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HISTORY OF THE CORDED DECORATION TECHNIQUE IN THE RIGHT BANK UKRAINE DURING THE ENEOLITHIC

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ABSTRACT

Since many scholars (M. Gimbutas, D. Telehin, T. Movsha and others) considered the corded pottery decoration as a feature of the so-called pra-Indo-European cultural complex, the history of its diffusion is one of the key problems of the Eastern European past of the 5th–4th Millennium BC. Nevertheless, despite the question's significance, no comprehensive research would describe the spread of the corded decoration throughout Europe and define which cultures used it first. Fulfilment of this lacune is the *purpose of the research paper*.

The *scholarly novelty* of the paper is such that for the first time, the corded pottery of the thirteen Eneolithic cultures will be analysed within the same text: Seredniy Stih, Dereivka, Moliukhiv Buhor, Rohachyk, Serezliivka, Yamnaya, Lukashivka, Sofiivka, Horodsk-Volhynia, Gordinești, Kasperivtsi and Usatovo. The main method of the paper is typological. Also, when it is possible, we use the methods of descriptive statistics.

Conclusions. As a result of the conducted analysis, researchers concluded that classical corded decoration appears within the environment of the Trypillia and so-called 'steppe' cultures almost simultaneously – at the beginning of the 4th Millennium BC. Further, the corded decoration became widespread within the Trypillia culture, where it is documented on the pottery of every late Trypillian local variant, while for the 'steppe' cultures, the corded decoration remains marginal. Based on this, the researchers claim that the appearance of cord decoration in the steppe is a sign of Trypillian influences and not the other way around – an influence on Trypillia from the side of the steppe. In addition, the authors believe that the few finds of dishes decorated with cord impressions in the environment of the Serezliivka culture are an additional argument in favour of the formation of the latter based on the Trypillia culture.

Keywords: cord, pottery, Trypillia culture, Serezliivka culture, Yamnaya culture, Dereivka culture

ІСТОРІЯ ПОШИРЕННЯ ШНУРОВОЇ ТЕХНІКИ ДЕКОРУВАННЯ ПОСУДУ НА ПРАВОБЕРЕЖНІЙ УКРАЇНІ ЗА ДОБИ ЕНЕОЛІТУ

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АНОТАЦІЯ

Історія поширення шнурової техніки декорування керамічного посуду є одним із ключових питань східноєвропейського минулого 5-4 тис. до н.е. оскільки на думку багатьох дослідників (М. Гімбутас, Д. Телегін, Т. Мовша й ін.) шнуровий декор є однією з діагностичних ознак культурного комплексу праїндоевропейських народів за яким можна прослідкувати їхнє розселення світом. Втім, незважаючи на значущість питання, вичерпного дослідження, яке б сукупно описало поширення шнурової декоративної техніки в різних культурах і з'ясувало населення якої культури застосувало шнурову техніку вперше – не існує. Заповнити цю лакуну і є **метою даної статті**.

Наукова новизна статті полягає в тому, що вперше у межах єдиної роботи буде описано та проаналізовано кераміку, прикрашену відтисками шнура, тринадцяти енеолітичних культур і культурних груп: середньостогівської, дереївської, молюхівбугорської, рогачицької, серезліївської, ямної, лукашівської, софіївської, городсько-волинської, Гордінешти, касперівської та усатівської.

Головним методом дослідження є типологічний. Також, за можливості, автор застосовував методи описової статистики.

Висновки. У результаті проведеного аналізу дослідники дійшли висновку, що класичний шнуровий декор з'являється у середовищі трипільської та «степових» культурах приблизно одночасно – на початку 4 тис. до н.е. У подальшому, шнурова техніка декорування набуває більшого поширення в середовищі трипільської культури, де зафіксована на кераміці кожного з відомих пізньотрипільських локальних варіантів, у той час як для «степових» культур відтиски шнура є маргінальним способом оздоблення поверхні посуду. На підставі цього дослідники стверджують, що поява шнурового декору в степу є ознакою трипільських впливів, а не навпаки – впливу зі сторони степу на Трипілля. Окрім цього, вчені вважають, що нечисельні знахідки посуду, прикрашеного відтисками шнура, в середовищі серезліївської культури є додатковим аргументом на користь формування останньої на основі трипільської.

Ключові слова: шнур, кераміка, трипільська культура, серезліївська культура, ямна культура, дереївська культура

INTRODUCTION

A distinctive feature of the eastern-European pottery of the second half of the 4th Millennium BC, which enables tracking the dynamics of contacts between the population of different cultural groups, is the corded decorative technic. According to classical beliefs, corded decoration appears for the first time within the cultural environment of the so-called 'pra-Indo-European' cultures – Seredniy Stih, Lower Mykhailivka, Yamnaya and Corded ware, while its spread is interpreted as a manifestation of Indo-European resettlement through the world. For example, D. Telehin believed that the oldest corded decoration of Eastern Europe appears in pottery workshops of sites Oleksandria and Dereivka of the Seredniy Stih culture

from where it is diffused towards the environment of the Trypillia culture¹. A similar concept was supported by T. Movsha, who, judging by the findings of the Trypillia corded pottery, wrote about the direct intrusion of the Yamnaya culture people into the environment of the Trypillia culture². The corded pottery decoration of the Globular Amphora culture as a prove of its genesis based on the Lower Mykhailivka culture is interpreted by M. Gimbutas³.

At the beginning of 2010th, such an interpretation of the direction of cultural influences changed when the fifteens issue of the *Baltic-Pontic Studies* journal named 'Cord' Ornaments on Pottery in the Vistula and Dnieper Interfluvial Region: 5th – 4th mill. BC⁴ was published. After examining the pottery sherds of the Dereivka, Usatovo and Yamnaya cultures issue's authors M. Videiko, N. Burdo, and N. Kotova spoke about the possibility of the corded decoration invention within the environment of the Trypillia culture.

To better understand the problem of the origin of the cord ornament, we propose to study in more detail than before the peculiarities of its distribution in different cultures and to compare different cord compositions with each other.

CORDED DECORATION OF THE 'STEPPE' CULTURES OF THE EARLY AND MIDDLE ENEOLITHIC

Among the archaeological sites of the Ukrainian steppe, corded decoration is first recorded on the pottery of the second period of the Seredniy Stih culture, which is dated by 4600-4500 BC and is represented by the so-called 'caterpillar': imprints of a cord, twisted around some base – a stick of another cord. Semantically, 'caterpillar' is close connected with the comb decoration, which is indicated by their visual similarity as well as the similarity of ornamental compositions. According to the frequency of appearance, the oldest 'caterpillar' ornament is a rare phenomenon, recorded on an extremely small number of fragments of ancient ceramics. In fact, of 14 reconstructed vessels found in the upper layer of the settlement *Semenivka 1*, only two–three were decorated with a 'caterpillar'. A little more frequent 'caterpillar' is recorded on the pottery of the sites of the third period of Seredniy Stih culture (4350/4300–4200 BC) – sites *Seredniy Stih* (7 of 45 vessels), *Strilcha Skelia* (3 of 19 vessels) and *Kodachok island* (1 of 8 vessels)⁵.

Characterization of the 'caterpillar' and cord decoration of monuments of the Dereivka culture (4200-3800 BC) is a more complicated matter, because due to the mixing of part of the cultural layers of the Dereivka settlements with materials from later times, it is difficult to accurately separate the Middle Eneolithic 'cord' ceramics from the 'cord' ceramics of the Early Bronze Age, which in turn can lead to an overestimation of the share of dishes with cord decoration in the ceramic collection lenience. An example of such an exaggeration is D. Telehin's early calculations, according to which in the cultural layer of the Dereivka settlement, 9% of the reconstructed vessels were decorated with 'classical' cord impressions and 0.5% with

¹ Телегін Д. Середньостогівська культура епохи міді. Київ: Наукова думка, 1973. С. 153.

² Мовша Т. Пізньотрипільське житло-майстерня в с. Цвіклівці // Археологія. 1970. № 23. С. 129-141.

³ Gimbutas M. The Indo-Europeanization of Europe: The intrusion of steppe pastoralists from south Russia and the transformation of Old Europe // Word. 1993. № 44 (2). С. 213.

⁴ Koško A., Szmyt M. (Eds.). 'Cord' Ornaments on Pottery in the Vistula and Dnieper Interfluvial Region: 5th – 4th mill. BC. Poznan. 2010.

⁵ Kotova N.S. The First 'Cord' Ceramics Ornamentation of Eneolithic Steppe and Neolithic Forest-Steppe Cultures // Baltic-Pontic Studies. 2010. № 15. С. 78.

