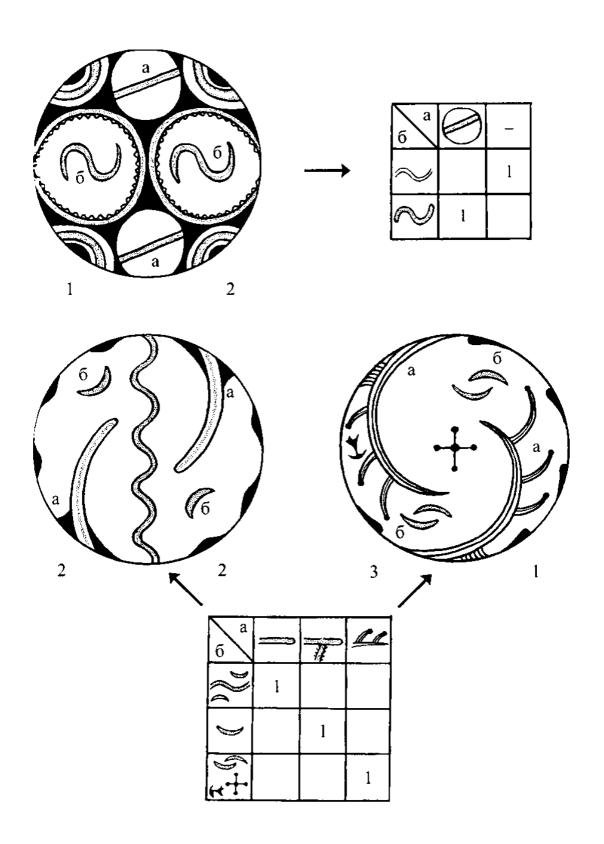


Figure 147: Bilche Zolote Verteba I. Top view orthographic projections on vessels and signs.

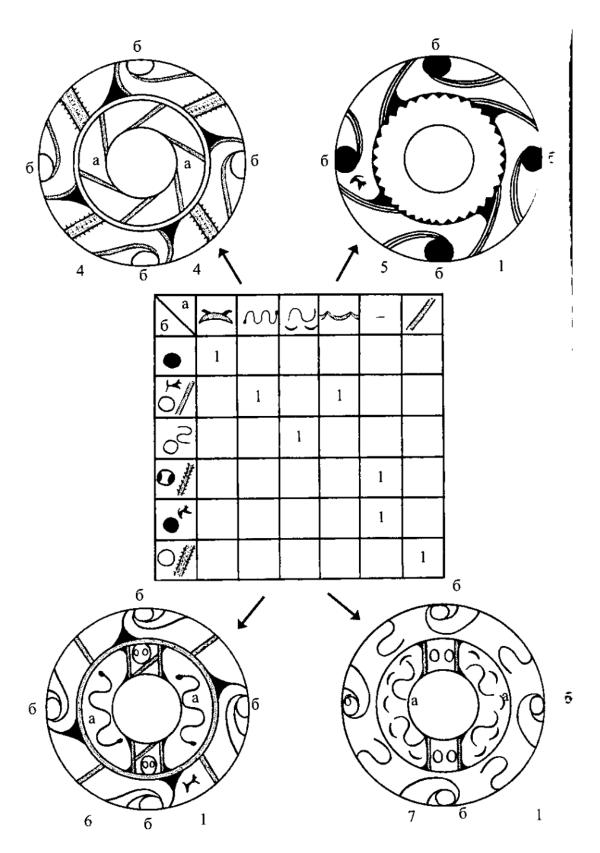


Figure 148: Bilche Zolote Verteba I. Top view orthographic projections on vessels and signs.

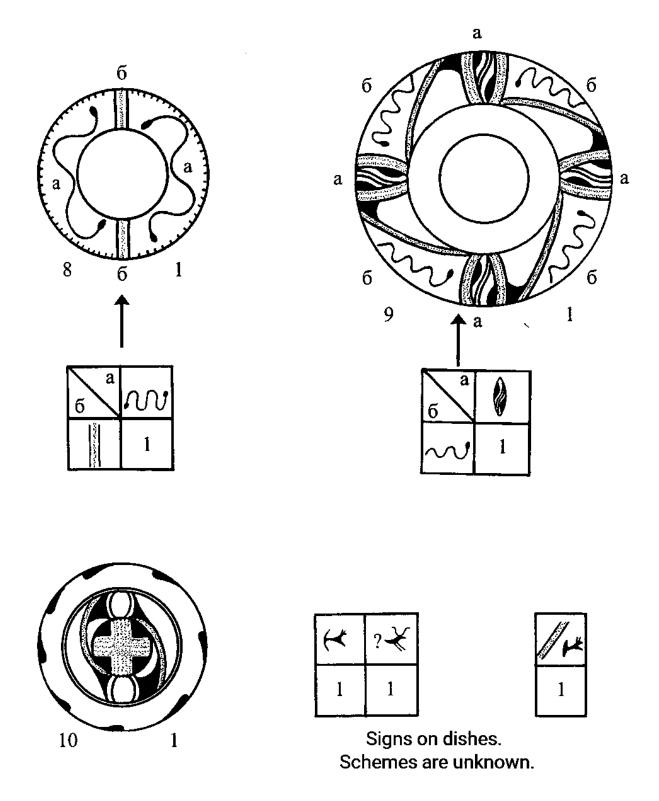


Figure 149: Bilche Zolote Verteba I. Top view orthographic projections on vessels and signs.

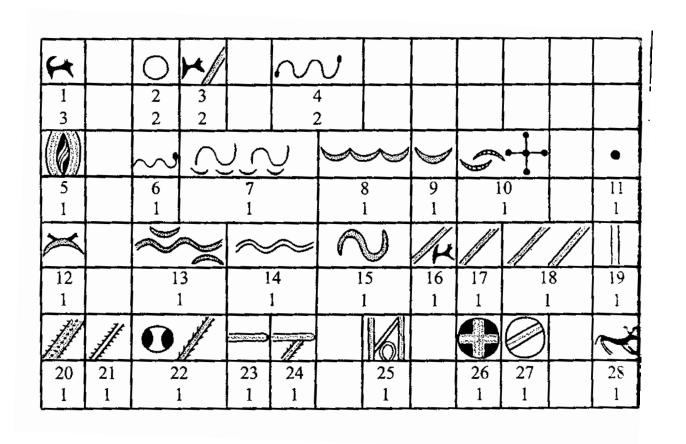


Table 34: Bilche Zolote Verteba I. Catalogue of signs on vessels.

## Voroshilivka sign system

#### Stage VII Voroshilivka (Vinnytsia region, Tyvriv district).

The ceramics obtained during the research of the settlement by expeditions led by I. I. Zaits in 1982-1985 and 1990 were used in the work. 144 vessels were involved in the analysis. The condition of the material is satisfactory. The ornament on many ornaments of ware strongly suffered from conditions of occurrence in soil.

The collection is stored in the funds of Vinnytsia State Pedagogical University. M. Kotsyubynsky and Vinnytsia Regional Museum of Local History.

## Schemes of paintings and signs on the vessels of the settlement Voroshilivka.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1-8 - bowls.

9, 10, 12, 15 - cups.

11, 13, 14 - small biconical utensils.

16 - amphorae with "front" paintings.

17, 19-23 - biconical vessels.

18 - 5 pear-shaped, 3 biconical vessels.

24, 25 - lids.

26-28 - schemes of painting the inside of the crown of the craters.

29 - craters.

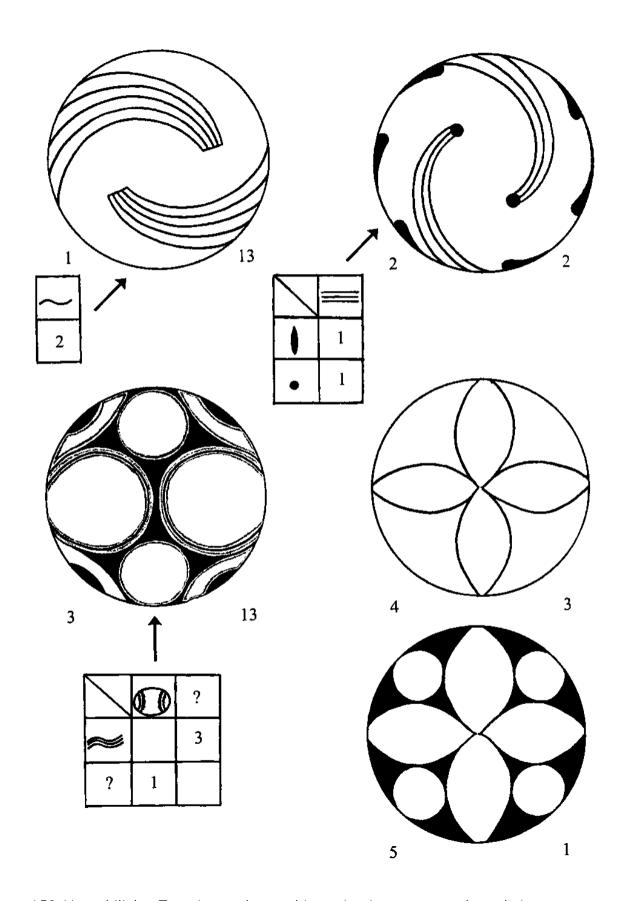


Figure 150: Voroshilivka. Top view orthographic projections on vessels and signs.

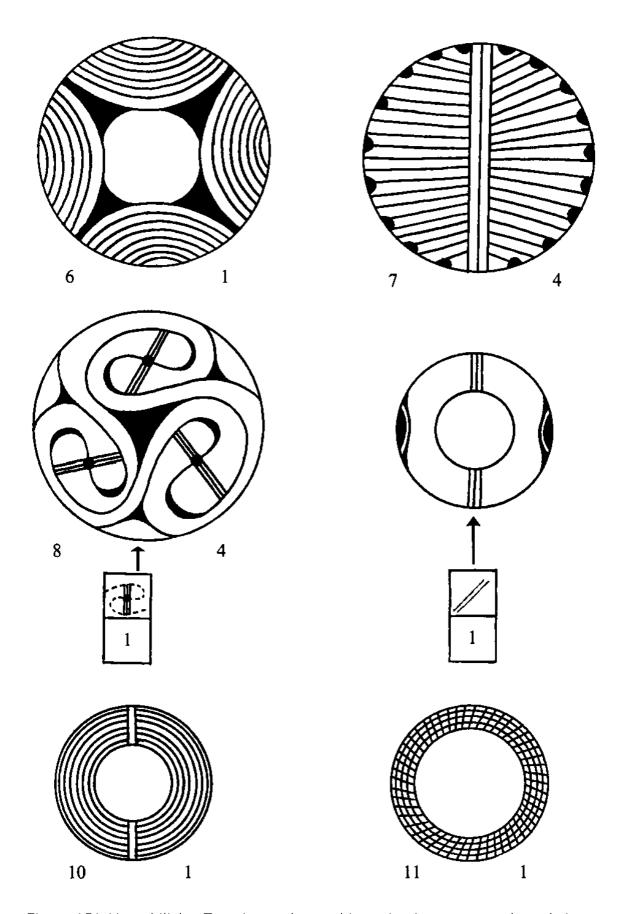


Figure 151: Voroshilivka. Top view orthographic projections on vessels and signs.

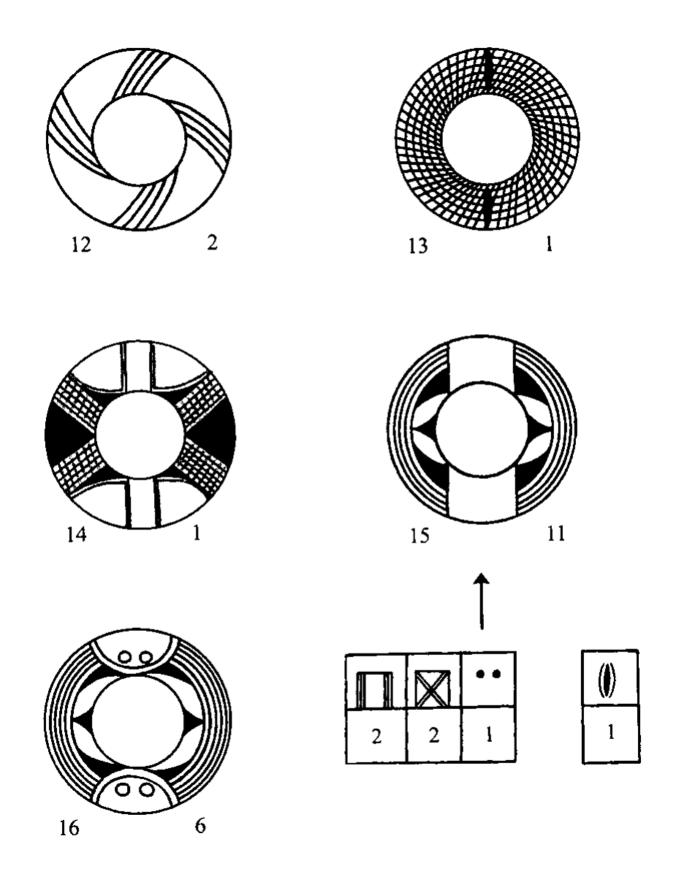


Figure 152: Voroshilivka. Top view orthographic projections on vessels and signs.

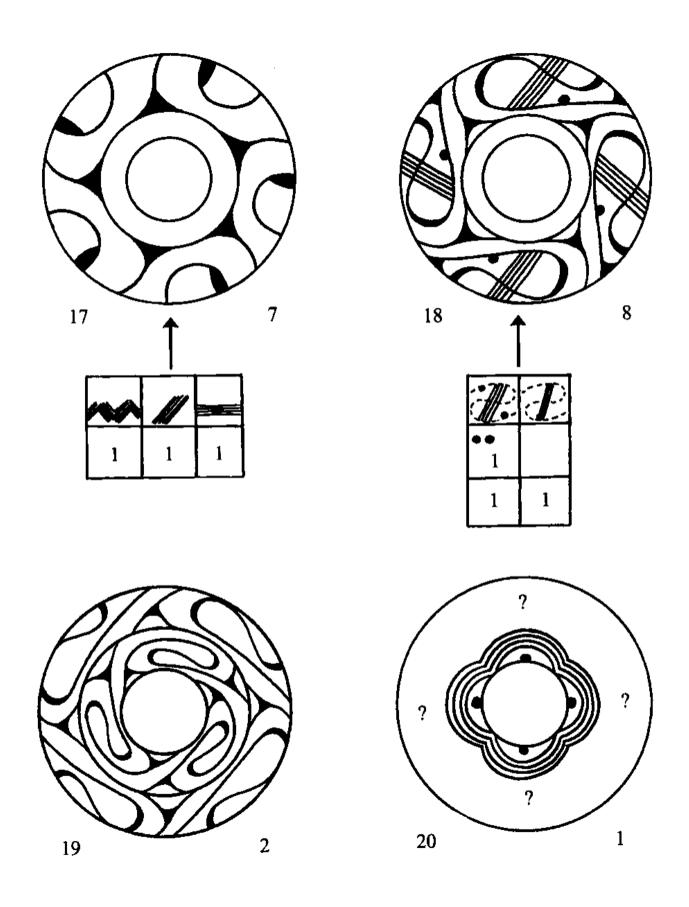


Figure 153: Voroshilivka. Top view orthographic projections on vessels and signs.

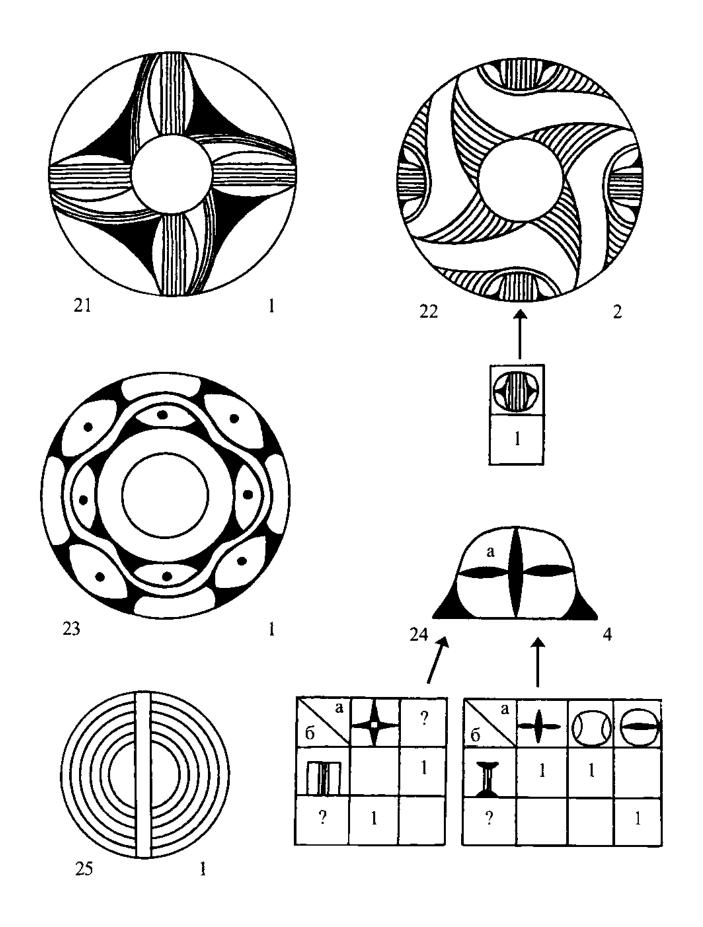


Figure 154: Voroshilivka. Top view orthographic and lateral projections on vessels and signs.

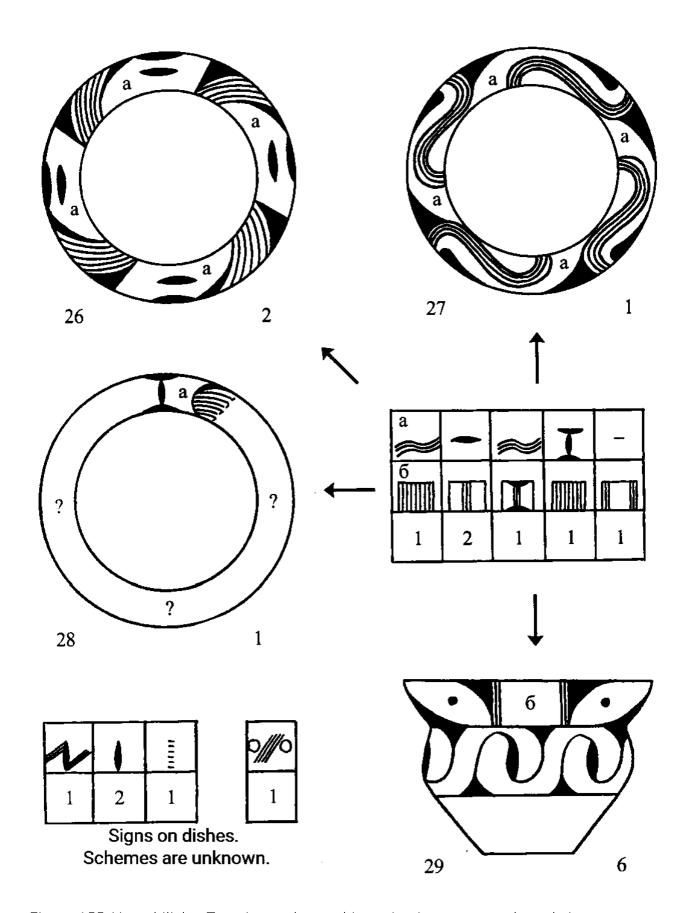


Figure 155: Voroshilivka. Top view orthographic projections on vessels and signs.

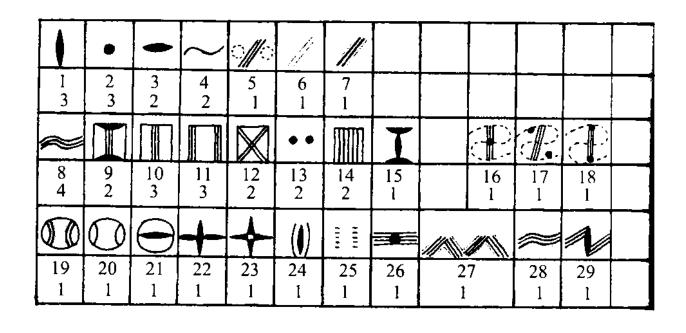


Table 35: Voroshilivka. Catalogue of signs on vessels

## Petreny sign system

### Stage CI. Petreny (Drochia district, Republic of Moldova).

The work uses ceramics obtained during the research of the settlement by E. R. Stern in 1902-1903. 207 units of utensils were involved in the analysis. The state of preservation of the material is satisfactory. Many vessels are highly fragmented. The collection is stored in the funds of the Odessa State Archaeological Museum.

### Schemes of paintings and signs on the vessels of the settlement of Petreny.

The numbers on the left of the diagrams -sequence number.

Figures on the right -the number of such schemes on the vessels involved in the analysis.

1-7 -cut-conical bowls.

8 - cylindrical-conical bowls.

9-15 - cups.

16 - amphorae.

17, 21, 22, 26-28, 30, 31 - biconical vessels.

19, 23-25, 29, 33 - pear-shaped utensils.

20-9 pear-shaped vessels, 11 biconical vessels.

32 -1 pot with handles under the crown, 1 pear-shaped vessel.

34 -pots.

35 - 3 pots, 1 pot on legs.

36, 37 - covers.

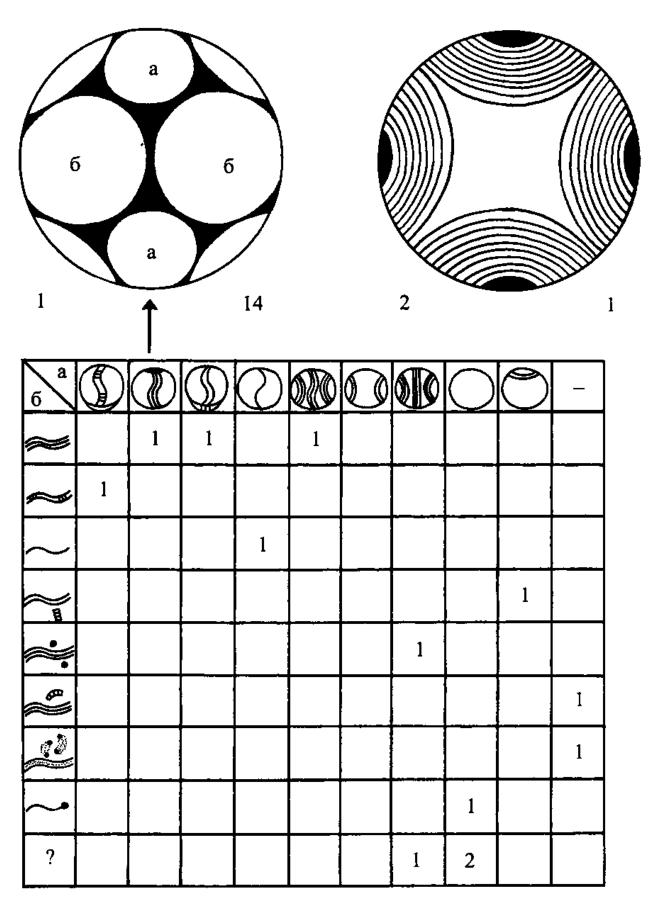


Figure 156: Petreny. Top view orthographic projections on vessels and signs.

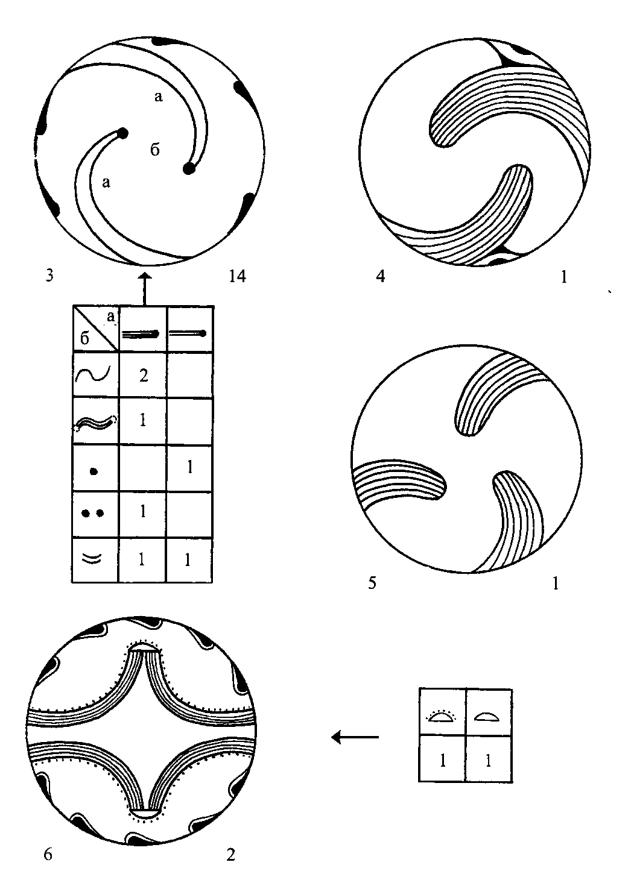


Figure 157: Petreny. Top view orthographic projections on vessels and signs.

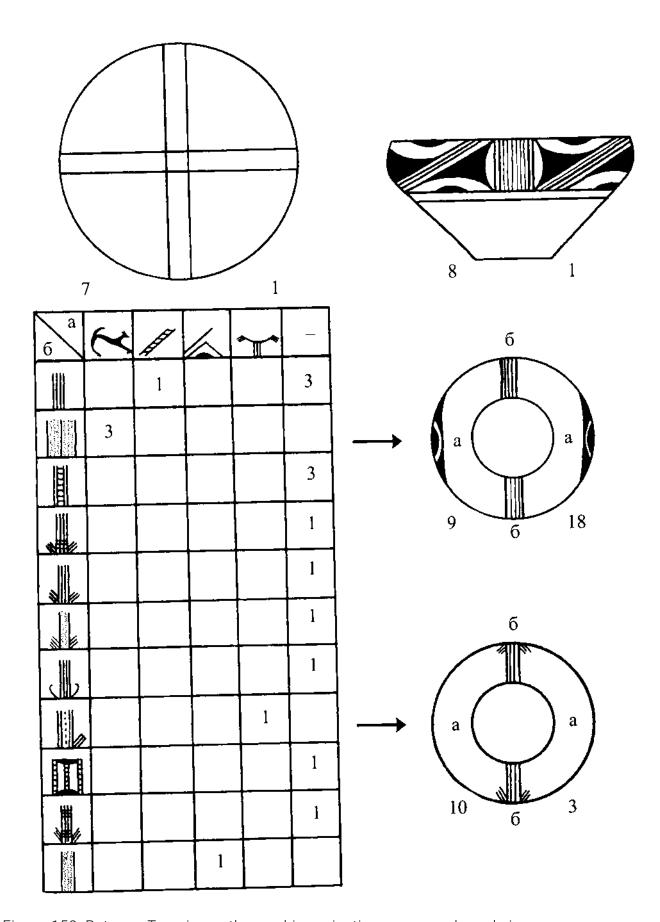


Figure 158: Petreny. Top view orthographic projections on vessels and signs.

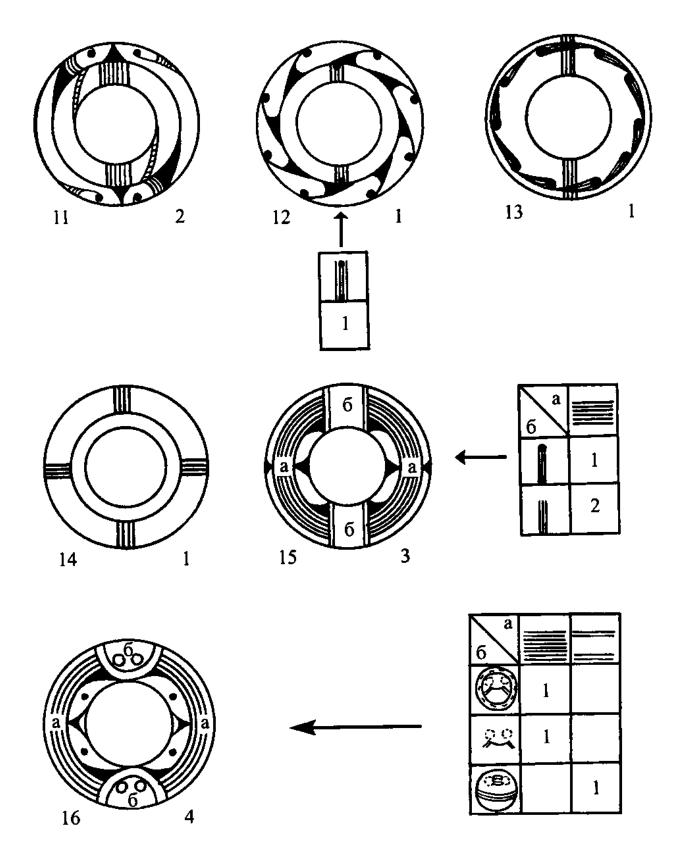


Figure 159: Petreny. Top view orthographic projections on vessels and signs.

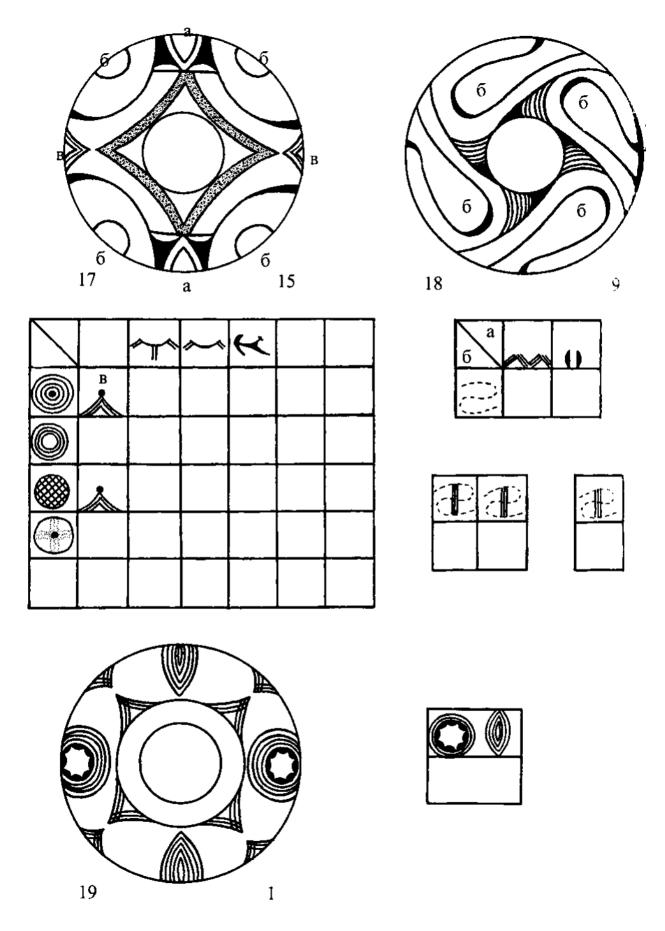


Figure 160: Petreny. Top view orthographic projections on vessels and signs.

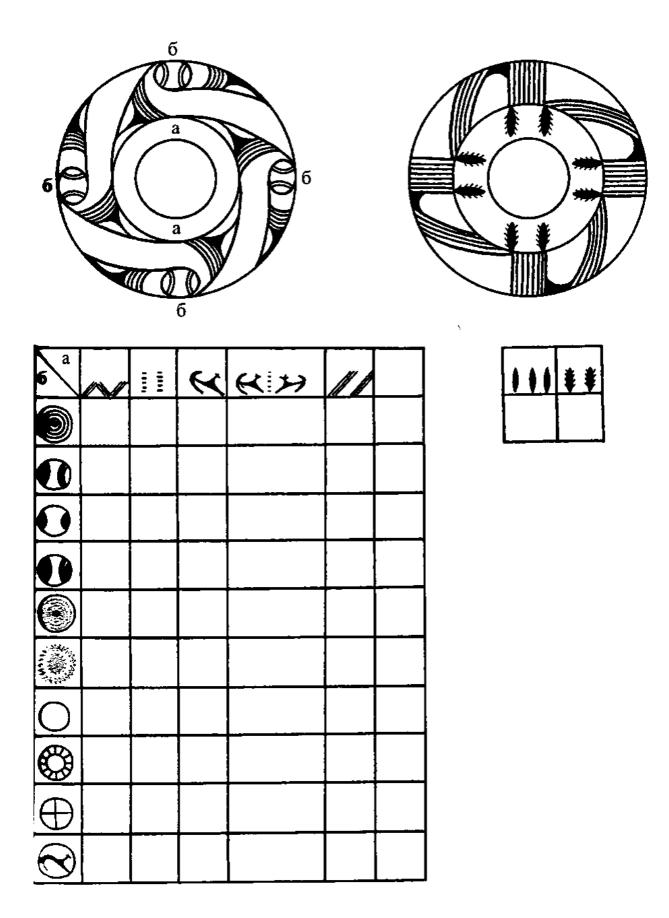


Figure 161: Petreny. Top view orthographic projections on vessels and signs.

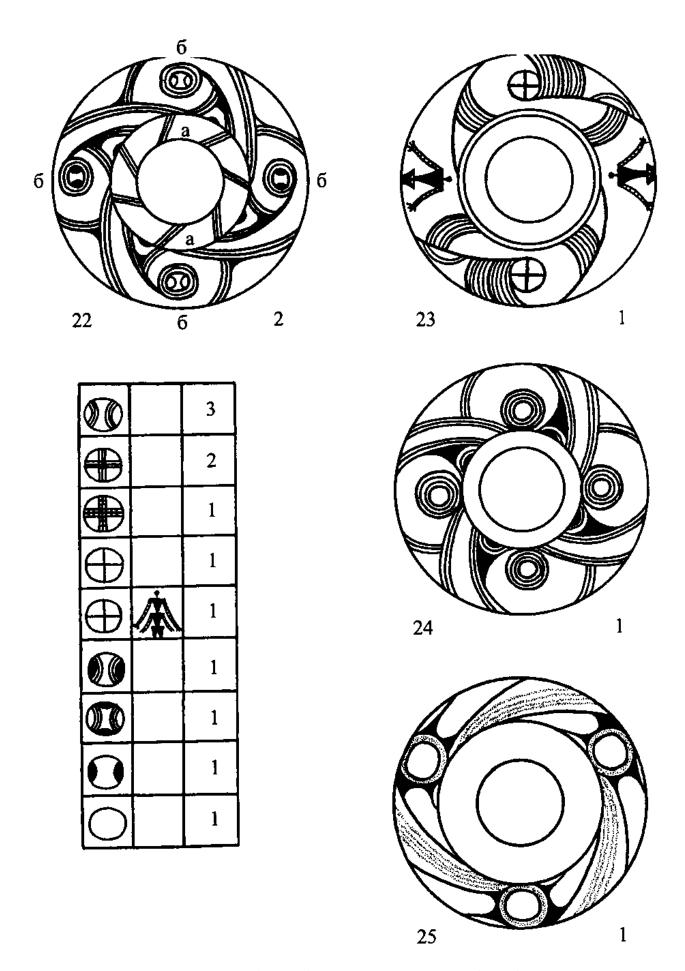


Figure 162: Petreny. Top view orthographic projections on vessels and signs.

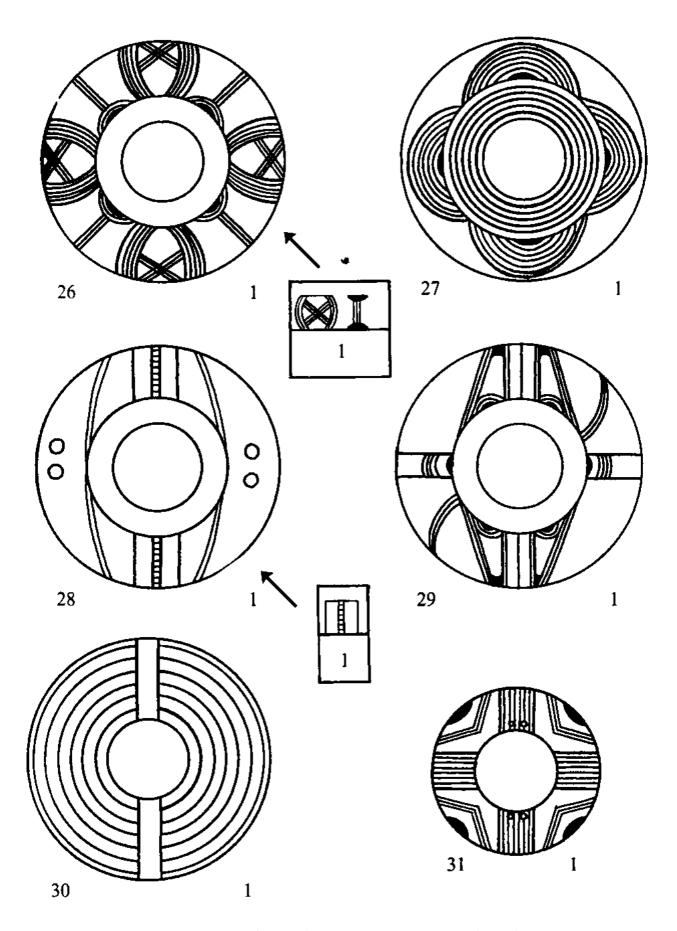


Figure 163: Petreny. Top view orthographic projections on vessels and signs.

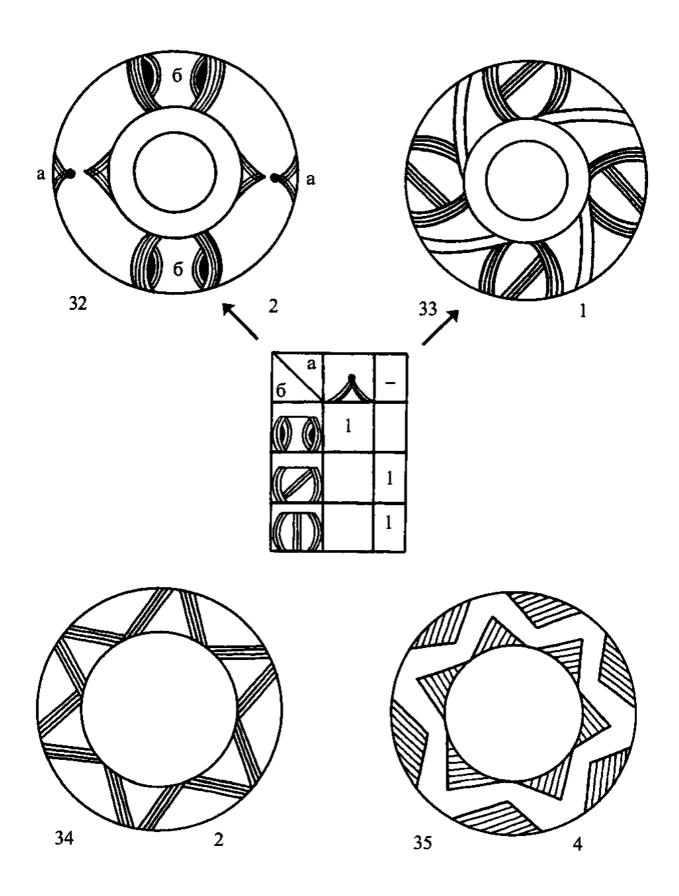
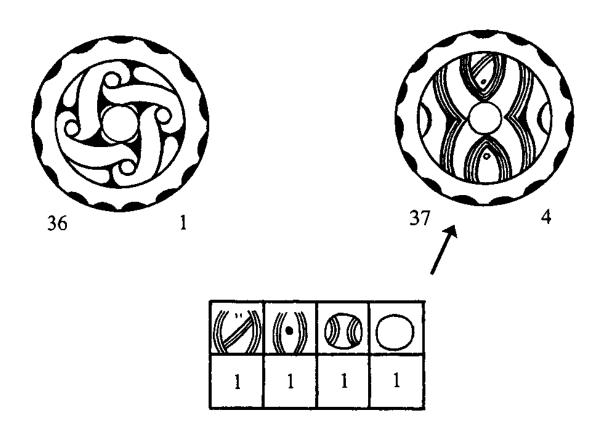


Figure 164: Petreny. Top view orthographic projections on vessels and signs.



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Signs on dishes. Schemes are unknown.

Figure 165: Petreny. Top view orthographic projections on vessels and signs.

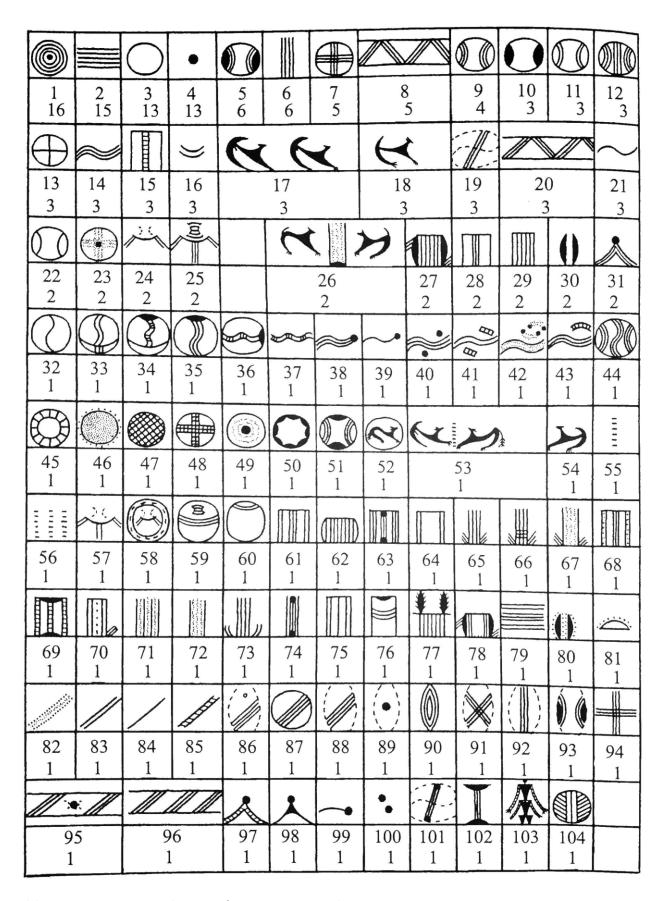


Table 36: Petreny. Catalogue of signs on vessels.

