POTTERY KILNS OF THE END 17 – EARLY 18 CENTURY
FROM THE TOWN OF RESHETYLVKA (POLTAVA REGION)

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ABSTRACT
The purpose of the paper is to reconstruct the process of firing pottery in the Hetmanate for the Early modern time, for example the materials from the rescue archaeological researches of two pottery kilns, carried out in 2006 in the former centurion town of Reshetylivka, Poltava regiment.

The scientific novelty lies in that for the first time it is considered and described in detail of these pottery kilns construction, the characteristic feature of which was the use of kiln boxtyle tiles to strengthen these thermo-technical facilities. For strengthening of the pottery kilns were used boxtyle tiles. Such constructive specification sometimes was use in pottery kilns construction of Cossack Hetmanate pottery centers, but the peculiarity of these kilns is compilation of kiln’s central pillars completely of tiles. Was held the analysis of found in their filling materials, in particular, kitchenware, tiles (‘kahli’), candlesticks and other items.

Conclusions. Found pottery kilns were built by one potter at his own estate in late 17 – early 18 centuries. Their forms of the kilns are typical for pottery kilns widespread on the territory of Ukraine at that time. All of tiles according to the place in a stove are divided into wall, corner and cornice. All of them are boxtyle, rectangular with a small walls. According to the decor, the wall’s boxtyle tiles are divided into seven types: with heraldic image of a two-headed eagle; with the heraldic image of the fight between the griffon and the lion; with rectangular center net with encircled thin branches; with crosses; with plant-geometric ornament; with the crossed stems of six three-petal ‘lilies’; with volute-styled elements. The analysis of the tiles’ decor showed that among the Reshetylivka’s tiles a special proficiency and high décor relief is peculiar for a part of tiles with crosses. Sometimes these are tiles with similar patterns, which show the durability of life of certain décor types.

For long enough in Hetmanate were popular ‘carpet’ tiles with rhombic patterns, ‘tiles with crosses’ and tiles with volutes. Having entered into fashion at the beginning of 18 century such tiles were used practically during all the century on a wide territory. The majority of found in Reshetylivka tiles are similar to the findings from Poltava and are also correlated with the corresponding plots and decor of products of Middle Naddniprjanshchyna (Middle Dnieper territory). The analysis of the kitchenware (pots) showed that in Reshetylivka was produced smoked ceramics decorated with texturized ornament (mainly performed by graving with a stick (‘rytvannia’) and stamping with roller). In 18 century became popular products decorated with painted ornament, which had replaced the previous ones in the assortment of potters. Judging from the characteristic features of kitchenware the abovementioned pottery kilns can be attributed to Poltava pottery region.

Keywords: archeology, pottery kiln, pottery, 17-18 centuries, kitchenware, tiles
Гончарні горні кінця XVII – початку XVIII століття з містечка Решетилівки (Полтавщина)

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Анотація
Мета статті полягає в тому, щоб реконструювати процес випалювання глиняного посуду на території Гетьманщини ранньомодерного часу на прикладі матеріалів рятівних археологічних досліджень двох гончарних горнів, проведених у 2006 р. у колишньому сотенному містечку Решетилівка Полтавського полку.

Наукова новизна полягає в тому, що вперше детально розглянуто та описано конструкції цих гончарних печей, характерною особливістю яких було використання для зміцнення теплотехнічних споруд пічних коробчастих кахлів. Подібна конструктивна специфіка інколи використовувалась в будівництві горнів деяких гончарних осередків Гетьманщини, але особливістю саме цих горнів є складання центральних стовпів печі (козлів) повністю з кахлів. Здійснено аналіз та типологізацію виявлених у їхньому наповненні матеріалів, зокрема посуду, кахлів, свічників та інших виробів.

Висновки. Знайдені гончарні горни були збудовані одним гончарем у власному домогосподарстві наприкінці XVII – на початку XVIII ст. Форми горнів характерні для гончарних печей, поширені того часу на території України. Усі кахлі, за місцем у печі, діляться на настінні, кутові та карнизні. Всі вони коробчасті, прямокутні з невеликими стінками. За декором, стінні коробчаті кахлі поділяються на сім типів: з геральдичним зображенням двоголового орла; з геральдичним зображенням боротьби грифона з левом; з прямокутною центральною сіткою та тонкими гілками; з хрестами; з рослинно-геометричним орнаментом; із хрещатими кахлів, що увійшли в моду на початку XVIII ст., прикрашали потужні кухонні і харчові горні.

В Гетьманщині досить довго були популярні «килимові» кахлі з ромбічним візерунком, «каhlі з хрестами» і з волютами. У якійсь мірі це відображається в асортименті гончарів. Отож, за характерними ознаками кухонного посуду цей гончарний осередок можна віднести до Полтавського регіону.

Ключові слова: археологія, гончарна піч, кераміка, XVII-XVIII ст., посуд, кахлі

INTRODUCTION
In 2006 in the town Reshetylyivka (former center of the administration district ‘sotnya’ of the Poltava regiment of the Cossack Hetmanate), by the scientific staff of
The Poltava V.G. Krychevskyi Local Lore Museum and The Ceramology Branch of the Ethnology Institute of the National Academy of Sciences of Ukraine Roman Luhovyi, Oksana Kovalenko, Vitaliy Yaremchenko, Victor Vereshchaka the remains of two pottery kilns were excavated and studied (fig. 1; 2). They were found during construction works, namely – the sewer trenching in the central part of the town, not far from the slope. The pottery kilns were not far (only 2 m) from each other.