‘caterpillar’⁶. Later calculations by N. Kotova showed that the true common share of reconstructed vessels decorated with ‘classic’ impressions of cord and ‘caterpillar’ is half as much and is 5.6%⁷. In addition, estimates of the pieces of ‘corded’ ware from the settlement of *Oleksandria* are overestimated, among the materials of which D. Telehin counted 664 fragments of ‘class A’ ceramics, among which 5.1% were decorated with a ‘caterpillar’ and 1.7% were decorated with a classical cord. N. Kotova, on the other hand, believes that only 20 pots, a bowl, and 11 rim fragments can be associated with the Dereivka culture, of which only one wall and one rim are decorated with an imprint of a twisted cord⁸. More representative are the materials of the *Moliukhiv Buhor* settlement (3950-3700 and 3650-3550/3500 BC), which currently number more than 31,376 pottery fragments, of which, according to T. Neradenko’s calculations, 66% of the decorated fragments were adorned with ‘caterpillar’ and 35% of the decorated fragments were adorned ‘classic’ cord. In 9% of cases, cord prints are combined with other decorative techniques⁹, which indicates the harmonious inclusion of cord decoration in existing decorative schemes. Ornamental compositions of Moliukhiv Buhor are represented by horizontal lines, single and double zigzags, parquet, net, brackets and loops. The imprints of the rope in the form of closed triangles and rhombuses are interesting and unique (fig. 1).

Among other Dereivka artefacts related to cord decoration, two vessels from the burial site of *Igren*, also known for discovering a painted table cup belonging to the Nebelivka group of Trypillia BII are worth mentioning¹⁰.

Simultaneously with the population of the Dereivka culture, the potters of the *Lower Mykhailivka* culture developed their own tradition of cord decoration. In particular, cord decoration was recorded on 7 out of 50 vessels of the Mykhailivka I settlement, of which three were decorated with short impressions of braided cord and 4 with ‘classic’ cord impressions¹¹.

LATE ENEOLITHIC KITCHEN POTTERY OF THE MYKHAILIVKA II SETTLEMENT AND SITES OF THE REPIN TYPE

For the Mykhailivka II settlement, cord decoration is typical, although the researchers have yet to count how many of the 10,000 fragments found in the cultural layer of the monument are decorated with cord imprints. For pots of the egg-shaped type moulded from ceramic dough with admixtures of sand, crushed shells, and limestone, horizontal compositions formed by rows of large cord imprints that encircle the neck and sides of the vessel are more characteristic. Sometimes, the impressions of the rope are located diagonally, hanging from the edge of the crown, and in some cases, they can even go to the inner edge of the crown. Cord compositions in the form of a grid and triangles are rare¹².

⁶ Телегін Д. Середньостогівська культура епохи міді... С. 92.

⁷ Котова Н.С. Шнуровая орнаментация керамики степных культур эпохи раннего и среднего энеолита // Матеріали та Дослідження з Археології Східної України. 2009. №9. С. 14.

⁸ Ibid. С. 22.

⁹ Нераденко Т. Молюхів Бугор. Черкаси: Видавець Чабаненко Ю.А., 2017. С. 202-203.

¹⁰ Рассамкін Ю. Могильники Ігрен (Огрін) 8 та Олександрія доби енеоліту: Проблеми датування та культурної приналежності // Археологія. 2017. № 4. С. 26-48.

¹¹ Котова Н.С. Шнуровая орнаментация керамики степных культур... С. 27.

¹² Коробкова Г.Ф., Рысин Б.Н., Шапошникова О.Г. Проблемы изучения древнеямной культурной общности в свете исследования Михайловского поселения // Stratum Plus. 2009. № 2. С. 43.

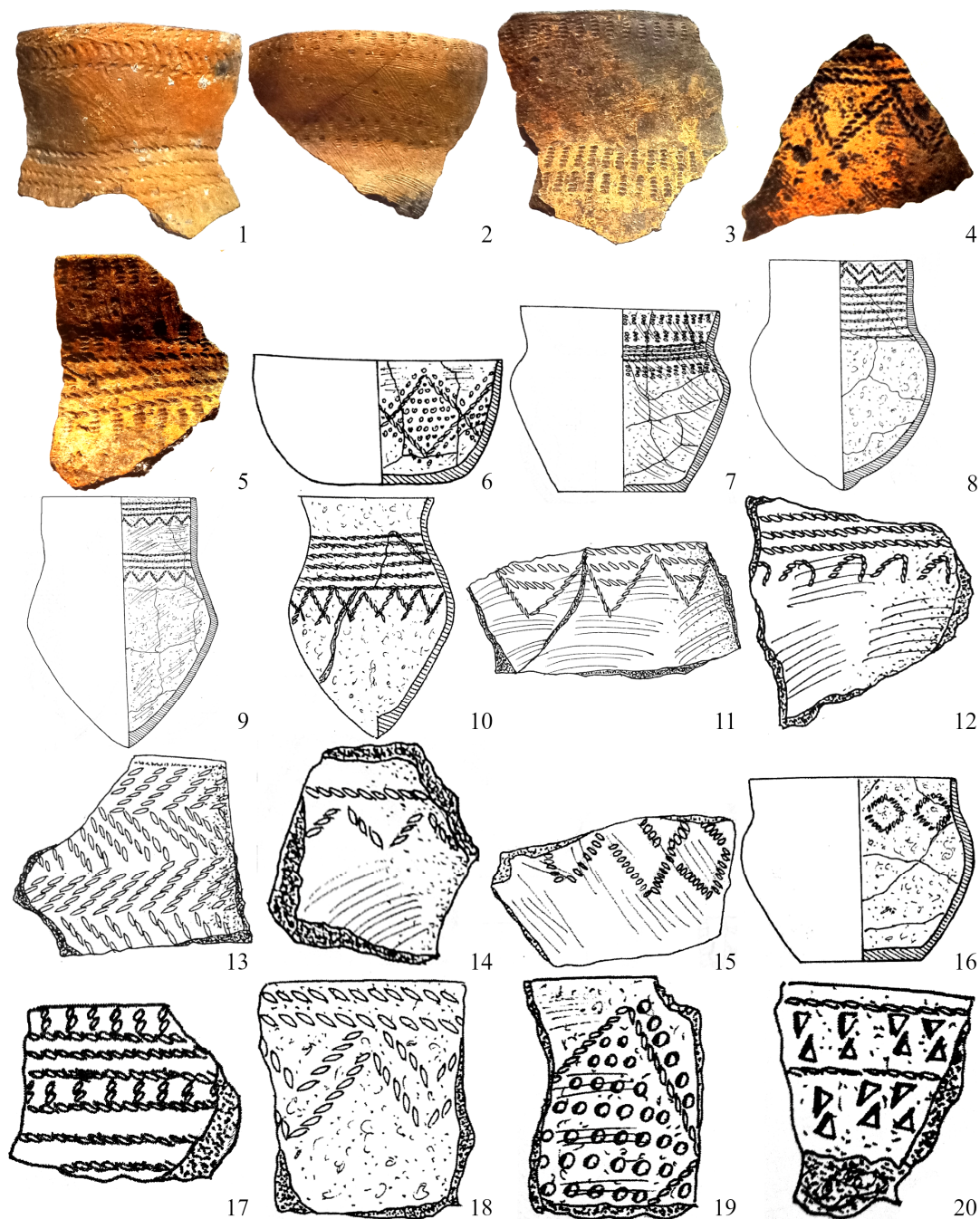


Fig. 1. Examples of the cord-decorated pottery found within the cultural layer of the site Moliukhiv Buhor (after Нераденко 2017, compiled by author)