# Bernashivka sign system

### Stage CI. Beryashivka (Vinnytsia region, Mohyliv-Podilskyi district)

In 3 works the ceramics received during the research of settlement by expeditions under the direction of OG Kolesnikov in 1989-1991, 1993 is used. 929 units of utensils were involved in the analysis. 7 sites were excavated.

### Schemes of paintings and signs on the vessels of the settlement Bernashivka.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis. 1-14 - cut-conical bowls (scheme 6 - external painting of the bowl).

15 - cylindrical-conical bowls.

16-22 - cups.

23 - amphorae.

24, 26, 28, 29, 44-46, 48-50, 59-66, 68, 70, 72 - biconical ware.

25 - 131 biconical vessels, 78 pear-shaped vessels.

27 - 3 biconical vessels, 3 pear-shaped.

30-32, 34-40 - lids.

33 - 4 lids, 1 - cut-conical bowl.

41 - cup-shaped vessel.

42 - 3 pear-shaped vessels, 2 biconical, 1 crater, 2 cylindrical-conical bowls, 1 pot.

43 - 29 biconical vessels, 43 pear-shaped vessels, 72 craters.

47 - 2 biconical vessels, 1 pear-shaped vessel.

51, 53, 55, 57, 58, 69, 71 - pear-shaped vessels.

52 - 2 pear-shaped vessels, 2 cylindrical-conical bowls, 3 craters.

54 - 2 pear-shaped vessels, 1 crater.

56 - 6 pear-shaped vessels, 3 biconical.

67 - 2 pear-shaped vessels, 5 pots.

73-75 - craters.

76-79 - pots.

80-81 - "imported" biconical vessels.

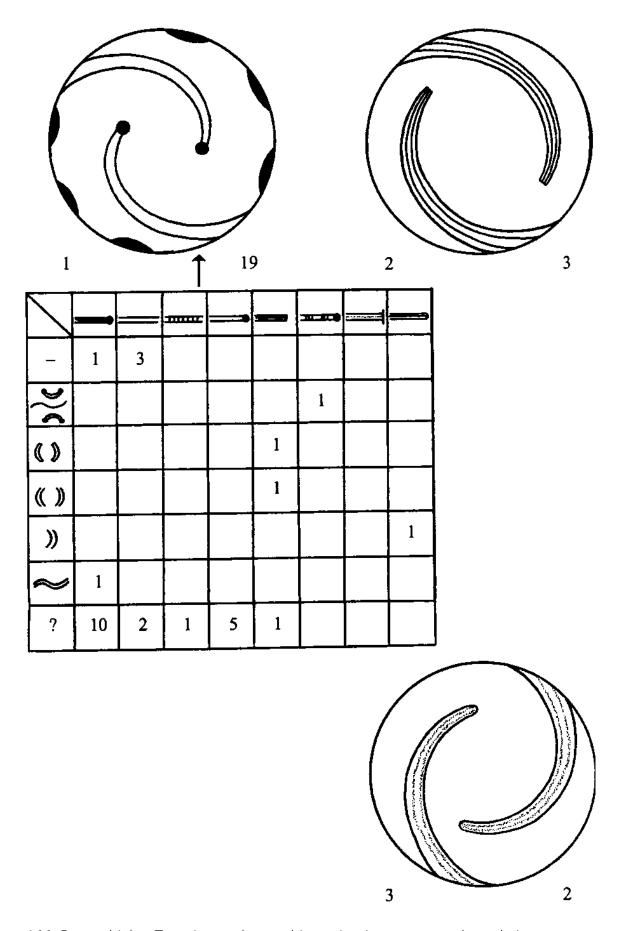


Figure 166: Bernashivka. Top view orthographic projections on vessels and signs.

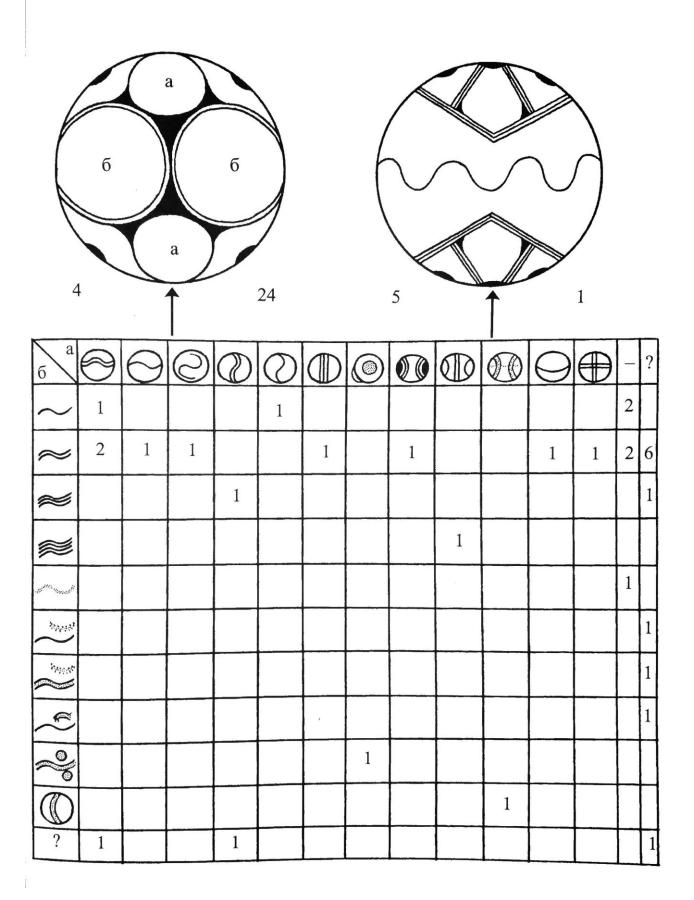


Figure 167: Bernashivka. Top view orthographic projections on vessels and signs.

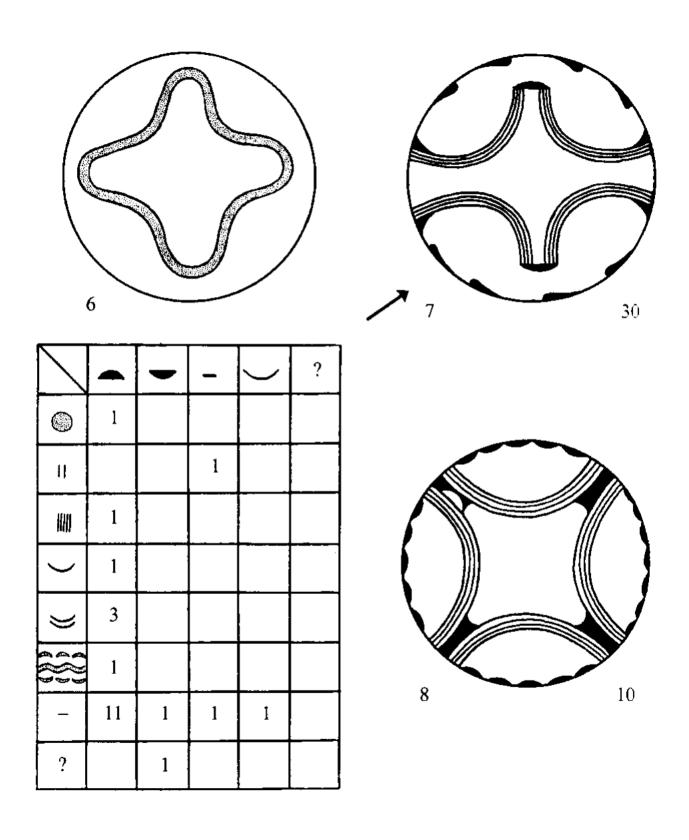


Figure 168: Bernashivka. Top view orthographic projections on vessels and signs.

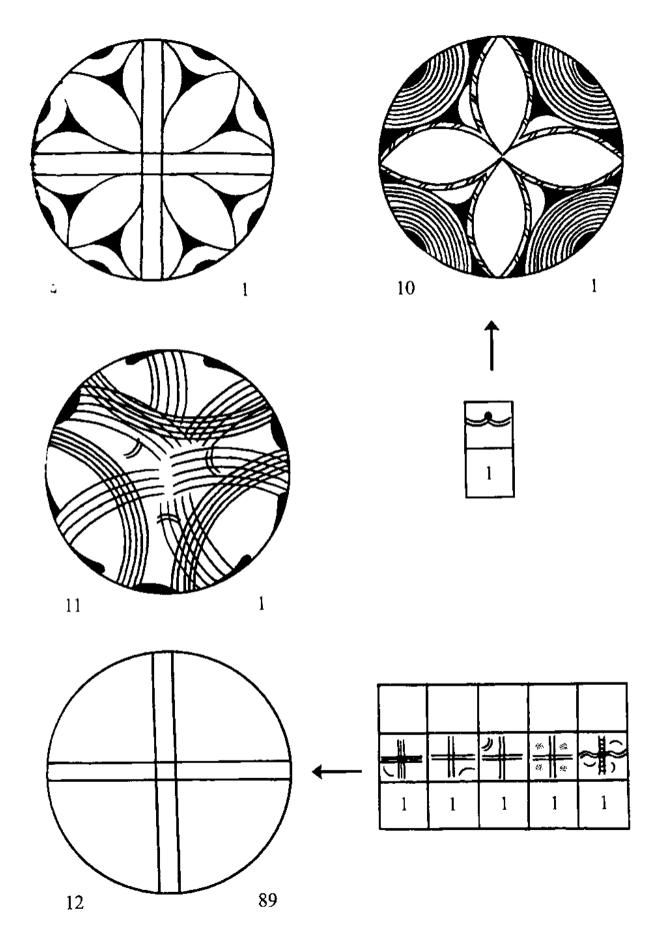


Figure 169: Bernashivka. Top view orthographic projections on vessels and signs.

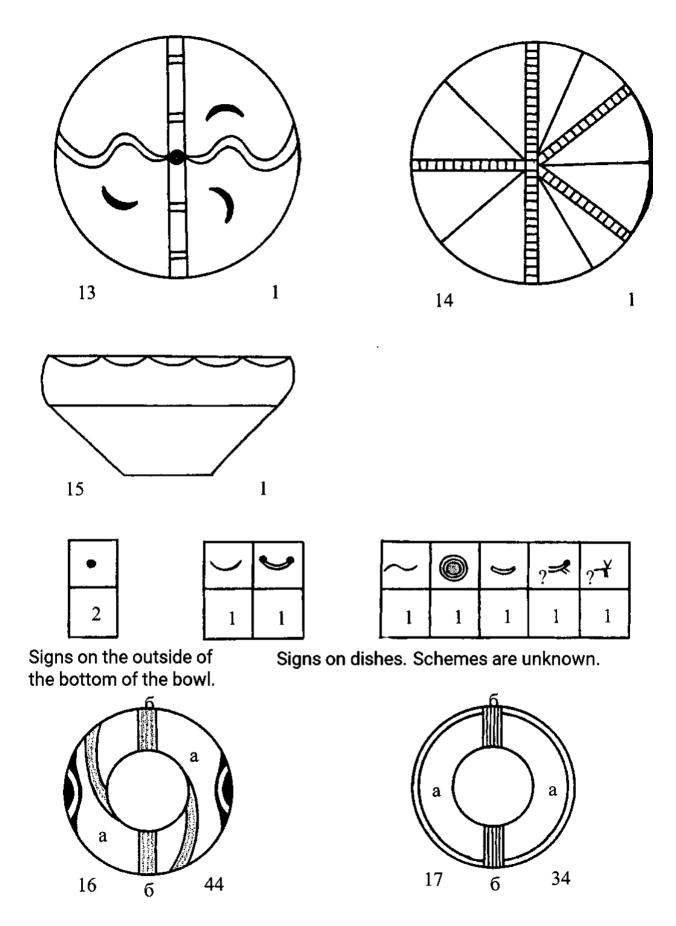


Figure 170: Bernashivka. Top view orthographic projections on vessels and signs.

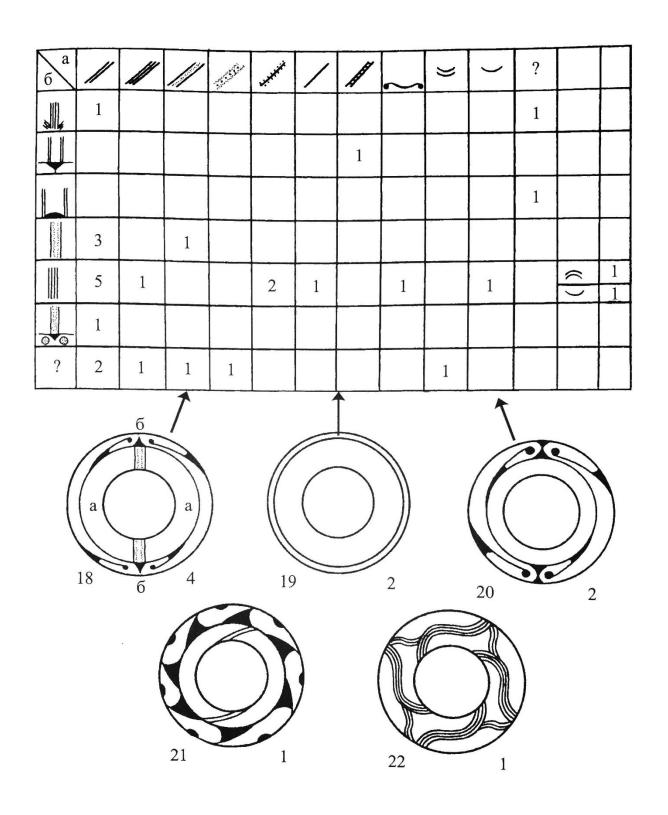


Figure 171: Bernashivka. Top view orthographic projections on vessels and signs.

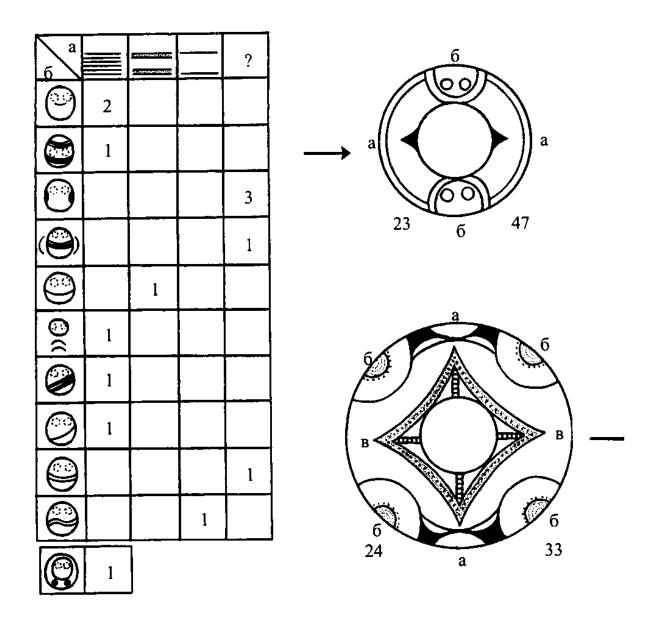


Figure 172: Bernashivka. Top view orthographic projections on vessels and signs.

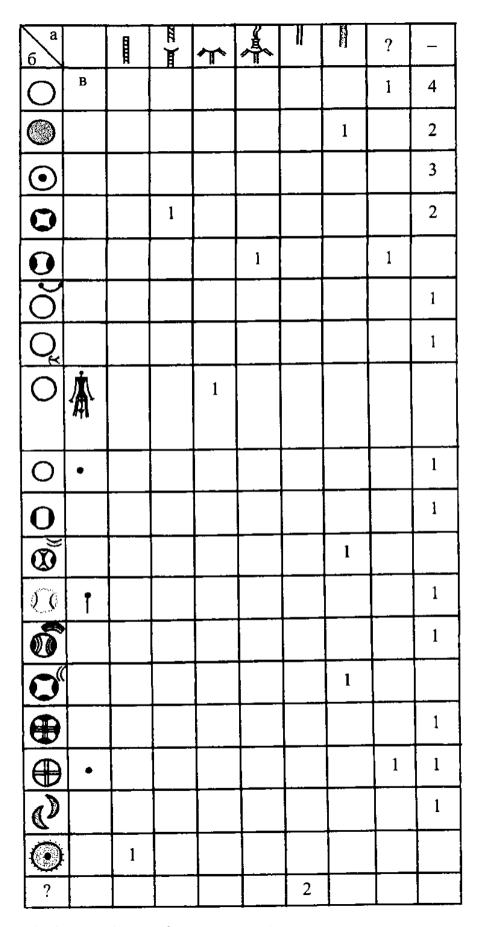


Table 37: Bernashivka. Catalogue of signs on amphorae.

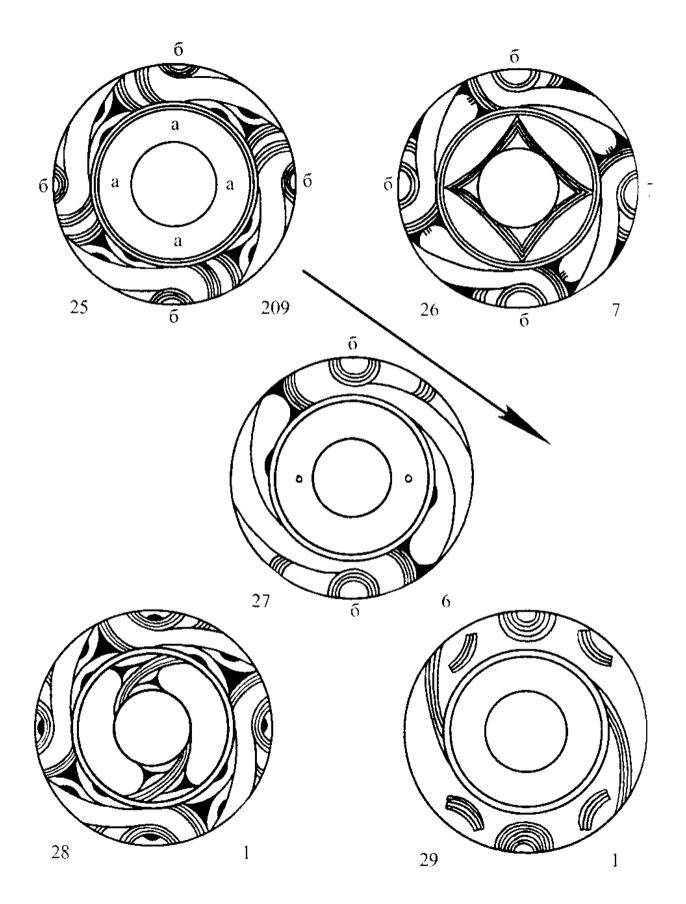


Figure 173: Bernashivka. Top view orthographic projections on vessels.

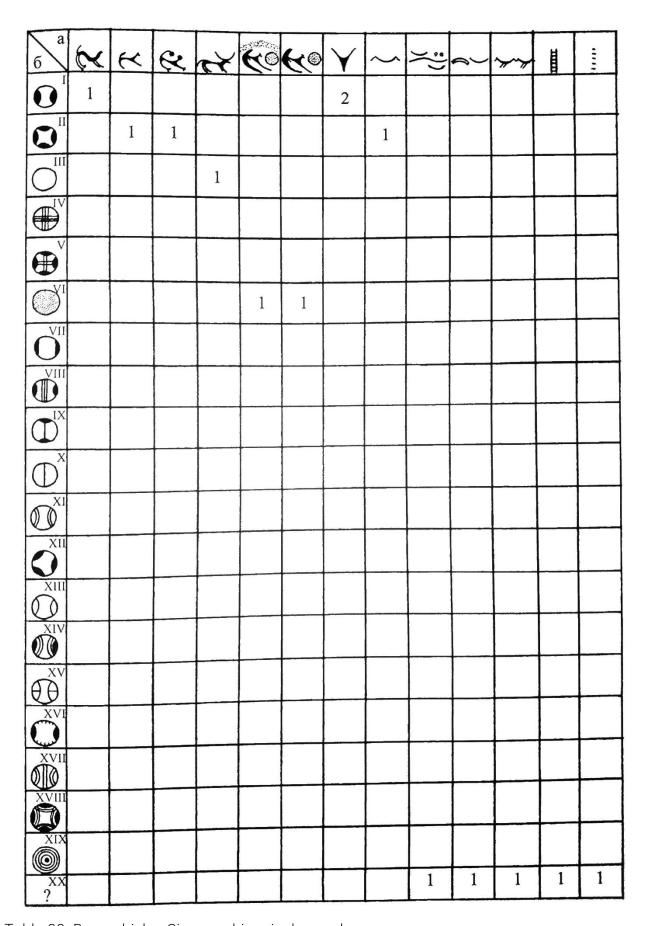
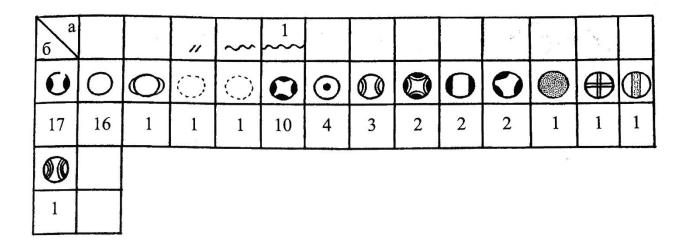


Table 38: Bernashivka. Signs on biconical vessels.

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XIV				1		1							
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XVIII				2			-						
XIX				1								1	2
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Table 39: Bernashivka. Signs on biconical vessels



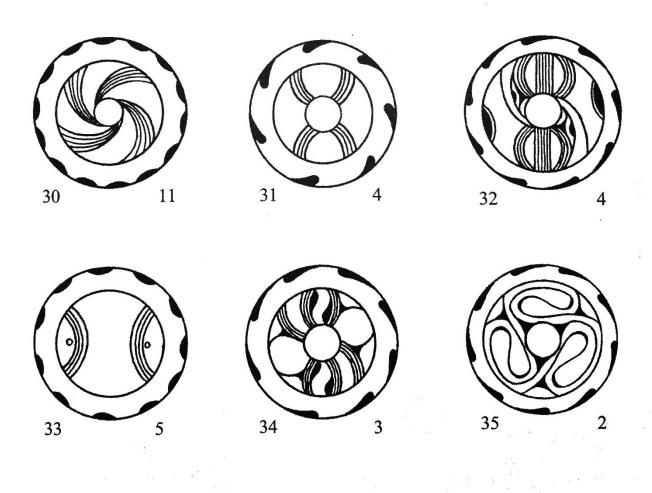


Figure 174: Bernashivka. Signs and top view orthographic projections on vessels.

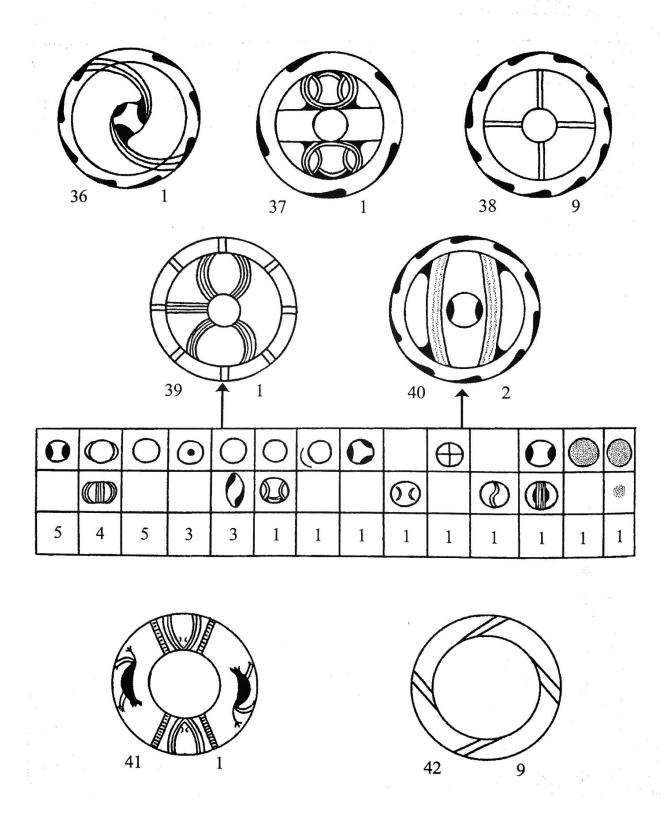


Figure 175: Bernashivka. Top view orthographic projections on vessels and signs.

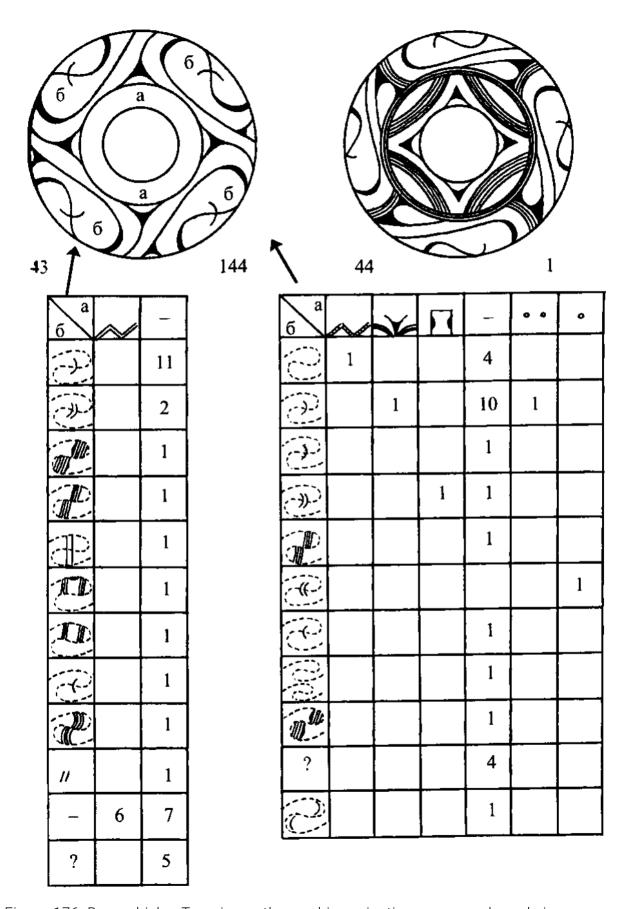


Figure 176: Bernashivka. Top view orthographic projections on vessels and signs.

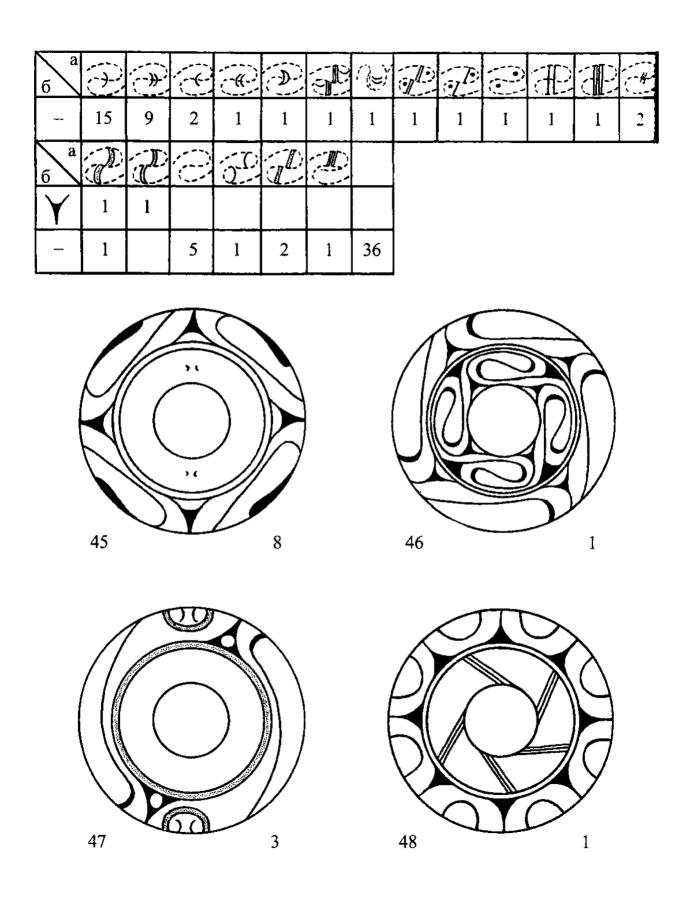


Figure 177: Bernashivka. Top view orthographic projections on vessels and signs.

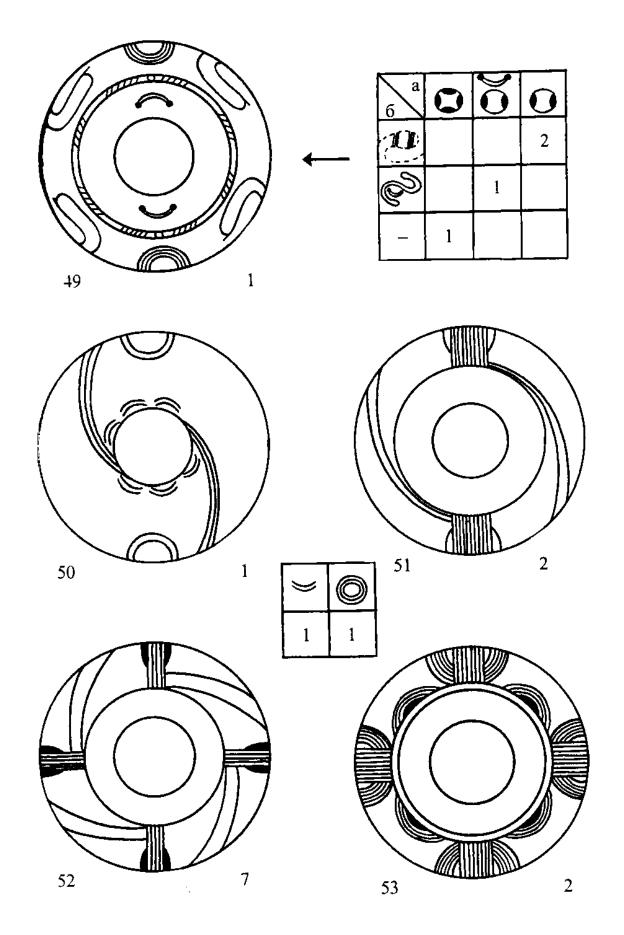


Figure 178: Bernashivka. Top view orthographic projections on vessels and signs.

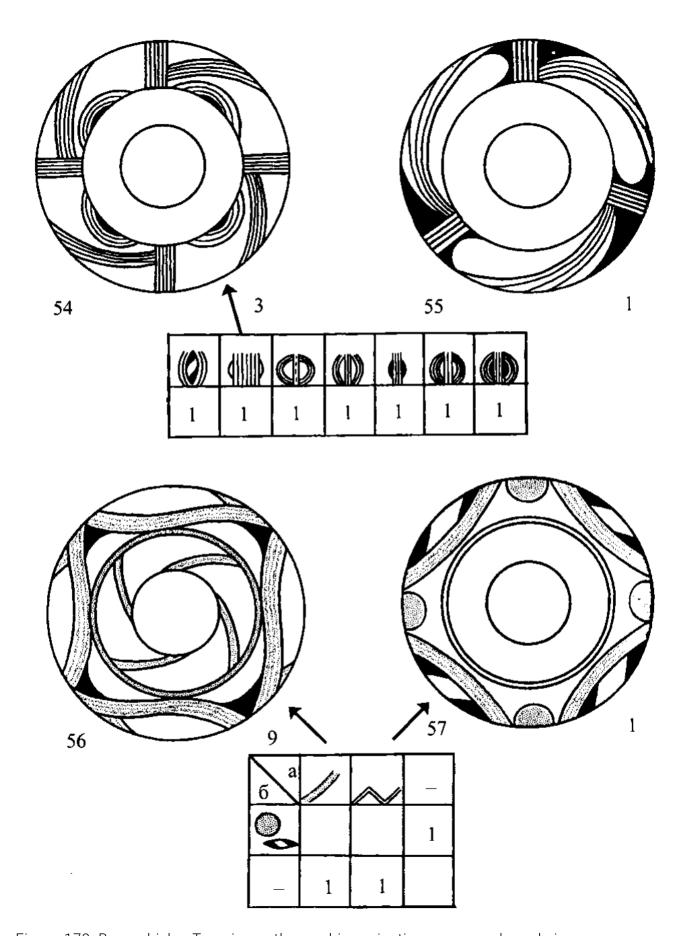


Figure 179: Bernashivka. Top view orthographic projections on vessels and signs.

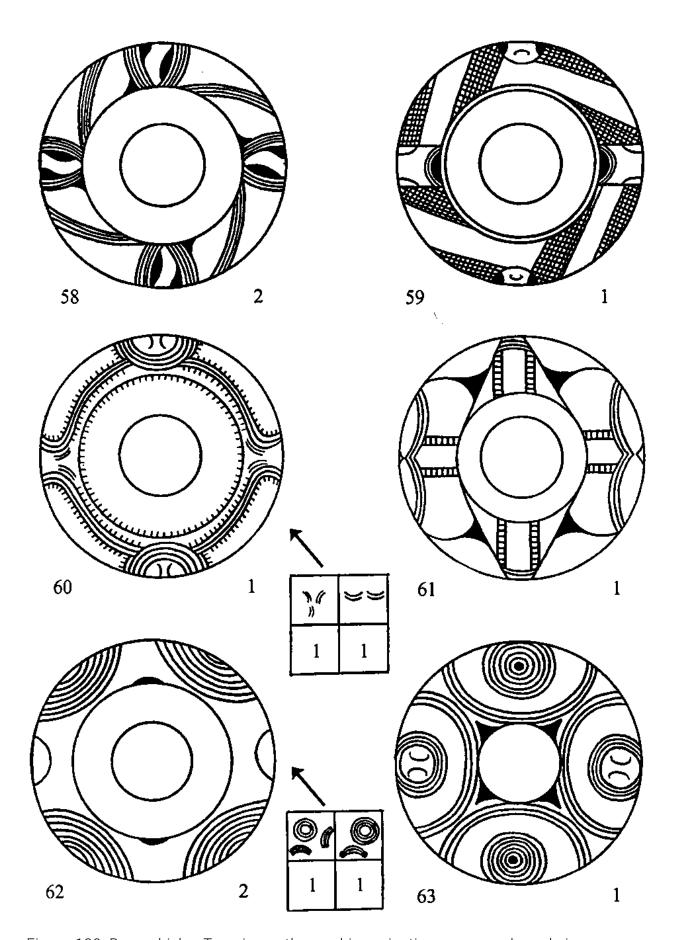


Figure 180: Bernashivka. Top view orthographic projections on vessels and signs.

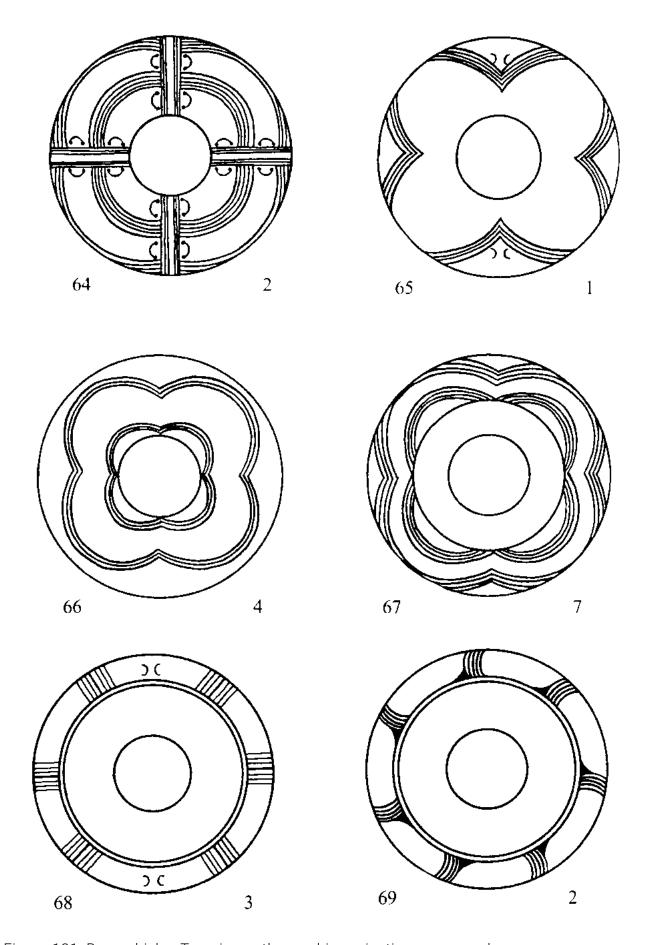


Figure 181: Bernashivka. Top view orthographic projections on vessels.

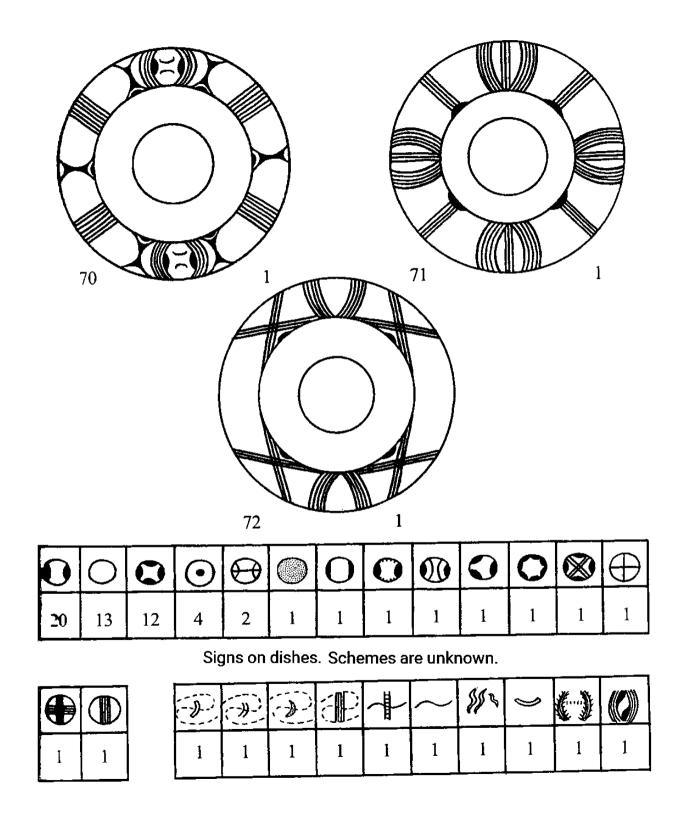


Figure 182: Bernashivka. Top view orthographic projections on vessels and signs.

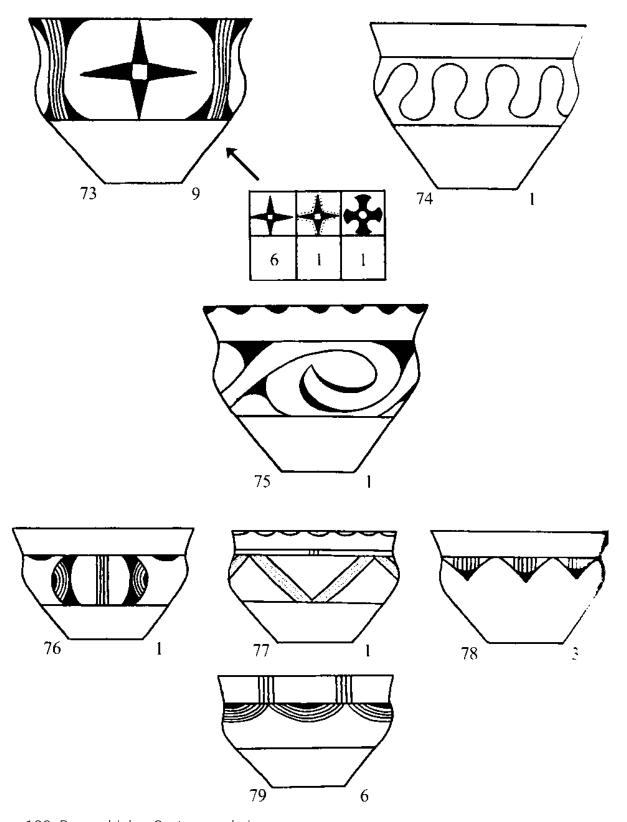
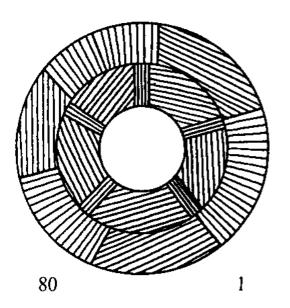


Figure 183: Bernashivka. Craters and signs.



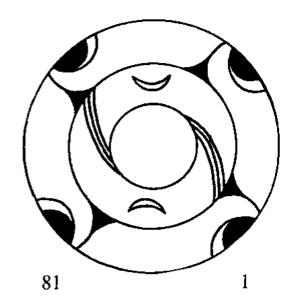


Figure 184: Bernashivka. Top view orthographic projections on vessels.