LITERATURE REVIEW

The study of potter technology of Cossack Hetmanate centers in early modern time remains a low-explored area of knowledge. Although the sequence of technological process, some stages of pottery production of early-modern time, in particular, ignition, the products assortment were considered in the works of art historians and ethnographers. Pavlo Musiienko, Yuriy Lashchuk were the first to perform mapping of potter centers of Ukraine and analysis of pottery kilns constructions, which were used in different regions. Oles Tyschenko focused some attention on technology of ceramics manufacturing in 17-18 centuries. Oles Poshyvailo made a systematic review of Cossack Hetmanate pottery with wide involvement of ethnographic materials. Romana Motyl devoted her research to technology and analysis of smoked kitchenware, and although the authors of this article don’t agree with all her conclusions, some materials may be used for the consideration of burn-up facilities from Cossack Hetmanate. Olena Klymenko in general outlines on the history of ceramics of 17-18 centuries considered some technological stages of pottery production. The insight of this thematic circle is valuable in the context of involvement of ethnographic material, which in correlation with archeological sources allows represent pottery production technology in 17-18 centuries.

As for archeological materials, the most thorough modern researches on this subject are the works of Lesya Chmil, who in her dissertation and numerous articles has investigated technological stages of kitchenware manufacturing on the basis of archeological materials from the Middle Dnieper territory. Particular attention should be paid to her summary work on ceramics manufacture technology, which also represented the technology of kitchenware burn-up in 16-18 centuries from the Middle Dnieper territory. Also, the researcher has carried out burn-up facilities mapping by means of localization of 40 excavated pottery kilns for kitchenware burn-up: in Vyshhorod (1), Subotiv (2), Pereyaslav (3), Bilohorodka (3), Kyiv (30).

7 Chmiľ L. Keramichnii posud Seredn’yoj Nadnipropevichnosti XVI-XVIII st.: dis... k.i.n. Kyiv, 2010.
8 Chmiľ L. Keramichnii posud Seredn’yoj Nadnipropevichnosti... C. 83-106.
A separate group of works are the publications on pottery kilns from other settlements of Cossack Hetmanate: Pereyaslav⁹; Velyki Budyschcha¹⁰, Svyrydivka¹¹, Machuhy¹². The nearest analogues are pottery kilns from Poltava. Currently published and analyzed in detail the materials of archaeological researches on 4 out of 7 known pottery kilns from the territory of Regimental Poltava¹³.

Poltava potters used traditional developed technologies in construction of pottery kilns. All ‘pot’ type kilns were with circular burning chamber (‘kabytsa’), a rectangular pit (‘pryherebytsa’), semi-domed or domed ceiling. Two of them have the remnants of traditional shedders – cabins, which protected kilns from bad weather¹⁴. The examined pottery kilns are close to the ethnographic fixed forms and kilns of the Middle Dnieper territory. Due to their chronological proximity to the investigated period, they are quite relevant and allow to cover more deeply the issue of the pottery production technology. First of all, it concerns ethnographic sources recorded in works of Ivan Zaretsky¹⁵ and Mykola Ionov¹⁶.

Thus, we can state that the issue in Ukrainian pottery history is revealed fragmentally: separate territories, in particular the Middle Dnieper territory including Kyiv, or centers such as Baturyn in Chernihiv Region are covered rather thoroughly, other territories – mostly fragmentally.

THE PURPOSE AND GOALS OF THE PAPER

The description of these pottery kilns and the brief review of the findings were carried out at the meeting of the scientific-practical seminar “Actual problems of pottery at Cossack times in Ukraine”, which took place in late 2007, but the publication did not include description of decor and iconography of the subject tiles¹⁷. In the publication on pottery kilns in the digest of reports and theses of the conference “New researches of the monuments of Cossack times in Ukraine”, was made a technical error, as a result of which tiles drawings from the Reshetylivka

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¹⁴ Коваленко О. Гончарство Полтави XVIII століття... С. 180.
¹⁵ Зарецький І.А. Гончарний промисел в Полтавській губернії. Полтава: Типо-литогр. Л. Фришберга, 1894.
¹⁶ Іонов Н.Ф. Гончарний промисел в Київській губернії: Ітоги анкетного і местного обслідування, произведеного Київської губернською земською управою. Київ: Тип. насл. К. Круглянского, 1912.
pottery kilns were placed to another article on tiles from the yard of Poltava V.G. Krychevskyi Local Lore Museum\textsuperscript{18}. Separately, were published materials, where main attention was paid to the detailed consideration of tiles with heraldic decor, in particular items with the images of two-headed eagles and 'battle of griffon and lion'. However, the constructive features of burn-up facilities, which have interesting specifications, remained out of attention. Therefore, this article is devoted to these specifications and to materials characteristics that have not been published before, in particular kitchenware, parts of tiles and other items.