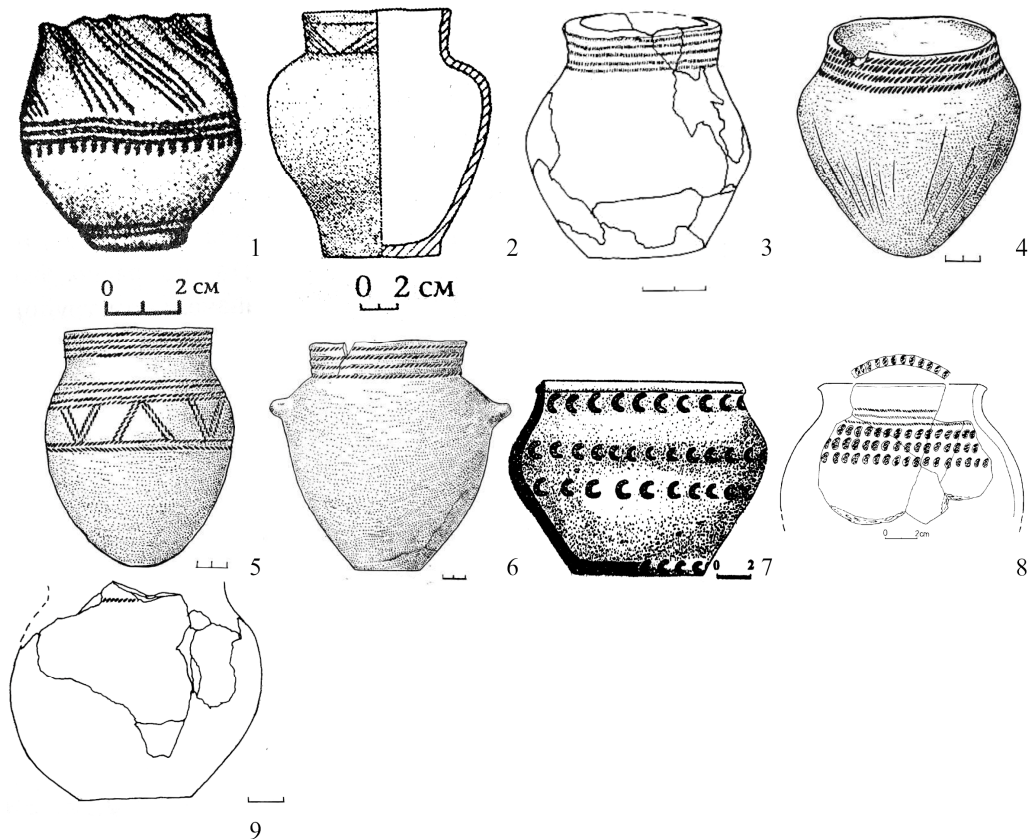


Fig. 2. Kitchen pottery of the Buh-Dnieper interfluve decorated with the cord imprints.

- 1 – Kalynivka, kurgan group II, kurgan 4, cromlech 1, burial 8 (after Никитин, 2018);
 2 – Kalynivka, kurgan group II, kurgan 4, cromlech 1, burial 11-11a (after Никитин, 2018);
 3 – Zavadiivski Mohyly 9/10 (after Рассамакін, 2004); 4 – Kovalivka VI, kurgan 4, burial 17
 (after Шапошникова и др. 1986); 5 – Pryvilne kurgan 1 (after Шапошникова и др. 1986);
 6 – Pryvilne, kurgan 1, burial 4 (after Шапошникова и др. 1986); 7 – Kurgan group
 «Blyzniuky», kurgan 5, burial 11 (after Мельник, Стебліна 2012); 8 – Barativka kurgan 1,
 burial 5 (after Rassamakin, 1996); 9 – Kostiantynivka kurgan 8, burial 11
 (after Рассамакін 2004)

The decoration of flat-bottomed pots with an S-shaped profile moulded from ceramic dough with hemlock inclusions is somewhat more complex and is represented by a combination of cord impressions with empty 'pearls'. According to B. Rysin, this type of ware has a foreign origin and is connected with the pottery tradition of agricultural cultures, including Trypillia¹³.

For the third type of pots – bag-shaped with a flat or sharp bottom, the decor in the form of cord impressions is less characteristic and inferior in the frequency of use to notched stamps¹⁴.

Particular attention should be paid to the amphora decorated with cord impressions found near the hearth of dwelling No. 4, which morphologically repeats

¹³ Ibid. C. 45.

¹⁴ Ibid. C. 47.

the shape of amphorae of the Balkan type. Other interesting ceramic artefacts are several fragments of hemispherical bowls with three or four legs, one of which was decorated inside with impressions of a cord. In our opinion, fragments of bowls from the Late Trypillia settlements of Sandraky and Tsviklivtsi, also decorated from the inside with cord impressions, are distant analogies to these finds. Speaking about the dishes of other cultures decorated with the rope impressions found within the Mykhailivka II settlement, it is worth mentioning the observations of L. Spitsyna, according to which fragments of ceramics of the Globular Amphora culture are present among the ceramics of the site¹⁵.

As for Late Eneolithic monuments of the Repin type located in the Volga region, according to A. Syniuk's calculations, at most 1/3 of the total number of dishes were decorated with cord decoration. In particular, among the ceramic collection of the settlement *Repin*, the share of tableware with cord decoration is 30%, while in the collection of the middle layer of the site *Universitetskaya-3*, it is 15%¹⁶.

LATE ENEOLITHIC KITCHEN POTTERY, FOUND WITHIN KURGAN BURIALS OF SEREZLIIVKA CULTURE OF THE BUH-DNIEPER INTERFLUVE

On the surface of the kitchen pottery, found within kurgan burials of Buh-Dnieper interfluve, the corded decoration is documented on 9 of 26 known vessels, two of which – from the burials Barativka 1/5 and Blyzniuky 5/11, are associated with the Usatovo culture. The other one from the burial of Zavadiivski Mohyly 9/10 was found together with the Late Trypillian beaker of Gordinești type and hence is connected with the Trypillia people. The cultural origin of the other two vessels – from the burials of Kalynivka k.gr. II, 4/8 and 4/11-11a, is uncertain since their contour differs from the sharp-bottomed pottery of the Rohachyk type. The other vessel found within the burial Pryvilne 1/4, is v younger than the second half of the 4th Millennium BC and was made during the times of the Yamnaya culture. Thus, as a result, only three vessels can be reliably associated with the conditionally local Eneolithic ceramic tradition – from burials Kovalivka kurgan group VI, kurgan 4, burial 17, Pryvilne kurgan 1 and Kostiantynivka kurgan 8, burial 11. The rest are of foreign origin (fig. 2).

POTTERY OF THE YAMNAYA CULTURE OF THE EARLY BRONZE AGE

During the Early Bronze Age, the cord technique remains the main decorative technique of the prehistoric potters of the 'steppe' cultures, although it changes its appearance. In particular, according to M. Ivanov's calculations, cord impressions can be found on the surface of about 20% of all Yamnaya culture vessels, or on 50% of the decorated ones, while the most common ornamental composition of the Yamnaya culture are rows of triangles, which in the projection from above form the sun, or a star. In addition, zigzags, loops, horizontal and oblique lines, and festoons can sometimes be seen on the surface of Yamnaya culture dishes¹⁷. Additional attention

¹⁵ Spitsyna L. Baden traditions in the Late Eneolithic cultures of the Dnieper-Don // Internationale Archäologie – Studia Honoraria Zwischen Karpaten Und Ägäis. Neolithikum Und Ältere Bronzezeit. 2004. S. 374.

¹⁶ Синюк А.Т. Репинская культура эпохи энеолита – бронзы в бассейне Дона // Советская Археология. 1981. № 4. С. 8-10.

¹⁷ Ivanov M. The proliferation of cord ornamentation during the Eneolithic and the Bronze Age // Археологічні студії: Здобутки та перспективи 2021. Київ: Національний університет «Києво-Могилянська академія», 2021. С. 10-11.

should be paid to the tradition of decorating the surface of the polypodic bowls with cord imprints.

CORD DECORATION OF THE TRYPILLIA CULTURE

In the Trypillian culture, textile imprints preserved on the surface of ceramics are represented by two categories: prints of various mats that potters laid under the bottom of the future vessel and decorative imprints of various cords applied to the vessel's body. Between imprints of both categories, in our opinion, exists a connection. The idea of the decorative use of textile imprints probably originated among the Trypillia potters precisely as a result of long-term observation of technologically determined prints. For 'steppe' ceramics, such an evolution cannot be traced since the sharp-bottomed form of 'steppe' ware, the moulding of which begins with the crown, does not involve the use of fabrics. Judging by the macro- and microscopic examination of prints of Trypillia textiles, vegetative fibres were most often used for its production, while animal fibres are much less common¹⁸.