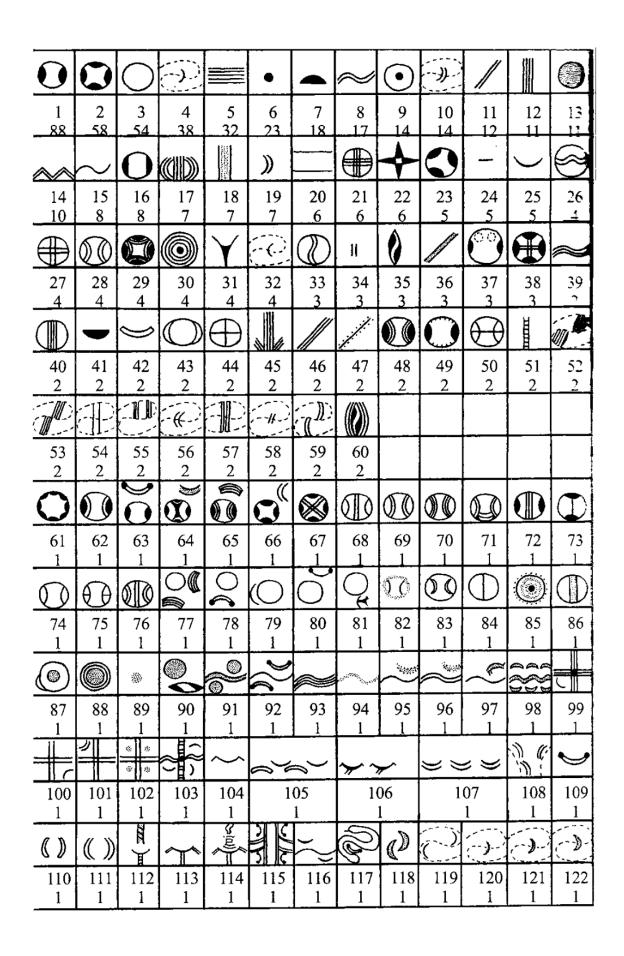


Table 40: Bernashivka. Catalogue of signs on vessels.

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Table 41: Bernashivka. Catalogue of signs on vessels

# Lipchany sign system

#### Stage CI. Lipchany (Vinnytsia region, Mohyliv-Podilskyi district)

The settlement was explored in 1985 and 1987 by expeditions led by V. G. Zbenovich and in 1991 by an expedition led by O. G. Kolesnikov. 96 units of utensils were involved in the analysis. The condition of the material is satisfactory, many vessels are fragmented. On many of them, the ornament has not survived. From site 1 we have 51 vessels; from the site 2 - 30 vessels.

#### Schemes of paintings and signs on the vessels of the settlement Lipchany.

The numbers on the left of the diagrams are the sequence number.

The numbers on the right indicate the number of such schemes on the vessels involved in the analysis.

1-3 - cut-conical bowls.

4-6 - cylindrical-conical bowls.

7-10, 37 - cups.

11, 13, 14, 23-25, 28 - biconical ware.

12 - amphorae.

15 - 9 biconical vessels, 3 pear-shaped.

16-18, 20, 21, 26 - pear-shaped utensils.

19 - 2 pear-shaped vessels, 1 biconical.

22 - cup-shaped vessel.

27 - pot.

29-33 - craters.

34-36 - lids.

38 - "imported" biconical vessel.

39 - "imported" cup.

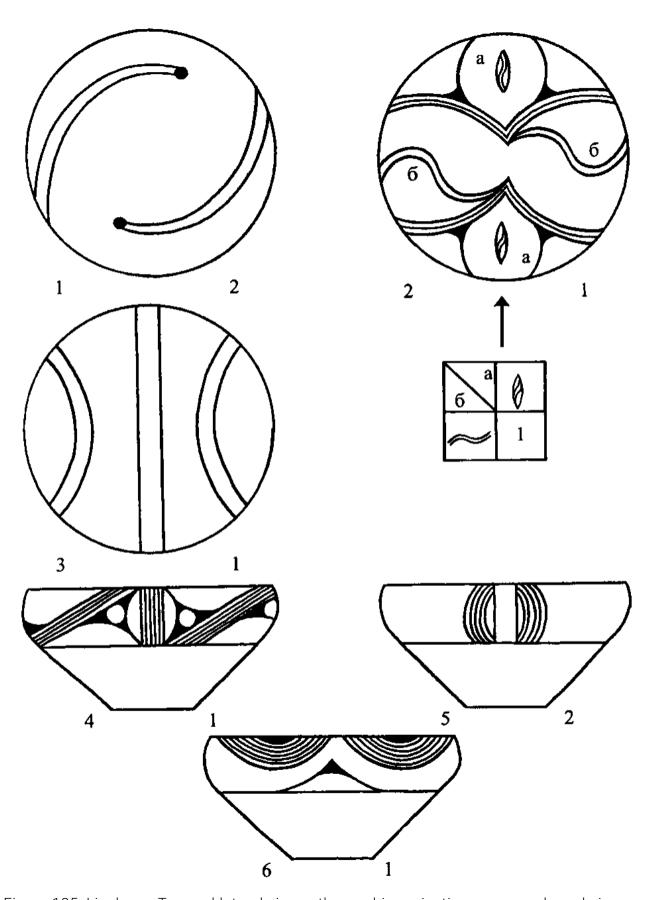


Figure 185: Lipchany. Top and lateral view orthographic projections on vessels and signs.

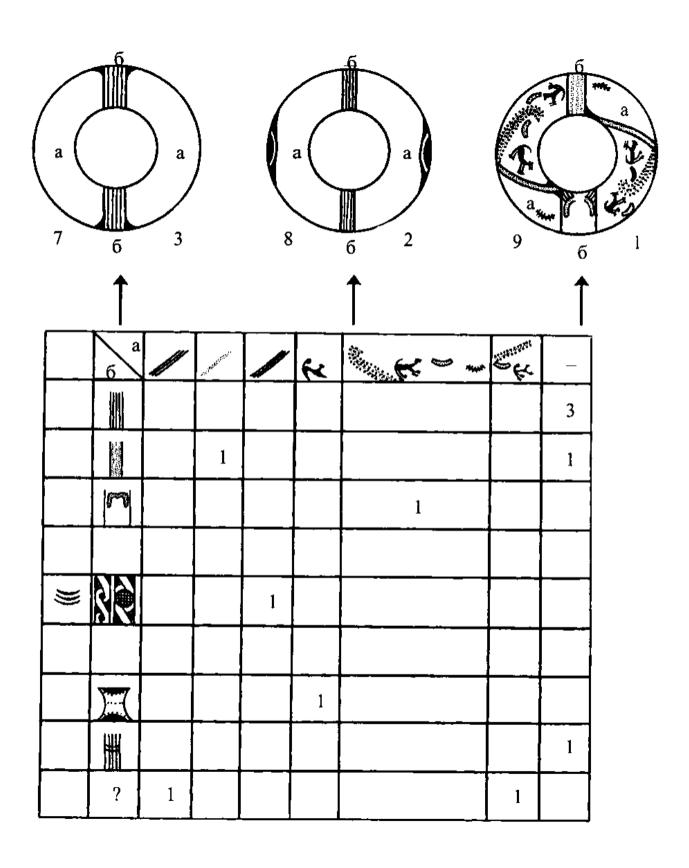


Figure 186: Lipchany. Top view orthographic and lateral projections on vessels and signs.

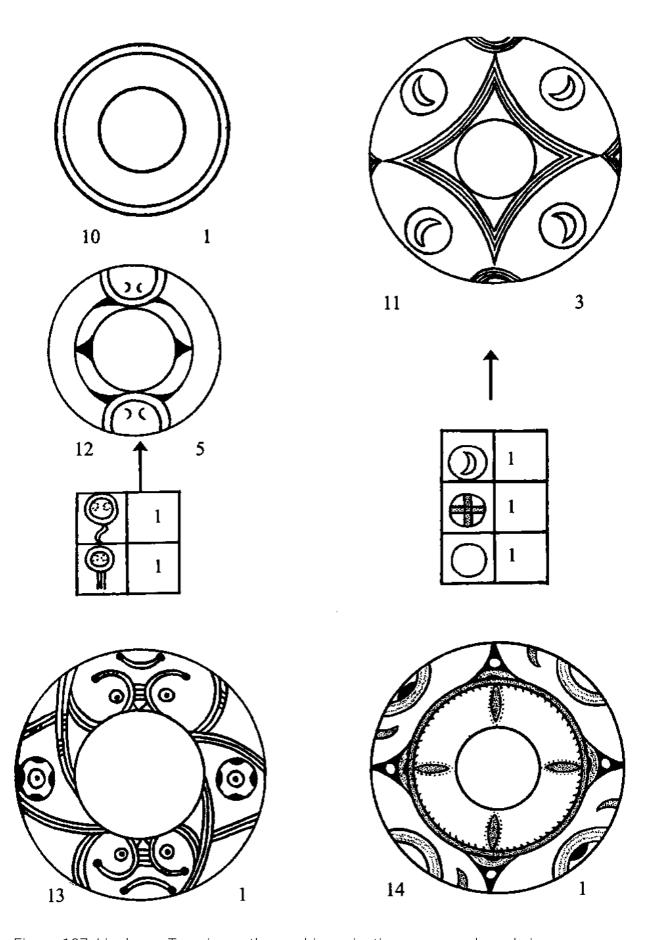


Figure 187: Lipchany. Top view orthographic projections on vessels and signs.

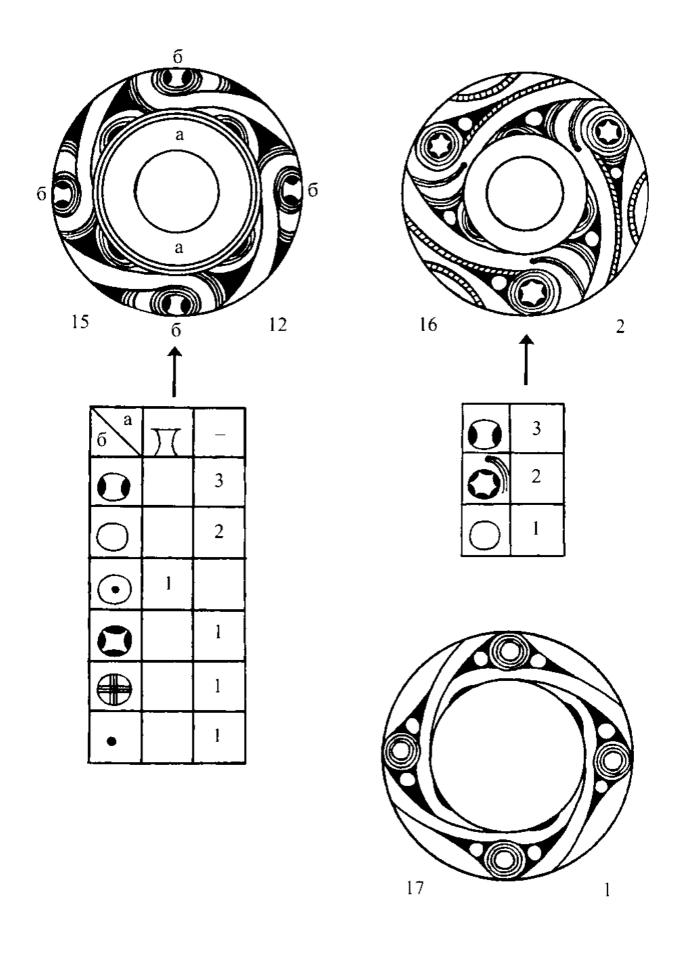


Figure 188: Lipchany. Top view orthographic projections on vessels and signs.

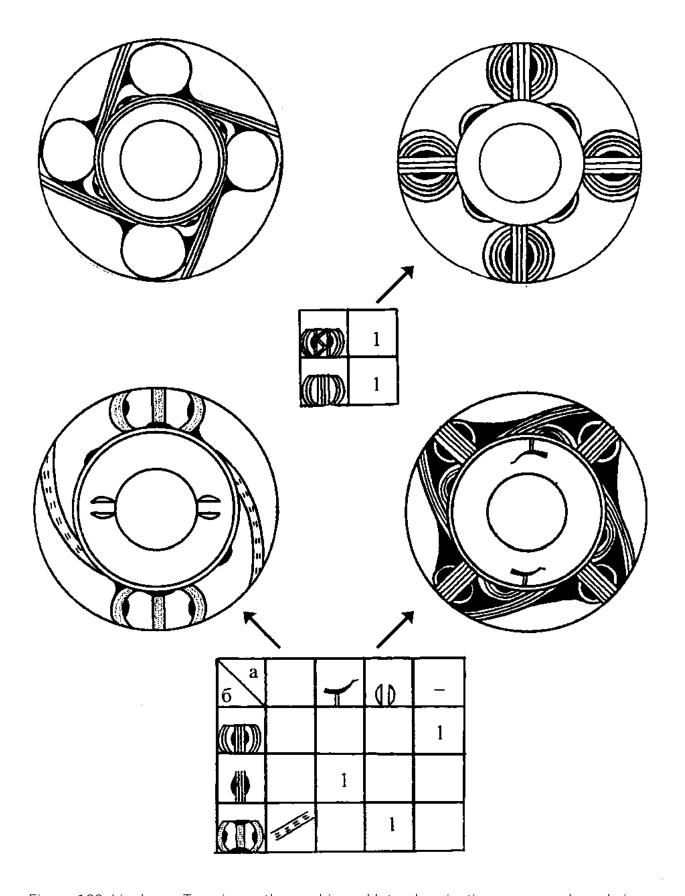


Figure 189: Lipchany. Top view orthographic and lateral projections on vessels and signs.

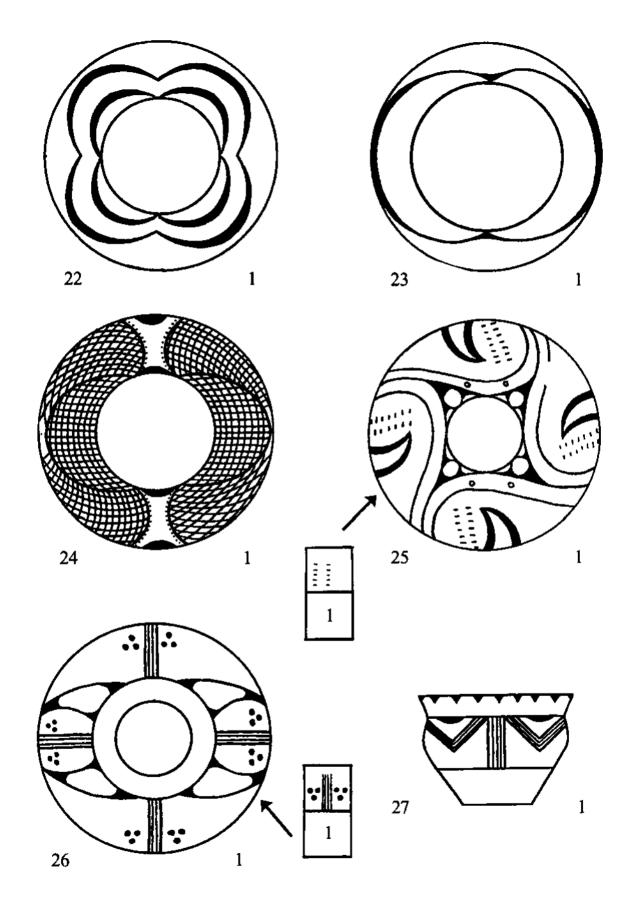


Figure 190: Lipchany. Top and lateral view orthographic projections on vessels and signs.

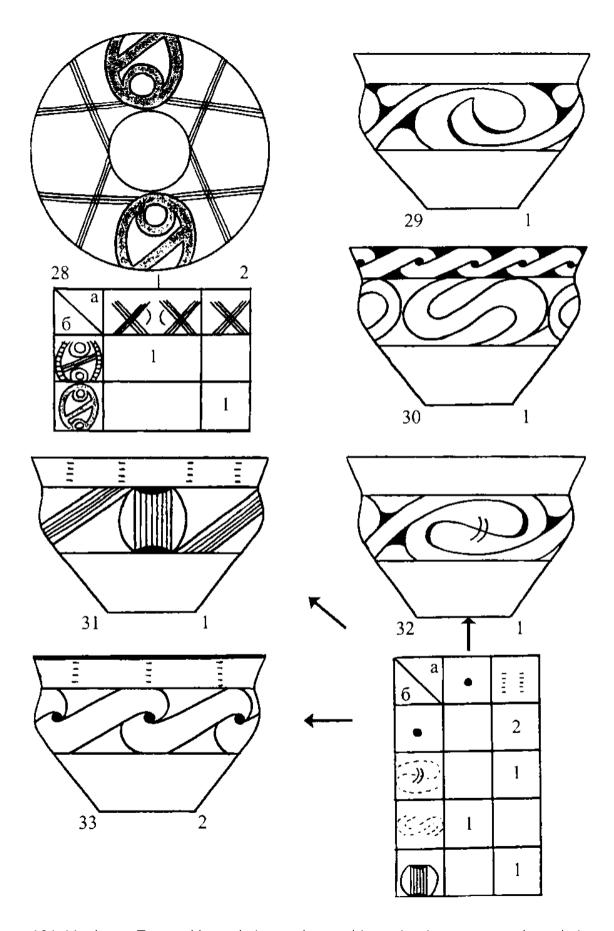


Figure 191: Lipchany. Top and lateral view orthographic projections on vessels and signs.

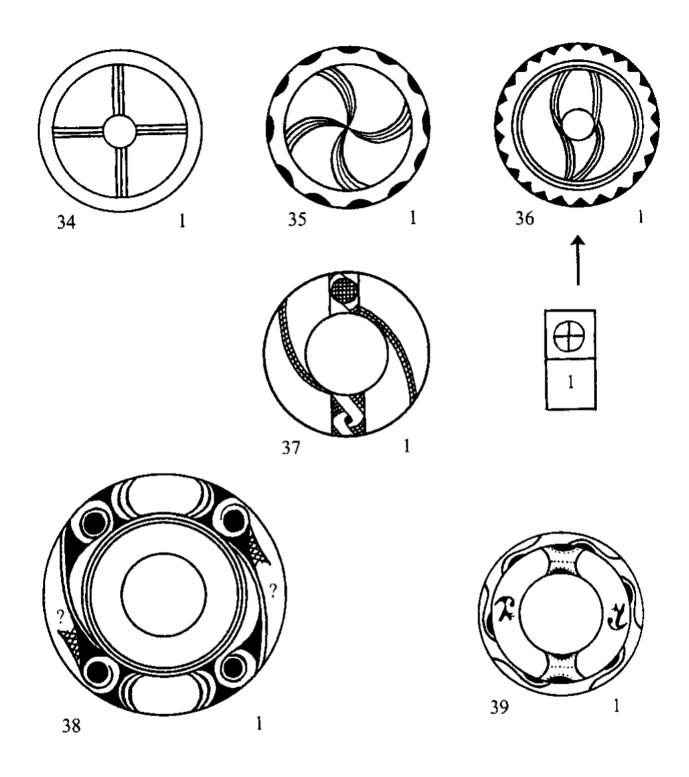


Figure 192: Lipchany. Top view orthographic projections on vessels and signs.

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Table 42: Lipchany. Catalogue of signs on vessels.

### Cherkasiv Sad II sign system

#### Stage CI. Cherkasiv Sad II (Odessa region, Kodyma district).

The material from excavations of the settlement by expeditions led by L. Yu. Polishchuk in 1983-1985 is used in the work. 272 vessels were involved in the analysis. The state of preservation of the material is good.

The collection is stored in the funds of the Odessa State Archaeological Museum.

#### Schemes of paintings and signs on the vessels of the settlement Cherkasiv Sad II.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1-7 - signs on bowls.

8-13, 15-17 - cups.

14 - 3 cups, 1 pear-shaped vessel, 1 pot.

18 - amphorae with "front" paintings.

19, 21, 23-34 - biconical ware.

20 - 1 O pear-shaped vessels, 4 craters, 2 pots with handles. 22 - pear-shaped vessel.

35 - crater.

36 - pots.

37-39 - lids.

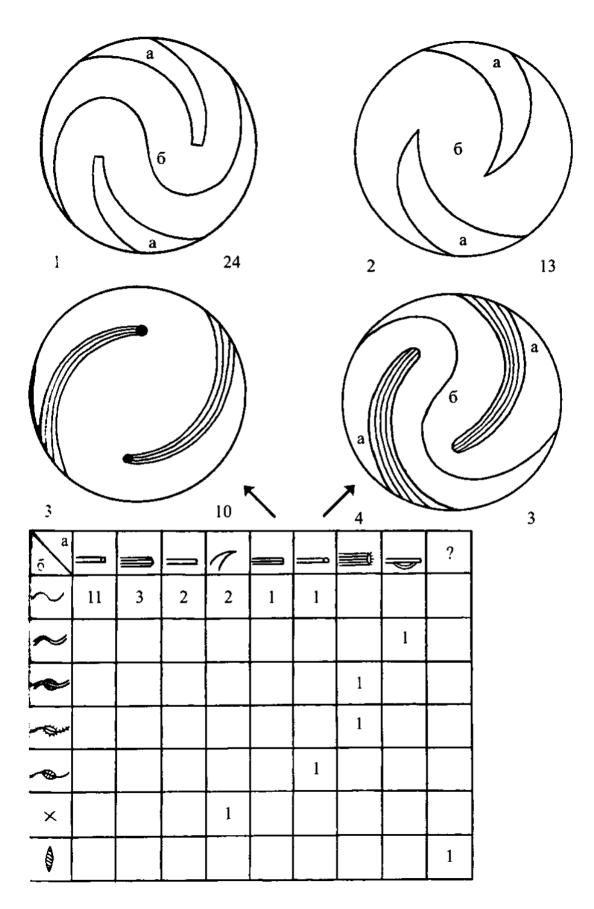


Table 43: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

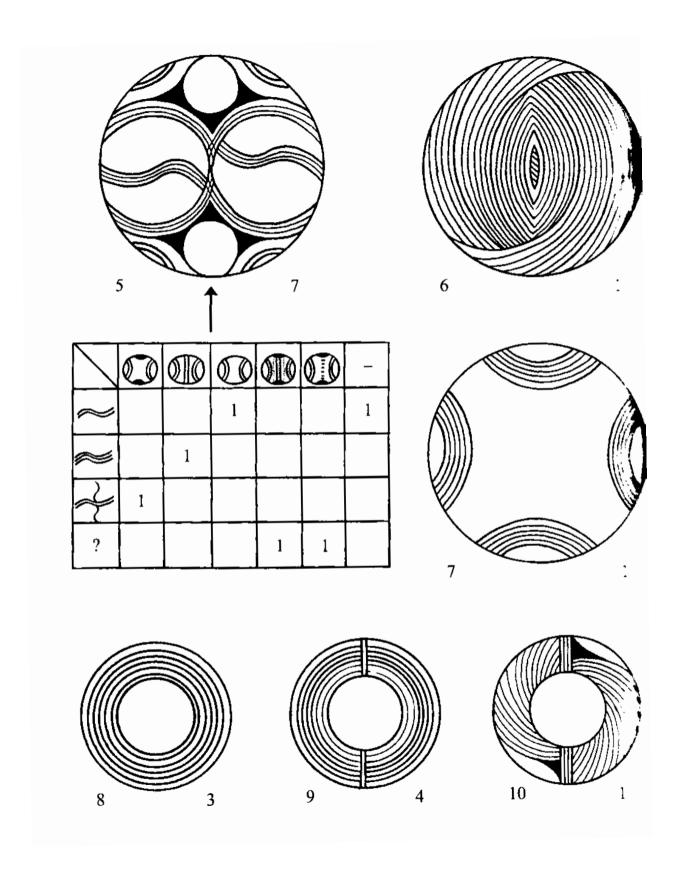


Figure 193: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

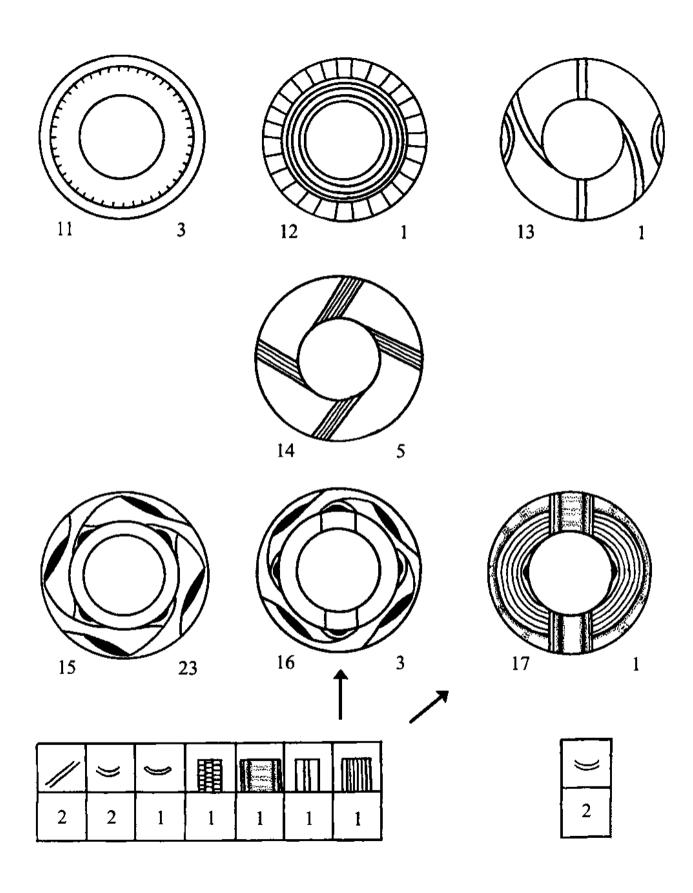


Figure 194: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

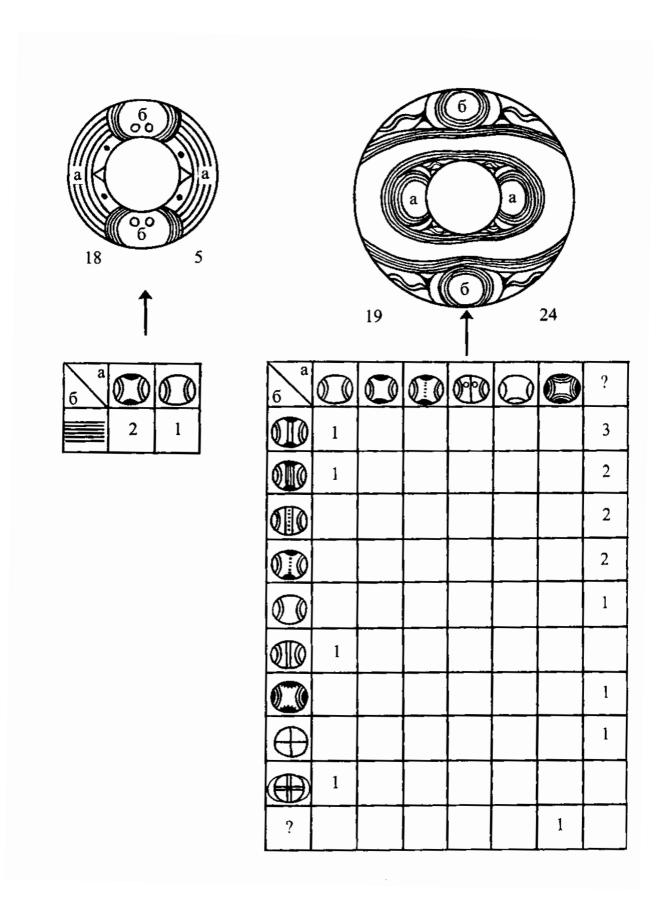


Figure 195: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

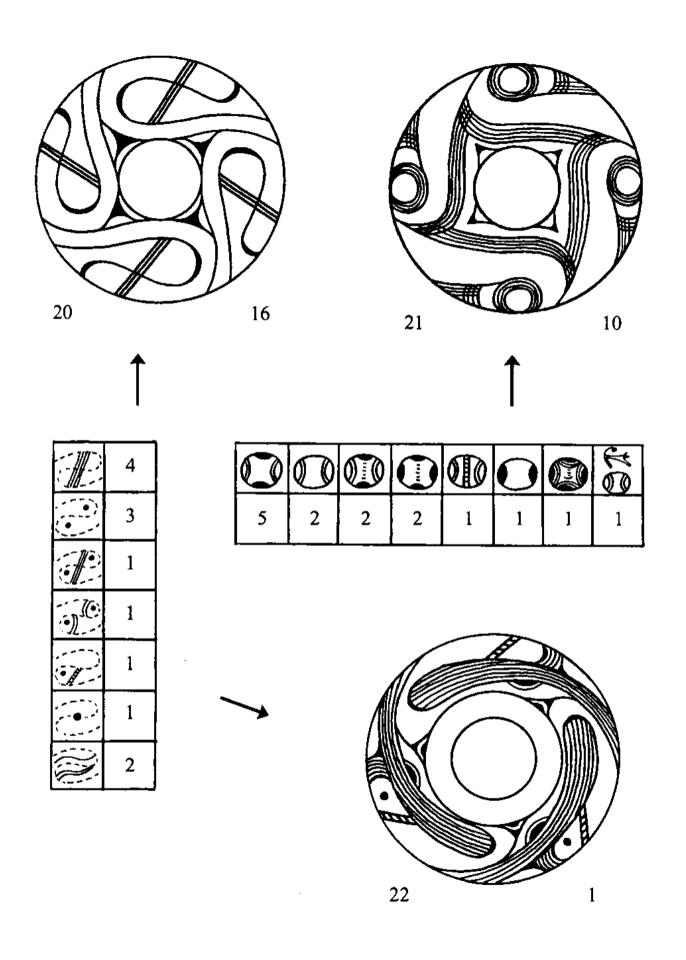


Figure 196: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

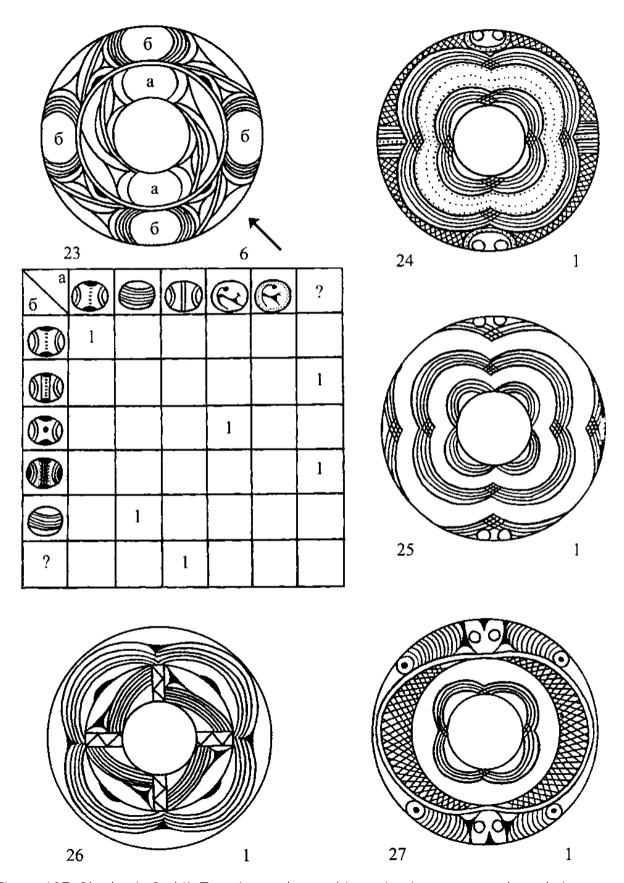


Figure 197: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

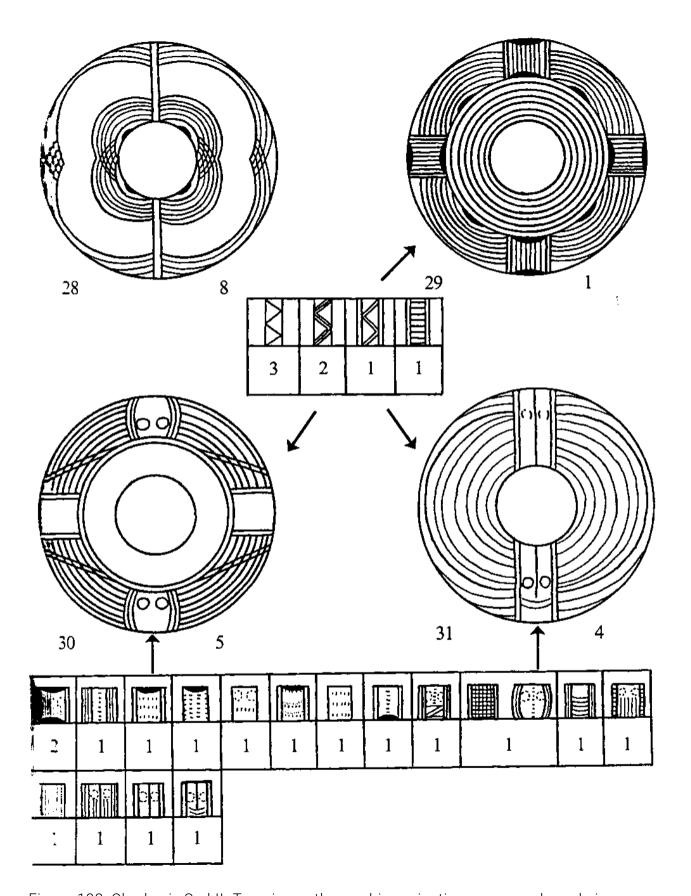


Figure 198: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

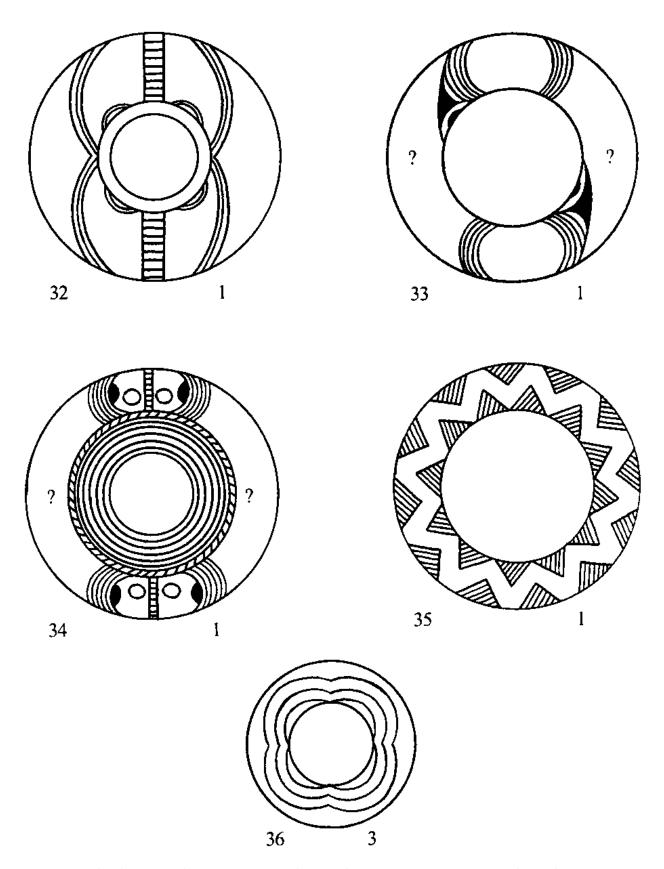


Figure 199: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

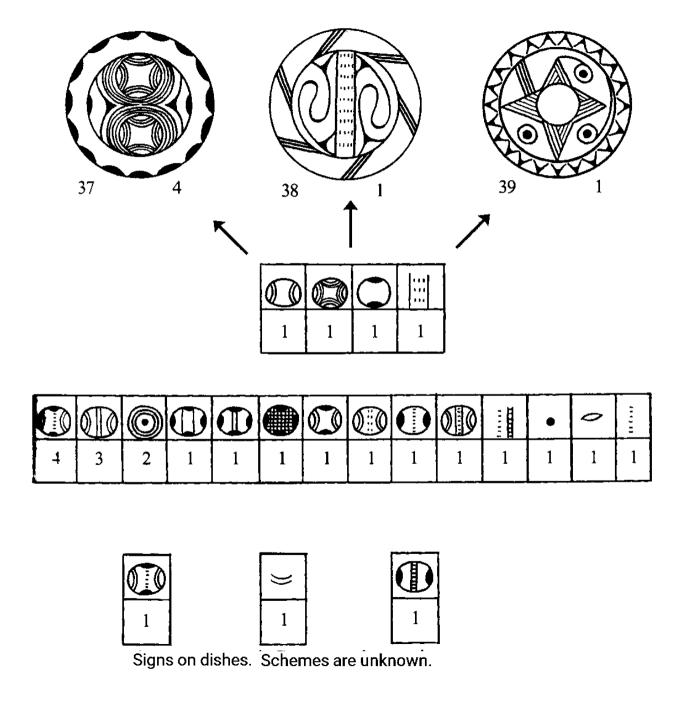


Figure 200: Cherkasiv Sad II. Top view orthographic projections on vessels and signs.

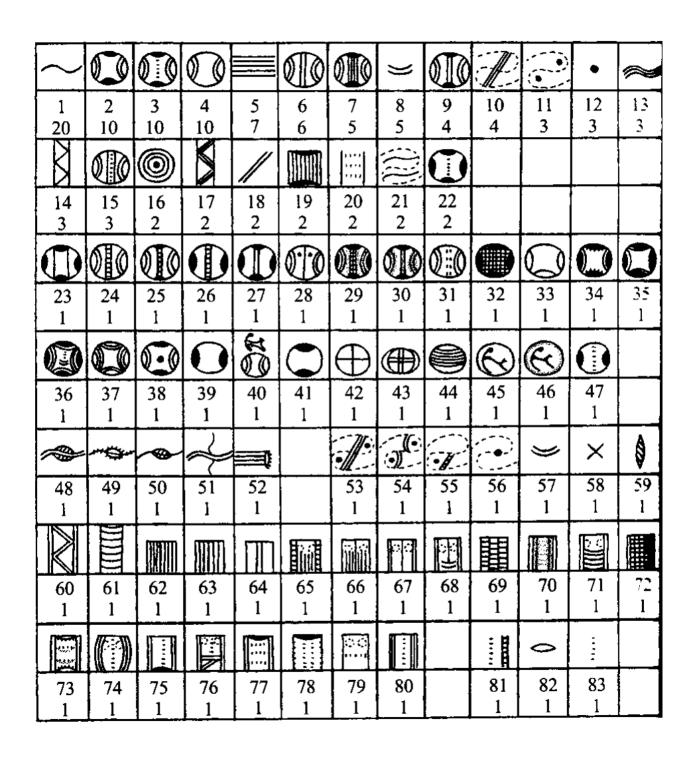


Table 44: Cherkasiv Sad II. Catalogue of signs on vessels.

## Chechelnyk sign system

### Stage CI. Chechelnyk (Vipiytsia region, Chechelyytsya district).

The settlement was studied by V. A. Kosakivsky, an employee of the Vinnytsia Museum of Local History, who in 1983-1985 collected material at the settlement, which is being destroyed by the construction of a sugar factory. In 1990, an expedition led by I. I. Zaits excavated one site in the settlement. 235 units of tableware were involved in our analysis. The condition of the ceramics is satisfactory. Many vessels are highly fragmented.

The collection is stored in the funds of the Vinnytsia Regional Museum of Local History.

#### Schemes of paintings and signs on the vessels of the settlement Chechelnyk.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1-5 - cut-conical bowls.

6-7 - cylindrical-conical bowls.

8-15 - cups.

16 - 4 biconical vessels, 4 pear-shaped vessels, 4 craters.

17, 23 - pear-shaped utensils.

18, 19-22, 24-33, 36, 39 - biconical ware.

34 - lids.

35, 37 - pots.

38 - a small biconical vessel.

40 - a pot with a handle.

41 - crater.

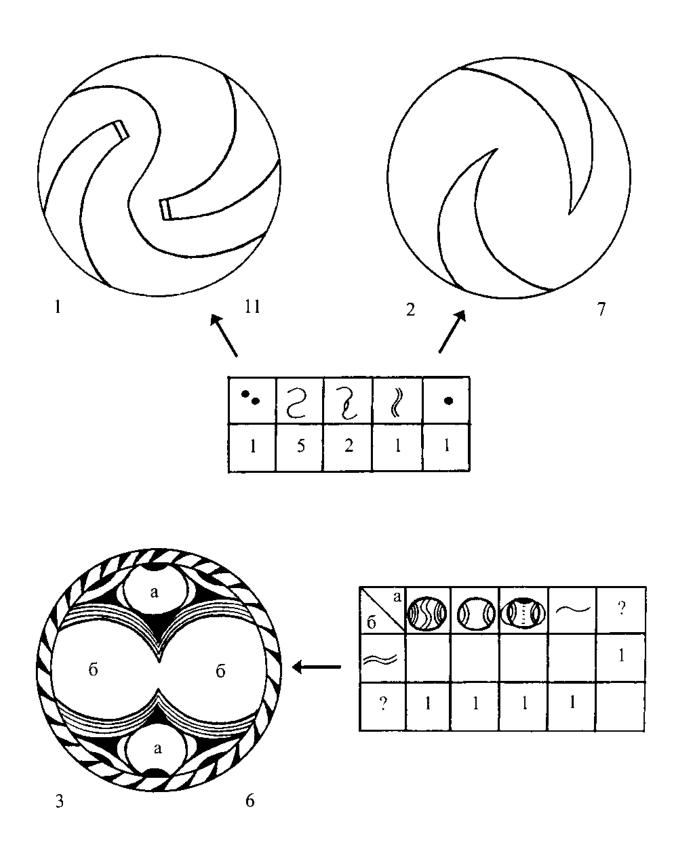


Figure 201: Chechelnyk. Top view orthographic projections on vessels and signs.

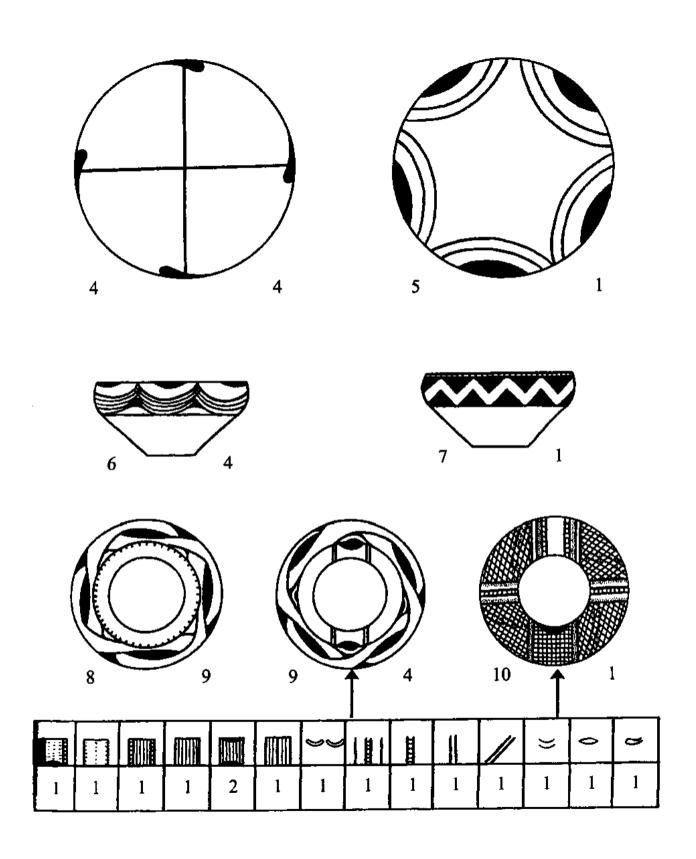


Figure 202: Chechelnyk. Top view orthographic projections on vessels and signs.