Town of Reshetylivka, Poltava regiment, was a small potter center (fig. 1). Revisions of population in 1718, 1721, 1723 were carried out by categories and separately allocated craftsmen, but did not record pottery workshop. Therefore, the presence of local pottery production here is established by archeological researches of late 17 – early 18 centuries. Burn-up facilities were located in the center of the town, now Shevchenko Street 23, along the street, opposite the entrance to the plant 'Metalist' (fig. 2). This part of the town was formerly within the measures of fortress of the centurion town. Relying on ethnographic parallels and territorial localization of pottery kilns in other settlements of Cossack Hetmanate, probably, the pottery kilns were built at a potter's yard.

The production of clay kitchenware includes clearly defined consecutive stages:
- clay selection and preparation of raw materials;
- product formation;
- decoration;
- drying;
- burn-up.

The specificity of the last stage was found out in the process of archaeological study of pottery kilns constructions and complexes of material objects from them. The recording of pottery kiln in one or another settlement is an unconditional sign of pottery production there, even in the absence of written sources about functioning of pottery workshop or individual potters.

**CONSTRUCTION OF THE POTTERY KILNS**

Both pottery kilns were potted two-tier and built by one potter, they are close in time of application, the similarity of construction and products found in their walls and filling indicate to this. First was built the pottery kiln with a round firing chamber (indexed as a pottery kiln 2) (fig. 3-6). The length of the firing hood is 1.4 m and its top has not been not preserved. Into its walls are build-in a number of face plates of wall and corner tiles covered with a layer of clay. The bearers have a segmented shape. Central pillar (in Ukrainian ethnography this part named – 'kozel'), length – 1.5 m, width – 0.2-0.23 m, height – 0.36 m, goes through the whole area of the is built from clay, only at the bearers in its upper part were embedded fragments of tiles. While functioning the pottery kiln came out of order, probably, its central pillar was cracked and destroyed, and this caused the need to build next to it another one. At the

same time, the old building above a pit (in Ukrainian ethnography this part named – ‘pryhrebytsa’) was used (unfortunately, it was not fully investigated, because it was covered by the burial of XIX-XX centuries), but probably the pit had a diameter of more than 2 m\(^1\)

The second pottery kiln has similar construction and size, but situated slightly deeper in the ground. Both kilns located practically end-to-end (fig. 7). The burning chamber (‘kabytsa’) has a rounded shape. The clay floor (in Ukrainian ethnography this part named – ‘cherin’) has been partly preserved – only near the back wall of the pottery kiln, in the place of bearers (fig. 8; 9). The lower part of the clay floor (in Ukrainian ethnography this part named – ‘sljoses’) were reinforced with auxiliary clay columns. The bearers have segmented shape. The central pillar, length – 1.64 m, width – 0.3 m, height – 0.46-0.47 m, passes through the whole area of the firing chamber (burn-up camera) and is laid out with tiles bound with clay. The length of the firing hood is 2 m, the height at the exit to the burning chamber – 0.63 m, the thickness of the arch bond – 0.18 m. The hood floor has a small rising in the direction of the front hole of the pottery kiln\(^2\). The last pottery kiln is additionally strengthened and it remained almost intact until its detection, except for the top of the hood. In the first pottery kiln tiles were embedded in the walls of the firing chamber and the bearers, and in the second, besides tiles, embedded in the walls of burning chamber and bearers, and covered with clay tiles, the principle of central pillar construction of tiles folded one on one and covered with clay (fig. 9; 10).

Similar pottery kilns are typical for Poltava region and Middle Dnieper territory 17-18 centuries\(^2\). Also known pottery kilns with tiles in constructions of burn-up facility, the nearest are pottery kilns from Poltava. Their use is conditioned by better thermal conductivity and strength.

The findings from the pottery kilns are represented by the tiles, which are the main marks in dating of the abovementioned kilns; kitchenware: pots, bowl fragments, covers; candlesticks. Most of these items, except of the same kind pots, decorated by stamping with roller, were thrown into the pottery kilns after the end of their operation. Consider these products by group.

**THE TILES**

Since the tiles have already been partially analyzed in publication\(^2\), we just briefly note that all of them according to the place in a stove are divided into wall, corner and cornice. All of them are boxtype, rectangular with a small walls (the part of the tile part of the tile that was inserted into the stove, in ukrainian ethnography this part named – ‘rumpa’) – 5-6 cm.

By the type of decoration, the front plates of the wall tiles are classified as follows:

Type I – heraldic image of a two-headed eagle. This type can be divided into 2 subtypes. Subtype I – narrow, single-step frame around the perimeter of the face plate, in the center of which is a corrugated styled image of the two-headed eagle...

\(^{19}\) Луговий Р. Гончарні горна з Решетилівки... С. 89-90.

\(^{20}\) Ibidem.

\(^{21}\) Коваленко О. Гончарство Полтави XVIII століття... С. 89-179; Чміль Л.В. Керамічний посуд Середньої Наддніпрянщини... С. 104.