TRYPILLIA SITES OF THE UPPER AND MIDDLE DNEPER REGION (STAGES BII AND CI)

For the first time, among the Trypillia materials, 'classical' cord impressions were recorded on the ceramics of monuments of the BII and CI stages of the upper and middle Dnieper region. In particular, among the kitchenware of the *Valiava* settlement (the Kaniv local group of the Tryppila culture of the end of BII stage), you can find fragments decorated with long impressions of the cord applied to the shoulder and the base of the neck of the vessel, which, in combination with fingerprints, form chevrons and zigzags. In some cases, cord impressions are combined with 'caterpillar' and sharp or blunt punctures¹⁹. Individual fragments decorated with cord and 'caterpillar' adornment can also be found among the materials of the settlements *Myropillia*, *khut. Nezamozhnyk*²⁰, *Hrebeni*²¹, *Veselyi Kut* and others. Particular attention should be paid to the discovery within site No. 4 of the *Kolomyishchyna I* settlement of a fragment of an anthropomorphic figurine girded with a belt made of cord impressions, the edges of which hang down²².

At the CI stage, the ornamental compositions formed by impressions of the cord become more diverse. In particular, cord impressions recorded on the ceramics of the *Ihnatenkova Hora* settlement²³ (Chapaivka type of the Trypillia culture, stage CI) form a pattern in the form of brackets (fig. 3 : 1, 3), zigzags (fig. 3 : 2), festoons (fig. 3 : 5, 6), horizontal (fig. 3 : 7), vertical (fig. 3 : 4) and oblique (fig. 3 : 8, 9) lines. In addition, a small number of fragments of pottery with cord decoration can be found among the materials of the settlements *Chapaivka* and *Lukashi*. In the future, the tradition of cord decoration continues to exist within the pottery tradition of the Sofiivka culture.

¹⁸ Skrzyniecka W. Textile impressions on Trypillia culture pottery from Ogród and Verteba Cave sites in Bilcze Żłote // Sprawozdania Archeologiczne. 2020. № 72 (2). С. 233.

¹⁹ Овчинников Е. Трипільська культура Канівського Подніпров'я (етапи BII-CI). Київ: Видавець Олег Філюк, 2014. С. 95.

²⁰ Ibid. С. 186.

²¹ Видейко М., Рудь В., Гошко Т., Видейко М. Трипольське поселення на Дніпрі етапа BII-II // Tyragetia. 2021. № XV [XXX] (1). С. 75-94.

²² Пасек Т. Звіти про розкопки жител (площадок) № 1, 2, 3, 4 і № 11 // Трипільська культура. Київ: Видавництва академії наук УРСР, 1940. С. 130.

²³ Videiko M.Y. Tripolye and the Cultures of Central Europe: Facts and Character of Interactions: 4200–2750 BC // Baltic-Pontic Studies. №9. 2010. С. 13-68.

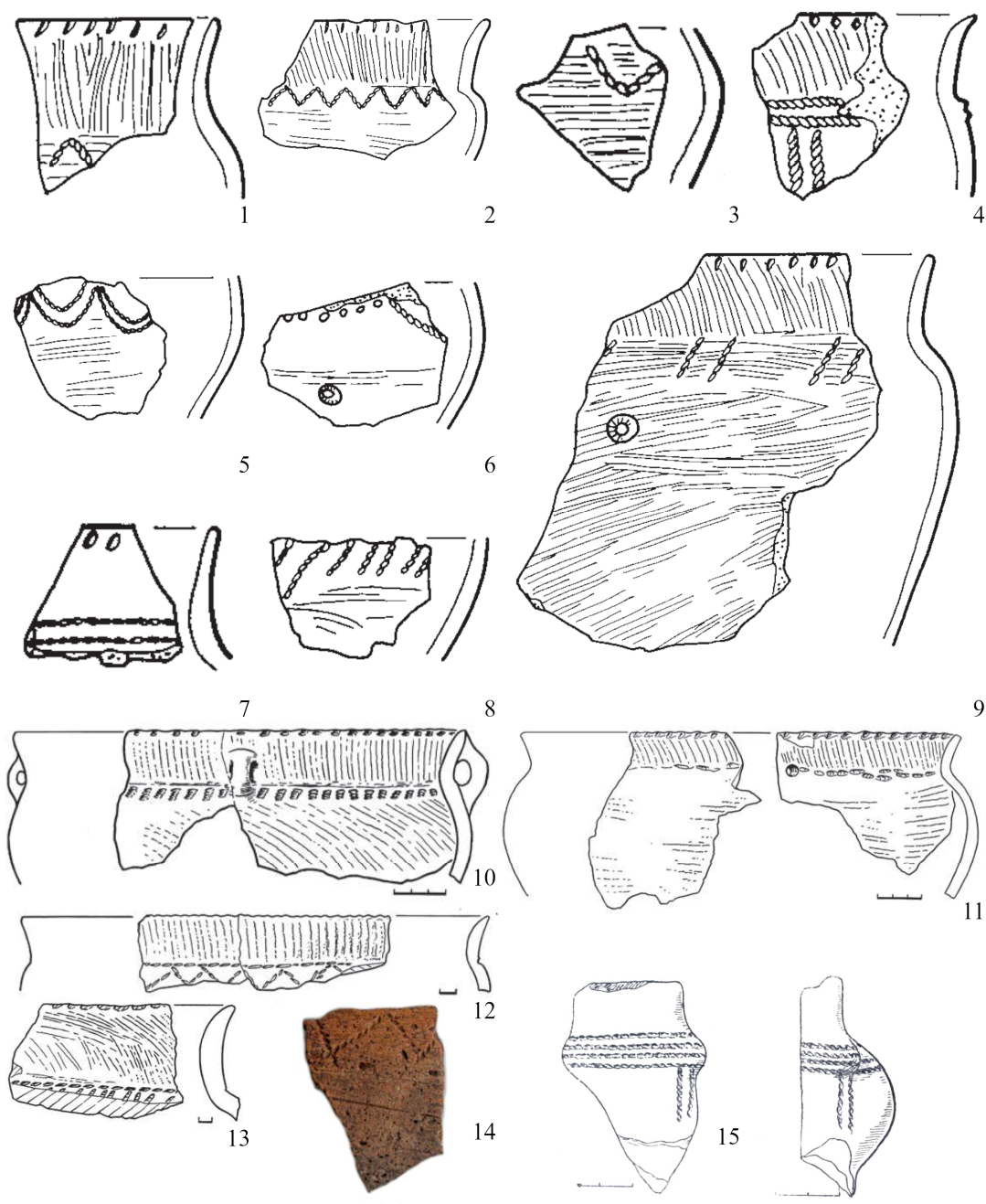


Fig. 3. Examples of the pottery decorated with the cord from the sites Trypillia culture, stages BII and CI found within upper and middle Dnieper region. 1-9 – Ihnatenkova hora (Chapaivka type, CI stage); 10-13 – Valiava (Kaniv local group, end of the BII stage); 14 – Hrebeni (stage BI-II); 15 – Kolomiishchyna I (stages BII – CI). 1-9 – after Videiko 2000, fig. 10; 10-13 after Овчинников, fig. 87; 14 – after Видейко и др., fig. 14; 15 – after Пасек, 1940, fig. 25.