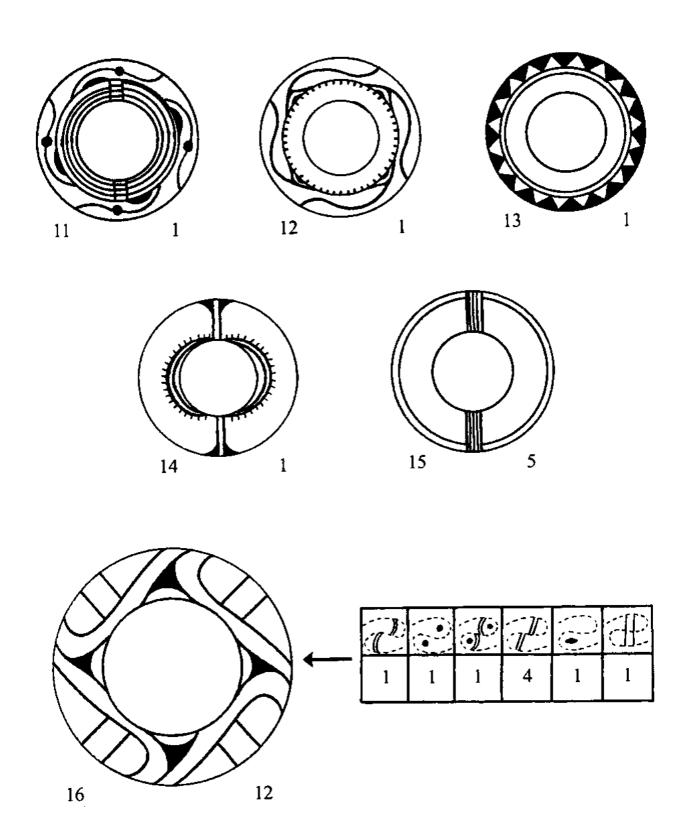


Figure 203: Chechelnyk. Top view orthographic projections on vessels and signs.

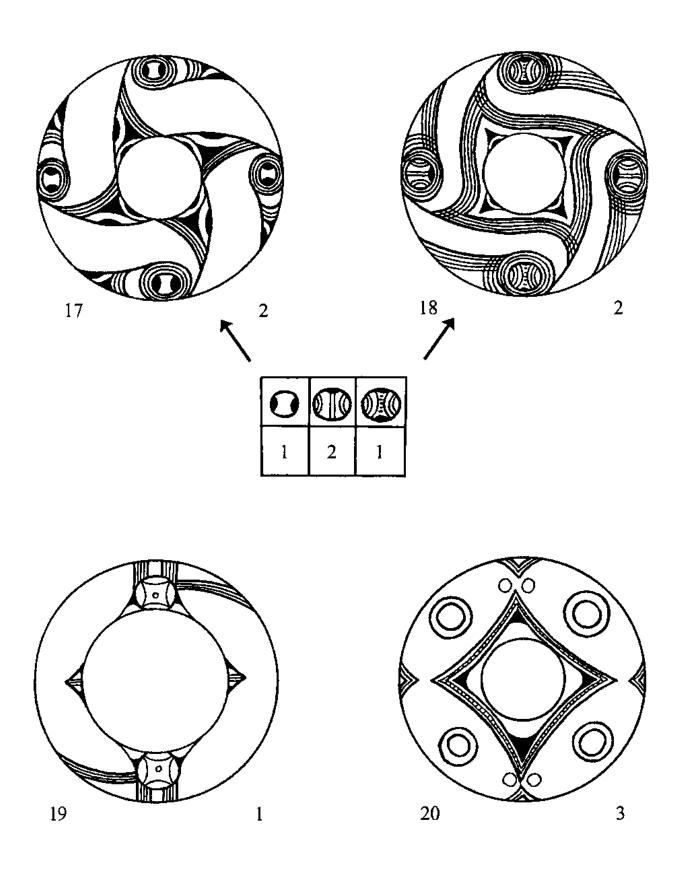


Figure 204: Chechelnyk. Top view orthographic projections on vessels.

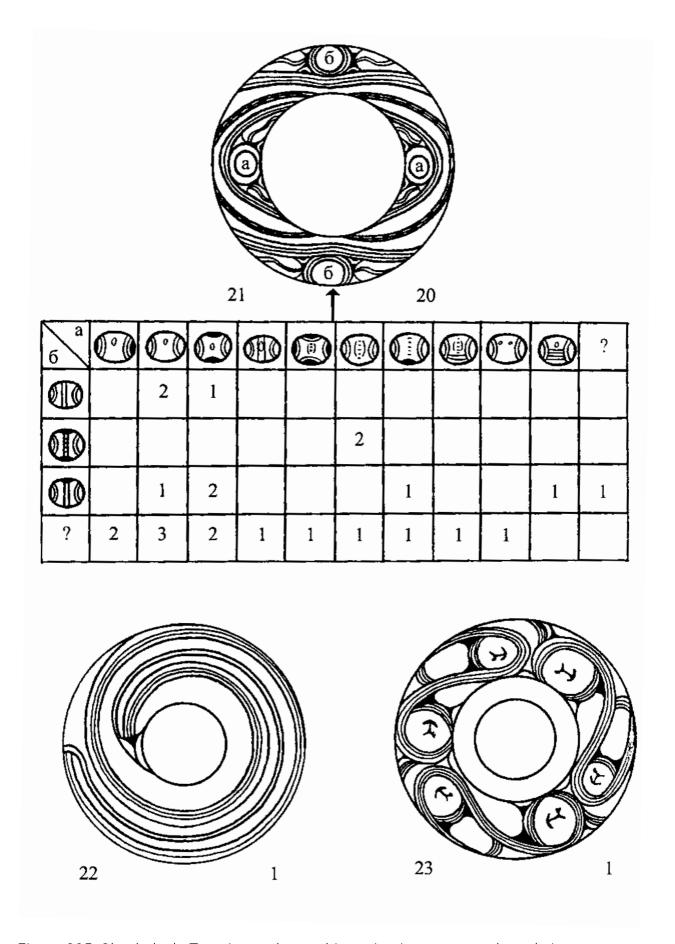


Figure 205: Chechelnyk. Top view orthographic projections on vessels and signs.

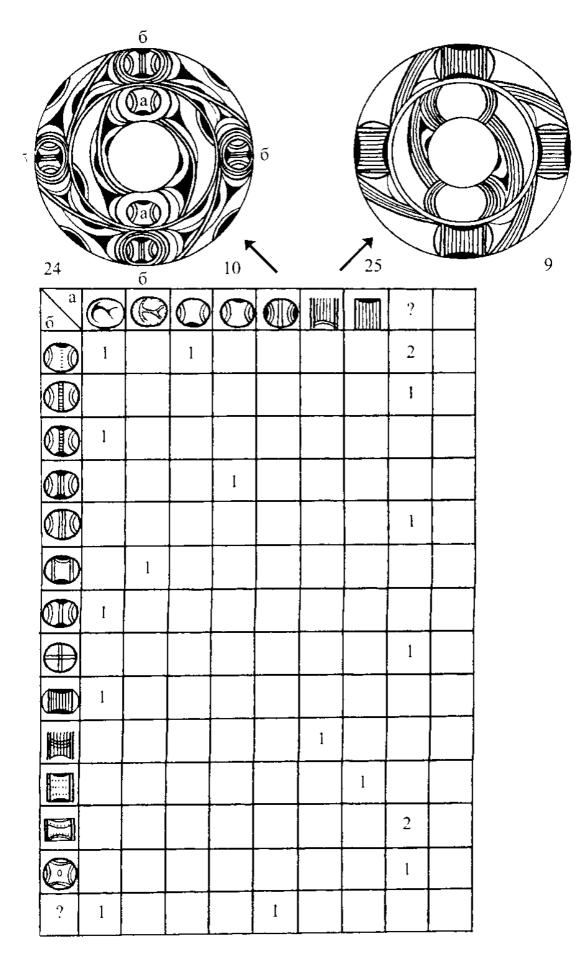


Figure 206: Chechelnyk. Top view orthographic projections on vessels and signs.

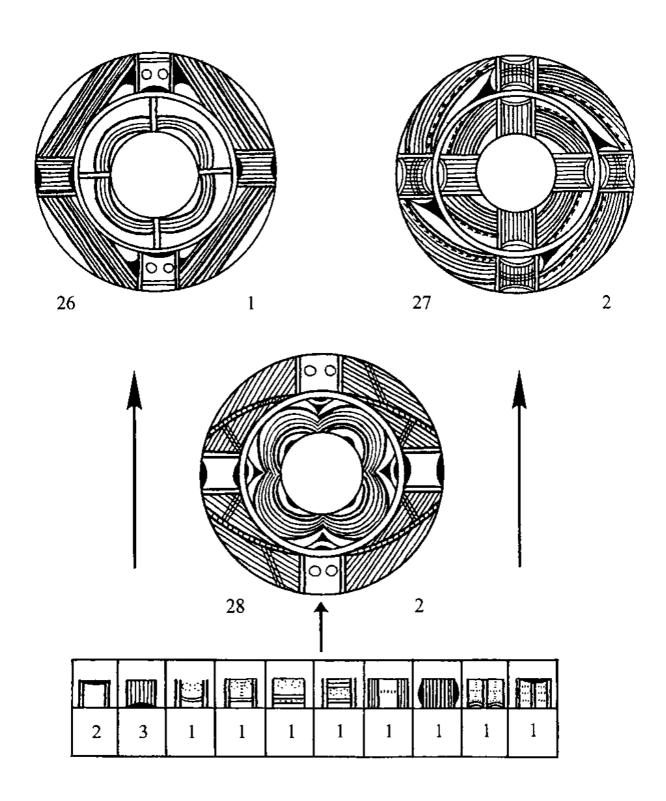


Figure 207: Chechelnyk. Top view orthographic projections on vessels and signs.

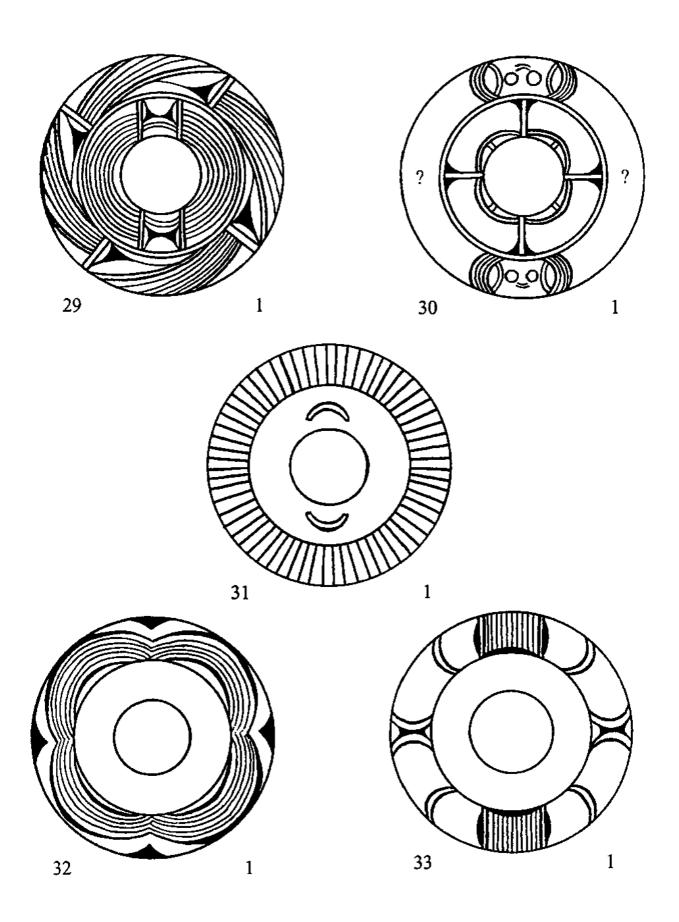


Figure 208: Chechelnyk. Top view orthographic projections on vessels and signs.

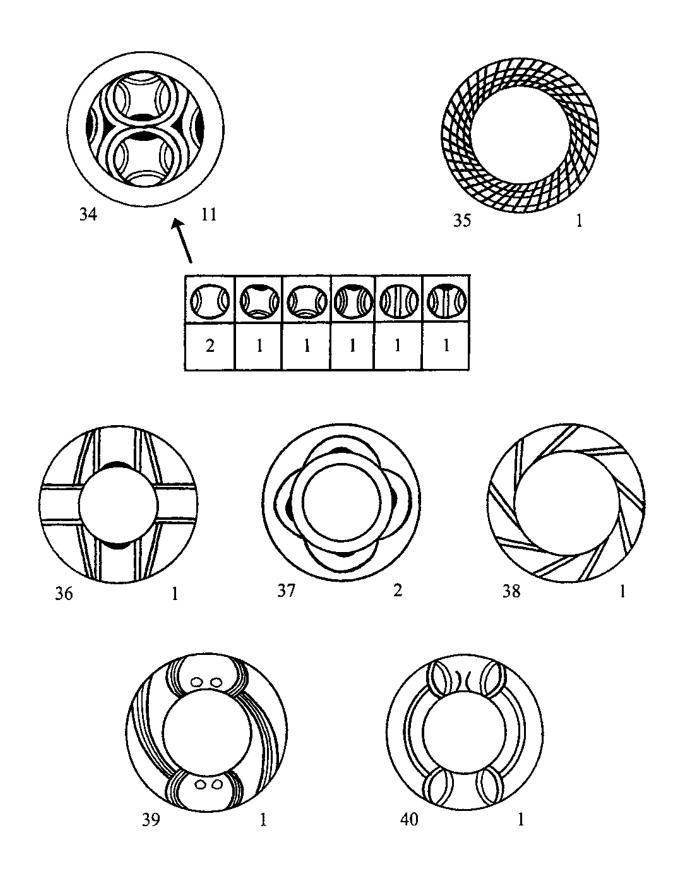
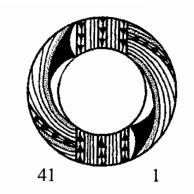
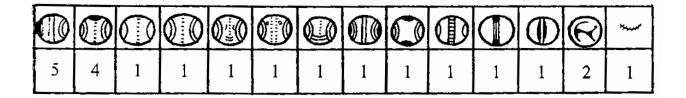
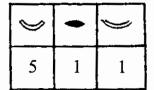
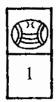


Figure 209: Chechelnyk. Top view orthographic projections on vessels and signs.











Signs on dishes. Schemes are unknown.

Figure 210: Chechelnyk. Top view orthographic projections on vessels and signs.

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Table 45: Chechelnyk. Catalogue of signs on dishes.

# Stina IV sign system

# Stage Cl. Stina IV (Vinnytsia region, Tomashpil district).

The work uses ceramics from the excavations of the settlement by an expedition under the destruction of S. S. Gamchenko in 1929, and expeditions led by M. L. Makarevich in 1958-1959. 220 units of utensils were involved in the analysis. the safety of the material is satisfactory. Many vessels are highly fragmented. From excavation 1 we have 15 vessels; from the excavation of 2 -30 vessels.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine and the Archaeological Museum, Kyiv.

The numbers on the left of the diagrams - sequence number.

Figures on the right - the number of such schemes on the vessels involved in the analysis.

1-7, 9, 10 -cut-conical bowls.

8 - cylindrical-conical bowls.

11-17 -cups.

18 amphorae.

19, 21, 22, 25, 31-34 - biconical utensils.

20 -7 biconical, 7 pear-shaped vessels.

23 - pear-shaped utensils.

24 - craters.

26-30 - lids.

35, 36, 38 - pots.

3 - 7 -pot with handle.

39 - "imported" cup.

40 - "imported" amphora.

41, 42 - "imported" biconical ware.

43 - "imported" bowl.

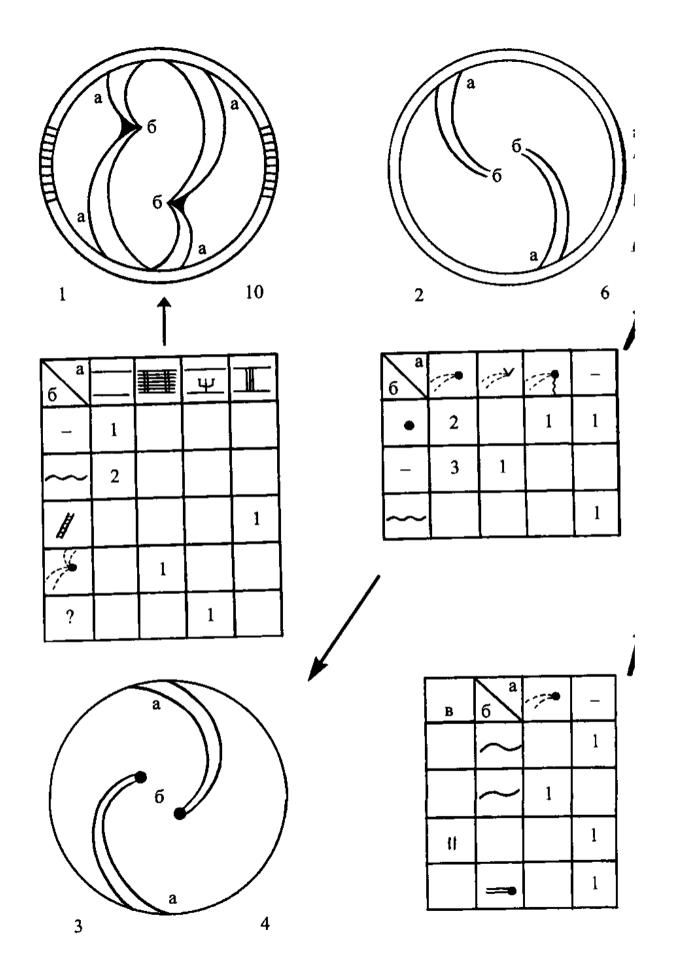


Figure 211: Stina IV. Top view orthographic projections on vessels and signs.

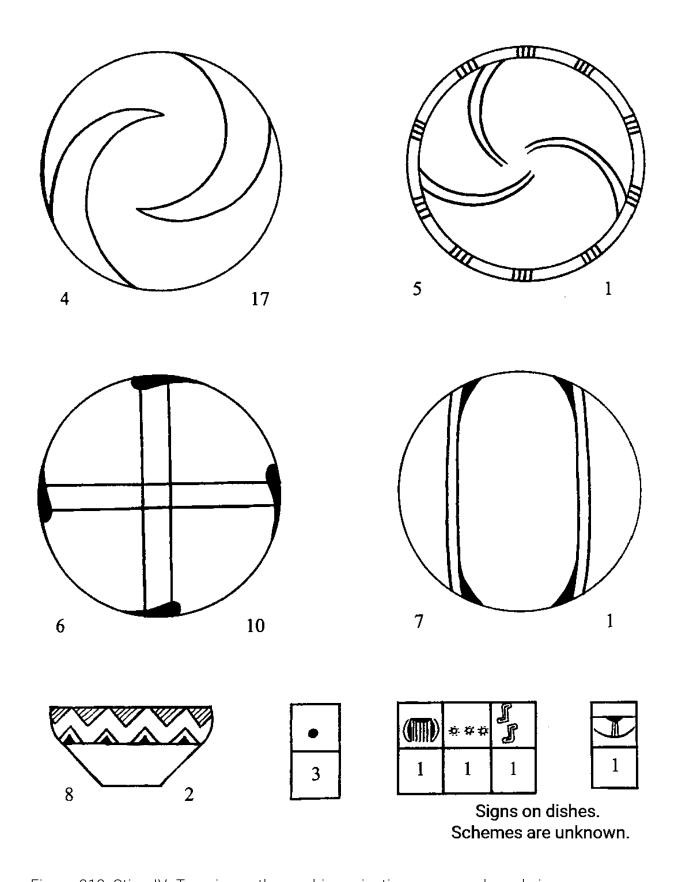


Figure 212: Stina IV. Top view orthographic projections on vessels and signs.

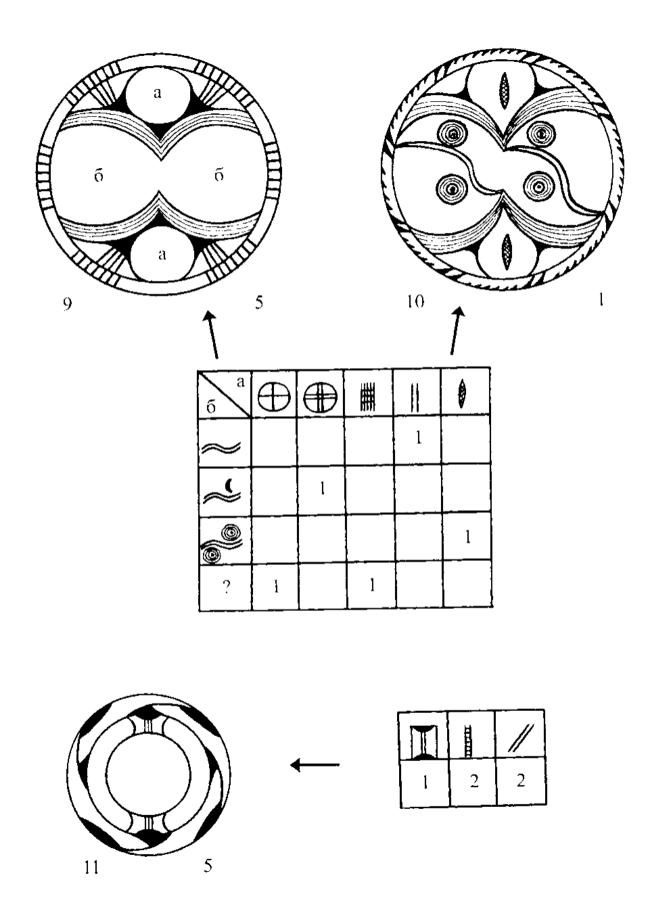


Figure 213: Stina IV. Top view orthographic projections on vessels and signs.

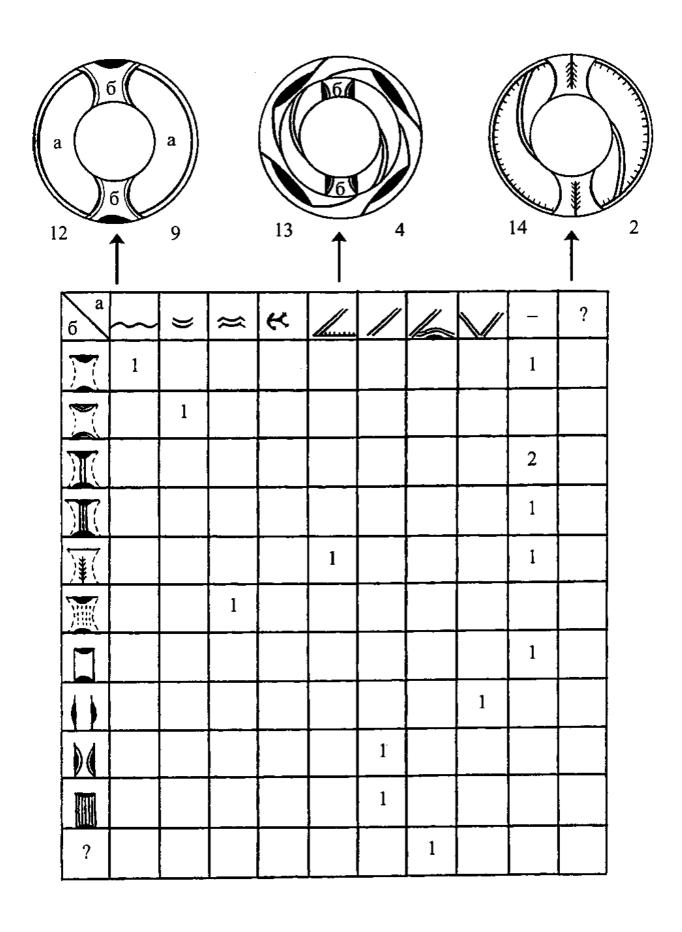


Figure 214: Stina IV. Top view orthographic projections on vessels and signs.

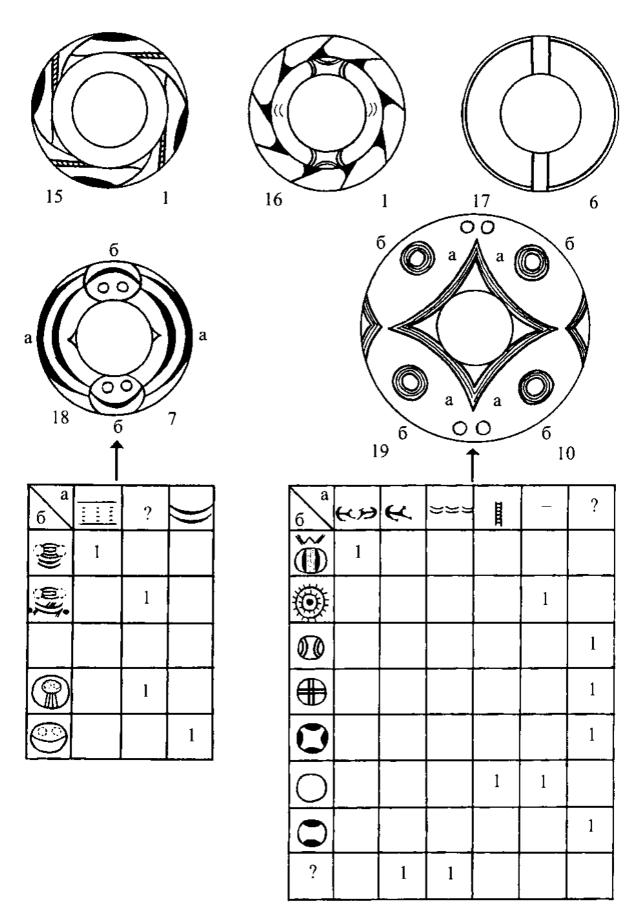


Figure 215: Stina IV. Top view orthographic projections on vessels and signs.

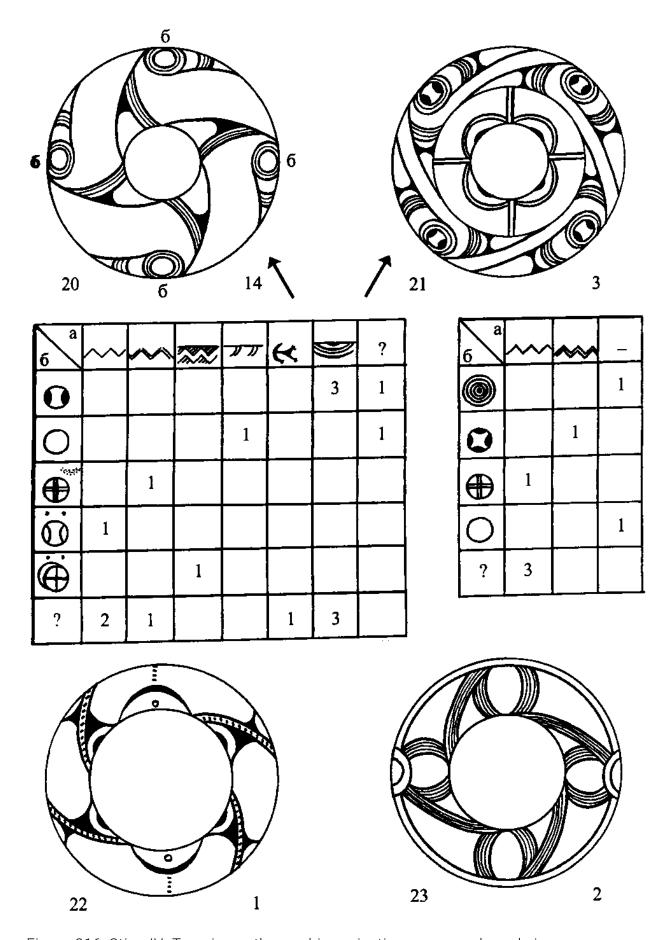


Figure 216: Stina IV. Top view orthographic projections on vessels and signs.

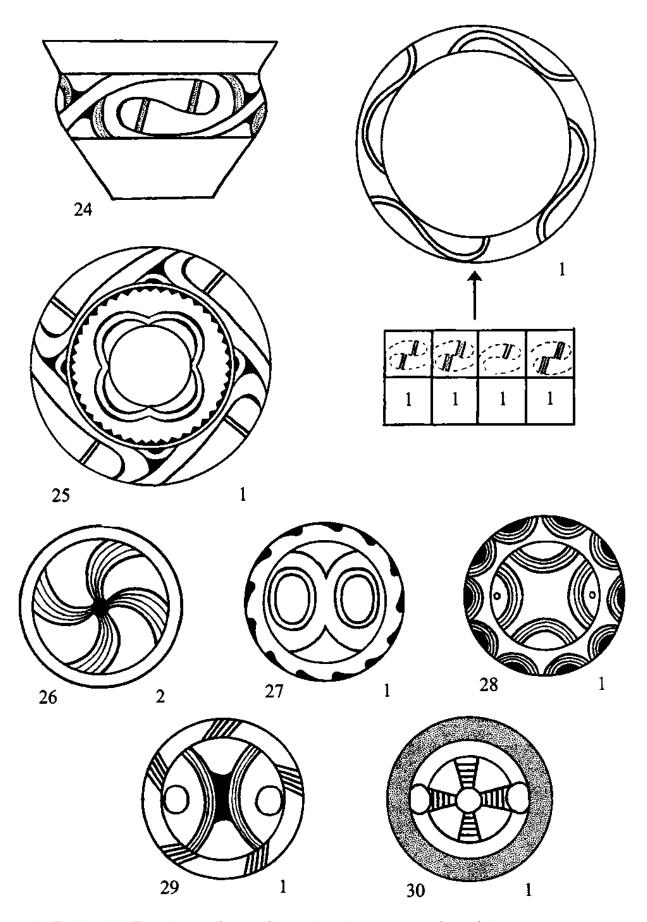


Figure 217: Stina IV. Top view orthographic projections on vessels and signs.

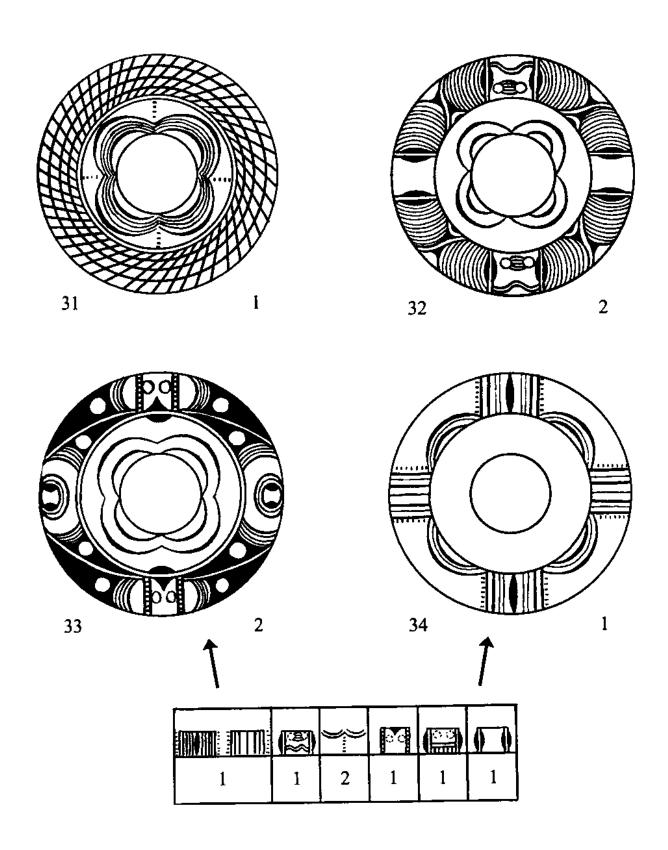


Figure 218: Stina IV. Top view orthographic projections on vessels and signs.

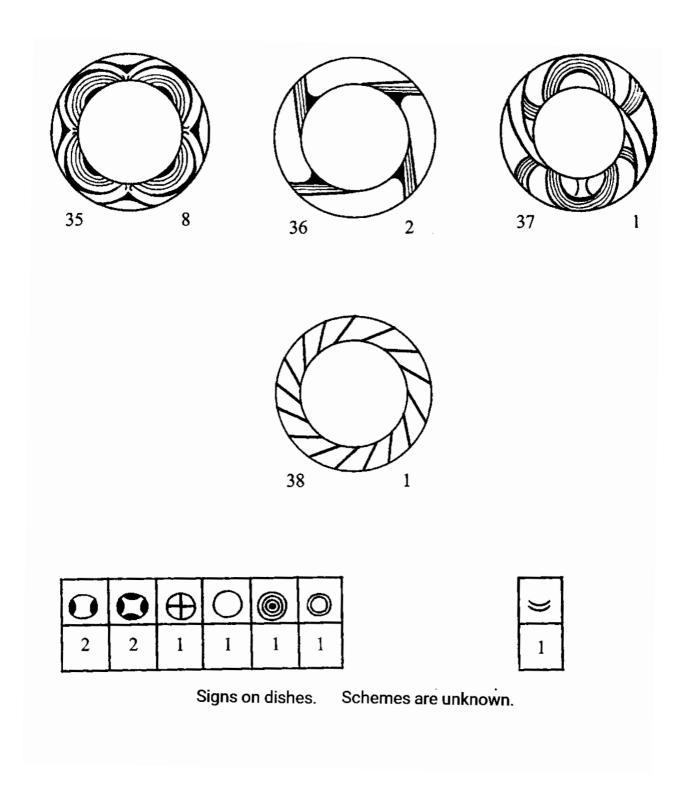


Figure 219: Stina IV. Top view orthographic projections on vessels and signs.

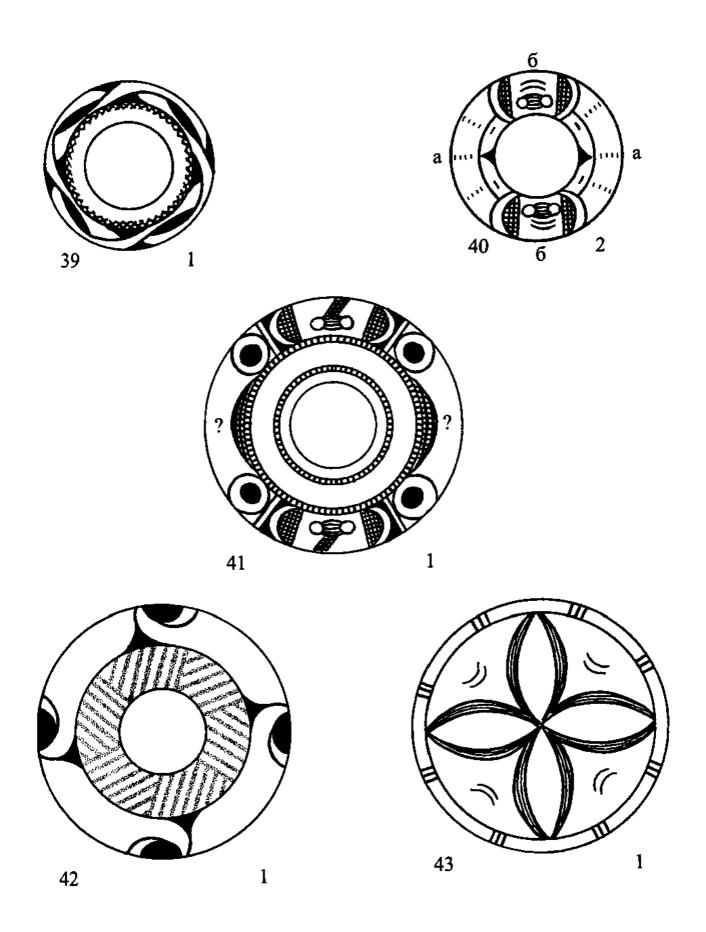


Figure 220: Stina IV. Top view orthographic projections on vessels and signs.

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Table 46: Stina IV. Catalogue of signs on vessels.

# SECTION III. MIDDLE AND LOWER TRANSNISTRIA. INTERFLUVE OF THE DNIESTER AND PRUT, NORTHERN COAST OF THE BLACK SEA.

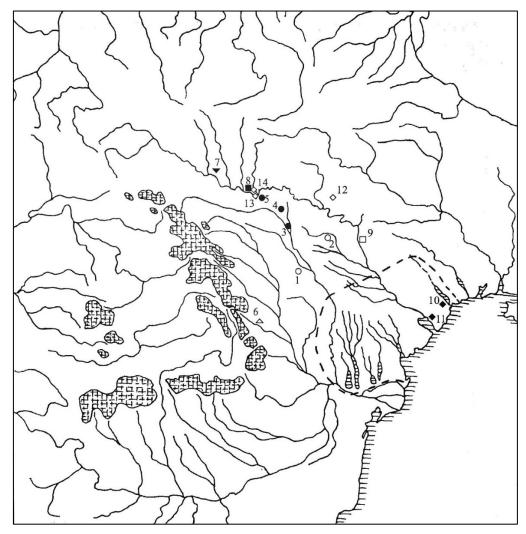


Figure 221: Map of the location of the excavations of the stage CII-  $\gamma$ II, the materials of which were used in the study

- o Bădragii Noi settlements
  - 1. Valya Lupului II
  - 2. Vărvăreuca XV
- Settlement of the Bădragii group (I-II phases)
  - 3. Old Bădragii
  - 4. Hancăuţi I
  - 5. Konovka
- △ Settlement of the Târgu Ocna-Podei group
  - 6. Târgu Ocna-Podei
- ▼ Settlement of Koshylovets group
  - 7. Koshylivtsi Oboz
- Settlement Brynzen group
  - 8. Zhvanets

- □ Sights of Vykhvatinsky group
  - 9. Vykhvatinsky cemetery
- ◆ Sights of the Usatove group
  - 10. Usatove
  - 11. Maiaky
  - ---- area of distribution of Usatov type burials
- Settlement of the Gordineşti group
  - 12. Stina I
  - 13. Grinchuk
  - 14. Babshin

# Valea Lupului II sign system

# Stage CI. Valea Lupului II (Republic of Romania, Iasi County).

Utensils published by M. Dinu (Dinu M. - 1957) 30 vessels were involved in the analysis.

# Schemes of paintings and signs on the vessels of the settlement Valea Lupului II.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the cookware involved in the analysis.

1-4 - cut-conical bowls.

5-6 - cylindrical-conical bowls.

7 - cup.

8-11, 16 - vessels with a swollen, turnip-shaped body and a cylindrical neck.

12-15, 17 - biconical ware.

18 - pear-shaped vessel.

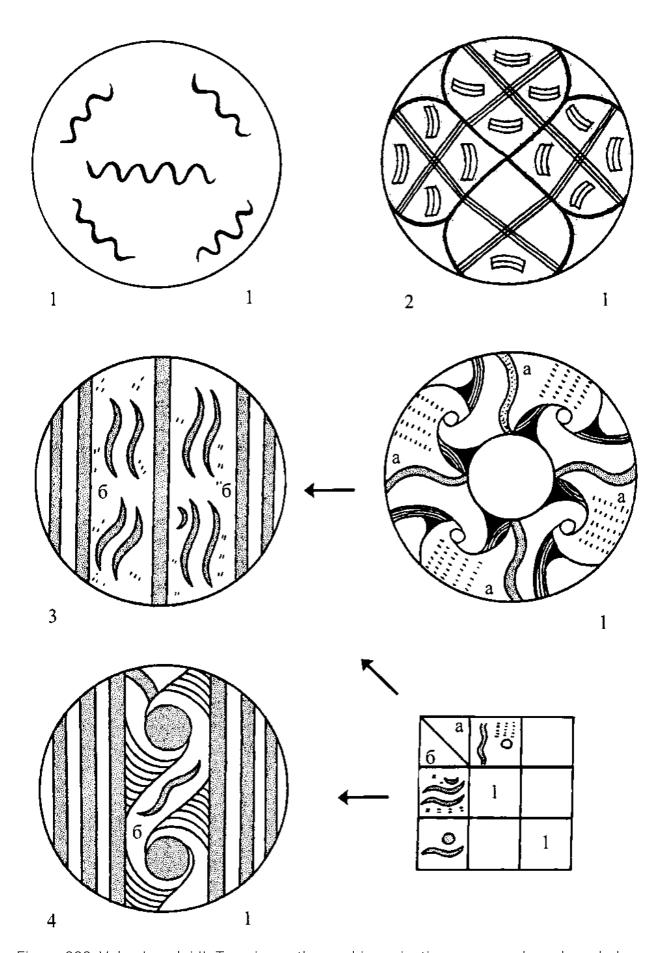


Figure 222: Valea Lupului II. Top view orthographic projections on vessels and symbols.