\(^{22}\) Луговий Р. Гончарні горна з Решетилівки... С. 119-124.
The heads are with closed nibs, covered with three-beamed crowns. The body of the creature is executed in the form of heart in three entered spatial levels: the outer level is a ribbon shaded with parallel dashes; the middle level is a smooth band; the inner level is limited by a triangle-tooth line that is headed towards the middle of the inner space, the center of which is marked with a vertical arching dash with triangular teeth on both sides, and a five-angle star on the top end. On both sides of it there are also vertical arching dashes with pointed lower ends. The wings are marked with entered equicrural triangles with tops turned down. The sides of the outer triangle are marked with small triangles and dashes, which schematically mark feathers. The four-fingered slightly bent in the knee joint paws are depicted somewhat realistic – schematically marked buttocks and muscles. The rudder is executed in the form of a turned-up triangle with equal sides, which joined with the body and shaded with vertical parallel dashes. Outside the rudder is surrounded by small triangles and dashes that mark feathers. There were found two identical tiles, stamped in one form.

**Subtype 2** – there is no frame, in the center of the face plate there is a corrugated styled image of the two-headed eagle (fig. 12; 13). The heads with closed beaks are crowned. Between the heads on a long stem there is a three-leaf 'lily'. The same 'lilies', but on short stems, are on both sides in front of the heads. The long necks of the creatures are decorated with shaped lengthwise and transverse dashes forming very elongated rectangles. The body is in the form of heart, the inner space of which and partly the wings are decorated with rows of triangles drawn to the bottom, symbolizing feathers. The rudder is in the form of a drawn-up triangle, the paw has a clearly marked knee joint. There were found three identical tiles.

The first subtype comes from the pottery kiln 1, the second – from the pottery kiln 2. The same type tiles were pressed in one form, the full image identity points on it. We thoroughly analyzed this type in the previous publication, similar subject images on tiles are interpreted as images of the emblem of the Russian Empire. An example of tiles with a similar heraldic ornament is a series of similar products found at the excavation site of the residence of Bohdan Khmelnytskyi (1648-1657) in the city of Chigyrin, and introduced into scientific circulation by Dmytro Kushtan23.

**Type II** — the heraldic image of the fight between the griffon and the lion. The second type of tiles found in the abovementioned pottery kilns are covered with heraldic image of the fight between the griffon and the lion (fig. 14; 15). The animals stand on the back paws, the faces are turned to each other and their paws are stretched in front of them with splayed claws. The long thin tails are between the legs and twist around pelvises. The griffon’s beak is open and has a long lolling tongue, the neck and the front part of the body are covered with ‘scale’. The wings are raised up. The lion’s head with the open chap and the lolling tongue is covered with a mane. Between the heads there is a five-ended crown. In the upper corners of the face plate are seven-ended stars. Between the animals at the level of their hind paws there is the three-leaves 'lily' bud with an oriel in the middle. From the bottom edge of the plate

23 Куштан Д. Результати археологічних досліджень на місці резиденції Б.Хмельницького у Чигирині // Нові дослідження пам'яток козацької доби в Україні. Вип. 16. Київ: Часи козацькі, 2007. С. 54-55, рис. 3.
from one point symmetrically come two scions to the opposite sides, which go down to the bottom corners of the plate.

Oleksandr Pashkovskyi proved the indisputable heraldic belonging of such tiles, the detailed description of them was presented by the authors in a separate article\(^\text{24}\). The lion and the griffon were ‘shield-holders’ in the medieval heraldry, though it is an abstract heraldic image that has no direct heraldic analogues.

**Type III** – the tiles with rectangular center net with encircled thin branches. They differ from each other in performance of branches in central ornaments. The tiles belong to the ‘carpet’ type, so they form the complete ornament on the wall of the kiln. There were used different forms of matrix, which differ by individual elements, flowers thickness or fine line details. The decor of the front plate of such tiles is quite similar, but the central element may differ. In the center of the tiles are:

1. Probably the transformed heraldic elements, which lost the initial content and turned into a plant-geometrical composition (fig. 15; 16). Decorated in such way boxtype tiles were both wall and corner (fig. 17);
2. Flower with sharpened petals;
3. Flower in a form of styled sunflower (fig. 18);
4. Small cross at the intersection of branches – ‘pine seedlings’ (fig. 19).

Whole forms and fragments of such tiles were found in pottery kilns. It should be noted that there were a lot of similar tiles on the territory of the former Cossack Hetmanate known for today. They have similar basis – ‘rectangular center net’, but differ in filling – ornamental plant elements (branches, flowers, scions) encircled into rectangular ornaments\(^\text{25}\).

**Type IV** – ‘tiles with crosses’ (‘hreshchatyi’) tiles. Such tiles are ornamented by a corrugated diagonal net with inscribed straight crosses of 4-12 beams\(^\text{26}\). The net is formed by a wide stripe, solid or divided with two lines, the outer side of which has teeth. The crosses specifications are different: 12-end (fig. 20), 8-end (fig. 21), 4-end. These wall boxtyle tiles have walls, the endings of which are decorated with a turned-out clay.

From the end of 17 – early 18 century, as in other towns of Middle Dnieper territory\(^\text{27}\), frameless tiles with ‘carpet’ ornament became widespread, so the entire space of a kiln was a single composition made of many repeated elements. The tile ornament ‘came out’ of the frames of the item, merging with the decor of the nearby identical tiles. This ornament gained popularity in Poltava region from the third quarter of 18 century – together with its spread in Kyiv and Chernihiv regions. They are widely represented in the assortment of Poltava pottery center\(^\text{28}\).