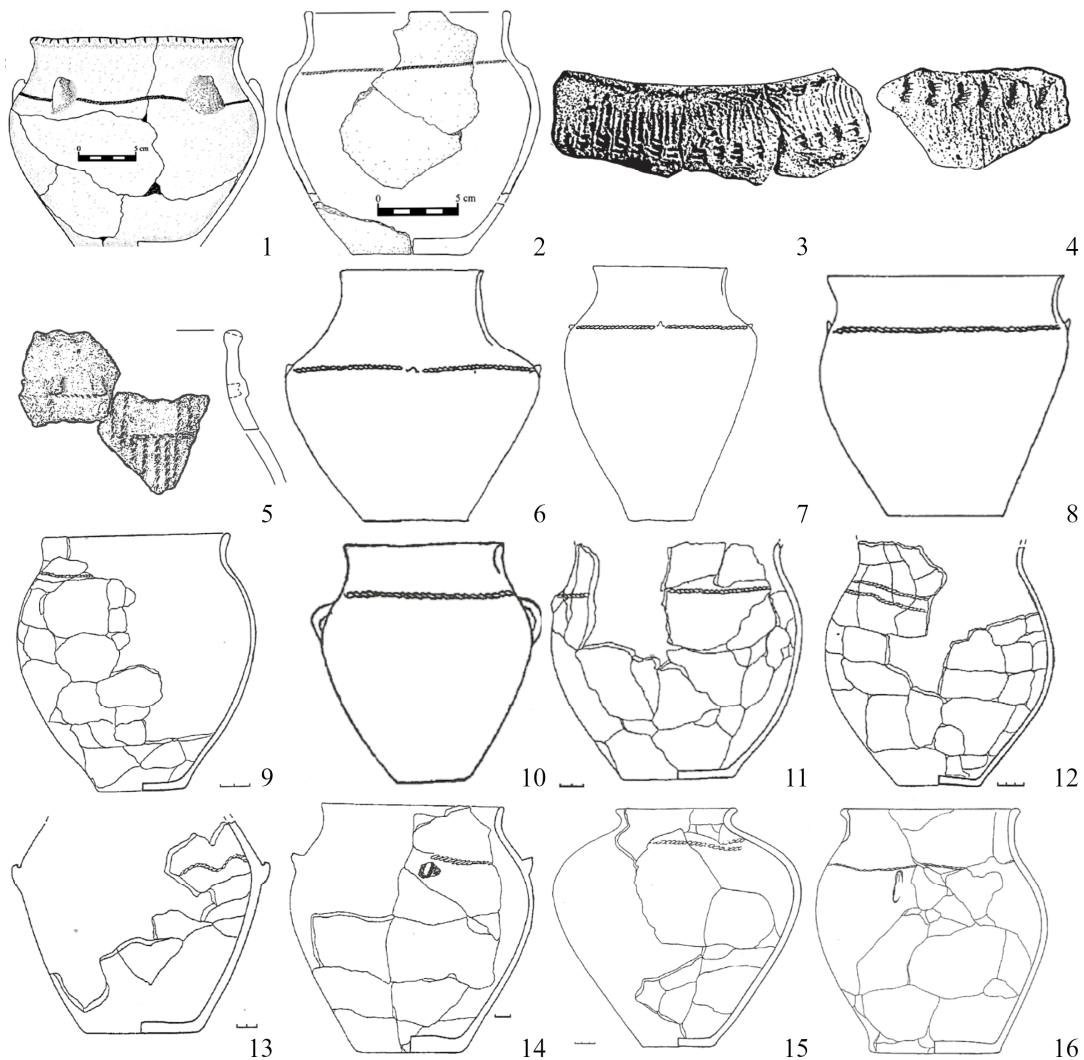


Fig. 4. Pottery of the Lukashivka type and Sofiivka culture decorated with cord imprints.
 1-2 – Koshchiivka 8, Trypillia culture, stages CI-CII, Lukashivka type (after Кириленко 2017);
 3-4 – Yevmynka 1, Lukashivka type; 5 – Yevmynka 2, Lukashivka type (after Шидловський та ін., 2015); 5-14 – Chervonyi Khutir cemetery, Sofiivka culture; 15-16 – Sofiivka cemetery (after Videiko 1995)

TRYPILLIA SITES OF THE LUKASHI AND SOFIIVKA TYPES

On the territory of Kyiv region, for the first time, the decor in the form of cord impressions was recorded on the materials of the sites of the Lukashi type of the Trypillia culture, stages CI-CII – *Yevmynka 1* and 2 (fig. 4 : 3-4) and is represented by several pottery fragments²⁴. A much larger number of 'cord' sherds comes from the chronologically next Brynzeni-Lukashi settlement of *Koschiivka 8* (fig. 4 : 1-2), among

²⁴ Шидловський П., Лисенко С., Кириленко О., Сорокун А., Пічкур Є. Первісна археологія нижнього Подесення. Київ: Видавець Олег Філюк, 2016. Рис. 55, 63.

the materials of which 28.8% of pottery sherds (70 pieces) are decorated with impressions of rope, and most of them belong to dishes category B, which is dominated by pots²⁵. A similar stable combination of the morphological type 'pot' with cord decoration continued to be preserved during the times of the Sofiivka culture. In particular, prints of the cord were recorded on nine vessels from the *Chervonyi Khutir* cemetery (fig. 4 : 5-14) and two vessels from the *Sofiivka* cemetery (fig. 4 : 15-15). Often, cord imprints are combined with small horn handles. Compositionally, the Sofiivka cord decor is simple and consists of horizontal straight or wavy lines.

LATE TRYPILLIA SITES OF CENTRAL UKRAINE AND PODILLIA

In central Ukraine, cord decoration can be found mainly on the kitchen pottery of the Trypillia site of stage CII. In particular, one of the most numerous collections of ceramics decorated with cord ornament comes from the site *Moshuriv III* (fig. 5 : 1-3), among the materials of which about 58% of kitchen pottery were decorated with a composition in the form of one to three horizontal cord impressions²⁶. Also, several fragments with cord decoration were found in the cultural layer of the sites *Kocherzhyntsi-Shulhivka*, *Dovzhok* and *Samchentsi*²⁷ (fig. 5 : 15, 16, 17, 18). Also, among the archaeological materials of the site *Vilkhovets* (fig. 5 : 4-9) of the Kosenivka local variant of the Trypillia culture cord decorated pottery sherds, adorned with 'crescents', 'caterpillar' and horizontal cord imprints can be met²⁸ while for the site *Sharyn III* (fig. 5 : 10-14) horizontal cord imprint, applied towards the surface of the 'horned' pot are more characteristic²⁹. From the general rule about decorating kitchen pottery with cord impressions, a fine ware pot found in the cultural layer of the Sharyn III settlement stands out, the side of which was decorated with a single impression of a rope³⁰.

Somewhat apart from the central Ukrainian materials are the original materials of the Podillia sites *Sandraky* (fig. 6 : 1-12) and *Pechera* (fig. 6 : 13-16). Decorated with cord decoration, the pottery of the first monument is most often represented by bowls and sometimes by wide-mouthed vessels and jugs. Spatial cord decoration is most often located in the upper part of the bowl and on the obliquely cut rim. In some cases, the inner surface of the bowls is also decorated. Compositionally, the imprints of the cord from the Sandraky settlement form a pattern of horizontal rows alternating with the same vertical rows. In rare cases, cord impressions form a net. Particular attention should be paid to a fragment of a bowl decorated inside with a

²⁵ Кириленко О. Пізньотрипільське населення київського Подніпров'я в контексті культур східної Європи: дис... к.і.н.: 07.00.02 – всесвітня історія / Київський національний університет імені Тараса Шевченка. Київ, 2017. С. 92.

²⁶ Ryzhov S. & Shumova V. The Results of Archaeological Investigations Near Moshuriv Village in Cherkasy Region // Археологія. 2021. № 2. С. 87.

²⁷ Рыжов С.Н. Позднетрипольские памятники Буго-Днепровского междуречья. // Stratum Plus. №2. 2002. С. 187-195.

²⁸ Videiko M.Yu. The exploration at the late Trypillia site Vilkhovets // Археологія і давня історія України. 2020. № 34 (1). С. 75.

²⁹ Куштан Д. Керамічний комплекс пізньотрипільського поселення Шарин III // Культурний комплекс Кукутень-Трипілля та його сусіди. Збірка наукових праць пам'яті Володимира Круця. Київ: Астролябія, 2015. С. 430.

³⁰ Ibidem.

composition of a cross inscribed in a circle. According to O. Lahodovska, such a composition repeats the painted decoration of the wine ware bowls of the Usatovo culture³¹.

The cord decor of the Pechera settlement is somewhat more diverse. In addition to the simple straight imprints of a cord on ceramics from Pechera, you can also find 'crescents', more characteristic of the Usatovo culture.

Findings of ceramics with cord decoration from the settlement of the *Solhutiv Ostriv* (Fig. 6 : 17-21) in the Haivoron region should also be associated with the Trypillia culture. Although, according to the catalogue of scientific funds of the Institute of Archeology of the National Academy of Sciences of Ukraine, these artefacts are attributed as ceramics of the Yamnaya culture³², in our opinion, they are actually related to the Late Trypillia cultural layer. This is indicated by the dense texture of the dough, the inclusions of fireclay, as well as the orange and grey colours of the firing.

SITES OF THE HORODSK-VOLHYNIA LOCAL VARIANT OF THE LATE TRYPILLIA CULTURE

Among the materials of the sites of the Horodsk-Volhynia local variant³³ of the Trypillia culture, the corded decoration is quite a common and typical feature of local kitchenware, which prevails in the ceramic collection. In particular, pottery sherds decorated with cord impressions can be found in the ceramic collection of such monuments as *Horodsk*³⁴, *Nova Chortoryia*³⁵, *Mali Virmeny*³⁶, *Tsvyklivtsi*³⁷ and others (fig. 7).