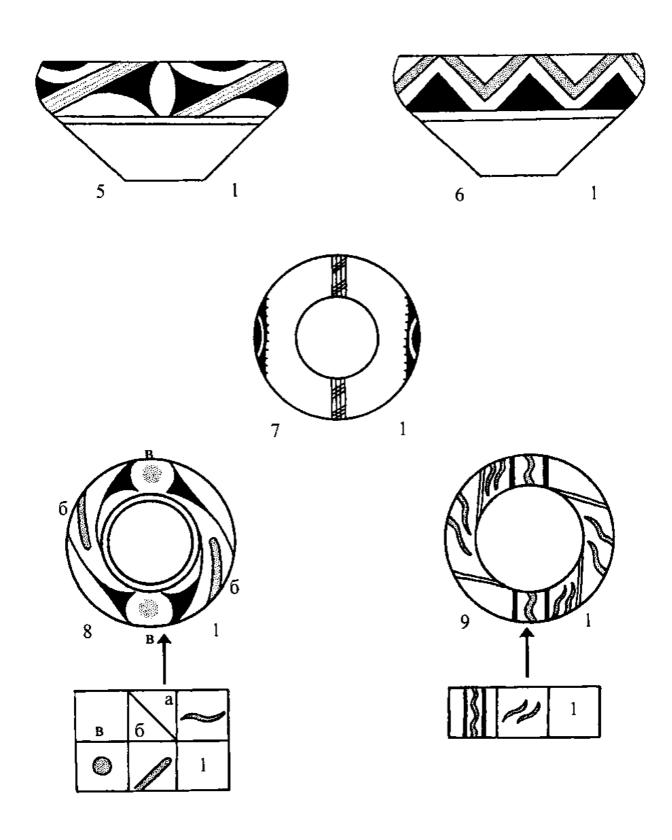


Figure 223: Valea Lupului II. Top view orthographic projections on vessels and symbols.

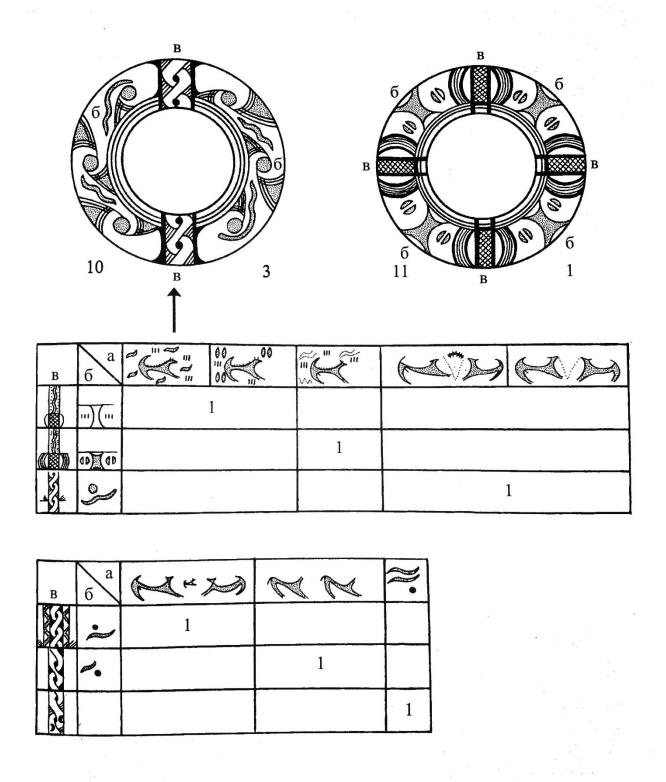


Figure 224: Valea Lupului II. Top view orthographic projections and symbols.

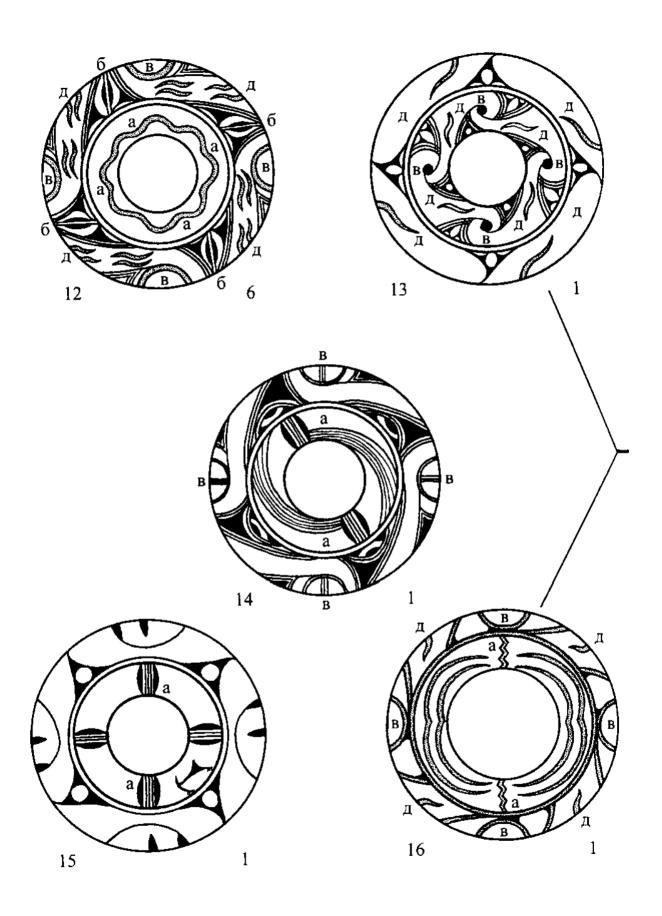


Figure 225: Valea Lupului II. Top view orthographic projections on vessels.

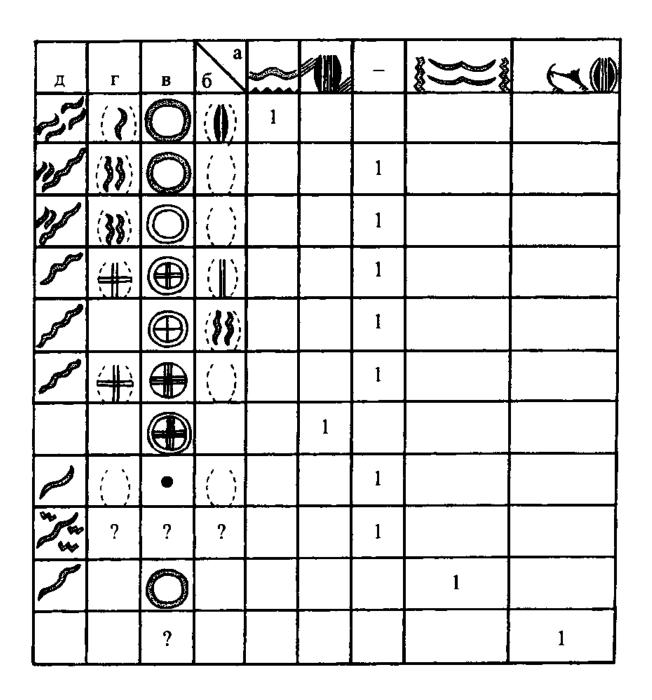
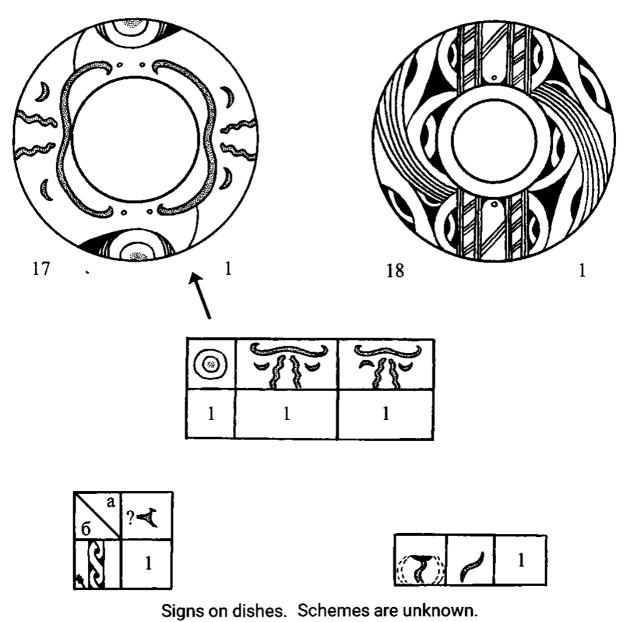


Table 47: Valea Lupului II. Symbols on vessels.



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Figure 226: Valea Lupului II. Top view orthographic projections on vessels and symbols.

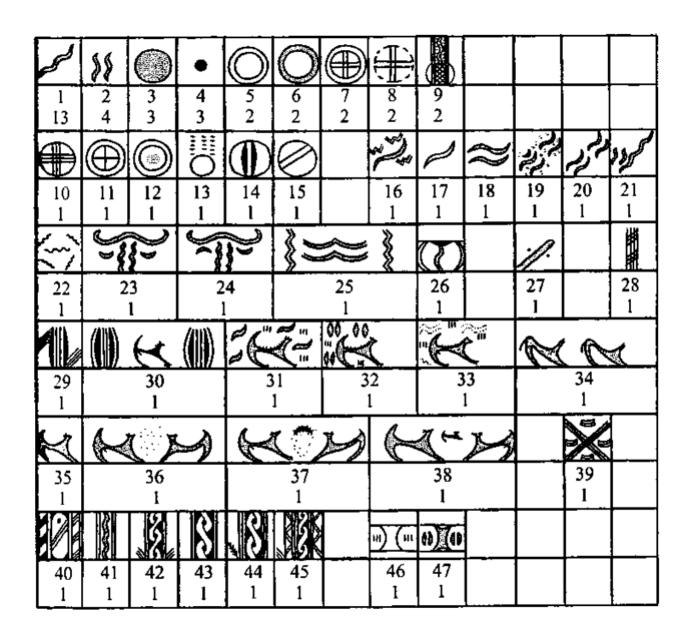


Table 48: Valea Lupului II. Catalogue of symbols on vessels.

# Vărvăreuca XV sign system

# Stage γI. Vărvăreuca XV (Florești district, Republic of Moldova)

The work uses ceramics obtained during the excavations of the settlement by an expedition led by V. I. Markevich in 1969. The analysis involved 165 vessels originating from one excavated site. The condition of the material is satisfactory. Many vessels are highly fragmented.

The collection is stored in the funds of the Museum of Archeology and Ethnography of the Republic of Moldova, Chisinau.

### Schemes of paintings and signs on the vessels of the settlement Vărvăreuca XV.

The numbers on the left of the diagrams -sequence number.

Figures on the right -number of such schemes on the vessels involved in the analysis:

- 1 -9 truncated-conical bowls, 4 bowls with an S-shaped profile
- 1 cut-spherical bowl.
- 2-4 -cut-spherical bowls.
- 5, 6 biconical ware.
- 7 vessels with a cylindrical neck.
- 8, 11 vessels with swollen, turnip-shaped bodies and cylindrical necks.
- 9, 10, 12-16, 18, 20, 22 round and biconical vessels.
- 17 round vessels and 1 crater.
- 19 pear-shaped ware.
- 21 -crater.
- + -exterior painting of a truncated-conical bowl.
- ++ -exterior painting of a bowl with an S-shaped profile.
- +++ -scheme of painting the lower part of a round vessel with a "front" painting (scheme 9).

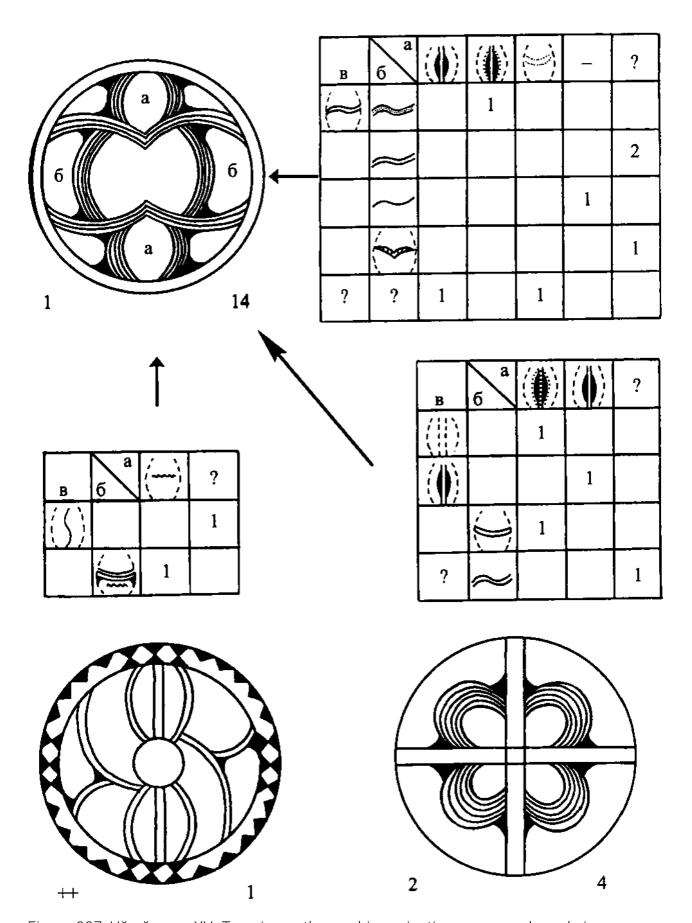


Figure 227: Vărvăreuca XV. Top view orthographic projections on vessels and signs.

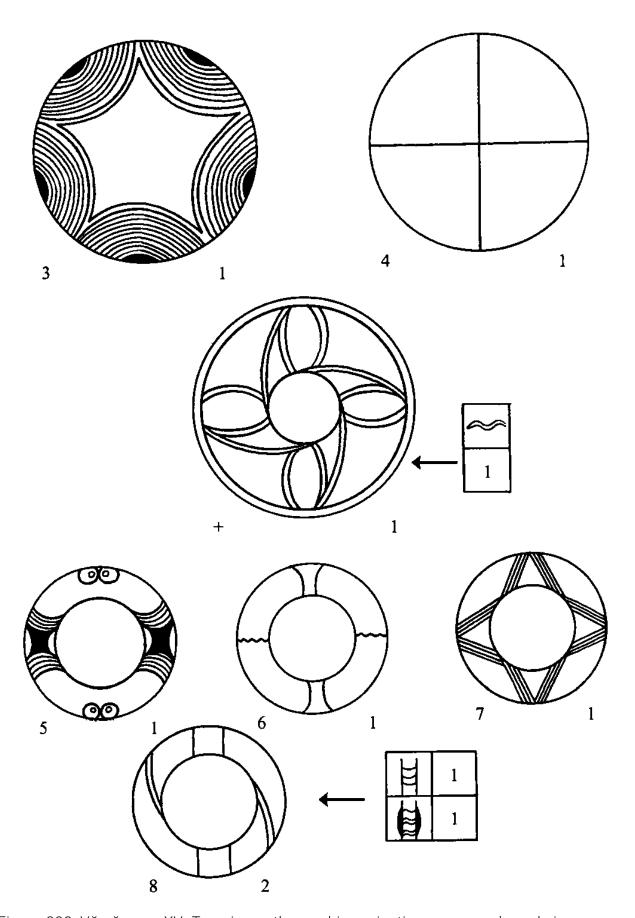


Figure 228: Vărvăreuca XV. Top view orthographic projections on vessels and signs.

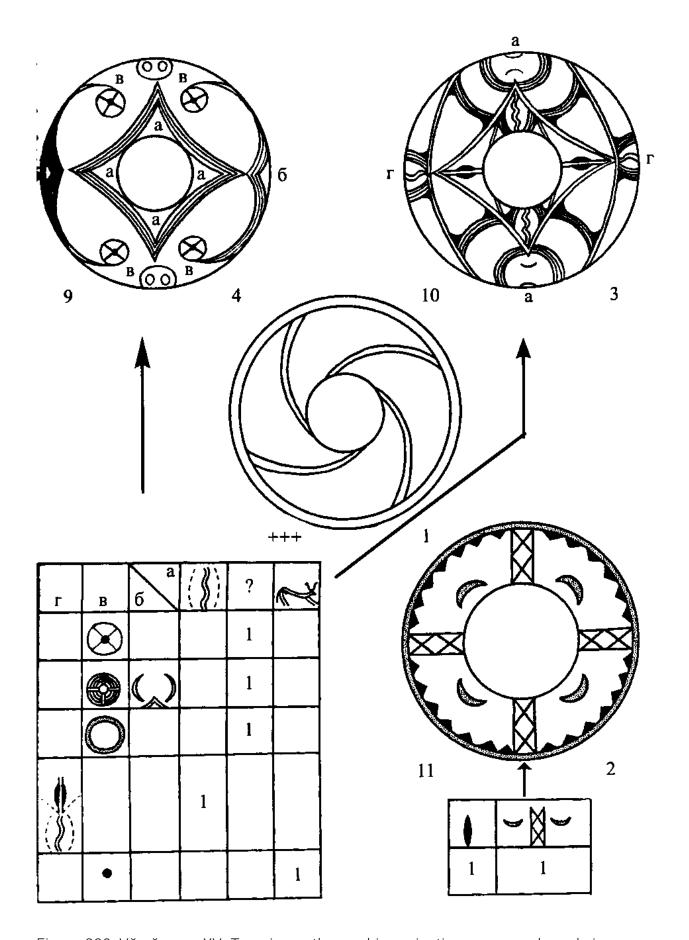


Figure 229: Vărvăreuca XV. Top view orthographic projections on vessels and signs.

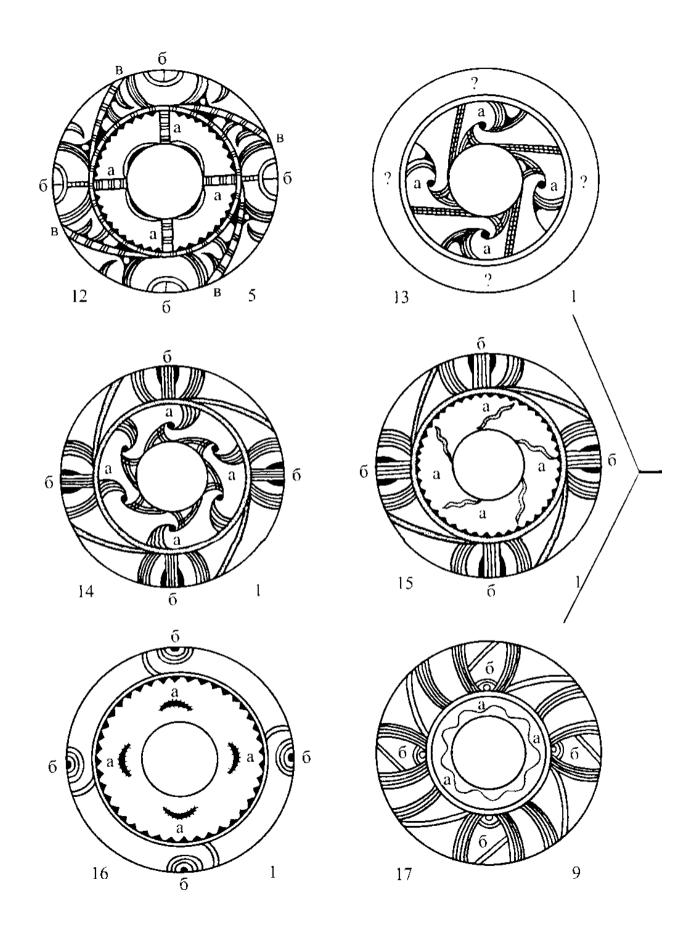


Figure 230: Vărvăreuca XV. Top view orthographic projections on vessels.

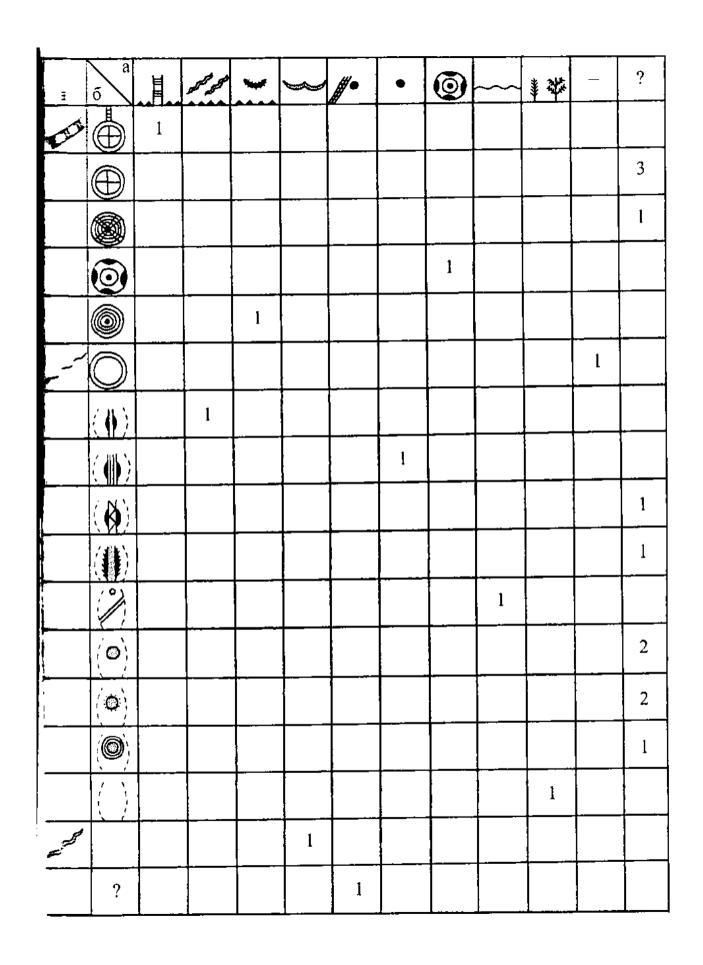


Table 49: Vărvăreuca XV. Signs on dishes.

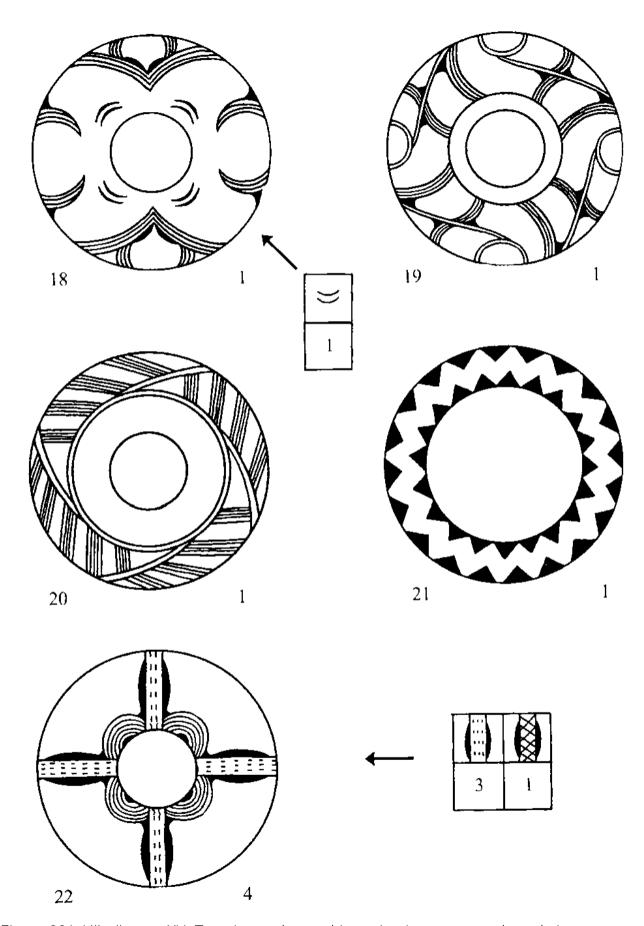


Figure 231: Vărvăreuca XV. Top view orthographic projections on vessels and signs.

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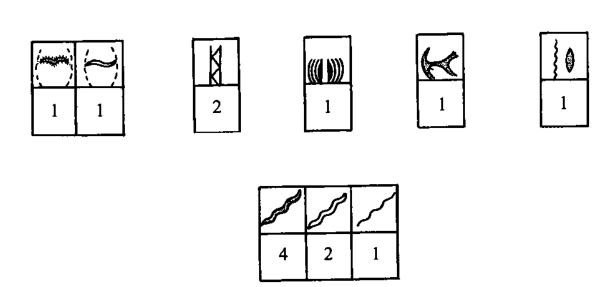


Table 50: Vărvăreuca XV. Signs on vessels. Schemes are unknown.

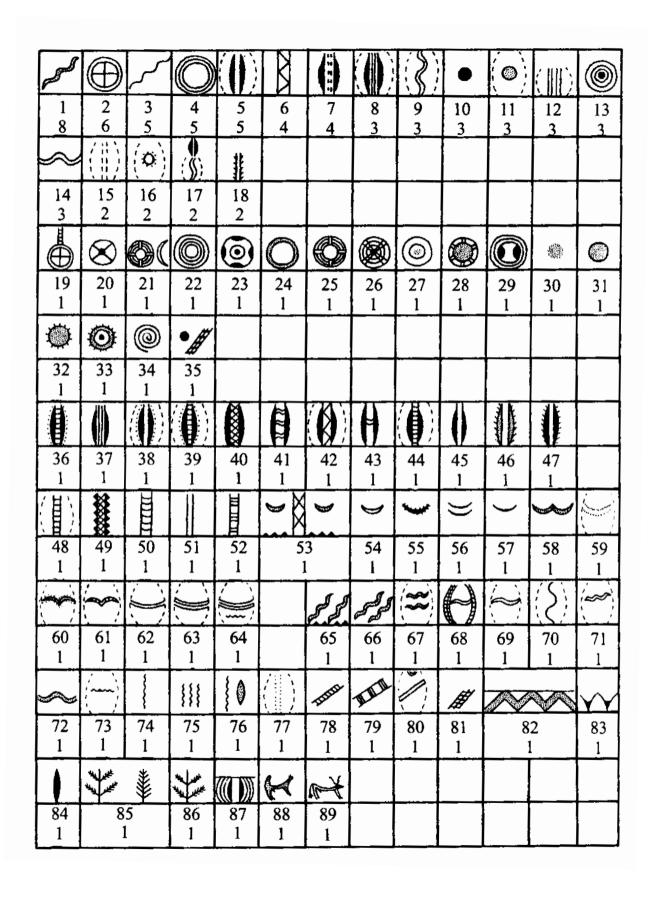


Table 51: Vărvăreuca XV. Catalogue of signs on vessels.

# Bădragii Vechi sign system

### Stage γI. Bădragii Vechi (Edineţ District, Republic of Moldova)

The work uses utensils obtained during the excavations of the settlement in 1975 and 1978 by expeditions led by V. I. Markevich. A total of 218 vessels were involved in the analysis. From site 1 we have 119 vessels. The condition of the material is good. The collection is stored in the funds of the Museum of Archeology and Ethnography of the Republic of Moldova, Chisinau.

### Schemes of paintings and signs on the vessels of the settlement of Bădragii Vechi.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

- 1, 2 internal painting of cut-conical bowls.
- 3 internal painting of 8 cut-conical, 1 cut-spherical, and 1 S-profiled bowl.
- 4-6 cut-spherical bowls.
- 7-12, 14, 16 painting of round vessels.
- 13 pot.
- 15 biconical vessel with anthropomorphic features.
- 17 lid.
- 18, 20, 21 schemes of painting vessels with fertile bodies and high cylindrical necks.
- 19 scheme of painting 11 pots, 8 vessels with swollen bodies and high cylindrical necks, 1 round vessel, 1 crater.
- + external painting of cut-spherical bowls.
- ++ painting of the lower parts of 8 round vessels, 1 crater, 1 pot, 6 vessels with swollen bodies and high cylindrical necks; external painting 3 cut-conical and 2 S-profiled bowls.
- + + + external painting of 2 cut-conical bowls; painting of the lower parts of 2 round vessels and 1 vessel with an inflated torso and high cylindrical neck.
- ++++ external painting of a cut-spherical bowl.
- +++++ lower painting of 2 vessels with swollen bodies and high cylindrical necks, and the outer painting of the bowl.
- + + + + + + painting of the lower part of the vessel with a swollen body and high cylindrical neck.

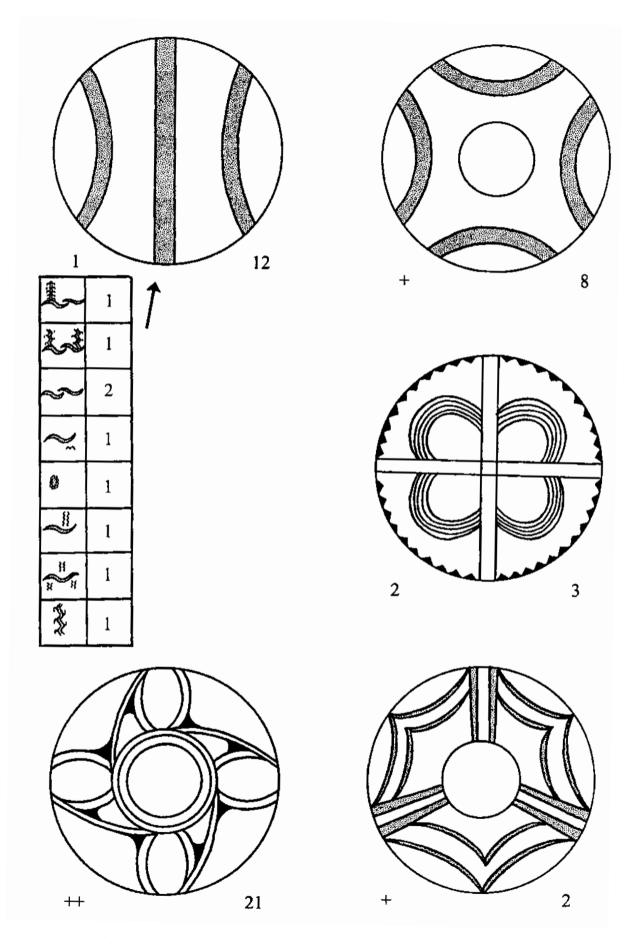


Figure 232: Bădragii Vechi. Top view orthographic projections on vessels and signs.

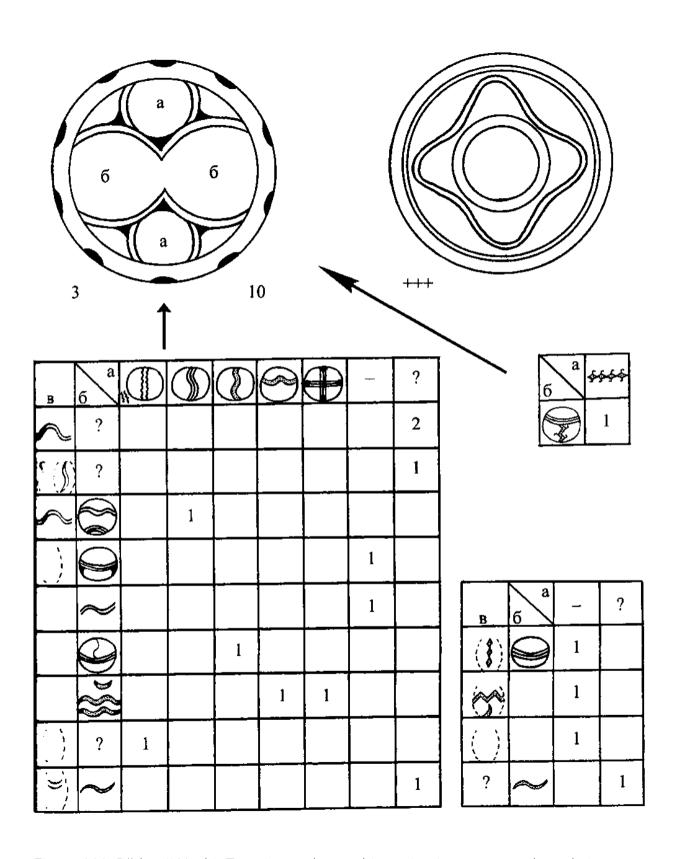


Figure 233: Bădragii Vechi. Top view orthographic projections on vessels and signs.

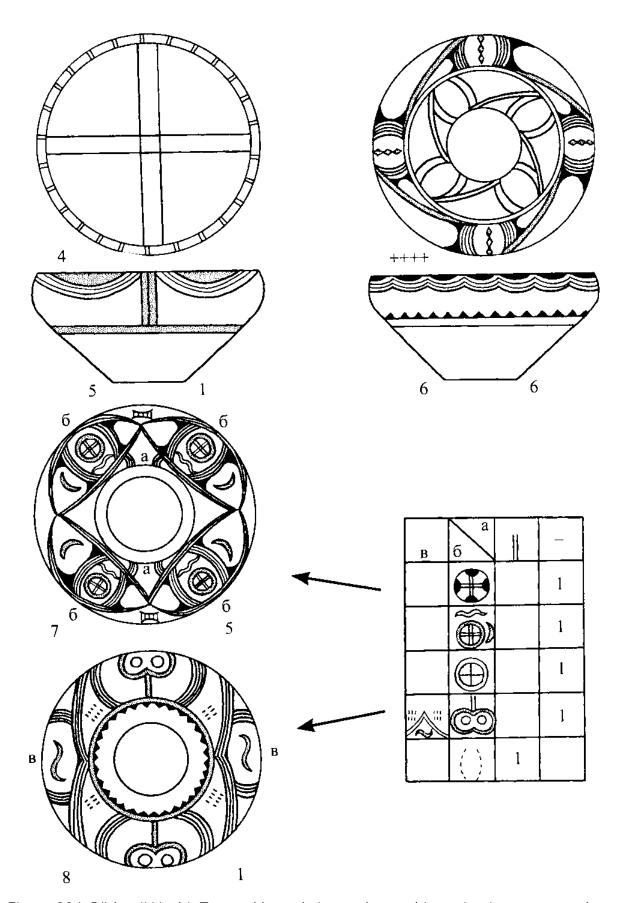


Figure 234: Bădragii Vechi. Top and lateral view orthographic projections on vessels and signs.

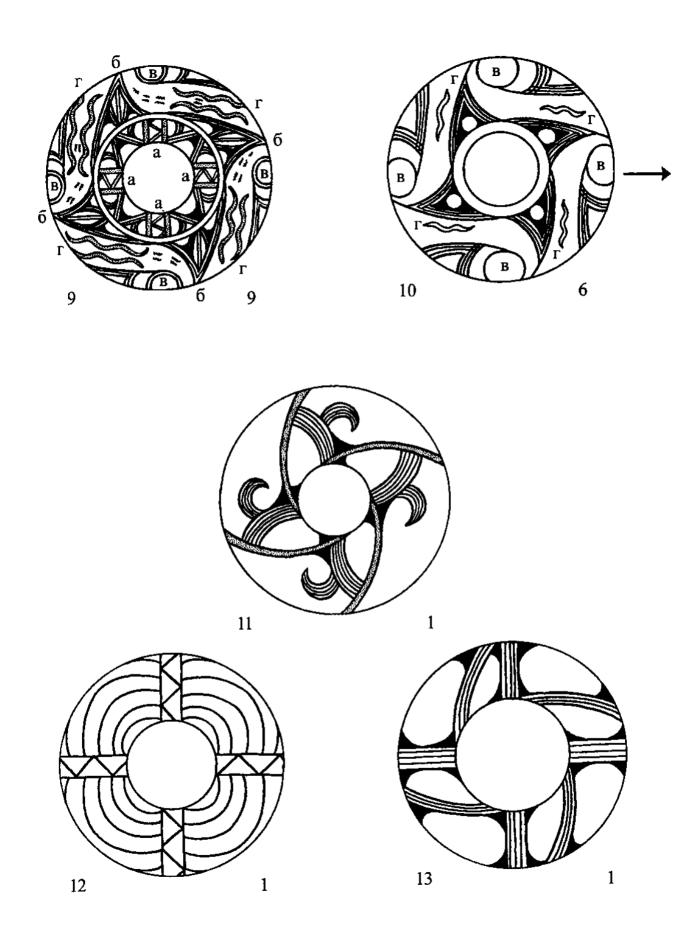


Figure 235: Bădragii Vechi. Top view orthographic projections on vessels.

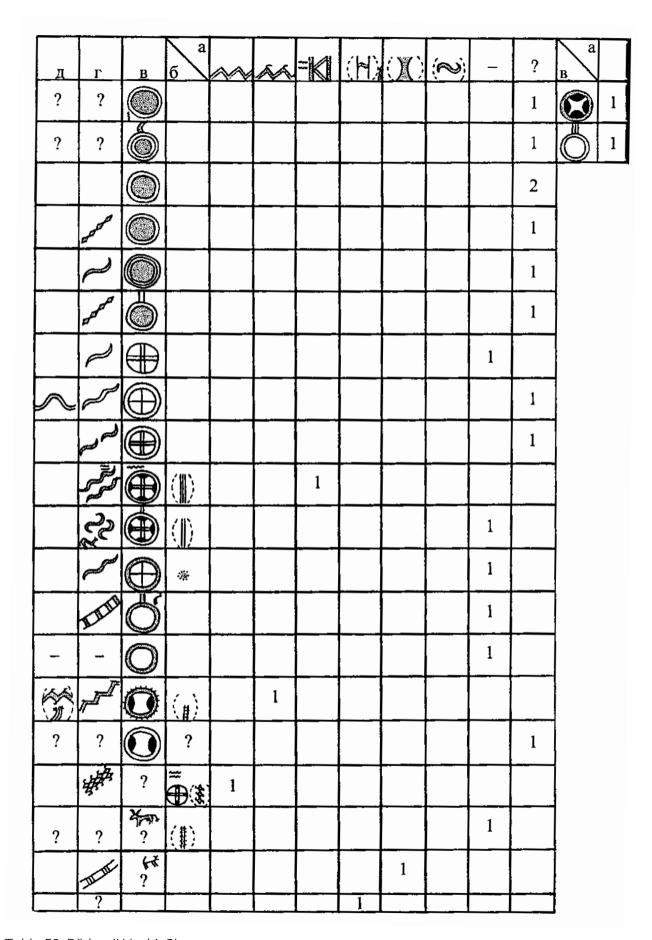


Table 52: Bădragii Vechi. Signs.

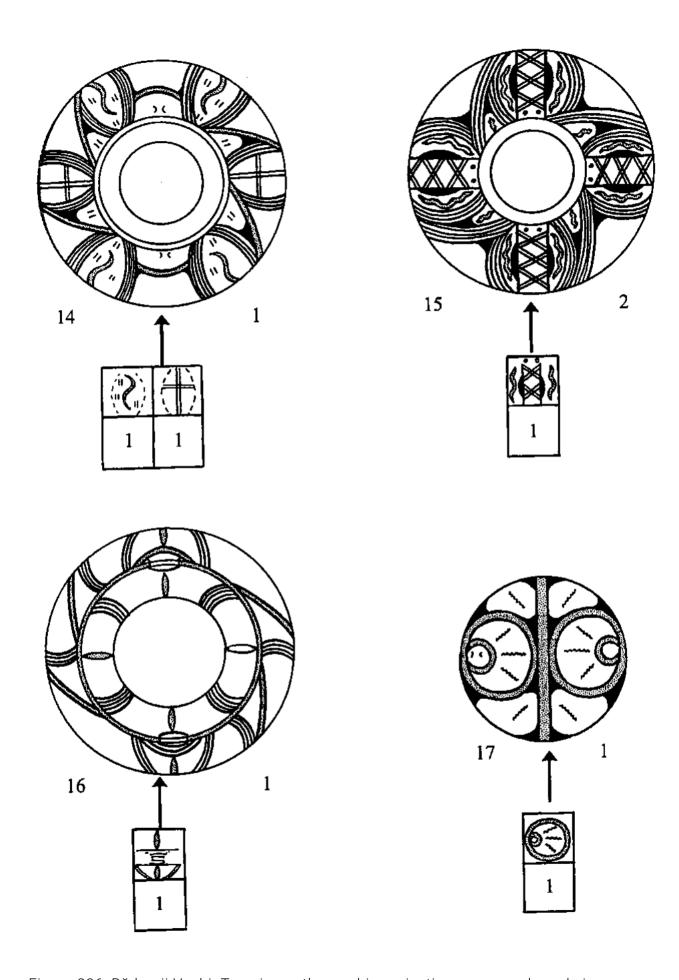


Figure 236: Bădragii Vechi. Top view orthographic projections on vessels and signs.

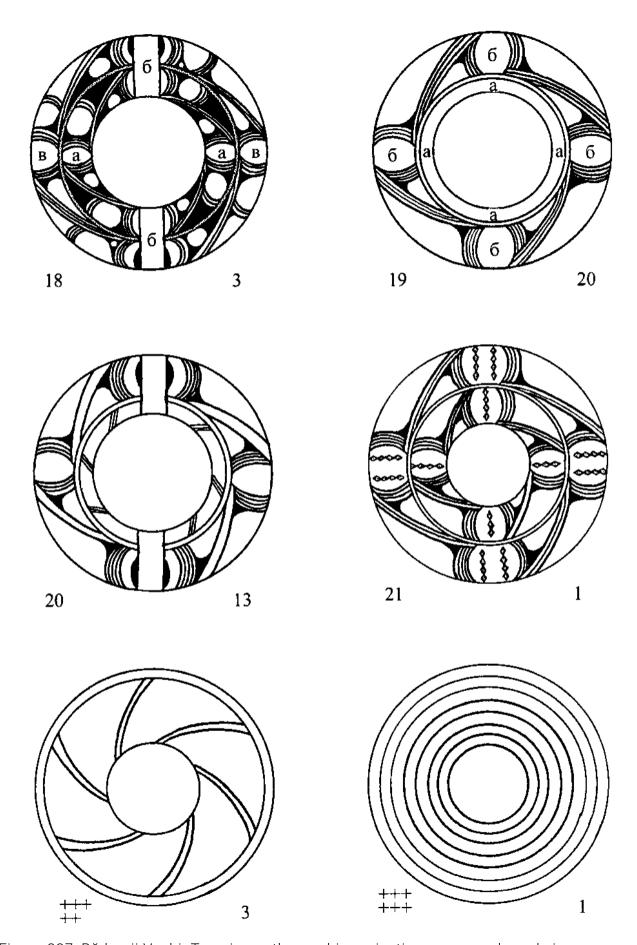


Figure 237: Bădragii Vechi. Top view orthographic projections on vessels and signs.