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\(^{25}\) Діденко О. Хрещаті кахлі // Українське гончарство. Національний культурологічний щорічник. Київ-Опішне: Молодь, Українське народознавство, 1993. С. 244; Заїка І. Керамічний комплекс пізньосередньовічного Мохнача // Нові дослідження пам’яток доби козацтва в Україні. Київ: Шлях, 2002. Вип. 11. С. 58, рис. 1, 7; Коваленко О. Гончарство Полтави... С. 298, мал. 239.

\(^{26}\) Коваленко О. Гончарство Полтави... С. 305.

\(^{27}\) Чміль Л.В. Керамічний посуд Середньої Наддніпрянщини... С. 86.

\(^{28}\) Коваленко О. Гончарство Полтави... С. 305.
Type V – tiles with plant-geometric ornament in the form of two diagonal crossed lines. From the tops of triangles that form these stripes, ‘grow’ three-petal ‘lilies’ (fig. 22). Around a central flower there are six-corner flowers-stars. The ornament is contoured by a low little highlighted frame. One full sample of this type has cut wall (‘rumps’) edges without thickening.

Type VI – is represented only by one whole and several fragments of the wall boxtype tiles, the front plate of which is decorated with the crossed stems of six three-petal ‘lilies’, which seem to grow out of the square (fig. 23). Between these flowers there are other triplicated at their ends ‘stems’ formed by dots specks. The square and flowers’ stems have lines and arched dots. In our opinion, this type of ornament was transformed from the ornament ‘crossed tridents’ on tiles of 16-17 centuries.

Type VII – wall boxtype tiles with small – to 0.5 cm – not clearly defined frame (fig. 24). The face plate contains ornament, which combines elements of ‘mesh’ in the form of styled heart, is bind with intersections and includes at the ends of internal ‘S’- like curls styled bunch of grapes.

This sample of a ‘carpet’ tiles with volutestyled elements and flexible grape vines is typical for the art of developed baroque. In Cossack Hetmanate this type has gained popularity. In 18 century dominated baroque tiles with characteristic volute-styled floral ornament: intersected cartouches, stems, bunches of grapes, leaves. In the town they were found not one. Similar type of tiles was widely spread in Ukrainian and Belarusan territories from the second half of 17 century. By the typology of Larysa Vynogrodskaya, they can be attributed to the second subtype of the second type of tiles with ornamented face plate, which were spread from the end of 17 – to the end of 18 centuries: with square or rectangular face plate without ‘edging frame’. Those are the most common among found tiles in the cultural layer of Poltava 17-18 cc. However, among the Reshetylivka findings were only two such tiles.

Besides these tiles with clearly defined types of ornamentation which is identified on the basis of a whole or reconstructed image, there was also a small number of tiles pieces with other decoration. In particular, with plant-geometrical elements: ‘S’-like decorated with teeth volutes; stems with akanthus leaves, straight geometrical elements.

**Cornice tiles** are divided into:

- boxtype with ‘S’-shaped profile;
- flat figurately cut ‘bits’.

Typical is a division of composition into two separate ornamental zones, according to the profile relief on profiled cornice tiles. They are divided by lines or by image of a twisted cord. For example, the tile from the central pillar of pottery kiln 2 has in the upper tier two rows of triangles with tops to one another, and in the lower tier –

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29 Попельницька О. Кахлі XV-XVII ст. з Національного музею України // Нові дослідження пам’яток дони козацтва в Україні. Київ: Шлях, 2002. Вип. 11. С. 54, мал. 1, 2, 10.
beams (fig. 25). Morphologically very similar to it is cornice boxtype tile also divided by an image of a twisted cord into two tiers, in the upper – image in form of triangles and styled lily buds, in the lower – extended wavelike arches (fig. 26). Stylistically similar tiles are typical for Poltava region in the second half of 17 – first half of 18 centuries. They were well-known in many hubs including those originating from pottery kilns in Poltava.

Some of the tiles found in the pottery kiln 2 belong to laced (with slotted ornament) type, namely they have notches in front plate (8 units). Unfortunately, all of them are small fragments, which do not allow to determine the general appearance of the product, but most likely these are cornice tiles.

All the tiles are boxtype, made by means of stamping in wooden forms. The inner surface can contain signatures of technological process, fingerprints of the potter, concentric traces of excess clay removal, circular smoothing traces at connection points of ‘rumps’ and plate (fig. 28). Tiles differ by technological parameters and performance carefulness, for instance, thickness of face plates fluctuates within 0.4-1.4 cm, in the forming mass of a few of them were noticed small pieces of red color and chamotte.

Tile rump was made on a pottery wheel and was fixed to the face plate. Tiles rumps are made in different ways:

- the edges are performed by ‘rolling out clay’ outside, as a result of which a sort of rand on the whole rump perimeter was created. Potter could cut the edge with a modelling stick, or smooth rand with his fingers (fig. 29, 1-3).
- the edges were cut equally, sometimes were thickened (fig. 29, 4-6).