Spatially, cord impressions are most often located on the necks and shoulders of amphorae, under the rims of bowls and amphorae, on the upper facets of the rims of bowls, on the inner surface of bowls, and sometimes on the handles. Compositionally, the North Trypillian imprints most often form a simple pattern in the form of horizontal lines, the space between which is filled with short or longer cord imprints. Also, on the upper edges of the rims of the bowls, you can see oblique impressions of a cord and, on their inner surface – a mesh. Interestingly, the cross patterns applied to the inner surface of the bowls from Tsvyklivtsi reproduce the painted pattern characteristic of Trypillian sites of earlier stages, particularly those of the Tomashivka group. Rare is the application on the surface of prehistoric pottery of the so-called 'crescents' and 'parquet' ornament (Nova Chortoryia). In some cases, the potters of

³¹ Лагодовська О. Пізньотрипільське поселення у с. Сандраках. // Археологічні пам'ятки УРСР. 1956. № 6. С. 127-128.

³² Бурдо Н. Колекції первісної доби // Колекції Наукових фондів Інституту археології НАН України. Каталог. Київ: Академперіодика, 2007. С. 45.

³³ Шмаглій М. Городсько-волинський варіант пізньо-трипільської культури // Археологія. 1966. № 20. С. 15-37.

³⁴ Петров В. Поселення в Городську (розвідкові розкопки 1936 р.) // Трипільська культура. Київ: Видавництва академії наук УРСР, 1940. С. 339-379; Кричевський Є. Поселення в Городську (розвідкові розкопки 1937 р.) // Трипільська культура. Київ: Видавництва академії наук УРСР, 1940. С. 383-451; Відейко М. Історія досліджень поселення трипільської культури Городськ (Городське) // Археологія і Давня Історія України. 2017. № 4 (25). С. 336-342.

³⁵ Захарук Ю. Пізньотрипільське поселення у верхів'ях р. Случ // Археологічні пам'ятки УРСР. 1956. № VI. С. 130-133.

³⁶ Мовша Т. О северной группе поздне трипольских памятников // Советская археология. 1971. № 1. С. 31-54.

³⁷ Мовша Т. Пізньотрипільське житло-майстерня в с. Цвіклівці... С. 129-141.

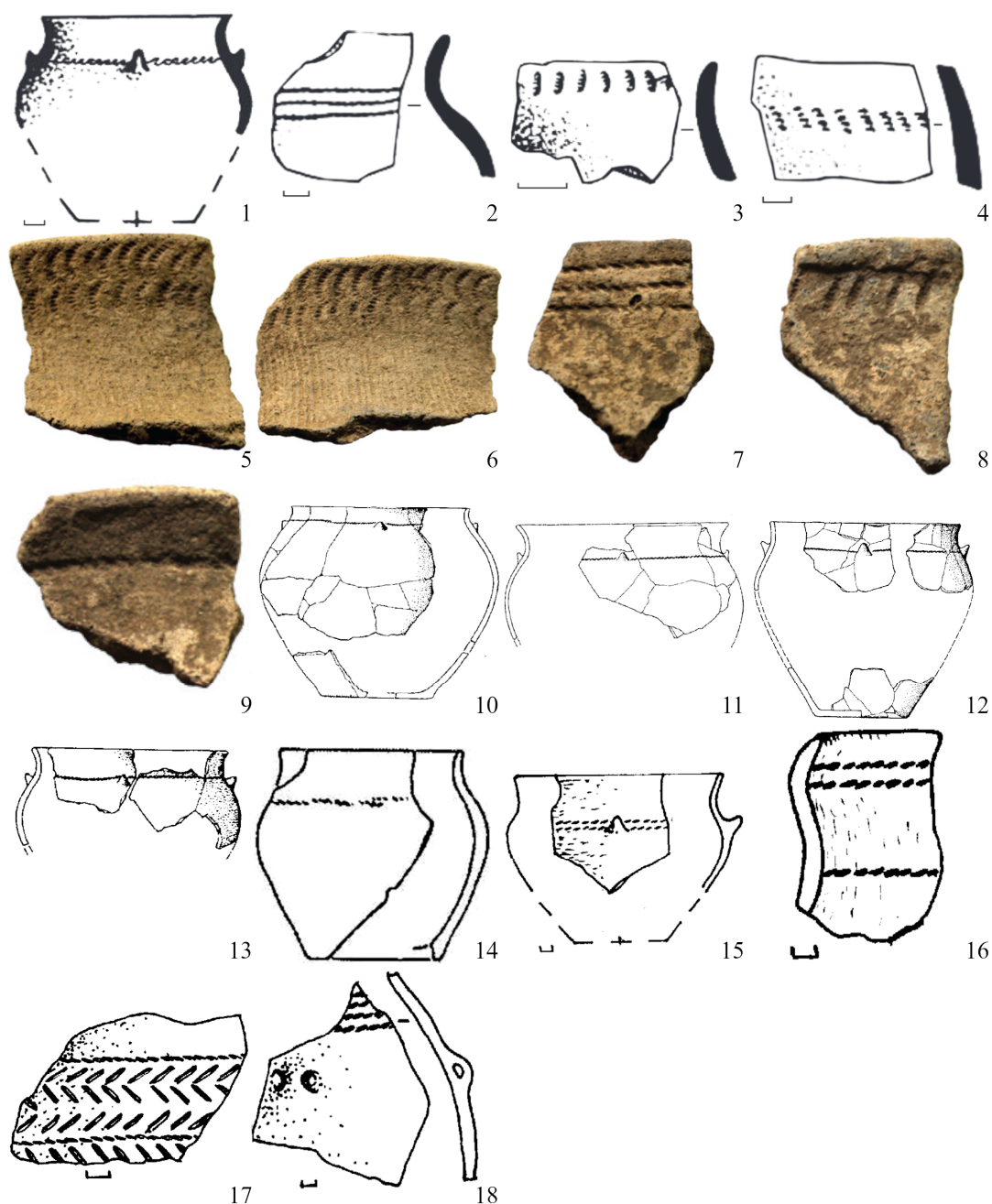


Fig. 5. Examples of pottery decorated with cord imprints found within Trypillia culture sites, stage CII of Central Ukraine. 1-3 – Moshuriv III (after Ryzhov and Shumova, 2021); 4-9 – Vilkhovets (after Videiko, 2020); 10-14 – Sharyn III (after Куштан 2015); 15 – Kocherzhentsi- Shulhovka (after Рыжов 2002); 16-17 – Dovzhok (after Рыжов 2002); 18 – Samchentsi (after Рыжов 2002)