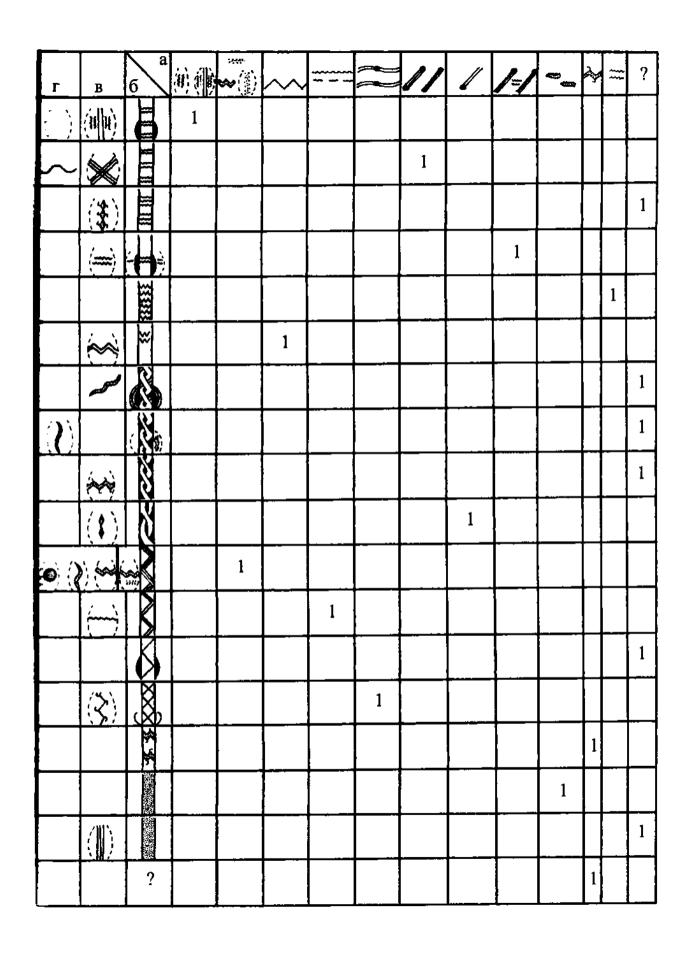


Table 53: Bădragii Vechi. Signs on vessels.

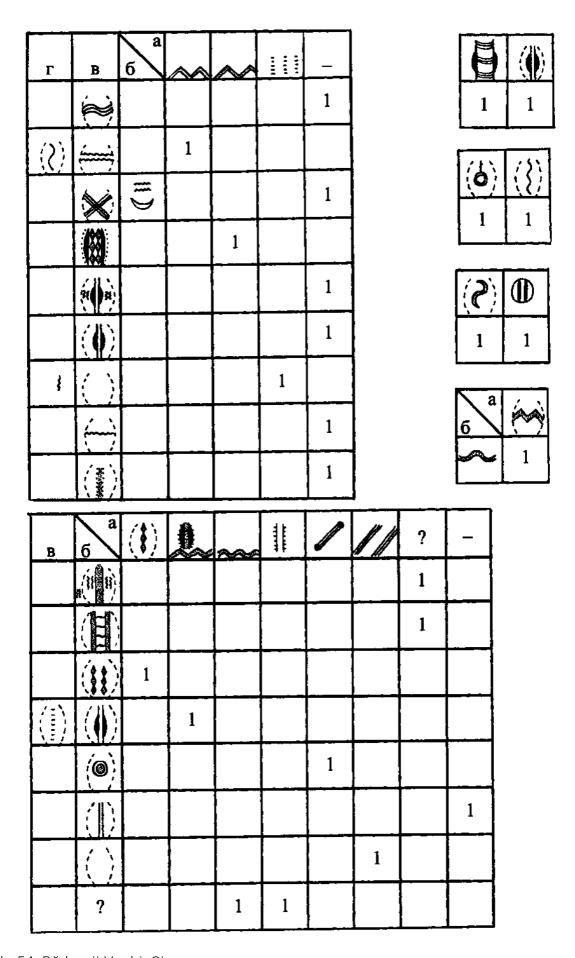


Table 54: Bădragii Vechi. Signs.

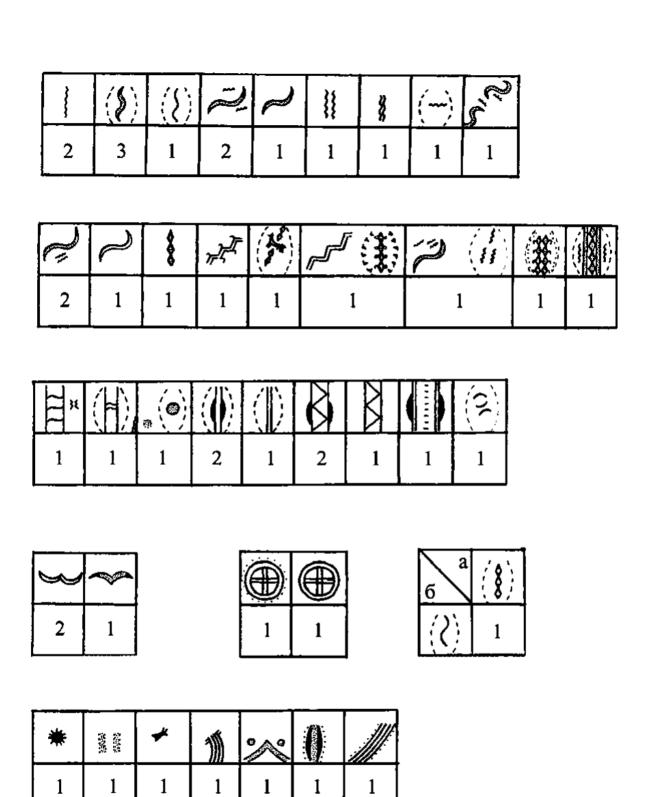


Table 55: Bădragii Vechi. Signs on vessels. Schemes are unknown.

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Table 56: Bădragii Vechi. Catalogue of signs on vessels.

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148 1	149 1											

Table 57: Bădragii Vechi. Catalogue of signs on vessels.

# Hancăuți I sign system

#### Stage γI. Hancăuţi (Edineţ District, Republic of Moldova)

The work used ceramics obtained during excavations of the settlement in 1985 and 1986 expeditions led by V. I. Markevich. For the analysis, 152 vessels were involved. The condition of the material is good. The collection is stored in the funds of the Museum of Archeology and Ethnography of the Republic Moldova, Chisinau.

#### Schemes of paintings and signs on the vessels of the settlement Hancăuţi I.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such schemes on the utensils involved analysis.

- 1, 2 external painting of cut-spherical bowls.
- 3, 4, 7 internal painting of cut-conical bowls.
- 5 bowl with an S-shaped profile.
- 6 cut-conical bowls.
- 8 7 cut-conical, 3 cut-spherical and 2 bowls with S-shaped profile.
- 9, 20, 22, round vessels.
- 10, 11, 18, 19 pots.
- 12-17 vessels with a swollen, round body, and a cylindrical neck.
- 21 pear-shaped vessel.
- + external painting of cut-spherical bowls.
- ++ lower parts of round vessels.
- +++ external painting and lower parts of 6 cut-conical bowls, 2 vessels with cylindrical-conical necks, 1 crater and round pot.
- ++++ external painting, truncated-conical bowl.
- +++++ The lower part of the round vessel (Scheme 18).

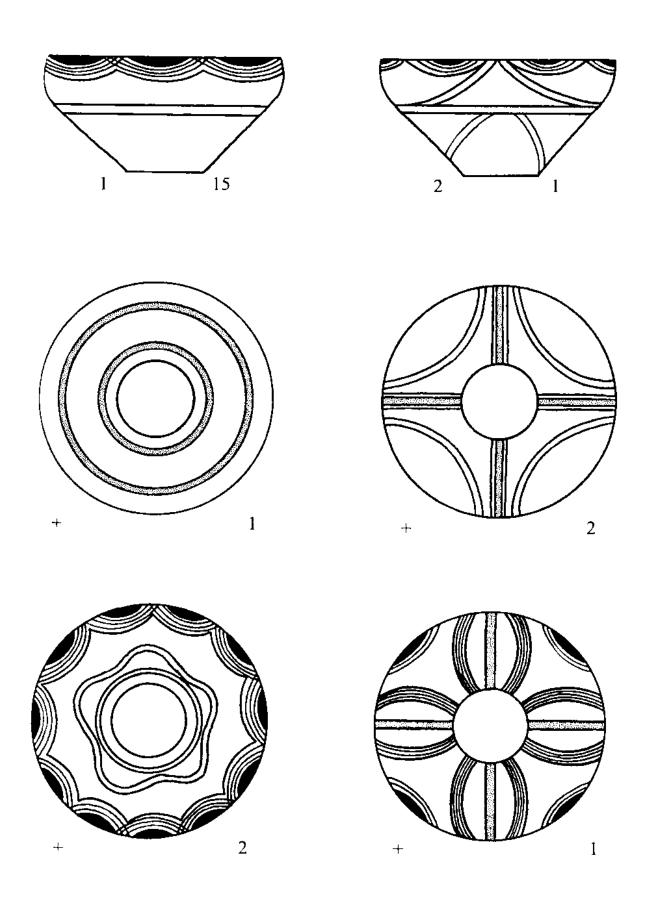


Figure 238: Hancăuţi I. Lateral and top view orthographic projections on vessels.

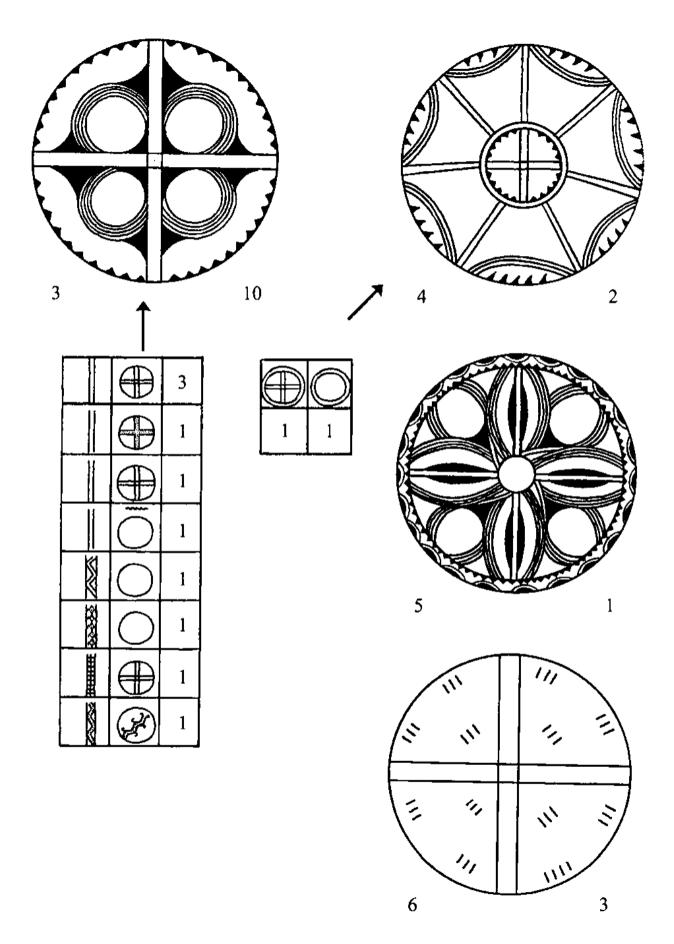


Figure 239: Hancăuţi I. Lateral and top view orthographic projections on vessels.

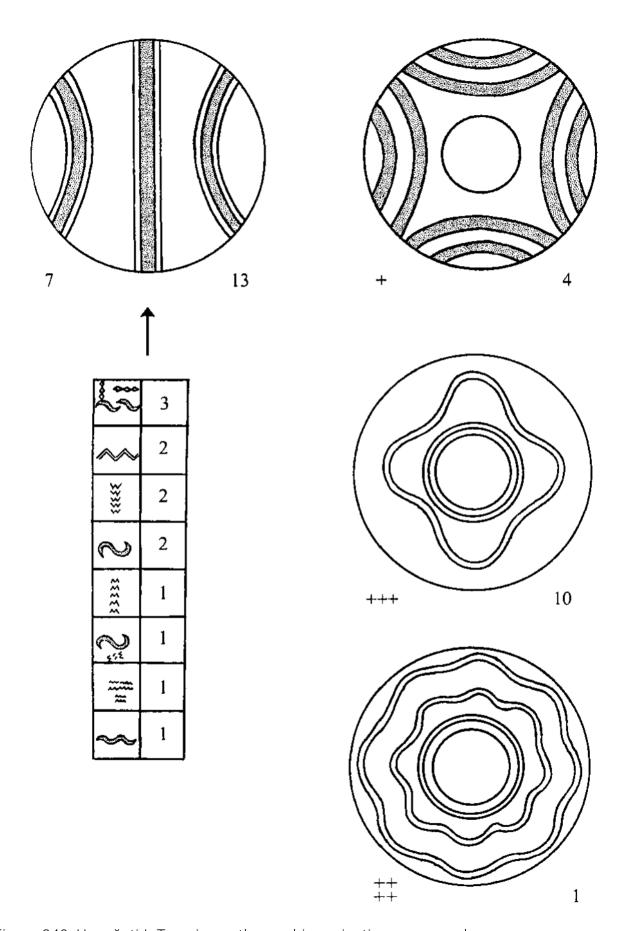


Figure 240: Hancăuţi I. Top view orthographic projections on vessels.

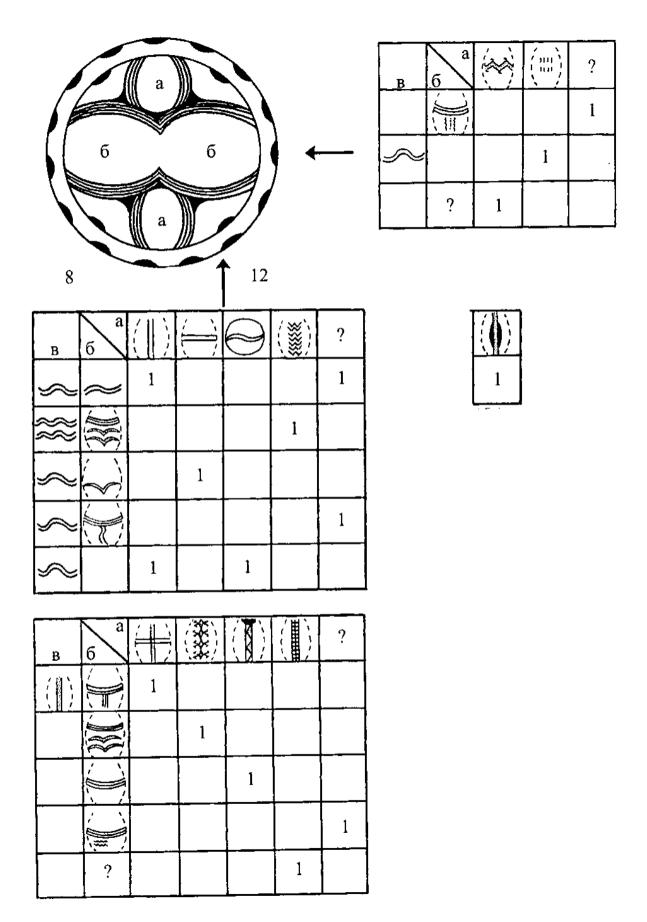


Figure 241: Hancăuţi I. Lateral and top view orthographic projections on vessels.

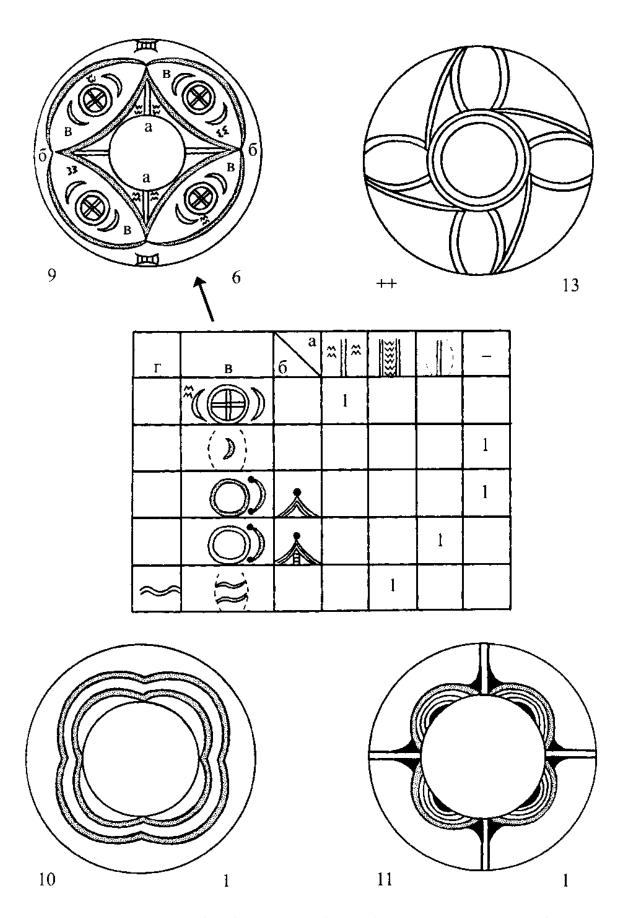


Figure 242: Hancăuţi I. Lateral and top view orthographic projections on vessels.

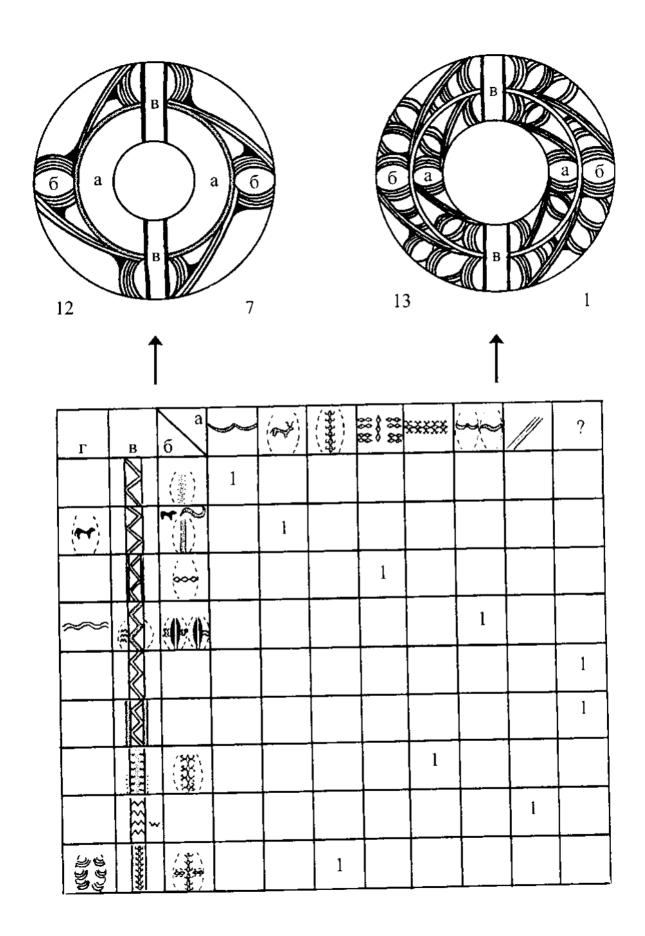


Figure 243: Hancăuţi I. Lateral and top view orthographic projections on vessels.

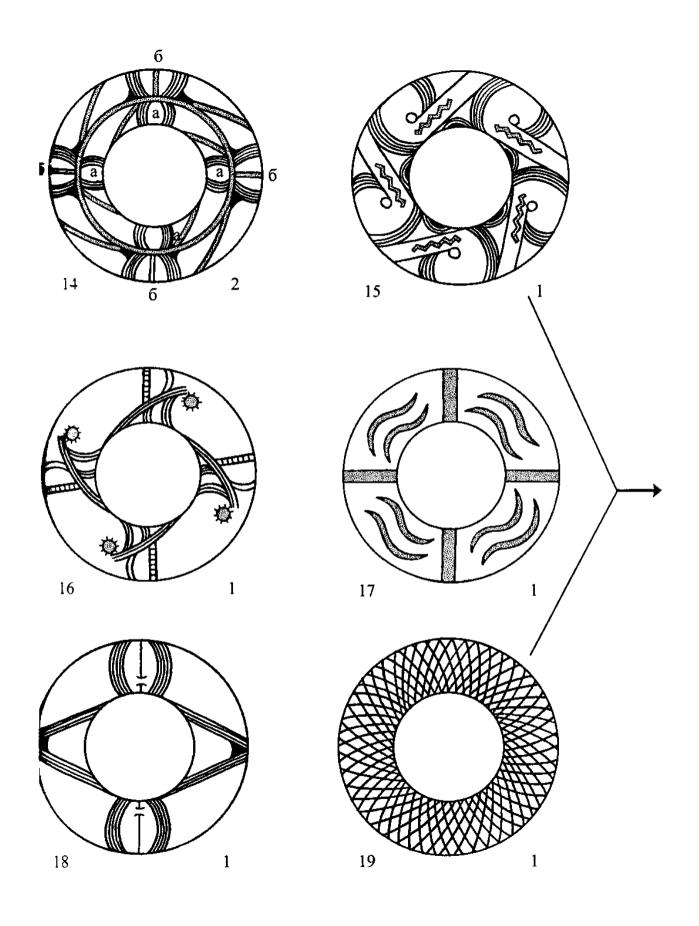


Figure 244: Hancăuţi I. Lateral and top view orthographic projections on vessels.

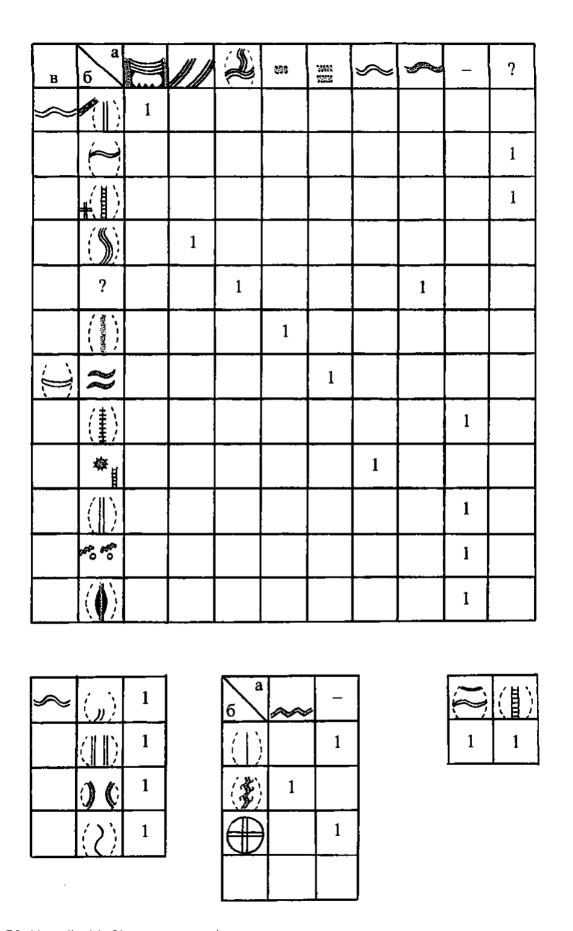


Table 58: Hancăuţi I. Signs on vessels.

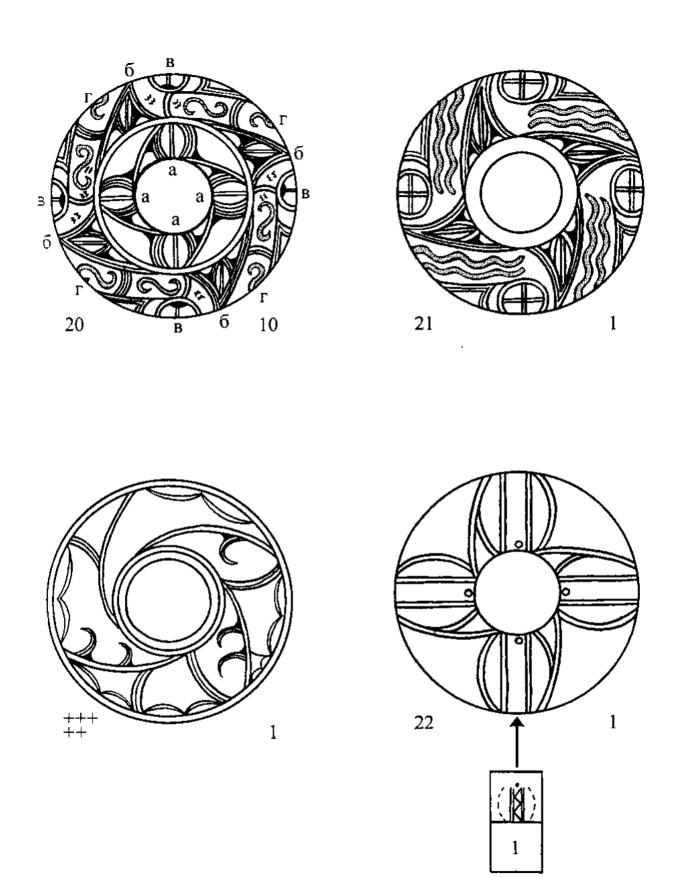
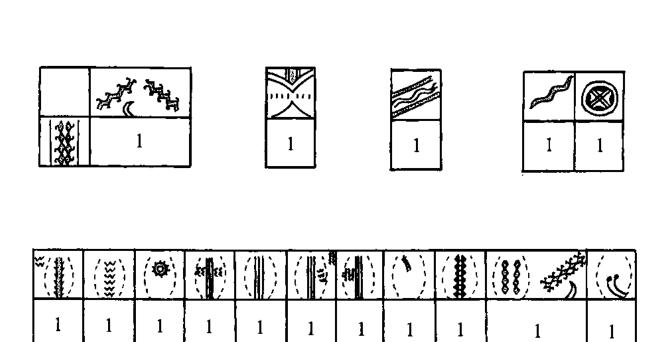


Figure 245: Hancăuţi I. Lateral and top view orthographic projections on vessels.

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Table 59: Hancăuţi I. Signs on vessels.

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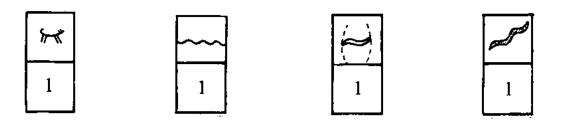


Figure 246: Hancăuţi I. Signs on vessels. Schemes are unknown.

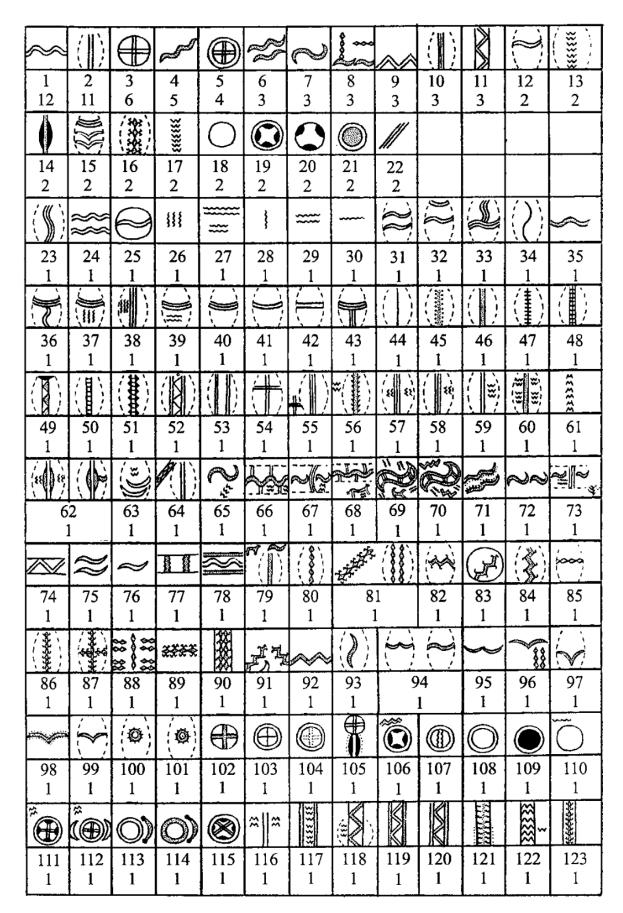


Table 60: Hancăuți I. Catalogue of signs on vessels.

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Table 61: Hancăuţi I. Catalogue of signs on vessels.

# Konovka sign system

## Stage CL Konovka (Cheryivtsi region, Kelmei district)

The work uses ceramics obtained during excavations of the settlement in 1975 by an expedition led by M. M. Shmagli. 81 vessels were involved in the analysis. From site 1 we have 22 vessels; from the site 2 - 59 vessels. The condition of the material is satisfactory. Many vessels are highly fragmented.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine in Kyiv.

### Schemes of paintings and signs on the vessels of the settlement Konovka (sq. 1, 2).

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the cookware involved in the analysis.

- 1 cut-conical and cut-spherical bowls.
- 2 cut-spherical bowls.
- 3 cut-conical bowls.
- 4-7 cylindrical-conical bowls.
- 8-11 round vessels.
- 12, 13 pots.
- + external painting of cut-spherical bowls.
- ++ the lower part of the round vessels (scheme 12).

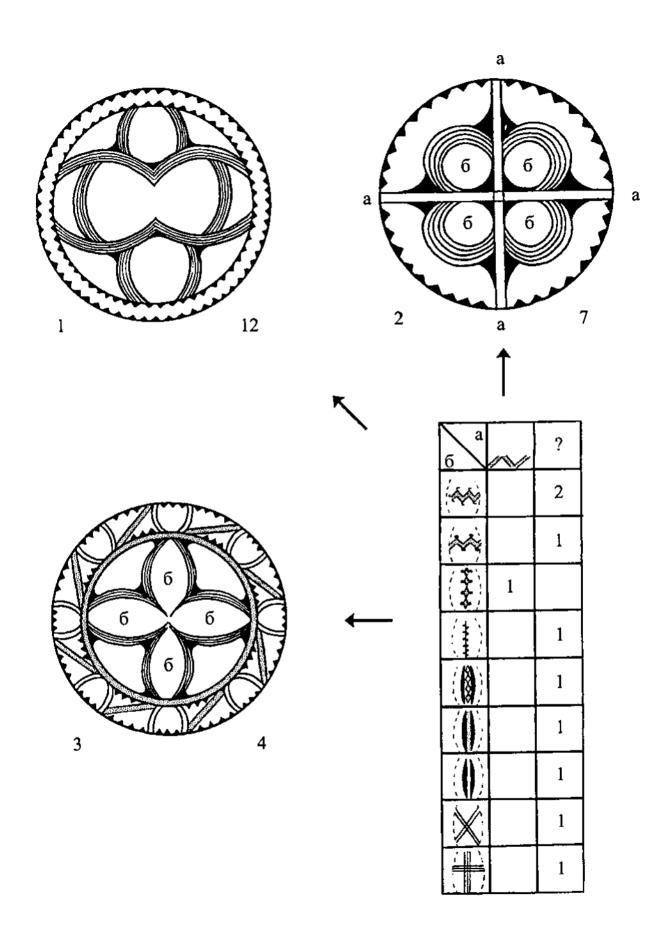


Figure 247: Konovka. Top view orthographic projections on vessels and signs.

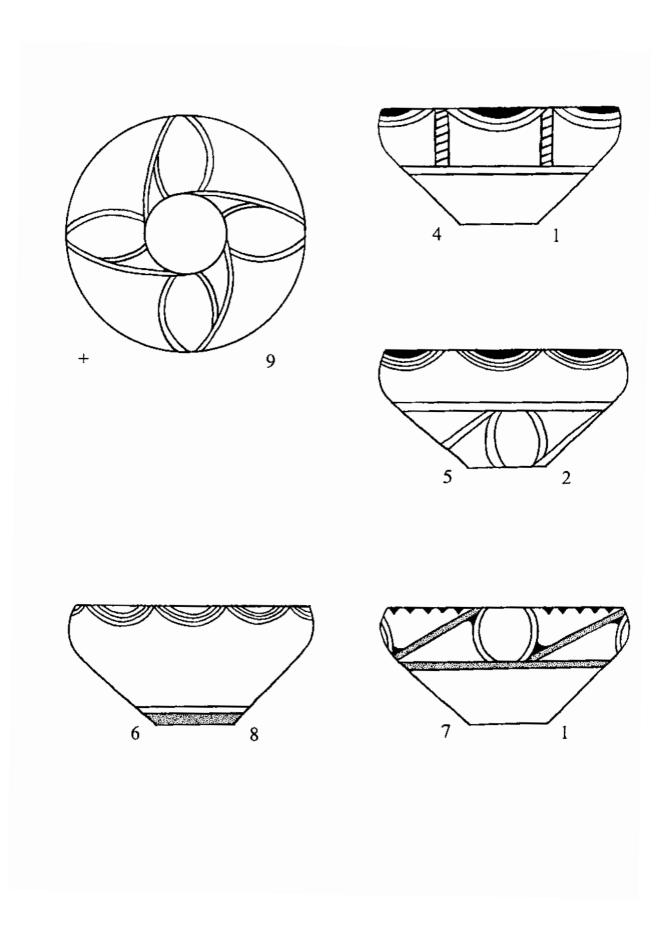


Figure 248: Konovka. Top view orthographic and lateral projections on vessels and signs.

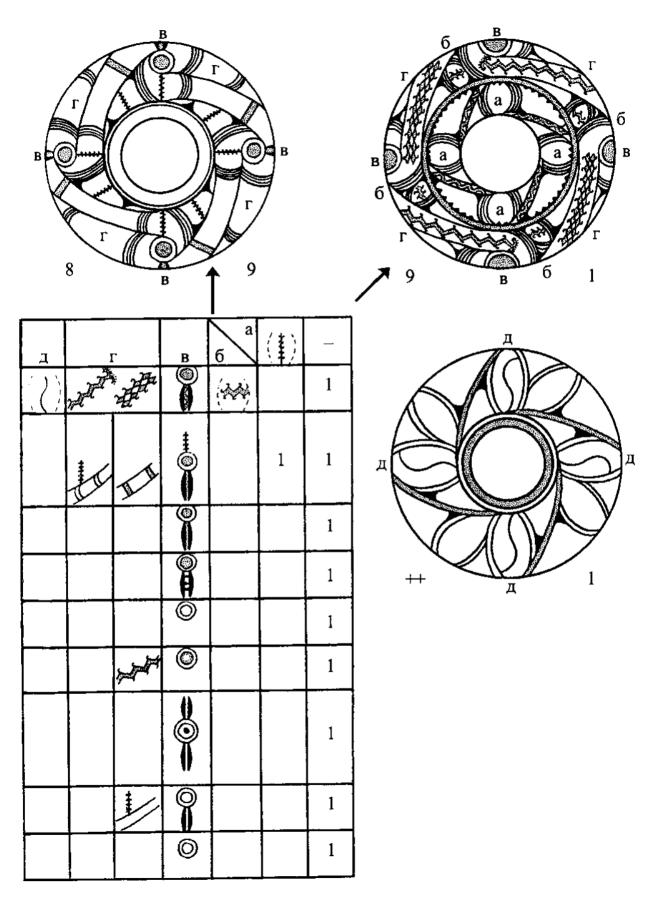


Figure 249: Konovka. Top view orthographic projections on vessels and signs.

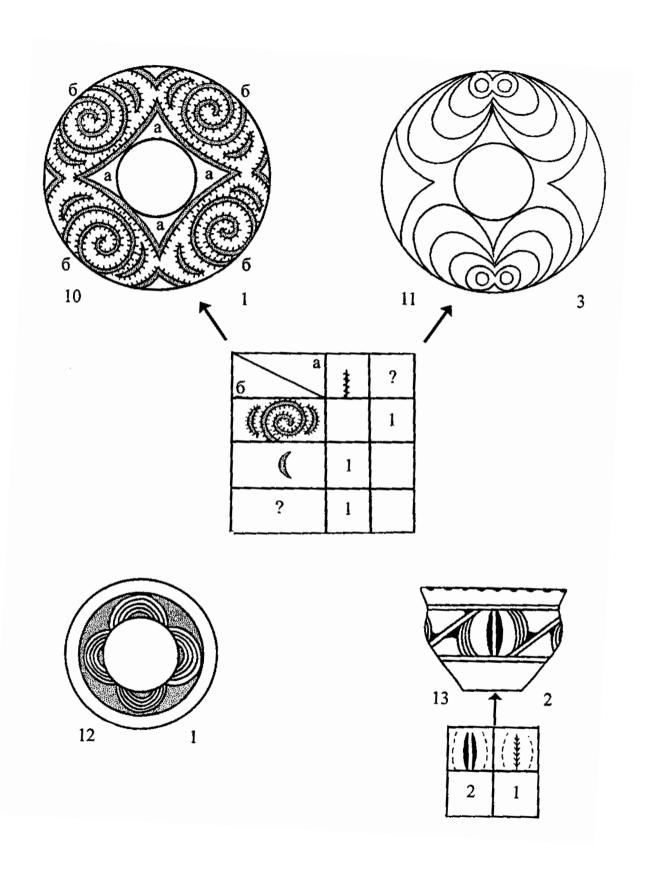
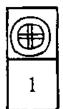


Figure 250: Konovka. Top view orthographic projections on vessels and signs.

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Table 62: Konovka. Signs on vessels. Schemes are unknown.

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Table 63: Konovka. Catalogue of signs on vessels.

# Târgu Ocna-Podei sign system

## Stage γI. Târgu Ocna-Podei (Republic of Romania, Bacau County)

The analysis involved 89 items of utensils published by C. Matasha in 1964.

## Schemes of paintings and signs on the vessels of the settlement Târgu Ocna-Podei.

The numbers on the left of the diagrams -sequence number.

Figures on the right -the number of such schemes on the vessels involved in the analysis.

- 1 -cylinder-conical bowls.
- 2 -cylindrical frying pans.
- 3-5 vessels on pallets.
- b, 7 -profiled bowls.
- 8, 12, 13 round vessels.
- 9-11 two-level ware.
- 14-24 -pots.
- + -lower parts of two-tiered ware.
- ++ -the lower part of the pot.

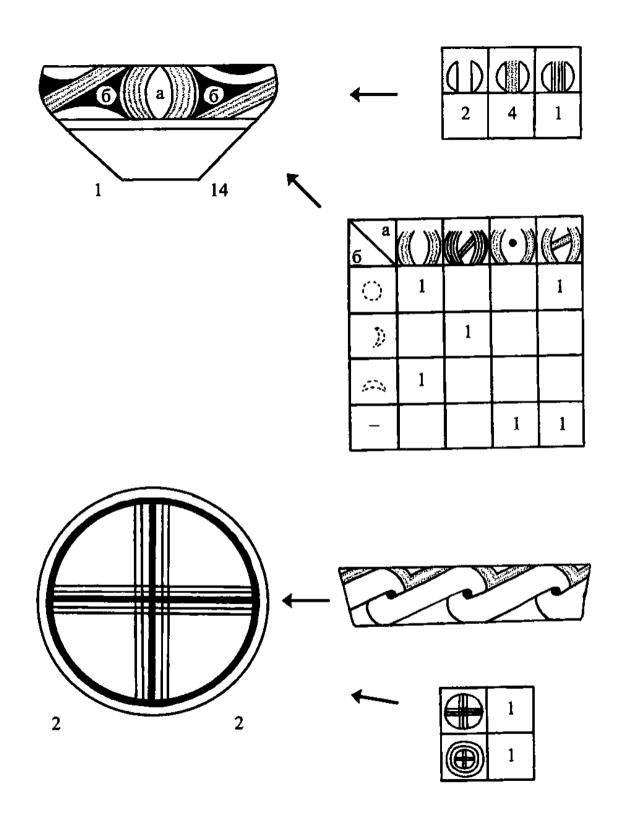


Figure 251: Târgu Ocna-Podei. Lateral and top view orthographic projections on vessels and signs.

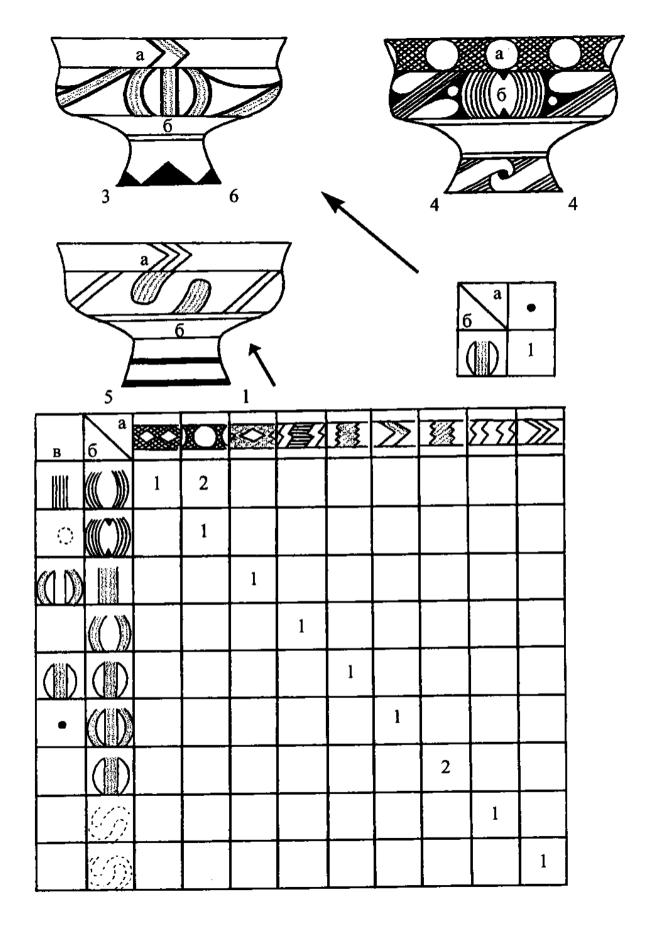


Figure 252: Târgu Ocna-Podei. Lateral and top view orthographic projections on vessels and signs.