Tiles rumps’ height varies from 4 to 8 cm. The majority (84%) is 5-6 cm. Sometimes on one tile rump’s height fluctuates, for example, within 2.5-5 cm. One tile could have rump up to 7.3 cm and unusual drawing: three graved lines under the edge of rump, holes and traces of a small stick (fig. 30). In type VI of wall boxtype tiles decorated with a flower, the rump edges have no rand, they are equally cut. All abovementioned points on the production of those tiles at least by two potters.

Some images have a very low relief, especially of lines and small elements, which confirms long use of the shape by the potter. Only a few of them have high decor relief, up to 0.4-0.5 cm and different detailing. Among the Reshetylivka tiles a special proficiency and high décor relief is peculiar for a part of tiles with crosses. On them even tiny cracks from wooden forms are well visible. Sometimes these are tiles with similar patterns, which show the durability of life of certain décor types. For long enough were popular ‘carpet’ tiles with rhombic patterns, tiles with crosses and tiles with volutes. Having entered into fashion at the beginning of 18 century such tiles were used practically during all the century on a wide territory. The majority of found in Reshetylivka tiles are similar to the findings from Poltava and are also correlated with the corresponding plots and decor of products of Middle Podniprovia.

**Kitchenware**

Pottery. All found kitchenware of 17 century was formed on a fast-turning foot pottery wheel by pulling from one piece of clay. According to Lesya Chmil and Olena Onogda, such kitchenware appears in the Middle Dnieper territory, in particular in
Kyiv, approximately at the beginning of the XV century\textsuperscript{32}, so on the left bank of Dnipro River theoretically it could appear at the same time. However, the low density of population on these territories and the lack of archaeological material of that time do not allow to speak about functioning of pottery centers at that time. It is possible to speak confidently about the spread of own production only at the end of 16 – early 17 centuries.

The majority of kitchenware is ornamented. Pots have three zones of ornamentation – rims, shoulders and parts of the pot’s body near the bottom (in Ukrainian ethnography named – ‘utor’\textsuperscript{33}). The main ones are rim and shoulders. Parts of the pot’s body near the bottom were rarely ornamented. For Poltava region decoration of the this part of pots was not typical. Pots decoration by applied techniques is divided into:

- \textit{painted decoration (painting, writing)} – was carried out by feather with red and white engobes – ‘\textit{opyska}’ and ‘\textit{pobilka}’.
- \textit{corrugated decoration (engraving – ‘\textit{rytuvanna}’), including corrugation, roller decoration, stamping and plastic decoration with tools or hands} – was carried out by partial remove of clay with special tools and creation of deepened ornament.
- \textit{floating} – drawing with special instrument with a floater (often – round stones) thin lines on the surface of the product, or smoothing the entire surface to create shiny and bright visual effect. In the 17 century floating was popular in the form of separate lines on smoked bowls, mugs and pots. They looked favorably on a shiny dark surface, creating an effective look. There were drawn parallel floating stripes, waves or nets. Rarely on smoked pots were drawn floating stripes from central pat of body to bottom.

Among this kind of kitchenware fragments of upper parts of smoked pots of 17 century draw attention. Differs by the richness of relief decor one pot fragment decorated on the edge of the rim with finger pressures, on the shoulders – a line of oblique graved exposed rectangles, and below – print of the five-teeth instrument, probably a roller, the print of which forms a zigzag on the shoulders (fig. 35, 2; 36, 2). The surface of this pot is gray to black, smoked.

The fragment of the upper part of the pot is decorated with graved lines and a strip of prints on the shoulders, drawn by a roller (fig. 31, 1; 32, 1). Interesting, that the cut on the wheel ornament consists of 4 different elements, different combination of diagonal incut lines and as a result it looks rather unrhythmic.

They originate from both pottery kilns 2 and 1, as in the next described example, a fragment of the pot upper part with graved lines and roller prints or with a row of front rectangular prints on shoulders (fig. 31, 3; 32, 3).

After decoration and drying the product was burned-up. In the early modern time were known two methods of burning-up of clay kitchenware: oxidative and renewing. The first one was applied to pots with a painted ornament. Decorated with corrugated ornament pots were burned-up mainly in kilns in renewing environment. Thus, the surface became gray or black. Design features and morphology of pots were the same, they differed only by the technique of decoration.


\textsuperscript{33} Чміль Л.В. Керамічний посуд Середньої Наддніпрянщини... С. 42.
One potter could produce terracotta and smoked pots. This is indicated by defective products found in the kilns. For example, it is the fragment of the upper part of the pot with handle, decorated with rows of graved lines and stripes, drawn by rollers on the shoulders (with a rather worn imprint) (fig. 33). The pot diameter is 22 cm, the length of the handle is 7 cm, the width is 2 cm. Its lower part is decorated with vertical shiny stripes (fig. 33). Its ornament and form are appropriate to the terracotta pot, which also has shiny stripes from shoulders to the bottom (fig. 34). Probably, as a pottery defect it was not burned up and was used to strengthen the pottery kiln by fitting into it. The same way was used the similarly ornamented pot, one side of which blew out, it lost its ‘marketable condition’ and was rejected and, most likely, left in the kiln as a ritual practice (fig. 35).