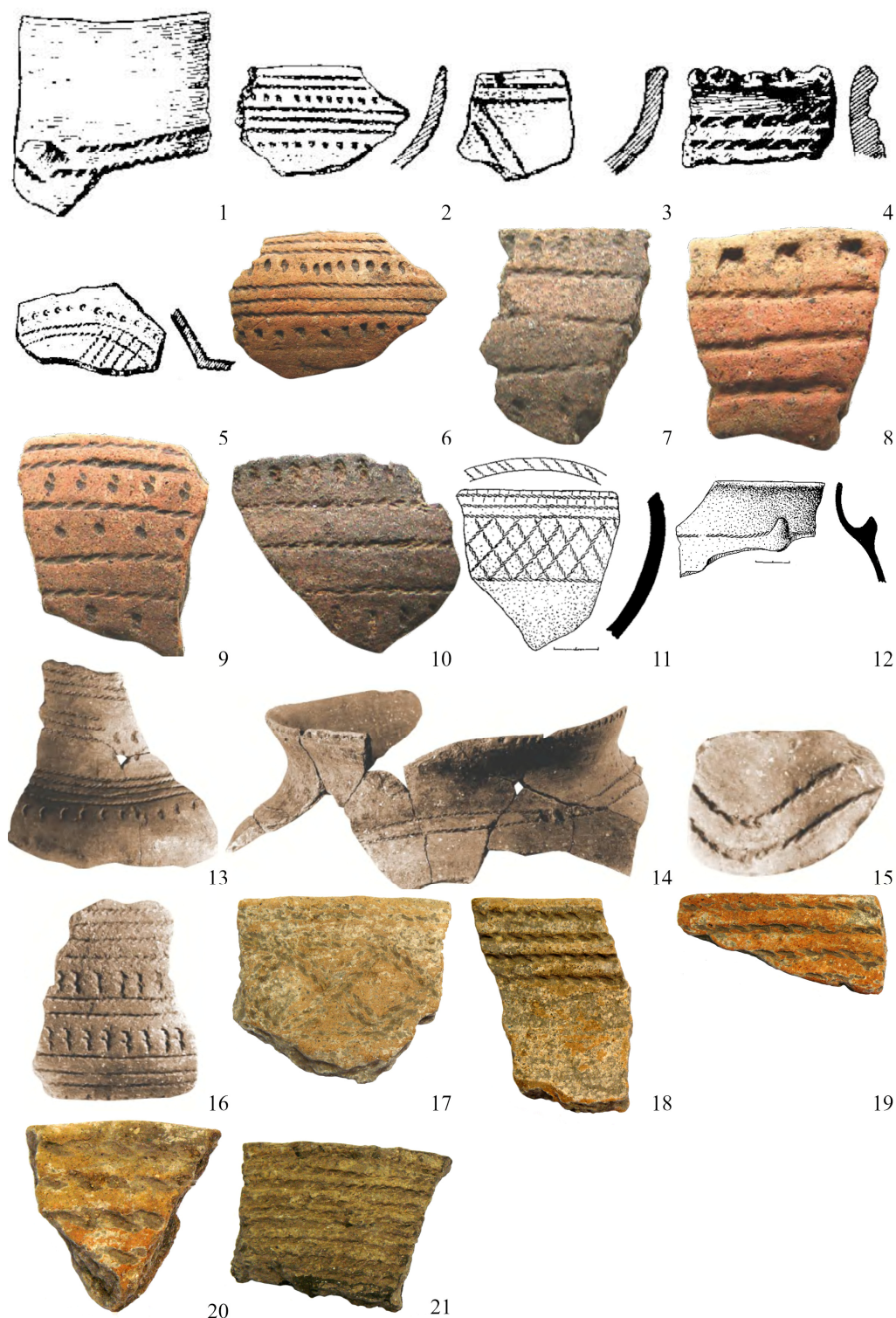


Fig. 6. Examples of pottery decorated with cord imprints found within Trypillia culture sites, stage CII of Podillia. 1-12 – Sandraky (1-5 after Лагодовська 1956, 6-10 after Videiko, 2010, 11-12 after Збеневич 1974); 13-16 – Pechera (photo by M. Shmahlii, reprinted after Відейко 2004); 17-21 – Solhutiv Ostriv (photo by the author)

the North Trypillia local group supplemented the corded decoration with other decorative techniques: short square and longer rectangular punctures or half-moon depressions. The combination of one cord line with plastic decor in the form of 'horn' ears is typical. Separately, it is worth paying attention to the pattern in the form of a ladder applied to the handle of an amphora from the settlement of Horodsk, which morphologically, according to T. Movsha, demonstrates the influence of the Polgar and Lengel cultures³⁸.

TRYPILLIA CII SITES OF THE GORDINEȘTI TYPE

For monuments of the Gordinești type, corded decoration is typical and represented by various elements and techniques. In particular, among the materials of the settlements of *Gordinești II-Stînca* and *Mereșeuca I-Cetățuie*, you can find:

- oblique impressions of the cord, applied to the upper edge of the rim of the bowl³⁹;
- two or three horizontal impressions of the cord applied to the sides and body of the cups;
- combination of horizontal and vertical imprints⁴⁰;
- four rows of cord impressions applied to the upper edge of the rim of the bowl along its contour;
- four rows of cord impressions applied to the inner surface of the bowl, which end in a loop;
- wavy horizontal imprints of three or four laces⁴¹.

TRYPILLIA CII SITES OF THE KASPERIVTSI TYPE

Among the known sites of Kasperivtsi type of the Trypillia CII stage (3350/3330–3000/2900 BC), the corded decoration can be seen on the archaeological materials from such sites as *Kasperivtsi*, *Zveniachyn*⁴², *Zhvanets*⁴³, *Kunysivtsi*, *Perebykivtsi*⁴⁴ among which the best published is the third layer of the *Verteba cave* (fig. 8). According to the observations of T. Tkachuk, the corded decorative technique is typical for the ceramics of the end of the cave occupation, and is particularly common⁴⁵. Horizontal impressions of the cord can be seen both on the body of

³⁸ Movsha T.G. The Tripolye-Cucuteni and the Lengyel-Polgar Cultures // *Baltic-Pontic Studies*. 2000. № 9. fig. 11: 6.

³⁹ Sîrbu G., Król D., Heghea S. The Late Eneolithic Groups from the Dniester-Prut Interfluvium: Some Questions of their External Contacts and Chronology // *Baltic-Pontic Studies*. 2020. № 24 (1). P. 107.

⁴⁰ Ibid. C. 108.

⁴¹ Ibid. C. 123-125.

⁴² Захарук Ю. Пам'ятки касперівського типу // *Археологія Української РСР*. Київ: Наукова думка, 1971. С. 183.

⁴³ Старецький І., Шпаковський С., Зайшлюк Я. Трипільське поселення с. Жванець Кам'янець-Подільського району, епонімна пам'ятка археології – номінант на занесення до попереднього списку об'єктів всесвітньої спадщини ЮНЕСКО // «Археологія & Фортифікація України». Збірник матеріалів VII Всеукраїнської науково-практичної конференції. Київ: ПП Буйницький О.А., 2017. С. 45-54.

⁴⁴ Позіховський О., Гавінський А. Поселення пізнього етапу трипільської культури Кунисівці і Перебіківці у Подністер'ї // *Materiały i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego*. 2021. № 42. С. 5-14.

⁴⁵ Tkachuk T. Painted ceramics // *Bilcze Złote. Materials of the Tripolye Culture from the Werteba and the Ogród Sites*. 2013. P. 43.



Fig. 7. Examples of pottery decorated with cord imprints found within Trypillia culture sites of Horodsk-Volhynia local variant, stage CII. 1-4 – Mali Virmeny; 5-7 – Pecehra; 8-12 – Horodsk; 13-18 – Tsyklyivtsi (drawings after Мовша, 1971)

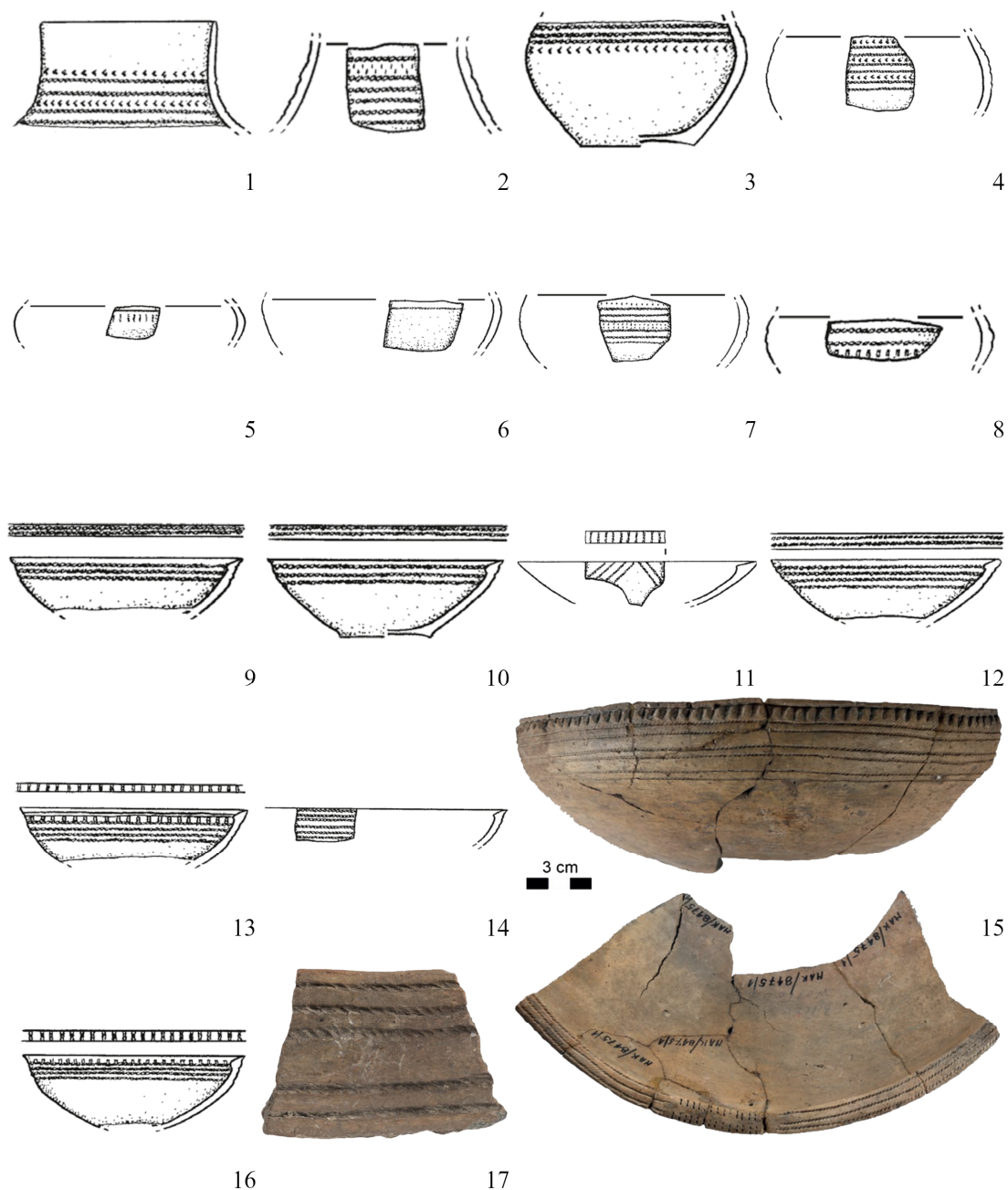


Fig. 8. Examples of pottery decorated with cord imprints from the Verteba cave III.
1-14, 16 – drawings after (Tkachuk, 2013); 15, 17 – photos after (Skrzyniecka, 2020, fig. 2)