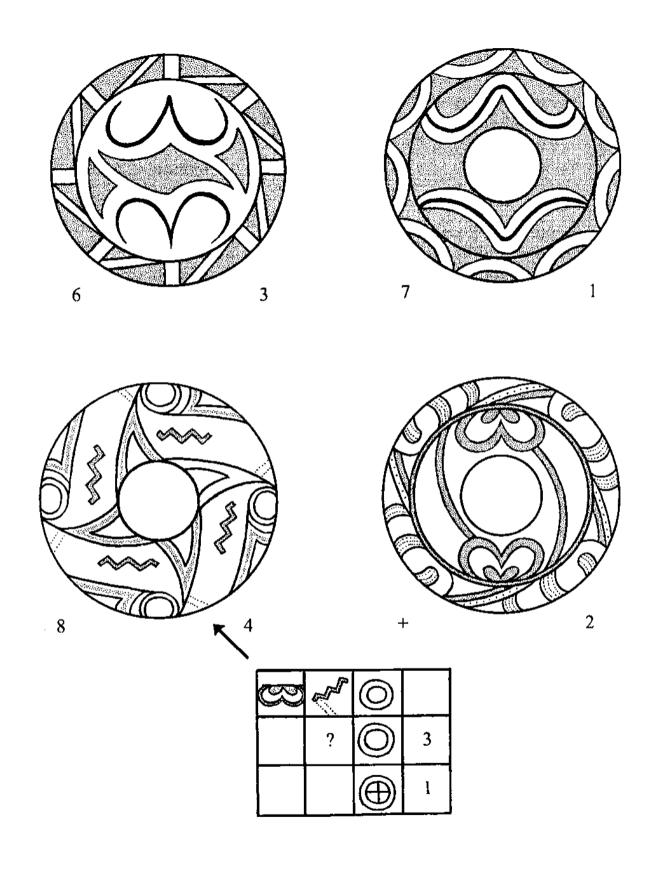


Figure 253: Târgu Ocna-Podei. Lateral and top view orthographic projections on vessels and signs.

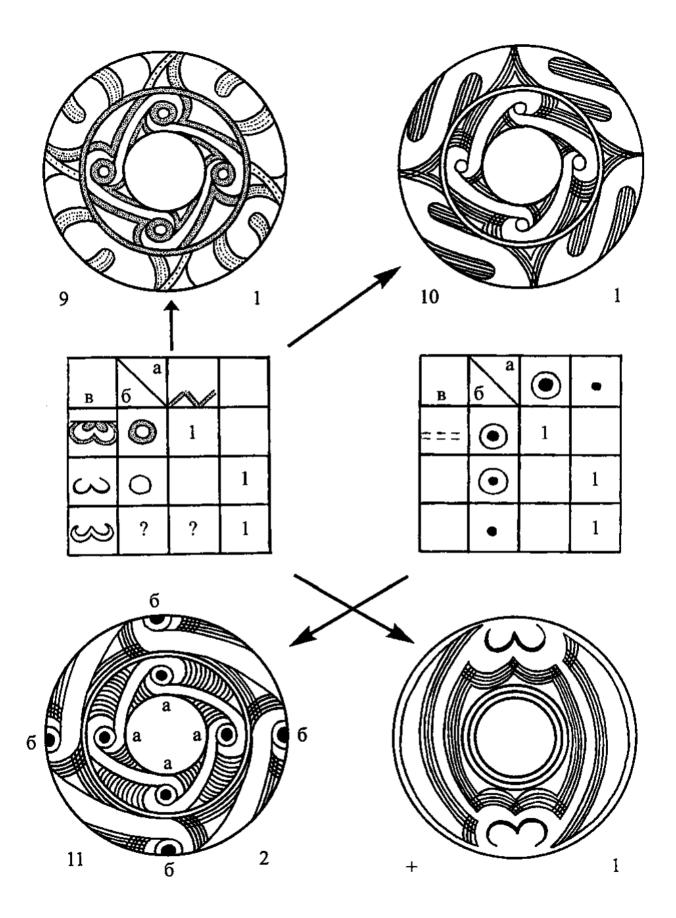


Figure 254: Târgu Ocna-Podei. Top view orthographic projections on vessels and signs.

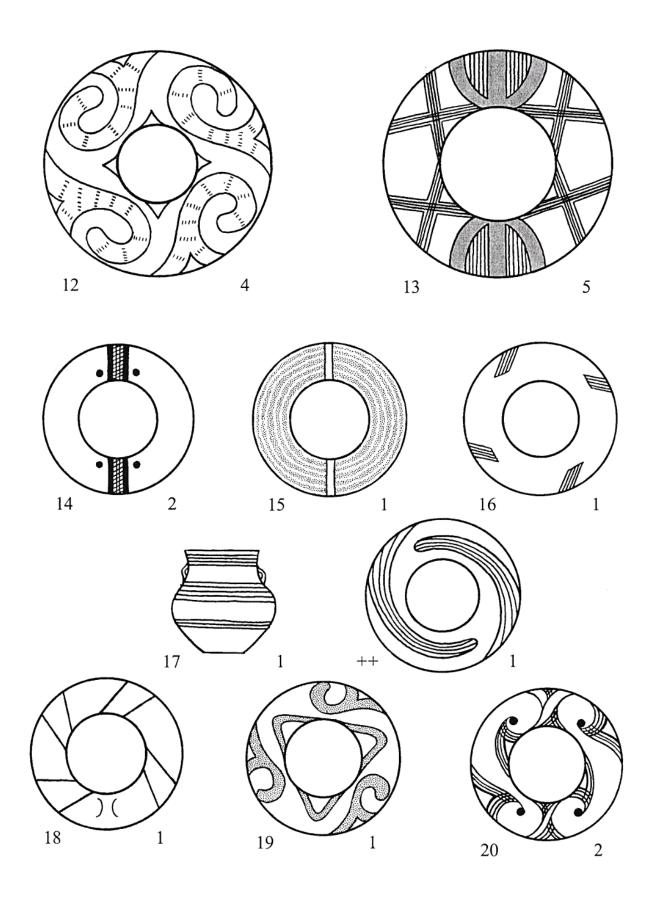


Figure 255: Târgu Ocna-Podei. Projections on vessels.

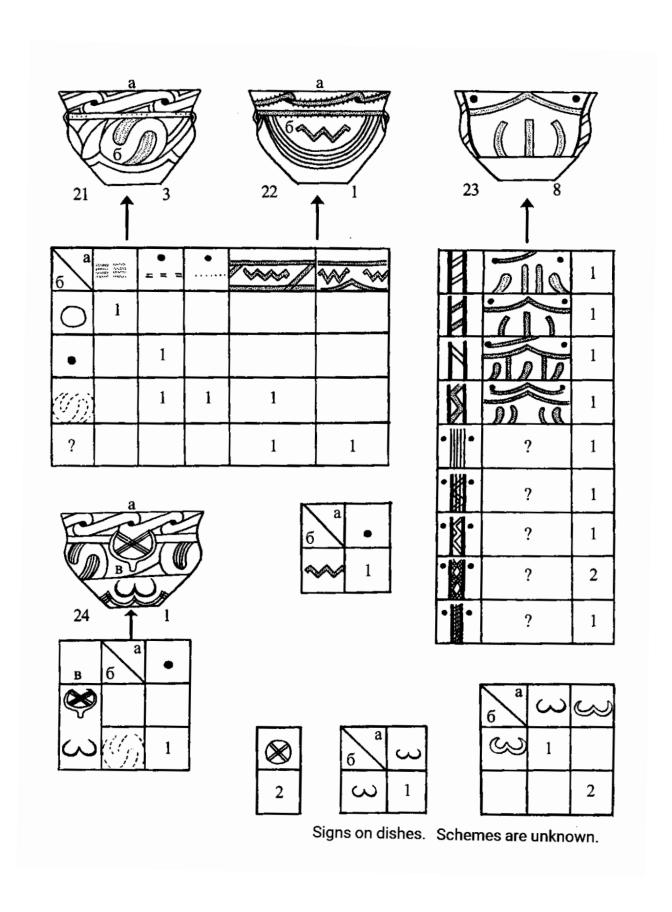


Figure 256: Târgu Ocna-Podei. Lateral projections on vessels and signs.

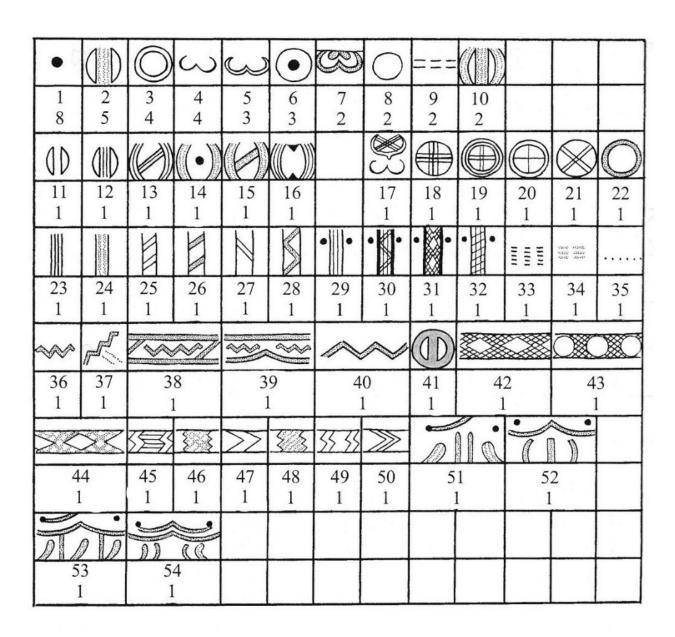


Figure 257: Târgu Ocna-Podei. Catalogue of signs on vessels.

# The Koshylivtsi Oboz sign system

## Stage CII. Koshylivtsi Oboz (Teriopil region, Zalishchyk districts).

The analysis involved 79 vessels published by K. Hadaczek (K. - 1914).

### Schemes of paintings and signs on the vessels of the settlement Koshylivtsi Oboz.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1 - cut-conical and 1 cut-spherical bowl.

2-5 - internal painting of cut-conical bowls.

6-14 - cups.

15 - painting of 11 round vessels and 1 pear-shaped (?).

16-20 - round vessels.

21 - lids.

22-24 - craters.

25, 26 - late Shipynets vessels.

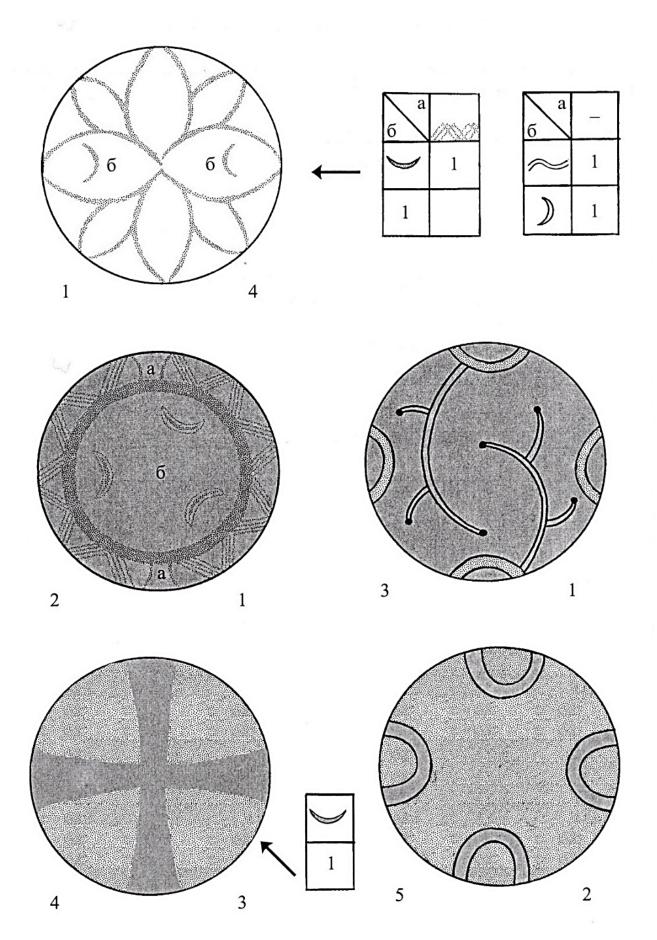


Figure 258: Koshylivtsi Oboz. Top view orthographic projections on vessels and signs.

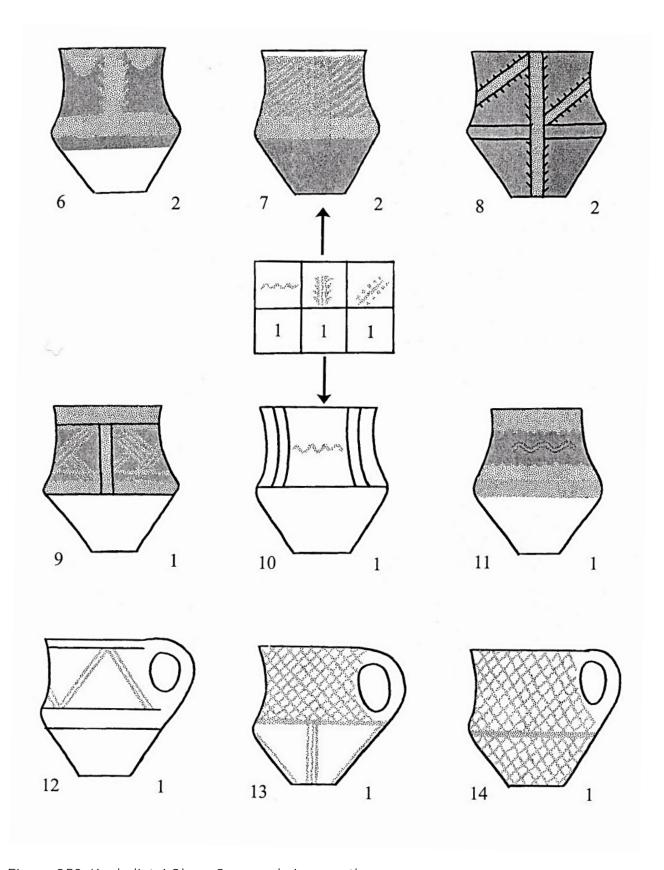


Figure 259: Koshylivtsi Oboz. Cups and signs on them.

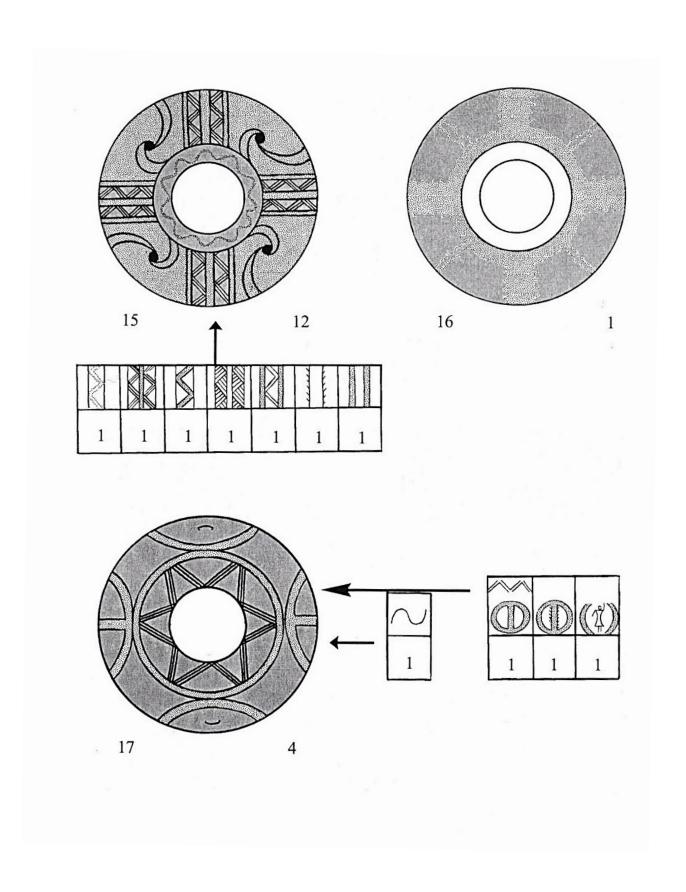
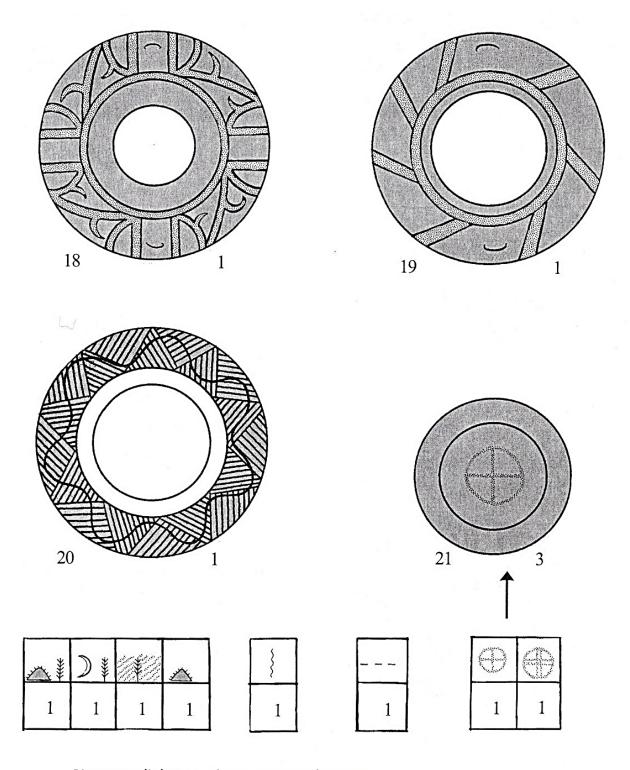


Figure 260: Koshylivtsi Oboz. Top view orthographic projections on vessels and signs.



Signs on dishes. Schemes are unknown.

Figure 261: Koshylivtsi Oboz. Top view orthographic projections on vessels and signs.

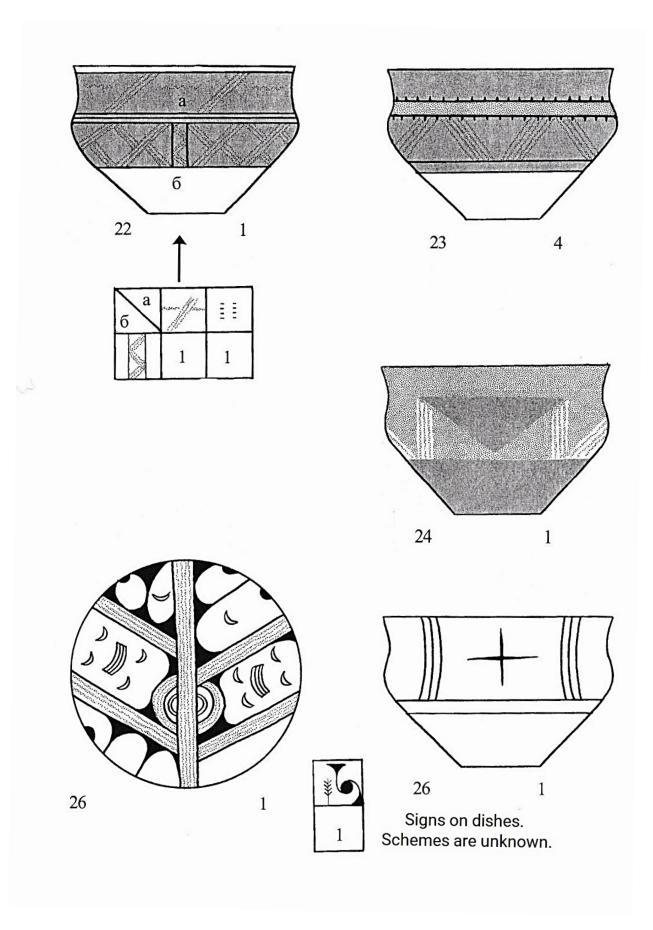


Figure 262: Koshylivtsi Oboz. Top view orthographic projections on vessels and signs.

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Table 64: Koshylivtsi Oboz. Catalogue of signs on vessels.

# Zhvanets I sign system

#### Stage CII. Zhvanets (Khmelnytsky region, Kam'yaets-Podilsky district).

The work uses ceramics obtained during excavations of the settlement in 1961-1962, 1967-1970, 1973-1974, 1976, 1978 by expeditions led by T. G. Movsha. 519 units of utensils were involved in the analysis. The condition of the material is satisfactory.

The collection is stored in the funds of the National Museum of History of Ukraine, Kyiv.

### Schemes of paintings and signs on the vessels of the settlement Zhvanets.

The numbers on the left of the diagrams -sequence number.

Figures on the right -the number of such schemes on the vessels involved in the analysis.

1-5, 7-11 -cut-spherical bowls.

6-17 cut-spherical and 4 cut-conical bowls, lower parts

4 round vessels.

12 -4 truncated-conical and lower parts of 4 round vessels.

13 -rounded vessel.

14, 15 - round vessels with a painting "owl face".

16-21, 23, 24 - round vessels.

22, 31-36 -pots.

25, 26, 29 - vessels with a swollen body and high cylindrical necks.

27-29 lids.

30 - monocle (?).

+ - external painting of cut-conical bowls.

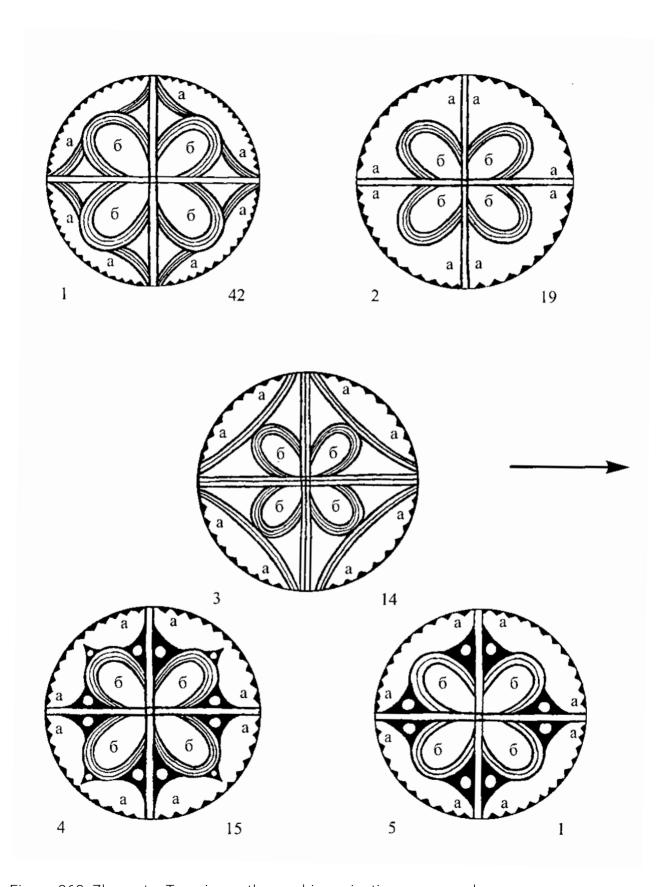


Figure 263: Zhvanets. Top view orthographic projections on vessels.

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Table 65: Zhvanets. Signs on vessels.

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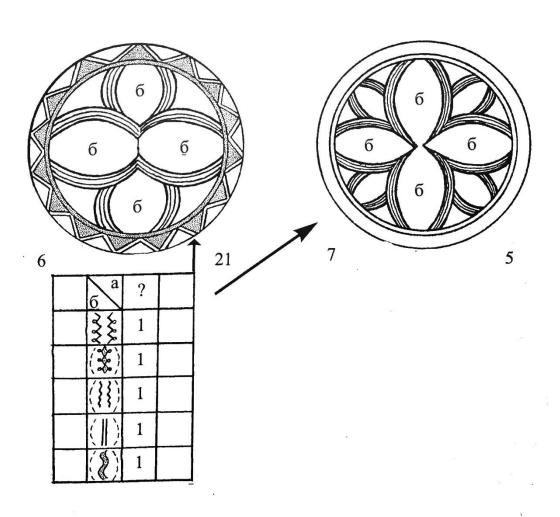


Figure 264: Zhvanets. Top view orthographic projections on vessels and signs.

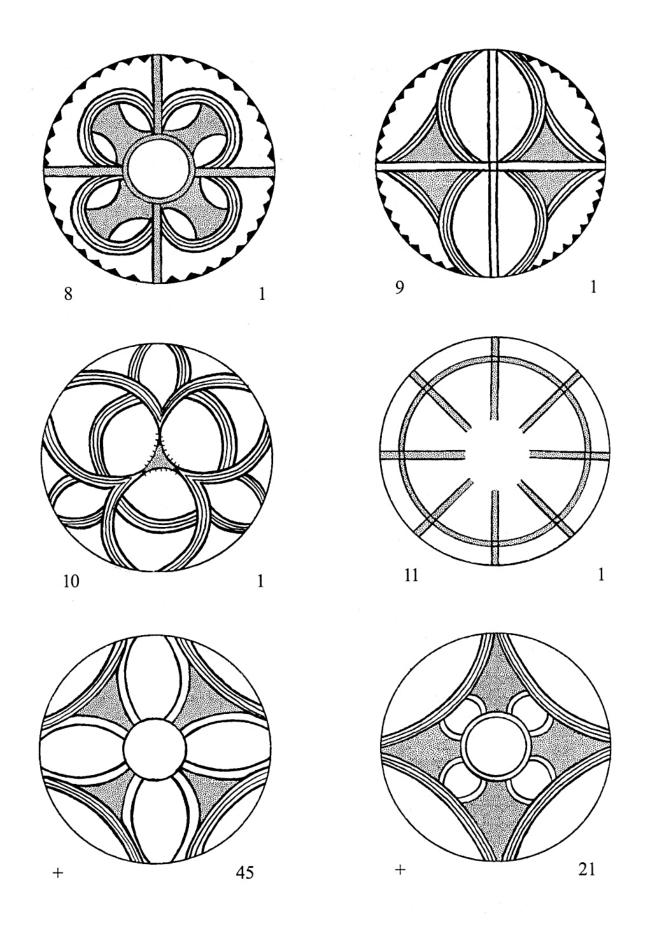


Figure 265: Zhvanets. Top view orthographic projections on vessels and signs.

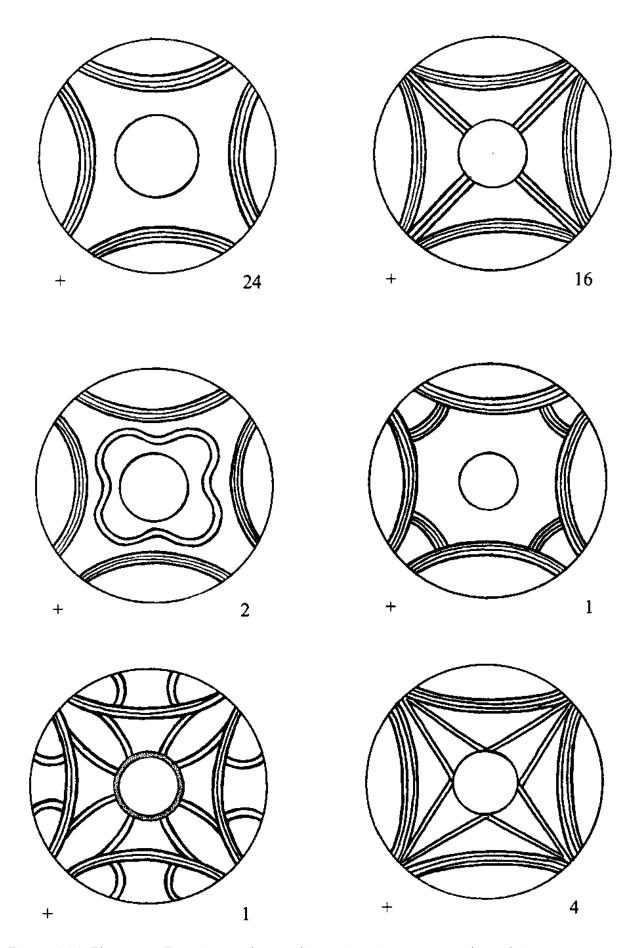


Figure 266: Zhvanets. Top view orthographic projections on vessels and signs.

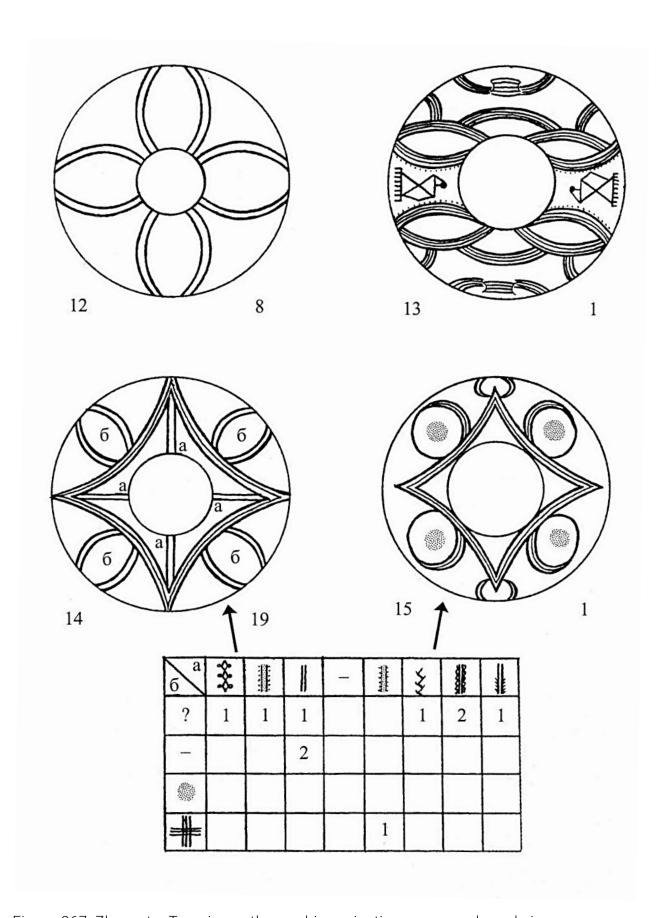


Figure 267: Zhvanets. Top view orthographic projections on vessels and signs.

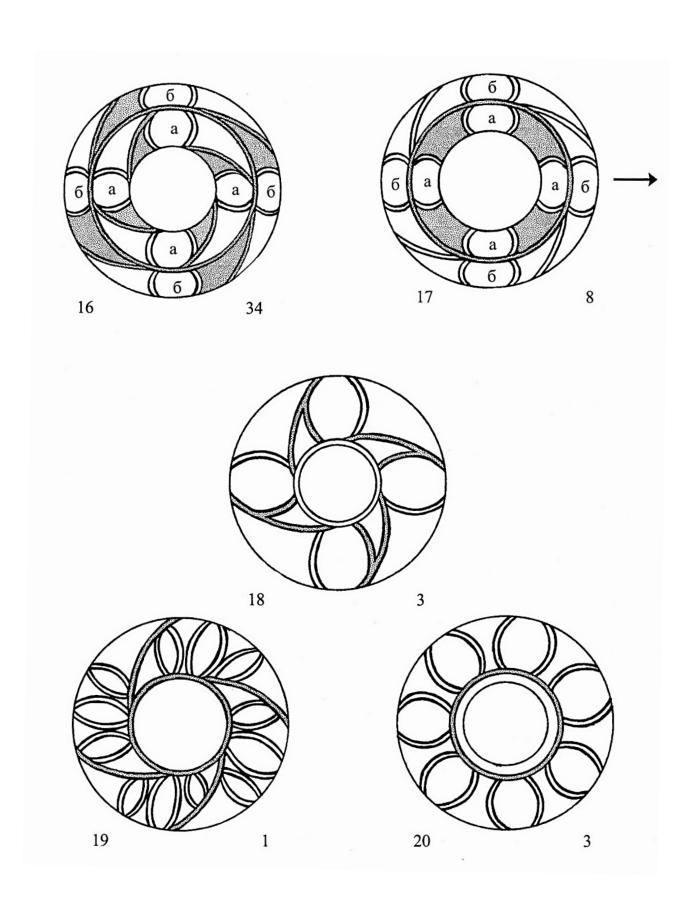


Figure 268: Zhvanets. Top view orthographic projections on vessels.

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Table 66: Zhvanets. Signs on vessels.

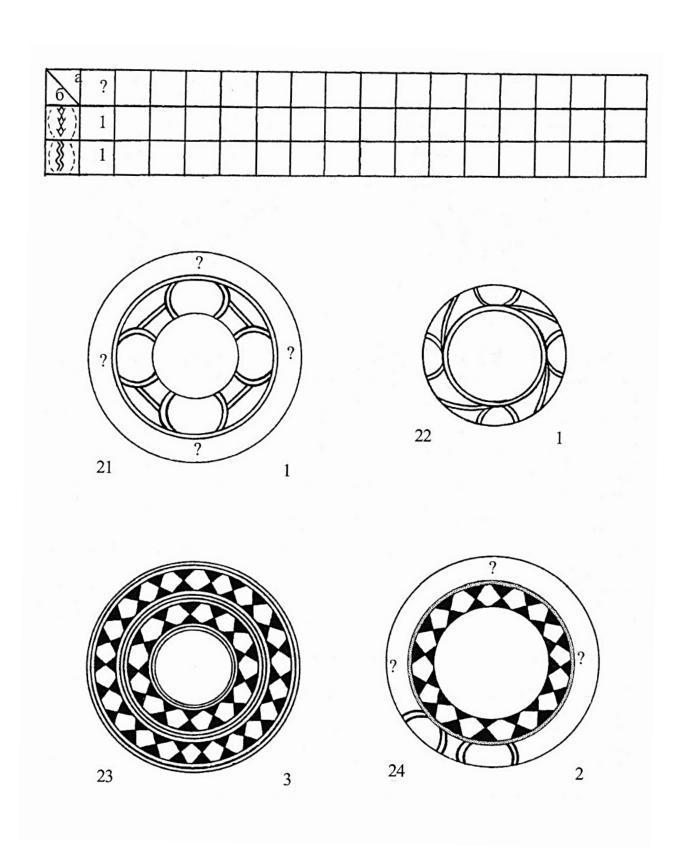


Figure 269: Zhvanets. Top view orthographic projections on vessels and signs.

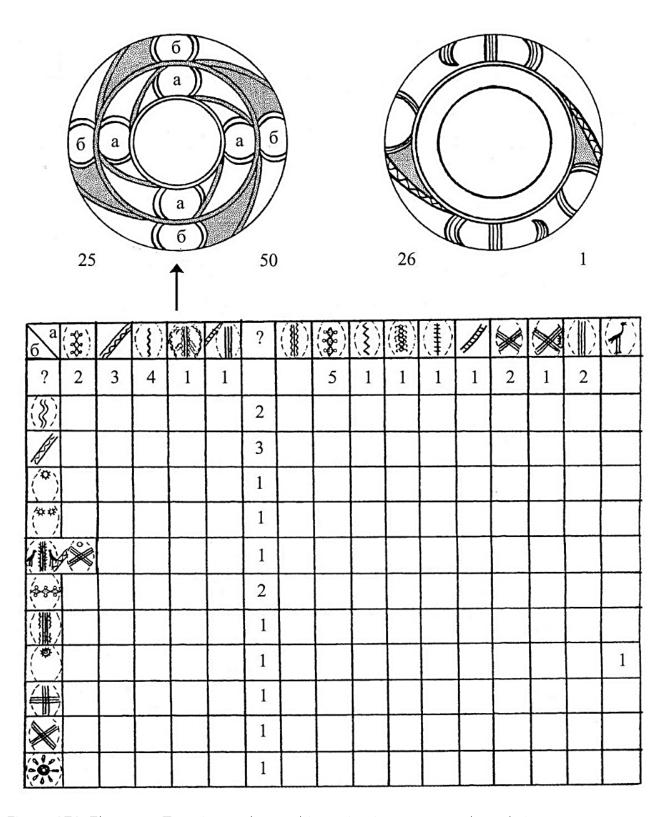


Figure 270: Zhvanets. Top view orthographic projections on vessels and signs.

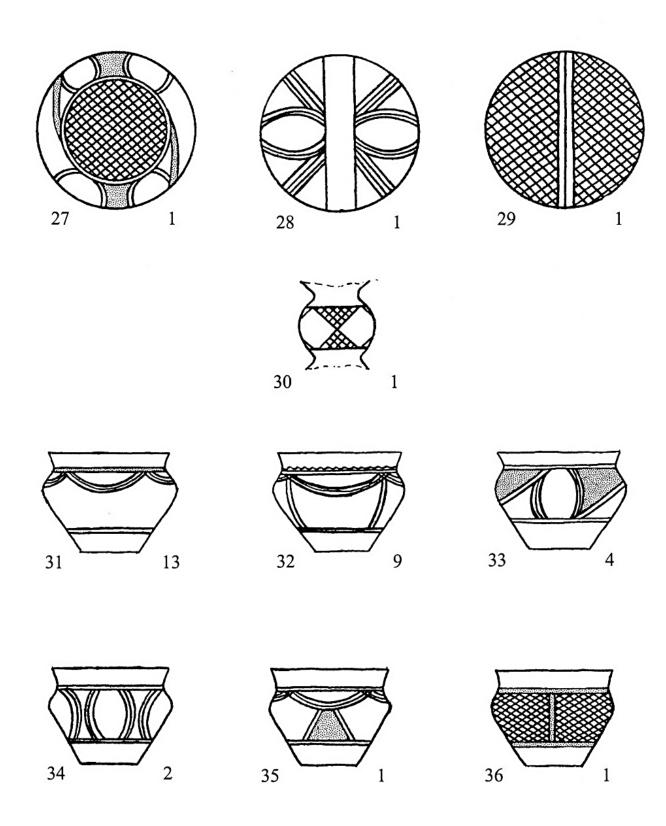


Figure 271: Zhvanets. Projections on vessels.

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Table 67: Zhvanets. Signs on vessels. Schemes are unknown.

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Table 68: Zhvanets. Catalogue of signs on vessels.

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Table 69: Zhvanets. Catalogue of signs on vessels.

# The sign system of Ofatinți

### Stage γI. Ofatinți (Rybnytsia district, Republic of Moldova).

The analysis involved 75 vessels published by V. O. Dergachev (Dergachev VA - 1978), I. V. Manzura and O. V. Subotin (Manzura IV, Subbotin AV - 1989).

### Schemes of paintings and signs on the vessels from the Ofatinți cemetery.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

- 1-6 cut-spherical bowls.
- 7 schemes "owl face" on round vessels.
- 8, 10-12, 18-21, 23, round vessels.
- 9 rounded vessel with handles on the crown.
- 13, 16, 17, 22 vessels with a swollen body and high cylindrical necks.
- 14, 15 lids.
- 24, 25 pots.

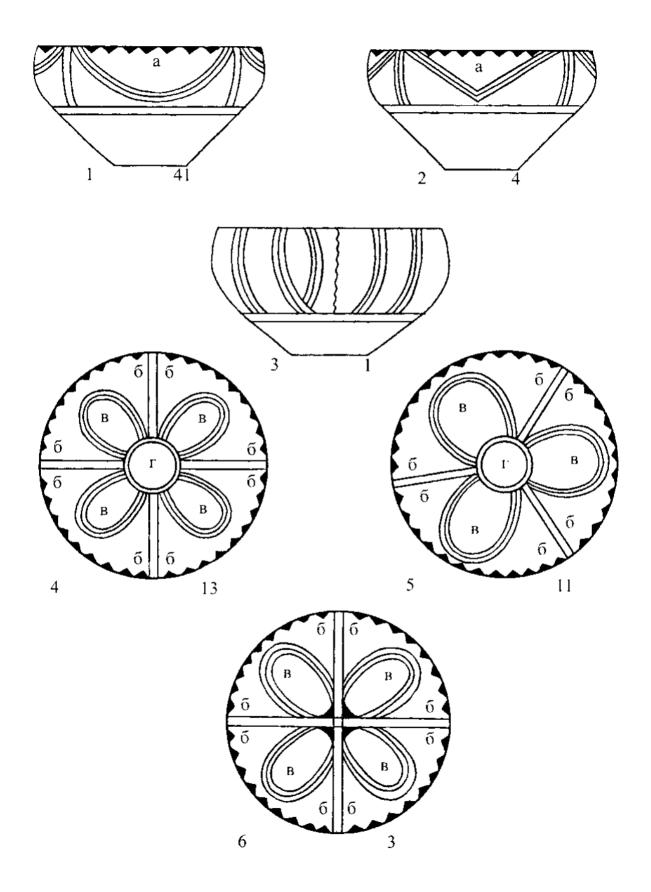


Figure 272: Ofatinți. Top and lateral view orthographic projections on vessels.

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Table 70: Ofatinți. Signs on vessels.

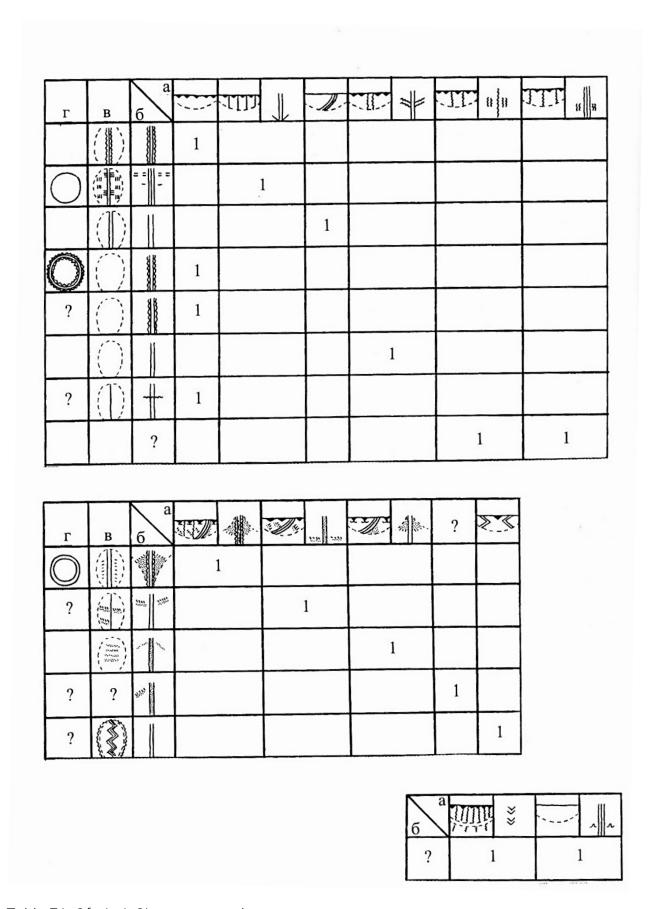


Table 71: Ofatinți. Signs on vessels.