Finding of such samples, namely pottery defects, in pottery kilns indicate on production in Reshetylivka at the end of 17 century of smoked corrugated kitchenware and confirm possibility of burning up in one pottery kiln of terracotta and smoked kitchenware. In general, morphological features and decoration of smoked pots are typical for the wide territory of Naddniprianshchyna, Livoberezhia and Slobozhanshchyna and have numerous analogues among materials of 17 century (settlements: Valky, Hovtvta, Gребінка, Маіачка, Chygryyn, Korsun, Pereiaslavtchyna, Balakiya, Poltava etc.) 34.

Ornamented pots are represented by a number of units and mainly originate from filling of the burn-up hood, therefore, most likely, with few exceptions, they have appeared in the pottery kiln after the end of its operation. The pots are decorated with typical for Poltava region ornamented schemes: line rows of red engobe (fig. 36, 1); straight and wavy lines of red engobe (fig. 36, 2); red engobe and edging (fig. 36, 2, 3) etc.

Later items are presented by the collapsed large pot (fig. 37). Decorated on edges – parallel stripes and a row of diagonal prolonged spatters of red-brown engobe divided by rectangles on sections with different number of spatters, shoulders are ornamented by a number of vertical large spatters, below – horizontal parallel stripes, between which in the middle are painted horizontal oval-prolonged spatters. The primary engobe color is lost, but it is likely that red, light red and white colors were used. Such pots were produced from the end of 18 to the end of 19 centuries and were characteristic for Poltava region. Given the abovementioned and the marks

of use, it becomes clear that this pot was thrown into the pottery kiln when it had been turned into a garbage bin.

The bowls are ornamented with red engobe lines on white engobe background; three parallel lines, wavy dark brown engobe stripe and light brown spatters on white engobe background. One of the unusual findings from the pottery kiln during the end of its functioning are two candlesticks in the form of a bowl for the collection of melted wax with a socket for candle with flat bottom without stand. Products of this type were produced in two stages: first a bowl was formed on a potter’s wheel and separately – cylinder socket for candle. Then they were bound: in the center of a bowl was bound with a socket for candle, which was cut with a knife or spindled, to release wax out. The first candlestick size: diameter of the bowl edges – 15 cm, diameter of the bottom – 7.1 cm, height of the socket – 1 cm, diameter of the socket – 3.2 cm (fig. 38). Size of another one: diameter of the bowl edges – 14 cm, diameter of the bottom – 7.1 cm, height of the socket – 0.9 cm, diameter of the socket – 2.4 cm (fig. 39). Such candlesticks were used for candles with a diameter of 2-3 cm. Such candlesticks were found not once in 17-18 centuries in Ukraine. In particular, they were widely found in Kyiv. Although their form remained stable and was produced throughout the territory of Cossack Hetmanate, candlesticks had certain regional features. For example, compared to Kyiv, Poltava region candlesticks were smaller in diameter. The abovementioned products fully meet Poltava parameters.

Thus, the rescue works on the territory of Reshetilivka town and discovering of two pottery kilns allow to classify Reshetilivka as a pottery hub of Poltava regiment, despite the absence of written sources on a pottery workshop existence there. The found pottery kilns were built by one potter on his own yard at the end of 17 – early 18 centuries. Their form is typical for pottery kilns, which were spread on the wide territory of Ukraine at that time. For strengthening of the kilns kiln boxtype tiles were used. The peculiarity – central pillar construction completely of tiles. The analysis of the tiles and the rests of the kitchenware shows that in Reshetilivka was produced smoked ceramic with corrugated ornament, which was gradually changed in 18 century by painted ceramic. Features of the kitchenware are characteristic to Poltava pottery region.

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Fig. 1. Hetmanshchyna map fragments of Joseph Nicola de Lille 1724-1729 years.
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Fig. 2. Pottery kilns on the modern Reshetylivka map.
Fig. 3. Pottery kiln 2.
Fig. 4. Pottery kiln 2 fragment before the beginning archeological researches.

Fig. 5. Pottery kiln 2.  
The fragment of the central pillar, made up of box-type tiles in the process of clearing.
Fig. 6. Pottery kiln 2.
The fragment of the firing chamber. On the left in the wall are cleaned tiles built in the facility.
Fig. 7. Pottery kiln 1
Fig. 8. Pottery kiln 1 after archeological researches.

Fig. 9. The part of the pottery kiln 1 in the process of the archeological clearing.
Fig. 10. The fragment of the tile built in the wall of the pottery kiln 1 firing chamber.

Fig. 11. Pottery kiln 1. Tile with the image of a two-headed eagle. Clay, forming pottery wheel, imprinting. 23.5×19.8×6 cm. First half of the 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80987, CS 4196.
Fig. 12. The tile fragment. Pottery kiln 2. Clay, pottery wheel, forming. 9.2×14.0×0.9 cm. End of the 17 – early 18 centuries. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 60969 CS 4179.

Fig. 13. The tile. Clay, pottery wheel, forming. 22.0×15.5×0.6 cm. Reshetlivka. Pottery kiln 2. End of the 17 – early 18 centuries. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80970 CS 4179. Photo by Oksana Kovalenko. First published.