amphorae, spherical and conical bowls and along the upper edge of the rims of the latter. Often, cord imprints are combined with other decorative techniques: notched and pinched. As the study of two fragments from the collection conducted by the Polish archaeologist V. Skrzyniecka showed, the Verteba potters used plant fibre

wrapped around some cylindrical object to apply the cord decoration and the smoothness of the surface of the dishes was ensured before applying the decoration⁴⁶.

USATOVO CULTURE

For the kitchen ceramics of the Usatovo culture, the most characteristic feature is the surface decoration with 'crescent-rope' and cord techniques. In particular, in the first publication of the excavation materials of the eponymous settlement of Usatovo, M. Boltenko indicates that out of 915 fragments collected by the researcher, 700 are decorated with sickle impressions of a cord coiled around some base⁴⁷. Later, Boltenko's thesis about the significant frequency of the appearance of cord decoration on the Usatovo ceramics was confirmed by V. Zbenovich, according to whose observations almost all kitchenware discovered in the burials of the Usatovo culture was decorated with cord impressions, while at the Usatovo settlement, such dishes made up 87% of the total number of decorated ceramics, and in the Maiaky settlement – 42%. Spatially, 'crescents' and other cord decorations can be located both on the body of the vessel (fig. 9 : 17, 3) and on the looped handles (fig. 9 : 14). Compositionally, the Usatovo cord impressions form quite a variety of patterns, the simplest of which are 1-3 horizontal impressions of a cord that encircle the neck of the vessel (fig. 9 : 1) and vertical bands of three impressions that go down to the shoulder and body of the vessel (fig. 9 : 2, 8). Sometimes, cord impressions form hatched triangles (fig. 9 : 15), oblique crosses (fig. 9 : 6), zigzags (fig. 9 : 7) and oblique nets (fig. 9 : 15)⁴⁸. In some cases, the impressions of the cord can be filled with white paste, which is a unique feature of Usatovo pottery (fig. 9 : 9).

CONCLUSION

Thus, as evidenced by the above materials, the impressions of a cord wrapped around a certain base – a stick, or other rope – were first used by the potters of the Seredniy Stih culture in the middle of the 5th Millennium BC. At the beginning of the 4th millennium, the 'caterpillar' technique of decoration is complemented by 'classic' direct impressions of the cord, while the new method of decoration is documented approximately simultaneously both in the environment of Trypillia culture and in the environment of 'steppe' communities that had cultural contacts with Trypillian world. The number of the most ancient fragments decorated with 'classical' impressions of the cord is small, which indicates the marginal position of the new decorative technique. Corded decoration became much more common from the middle of the 4th millennium BC, and by the end of the millennium, the decoration of the surface of dishes with various imprints of rope became a key feature of ancient kitchen ceramics. In particular, fragments of dishes decorated with imprints of various textiles can be found in ceramic collections of almost all local variants of the Late Trypillia culture – Sofiivka, Kosenivka, Brînzeni, Usatovo, Horodsk-Volhynia, Kasperivtsi, and Gordinești, as well as in the environment of the Serezliivka and the Repin cultures. Moreover, cord impressions become the leading way of tableware

⁴⁶ Skrzyniecka W. Textile impressions on Trypillia culture pottery from Ogród and Verteba Cave sites in Bilcze Żłote // Sprawozdania Archeologiczne. 2020. № 72 (2). С. 238-239.

⁴⁷ Болтенко М. Кераміка з Усатова // Трипільська культура на Україні. 1926. № 1. С. 17.

⁴⁸ Збеневич В. Позднетрипольские племена Северного Причерноморья. Київ: Наукова думка. 1974. С. 88.



Fig. 9. Usatovo culture pottery decorated with cord imprints.

1-2 – Zmiina balka (after Говедарица, Манзура, 2010); 3-10 – Usatovo kurgan cemetery (3-7 photo of the author, 8-10 after Петренко, 2013); 11-13 – Maiaky settlement (after Збенович, 1974); 14-18 – Usatovo-Velykyi Kuialnyk (after Збенович, 1974)

decoration for many cultural groups. In particular, from 42 to 87% of the kitchen ceramics of the Usatovo culture were decorated with cord impressions; about 58% of Kosenivka kitchen ceramics; about 50% of the decorated ceramics found in burial grounds of the Sofiiivka culture and about 64% of the decorated ceramics found in the burials of the Serezliivka culture. Speaking about the Horodsk-Volhynia, Kasperivtsi, and Gordinești local variants, although the exact calculations of share of the cord-decorated pottery are absent, we can confidently say that it is significant. In addition, while characterizing cord decorative compositions of the second half of the 4th millennium BC, it is worth noting that the potters of each listed groups invented their own way of how to include textile imprints in the decorative tradition. Unique features of the Usatovo culture are the 'crescent' impressions of the rope, as well as the filling of the impressions of the cord with white paste. On the other hand, characteristic features of the Sofiiivka culture, Horodsk-Volhynian and Kosenivka local variants are the use of a cord impression in combination with 'horned' pots. The potters of monuments of Gordinești-Sandraky-Pechera-Kasperivtsi type, in turn, use a cord to decorate bowls and place impressions on their rims. On the ceramics of monuments of the Dereivka culture, such as Moliukhiv Buhor, you can find imprints in the form of closed triangles and rhombuses that are not characteristic of any other monuments. Such a variety of ways of using textile imprints indicates a deep integration rather than an episodic borrowing of cord decorative techniques into the culture of various ancient societies.

As for the place of the first application of the cord decorative technique, it is quite difficult to determine it since, on the one hand, the available materials indicate the approximate simultaneity of the appearance of 'classical' cord decor both in the environment of the Trypillia culture and in the steppe zone, and on the other, – they speak of independent origin ideas of using cord imprints as a decorative technique. In the case of the Trypillia culture, cord decoration is associated with technological textile imprints, and in the case of 'steppe' cultures, with 'caterpillar' decoration, which in turn is associated with comb stamps. Thus, it is hardly appropriate to interpret samples of Trypillia ware decorated with cord impressions as a manifestation of cultural influence from the steppe, as T. Movsha, D. Telehin, M. Gimbutas and others did. Moreover, taking into account the extent of the spread of cord decor within the Trypillian pottery tradition, there is a reason to talk about cultural influences in the opposite direction – from the Trypillian culture towards the 'steppe' cultures. Indeed, cord decor is found much more often within Late Trypillian sites than among the materials of the Seredniy Stih, Dereivka, Moliukhiv Buhor and Yamnaya cultures. In addition, Trypillian cord ornamental compositions are more complex and sophisticated. Moreover, it is important to emphasize that the corded decorative technique was known both in the 'corded' cultural environment of Prykarpattia and in the 'pre-Yamnaya' environment of the steppe and forest-steppe Right Bank Ukraine, i.e., this indicates the kinship of their genesis. For the question of the origin of monuments of the Serezliivka culture, the Trypillian identification of the cord decor is of key importance, as it expands the diagnostic list of signs of the influence of the Trypillian culture on the 'steppe' population in the second half of the 4th millennium BC. If cord imprints are indeed a Trypillian decorative technique, then up to 38% of all 'steppe' kitchenware and 64% of all decorated 'steppe' kitchenware are decorated with Trypillian decoration. Such a significant share of Trypillian

decoration, together with painted tableware, is another vivid evidence of the formation of Serezhivka culture on the basis of late Trypillian culture.

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