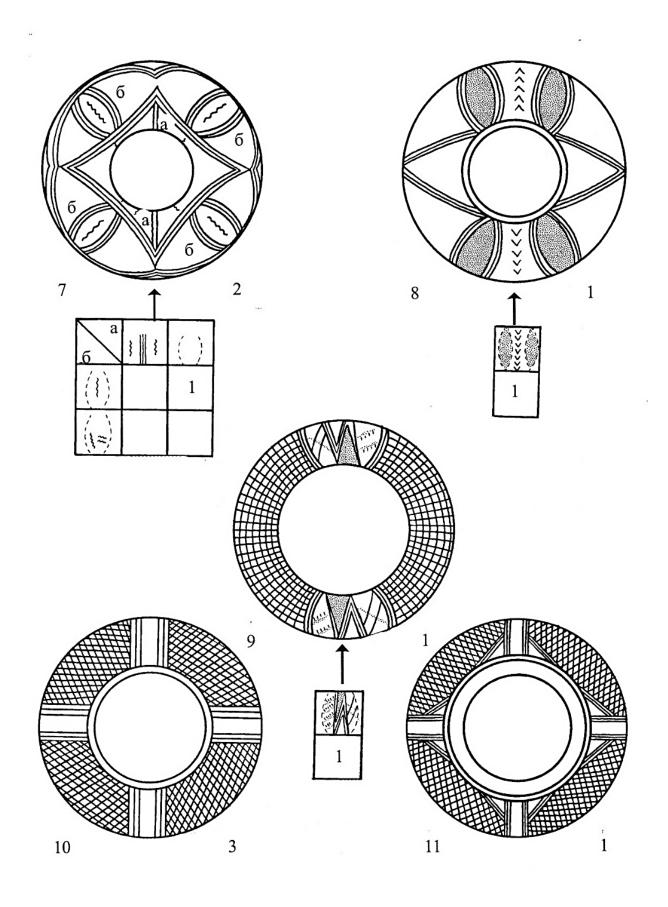


Figure 273: Ofatinți. Top and lateral orthographic projections on vessels.

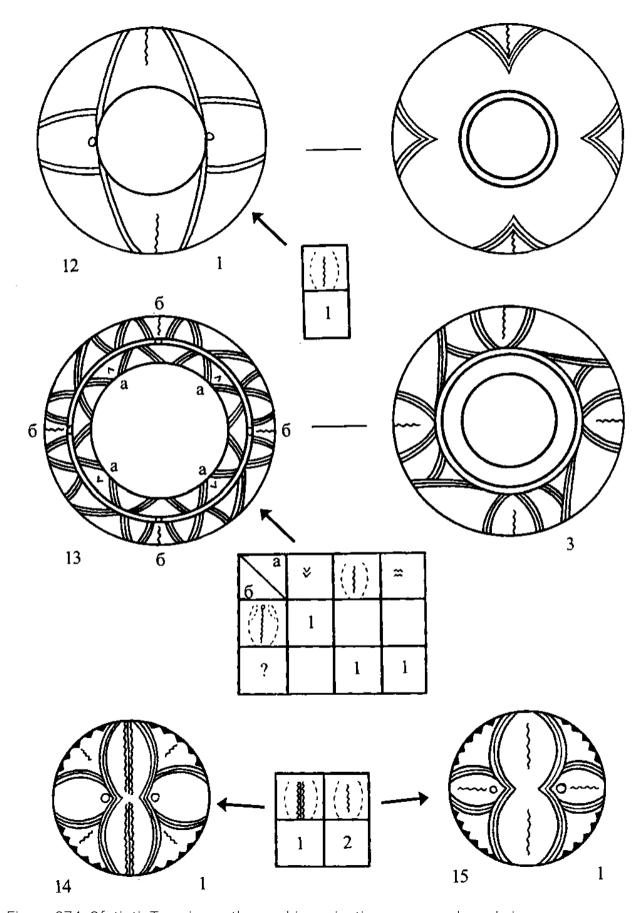


Figure 274: Ofatinți. Top view orthographic projections on vessels and signs.

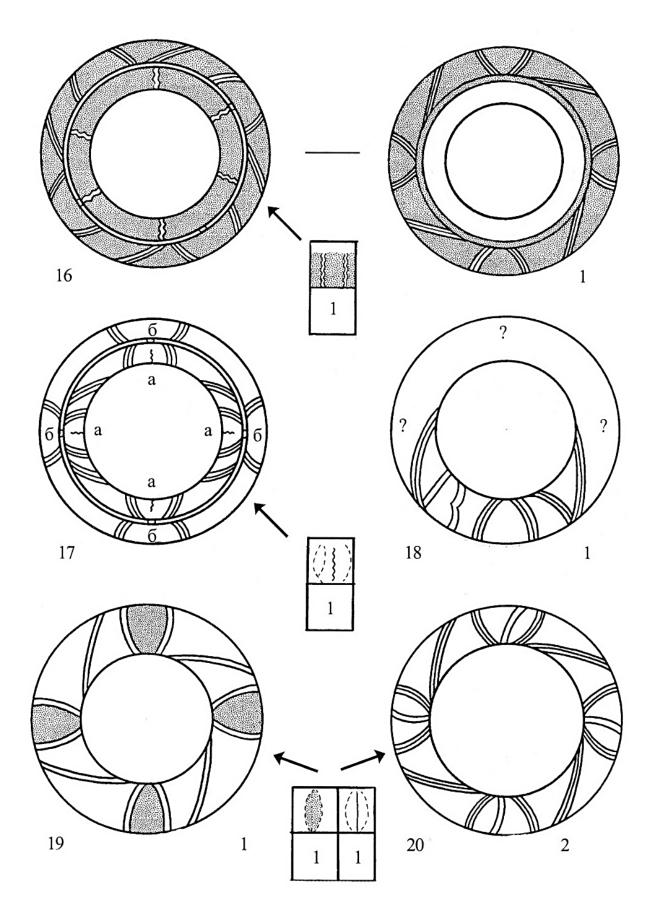


Figure 275: Ofatinți. Top view orthographic projections on vessels and signs.

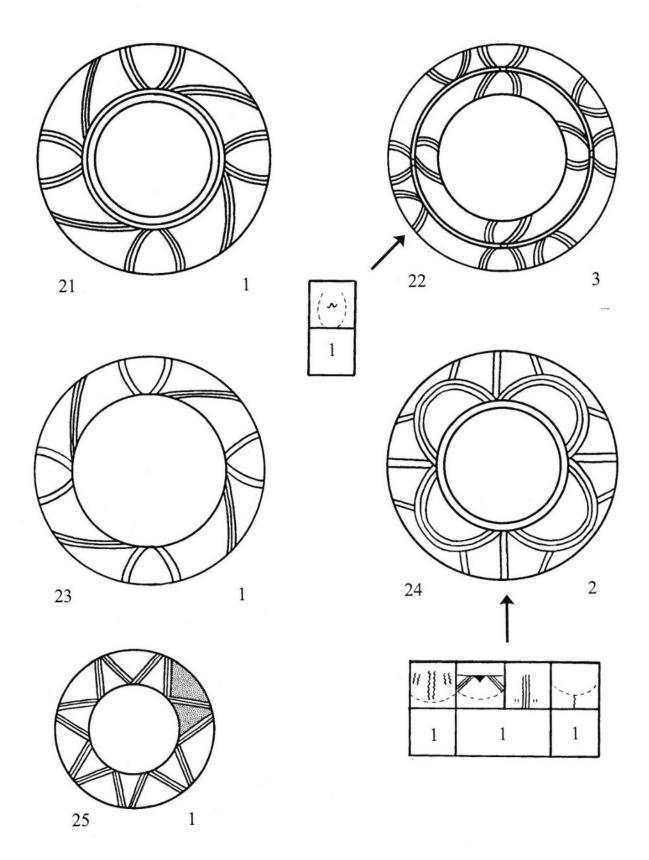


Figure 276: Ofatinți. Top view orthographic projections on vessels and signs.

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Table 72: Ofatinți. Catalogue of signs on vessels.

# Usatove sign system

### Stage γII. Usatove (Odessa region, Bilyaevsky district).

The analysis involved 27 units of utensils published by V. O. Dergachev and I. V. Manzura (Dergachev, V. A., Manzura I. V. - 1991).

### Schemes of paintings and signs on the vessels from Usatove mound cemeteries.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the cookware involved in the analysis.

- 1-4 schemes of a painting of cut-spherical bowls.
- 5, 6 schemes of paintings "owl face" round vessels.
- 7-12 scheme of paintings on a vessel with a swollen torso and a high cylindrical neck.
- 13, 14 schemes of painting pots.
- 15, 16 schemes of painting lids.

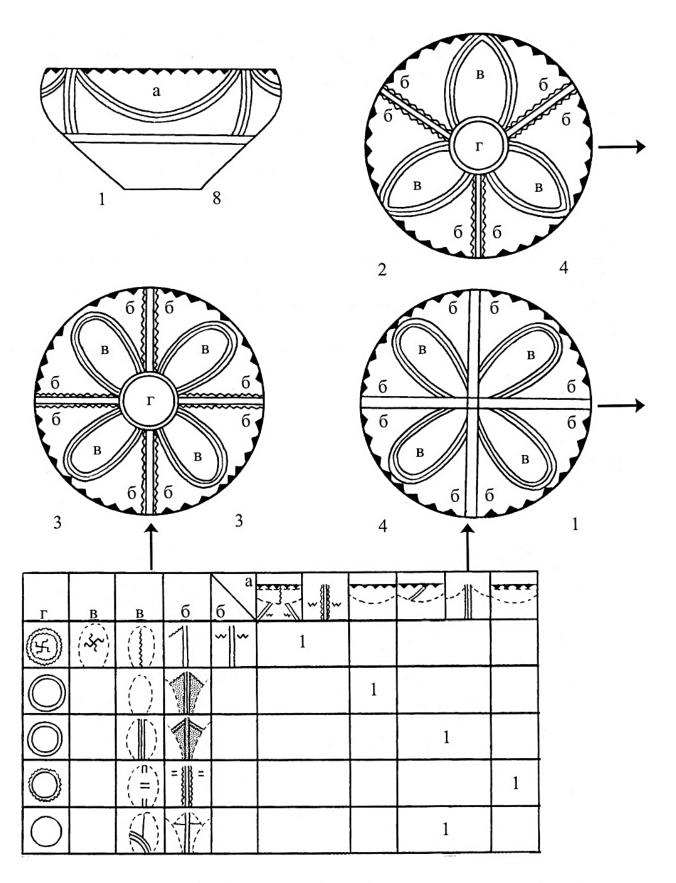


Figure 277: Usatove. Lateral and top view orthographic projections on vessels and signs.

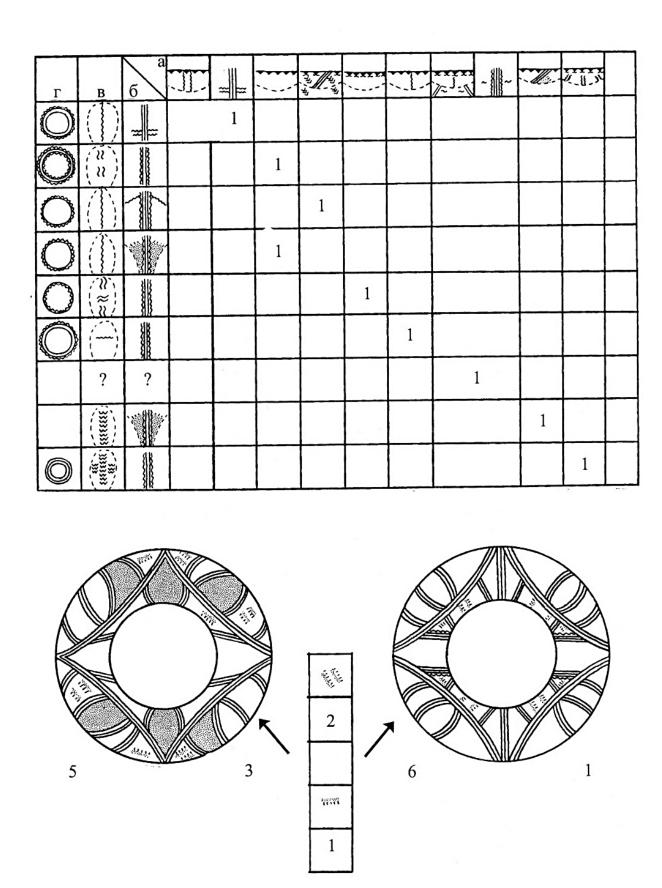


Figure 278: Usatove. Lateral and top view orthographic projections on vessels and signs.

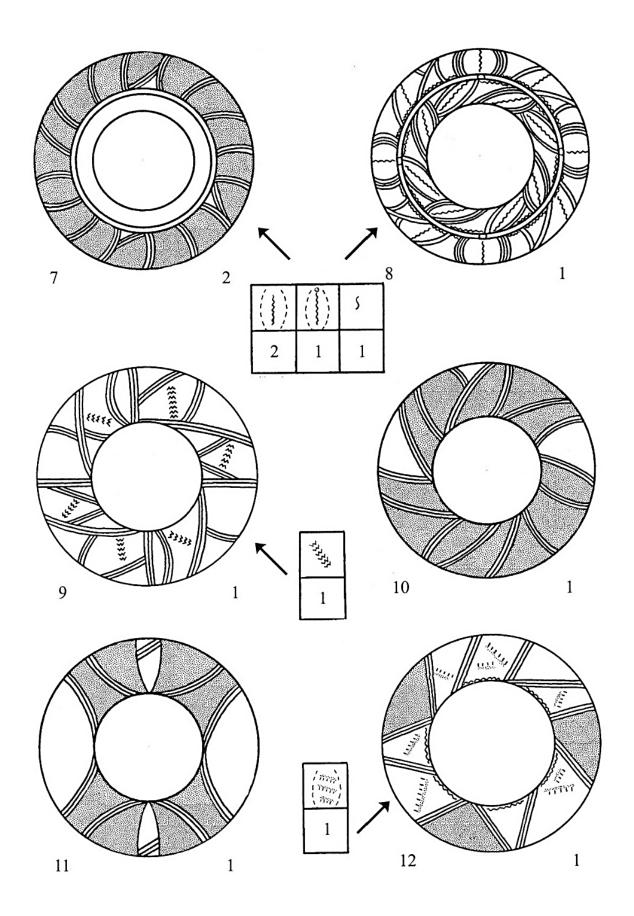


Figure 279: Usatove. Top view orthographic projections on vessels and signs.

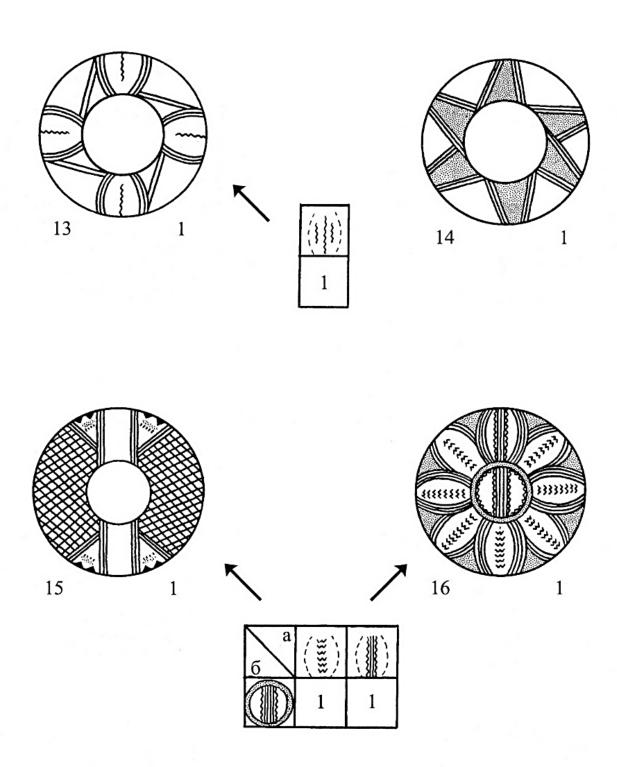


Figure 280: Usatove. Top view orthographic projections on vessels and signs.

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Table 73: Usatove. Catalogue of signs on vessels.

## Maiaky sign system

## Stage $\gamma$ II Maiaky (Odessa region, Bilyaevsky district).

10 vessels published by V. G. Petrenko (VG Petrenko - 1989) were involved in the analysis.

## Schemes of paintings and signs on the vessels from the cemetery Maiaky.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the cookware involved in the analysis.

- 1-4 schemes of paintings on cut-spherical bowls.
- 5 scheme of painting round vessels.
- 6 a diagram of a painting of a round-bodied vessel covered with lids.
- 7 the scheme of a list of a vessel with the inflated trunk and a high cylindrical neck.
- 8 scheme of painting the pot.

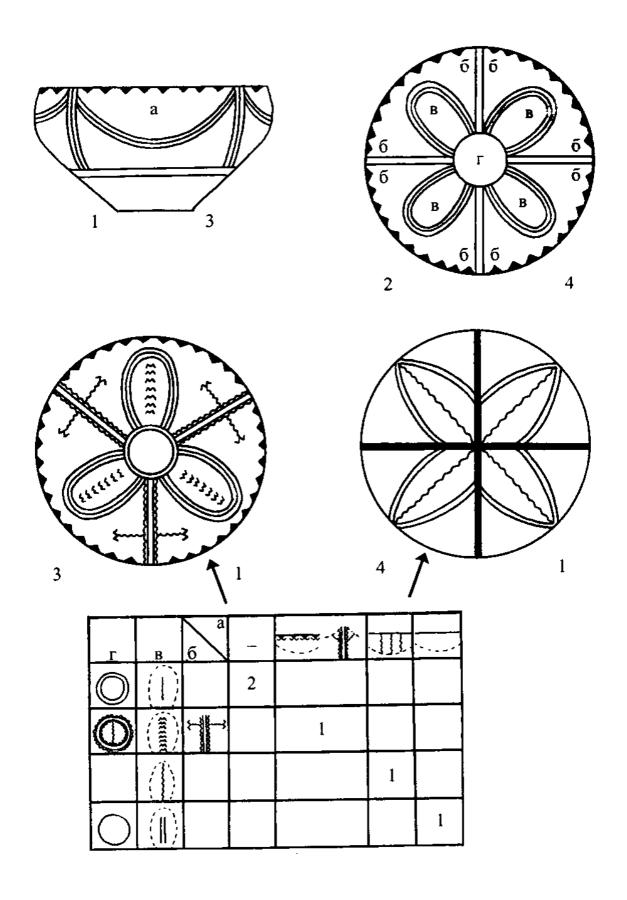


Figure 281: Maiaky. Lateral and top view orthographic projection on vessels and signs.

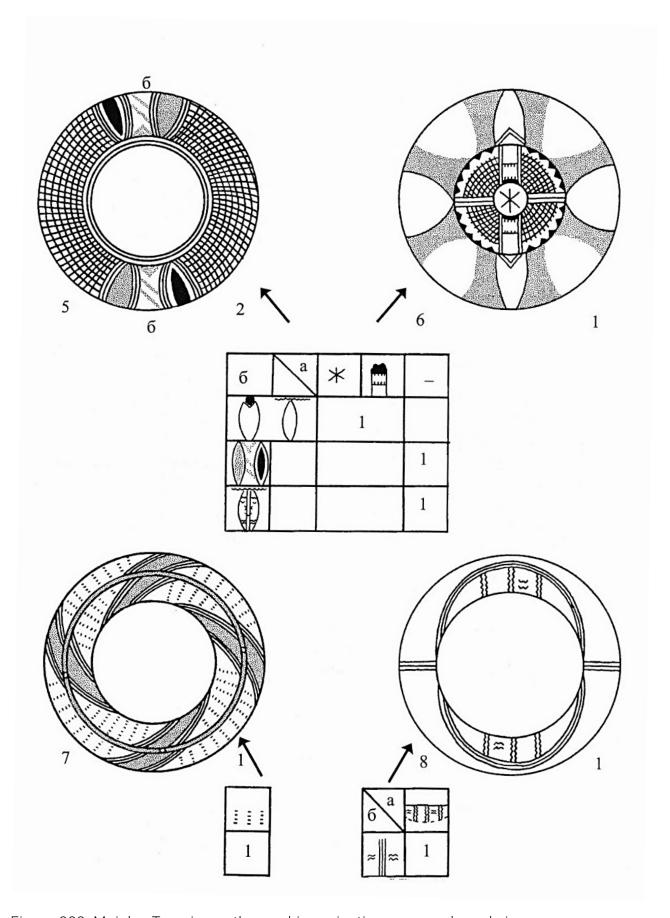


Figure 282: Maiaky. Top view orthographic projection on vessels and signs.

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Table 74: Maiaky. Catalogue of signs on vessels.

## Sign system of painted utensils from burial mounds of the Usatove type

## Stage $\gamma$ II. Burial mounds of the Usatove type.

The analysis involved 35 vessels published by V. O. Dergachev and I. V. Manzura (Dergachev V. A., Manzura I. V. (1991) and S. V. Yarovoy (1990).

#### Schemes of paintings and signs on utensils from burials of the Usatove culture.

The digits to the left of the diagrams are the serial number.

The numbers on the right are the number of such diagrams on the utensils involved in the analysis.

1-3 - schemes of paintings on cut-spherical bowls.

4-15, 17-20, 22 - schemes of paintings on round-bodied ware.

16 is a diagram of a painting of a vessel with a swollen body and a high cylindrical neck.

21 - schemes of painting on the pot.

23-29 - scheme of paintings on the lids.

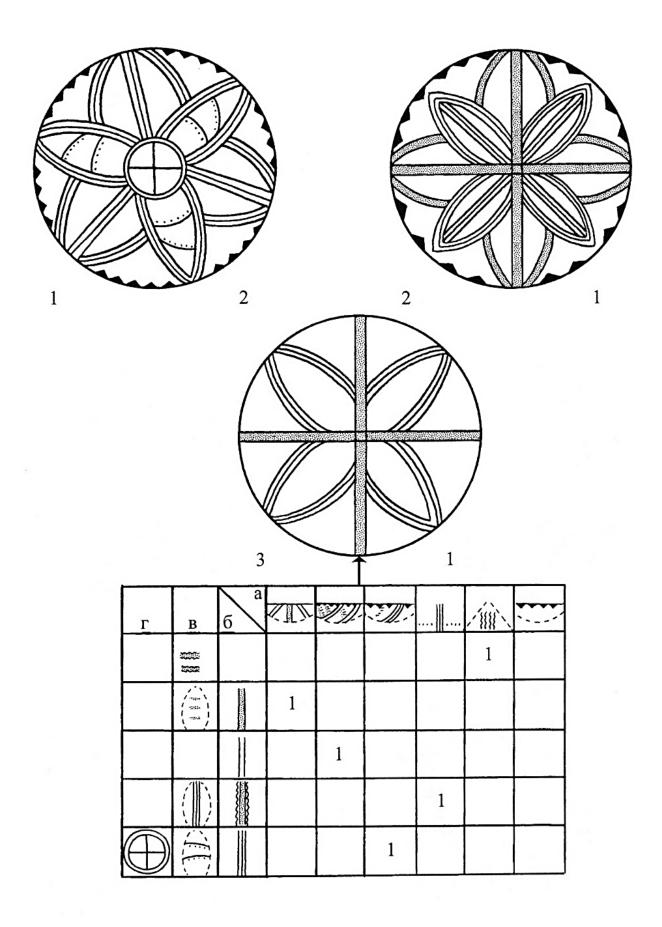


Figure 283: Burial mounds of Usatove type. Top view orthographic projections on vessels and signs.

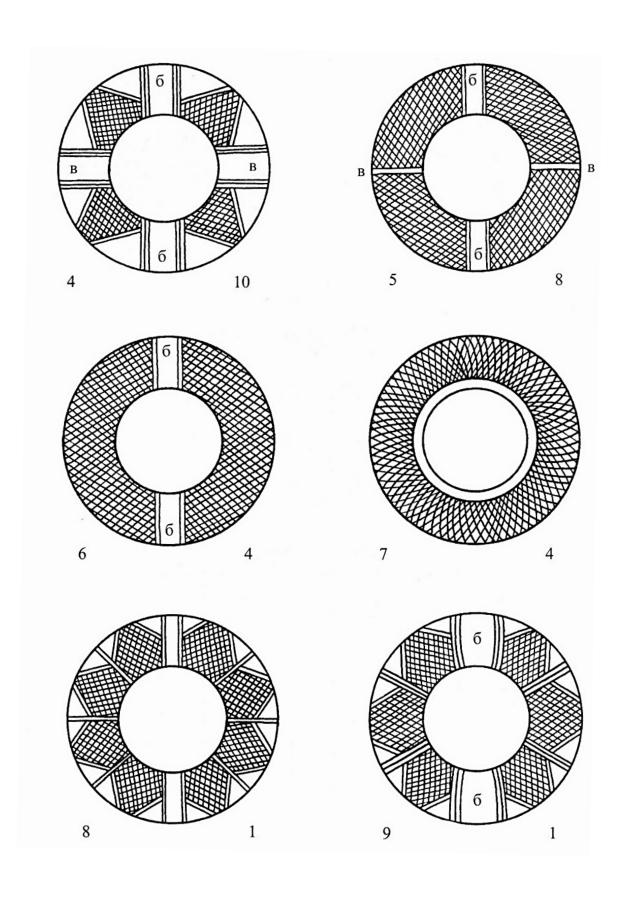


Figure 284: Burial mounds of Usatove type. Top view orthographic projections on vessels.

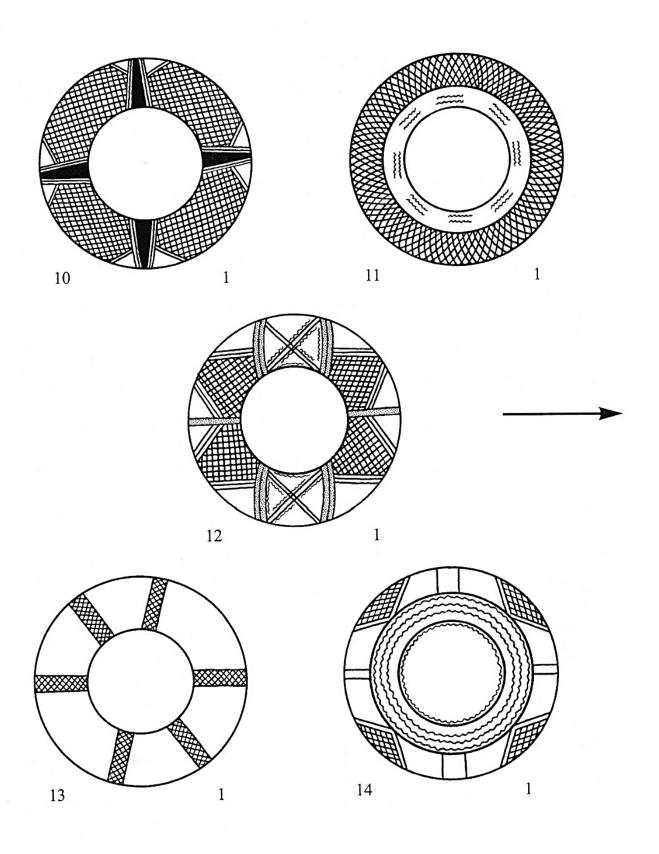


Figure 285: Burial mounds of Usatove type. Top view orthographic projections on vessels.

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Table 75: Burial mounds of Usatove type. Signs on vessels.

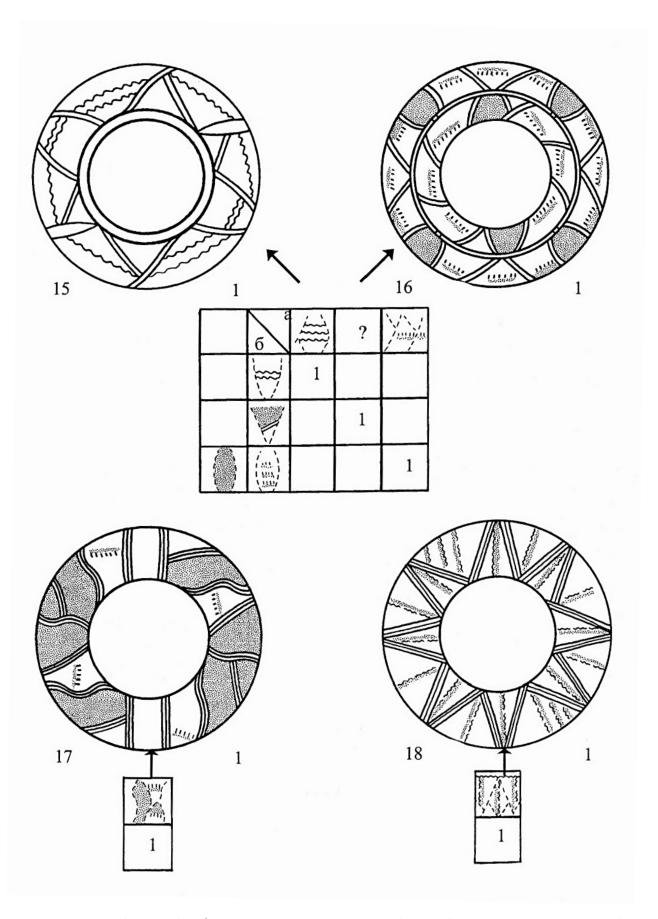


Figure 286: Burial mounds of Usatove type. Top view orthographic projections on vessels and signs.

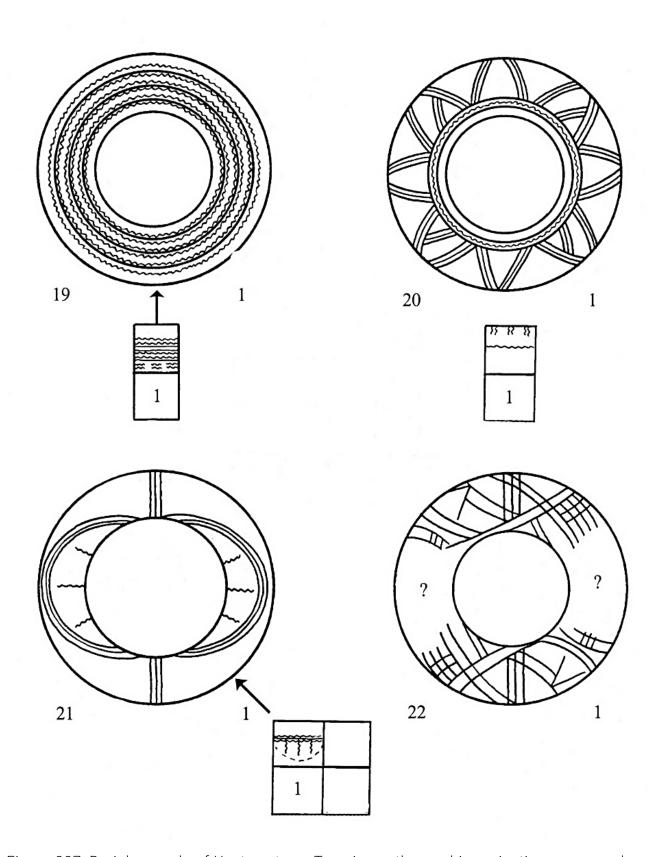


Figure 287: Burial mounds of Usatove type. Top view orthographic projections on vessels and signs.

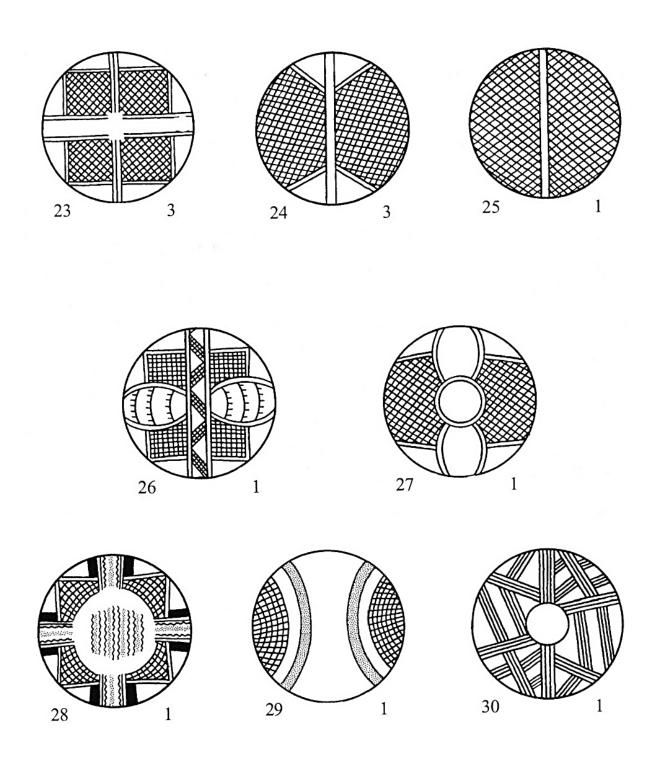


Figure 288: Burial mounds of Usatove type. Top view orthographic projections on vessels.

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Table 76: Burial mounds of Usatove type. Catalogue of signs on vessels

## Stina I sign system

#### Stage CII. Stina I (Gordinești layer).

The work uses pottery from excavations of the settlement by expeditions led by M. L. Makarevich in 1958-1959. 17 vessels were involved in the analysis. The condition of the material is satisfactory. The vessels are highly fragmented.

The collection is stored in the funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, Kyiv.

## Schemes of paintings and signs on the vessels of the settlement Stina I.

The digits to the left of the diagrams are the serial number.

Figures on the right - the number of such schemes on the vessels involved in the analysis.

- 1, 2 truncated-conical bowl.
- 3-6 round vessels.
- 7-9 lids.

## Hrynchuk sign system

Schemes of paintings and signs on the vessels of the settlement Hrynchuk.

- 1-2 cut-spherical bowls.
- 3 pot.
- 4 lid.

## Babshin sign system

Schemes of paintings and signs on the vessels of the settlement Babshin

1 - large piphos-shaped vessel.

## Zhvanets II sign system

Stage CII. Zhvanets (Gordinești layer)

The work uses ceramics originating from the excavations of the settlement by expeditions led by T. G. Movsha. 15 vessels were involved in the analysis. The condition of the material is satisfactory. The vessels are highly fragmented.

The collection is stored in the funds of the National Museum of History of Ukraine, Kyiv.

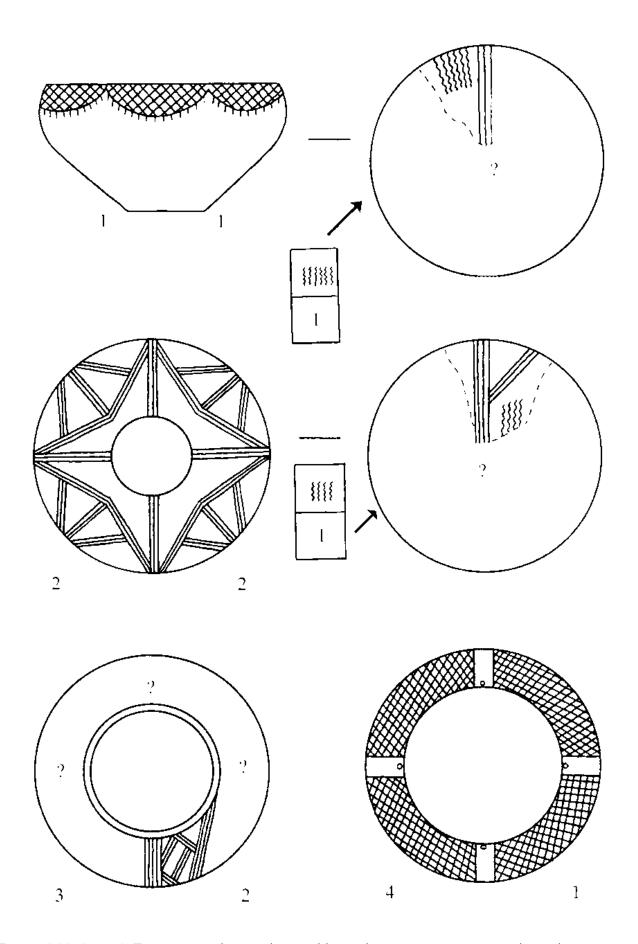


Figure 289: Stina I. Top view orthographic and lateral projections on vessels and signs.

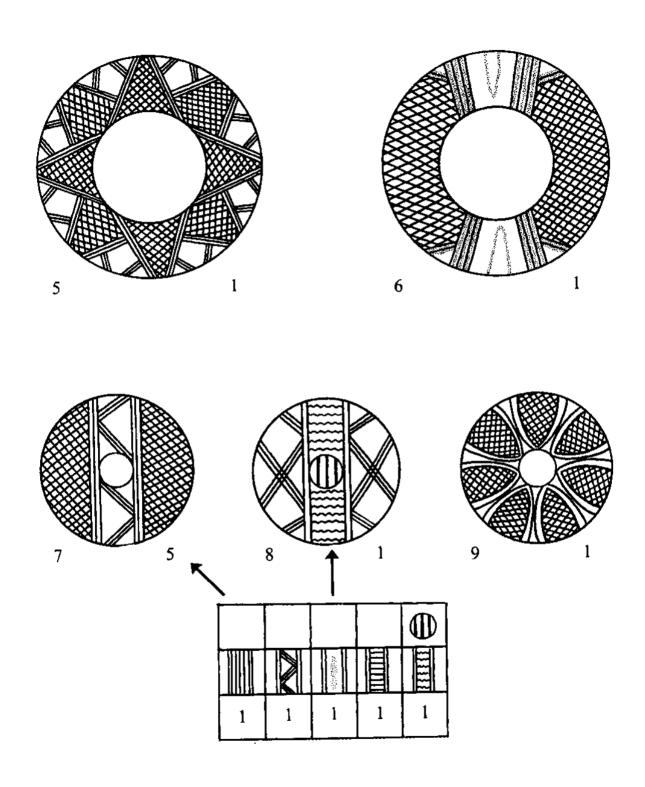


Figure 290: Stina I. Top view orthographic projections on vessels and signs.

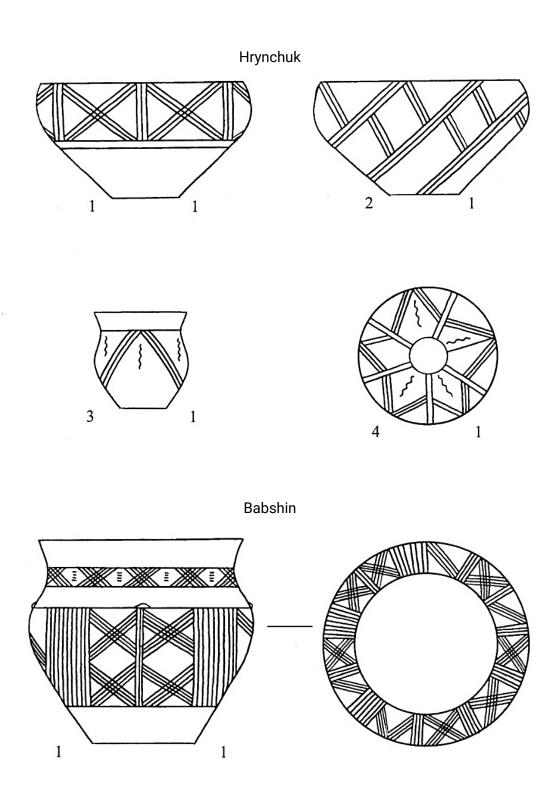


Figure 291: Hrynchuk, Babshin. Top view orthographic and lateral projections on vessels.

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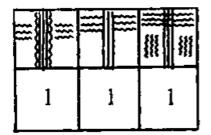






Table 77: Zhvanets (Gordinești layer). Signs and vessels. Schemes are unknown.

Catalogue of signs on vessels of the settlements of Gordinești group (Stina I, Hrynchuk, Babshin, Zhvanets)

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Table 78: Settlements of the Gordinești (Kasper) group Stina I, Hrynchuk, Babshin, Zhvanets (top view orthographic horizon). Catalogue of signs on vessels.

## **USED LITERATURE**

- 1. Дергачев В. А. Выхватинский могильник. Кишинёв, 1979.
- 2. Дергачев В. А., Манзура И. В. Погребальные комплексы позднего Триполья. -Кишинёв, 1991.
- 3. Манзура И. В., Субботин А. В. Новые раскопки Выхватинского могильника // Археологические исследования в Молдавии в 1984 г. Кишинёв, 1989.
- 4. Петренко В. Г. Новые источники и проблемы изучения Позднего Триполья на западе причерноморских степей // Памятники Трипольской культуры в Северо-Западном Причерноморье. К., 1989.
- 5. Штерн Э. Р. Догреческая культура на юге России // Труды Археологического съезда в Екатеринославе в 1905 г. М., 1906. Т 1.
- 6. Яровой Е. В. Курганы энеолита эпохи бронзы Нижнего Поднестровья. Кишинёв, 1990.
- 7. Dinu M. Santierul arheologic Valea Lupului // Materiale si cercetari arheologice. 1957. Vol. III-V.
- 8. Gimbutas M. The Gods and Goddesses of Old Europe. London, 1973.
- 9. Hadaczek K. La colonie industrielle de Koszylowce. Album. Lwów, 1914.
- 10. Mataşa C. Asezarea eneolitica Cucuteni B de la Turgu Ocna-Podei (Raionul Turgu Ocna), Reg. Bacau // Archeologia Moldavej. 1964. Vol. II-III.
- 11. Kandyba O. Schipenitz. Kunst und Geräte eines neolithischen Dorfes. Wien-Leipzig, 1937.
- 12. M. Kozłowski L. Zarys pradziejów Polski Południowo-Wchodniej. Lwów, 1939.
- 13. Ossowski G. Sprawozdanie drugie z wycieczki paleoetnołogicznej po Galicji w r. 1890 // Zbiór wiadomośći do antropołogii krajowej. Kraków, 1891. T. XV.
- 14. Ossowski G. Sprawozdanie trzecie z wycieczki pałeoetnołogicznej po Gałicji w r. 1891 // Zbiór wiadomośći do antropołogii krajowej. Kraków, 1892. T. XVI.

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