Fig. 15. The tile. Pottery kiln 1. Clay, forming, pottery wheel. The first half of the 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. №PKM 80989, CS 4198.
Fig. 16. The tile. Pottery kiln 1. Clay, forming, pottery wheel. 23,0 × 21,0 × 5,0 cm. The first half of the 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80974, CS 4183.

Fig. 17. The corner tile. Pottery kiln 1. Clay, forming, pottery wheel. 21,5 × 23,5 × 10,5 × 23,5 × 6,5 cm. The first half of the 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80984, CS 4193.
Fig. 18. The tile. Pottery kiln 1. Clay, forming, pottery wheel. 22,5×19,5×8,0 cm. The first half of the 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80989, CS 4198.

Fig. 19. The tile. Pottery kiln 1. Clay, forming, pottery wheel. 22,5×20,0×5,0 cm. The first half of the 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80951, CS 4190.
Fig. 20. The tile. Pottery kiln 1. Clay, forming, pottery wheel, imprinting. 22,5×21×6,0 cm. Early 18 century.
The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80982, CS 4191.

Fig. 21. The tile fragment. Pottery kiln 2. Clay, forming, pottery wheel. 19,5×11,8×5,0 cm. Early 18 century.
The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80963, CS 4172.
Fig. 22. The tile. Pottery kiln 1. Clay, forming pottery wheel. 19,5×20,5×6,0 cm. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80991, CS 4200.

Fig. 23. The tile. Pottery kiln 2. Clay, forming pottery wheel. 24,3×19,7×0,7 cm. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80967, CS 4176.
Fig. 24. The tile. Pottery kiln 1. Clay, forming, pottery wheel. 20.1×11.5×7.9 cm. 18 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80980/1, CS 4197.

Fig. 25. The tile. Pottery kiln 2. Clay, forming, pottery wheel. 14.7×15.2×6.7 cm. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80968, CS 4177.
Fig. 26. The tile. Pottery kiln 2. Clay, forming, pottery wheel. 19,5×20,5 cm. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80966/1-2, CS 4175.

Fig. 27. The fragment of the tile with slotted ornament. Clay, forming, pottery wheel. 6,0×5,3 cm. Pottery kiln 2. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/80.
Fig. 28. The fragment of the rump of the box-type tile. Pottery kiln 1. Clay, forming, pottery wheel. 11.7×9.1 cm. 18 century.
The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 494/33.

Fig. 29. Variants of rumps edges on Reshetylivka tiles.
Fig. 30. The fragment of the rump of the box-type tile. Pottery kiln 2. Clay, forming, pottery wheel. 8,3×6,2×7,3 cm. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/64.
Fig. 31. The fragments of upper parts of pots. Pottery kiln 1. 17 century. Clay, pottery wheel, graving, drawing by a roller, smoking. 1 – 3,5×8,6, 2 – 4,9×10,5, 3 – 2×7,0 cm.

The Poltava V.G. Krychevskiy Local Lore Museum.
Inv. № ND 434/84; PKM 80975 № CS 4184, № ND 434/43.
Fig. 32. The fragments of upper parts of pots. Pottery kiln 1. 17 century. Clay, pottery wheel, graving, drawing by a roller, smoking. 1 – 3.5×8.6, 2 – 4.8×13.8, 3 – 4.2×7.0 cm. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/84; PKM 80975 № CS 4184, ND 434/43.

Fig. 33. The reconstruction of the pot. Pottery kiln 1. Clay, pottery wheel, graving, drawing by a roller. 10.0×10.15 cm. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/7, 434/12.
Fig. 34. The pot. Pottery kiln 1. Clay, pottery wheel, graving, drawing by a roller, smoking. Reconstructed size 17,5×18,0 cm. XVII century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80961 CS 4170.

Fig. 35. The reconstruction of the pot with pottery defect. Pottery kiln 1, burning chamber camera. Clay, pottery wheel, graving, drawing by a roller. Reconstructed size 18,0×21,5 cm. 17 century. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/40.
Fig. 36. The fragments of ornamented pots. Pottery kiln 2. Clay, pottery wheel, engobes, ornamenting. 18 century. 1 – 6,1×10,4; 2 – 5,0×6,4; 3 – 5,1×6,6; 4 – 3,1×6,8 cm. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/8; № ND 434/9; № ND 434/55; № ND 434/56.

Fig. 37. The pot reconstruction. Pottery kiln 2. Clay, pottery wheel, engobes, ornamenting. 18-19 centuries. Rim’s diameter 19 cm, body – 29-30 cm, bottom 13 cm. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № PKM 80962 CS 4171.
Fig. 38. The candlestick. Clay, pottery wheel. Pottery kiln 2. The first half of the 18 century.
Diameter of the bowl edges – 15 cm, diameter of the bottom – 7,1 cm, height of the socket – 1 cm, diameter of the socket – 3,2 cm.
The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/1.
Fig. 39. The candlestick. Clay, pottery wheel. Pottery kiln 2. The first half of the 18 century. Bowl edges – 14 cm, diameter of the bottom – 7.1 cm, height of the socket – 0.9 cm, diameter of the socket – 2.4 cm. The Poltava V.G. Krychevskyi Local Lore Museum. Inv. № ND 434/12.