

Eighth- and ninth-century pottery from the industrial quarter of Pliska, capital of the early medieval Bulgarian kingdom

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From 1997 to 2001 a Bulgarian-German team of archaeologists and natural scientists worked in the Outer City of the first Bulgarian capital, Pliska. The subject of the exploration was the huge area to the west and northwest of the stone fortress, reaching down to the dry bed of the Asar dere River. Taking into account the evidence from the preliminary geophysical prospecting, thirty trenches were chosen for excavation on such places where the most distinct magnetic anomalies had been registered (Fig. 1). The most interesting results were delivered by two trenches. The first one is situated 66 m to the west of Mound XXXIV. It is 35 m long and 5 m wide and consists of sections 4 to 10. The second one, No. 14, is approximately 200 m to the northwest of the same mound and is 10 m long and 1 m wide (Fig. 2). The explored area is of great scientific interest as far as handicraft activities are concerned. In the 1940s, Nikola Mavrodinov¹ and Stamen Michajlov² registered numerous traces of metallurgic production; at the end of the 1960s Atanas Milčev excavated four pottery kilns.³ By field surveys recently conducted by the author, ceramic fragments in large quantities were collected, these being especially numerous in the area to the west and southwest of the mound and close to the river bed. They date from the so-called pagan period, the time from the establishment of the Bulgarian State until the adoption of Christianity (i.e. the end of the seventh to the 60s of the ninth century). The excavations of the Bulgarian-German team proved that the region between the fortified city and the Asar dere River had been inhabited during two main periods – from the eighth until the beginning of the ninth century and from the late tenth until the first half of the eleventh century.

In the first period an intensive handicraft activity took place here. From a depth of 0.30 m up to 1.70 m below today's surface, both of the mentioned trenches revealed multiple layers of production waste which occupy a rather vast area and are either clearly distinguishable, being separated by sterile packages of yellow loess, or are admixed with the same material. These layers contain artefacts verifying the execution

1 Mavrodinov 1948, 163-165.

2 Michajlov 1955, 63.

3 Milčev 1960, 35-55.

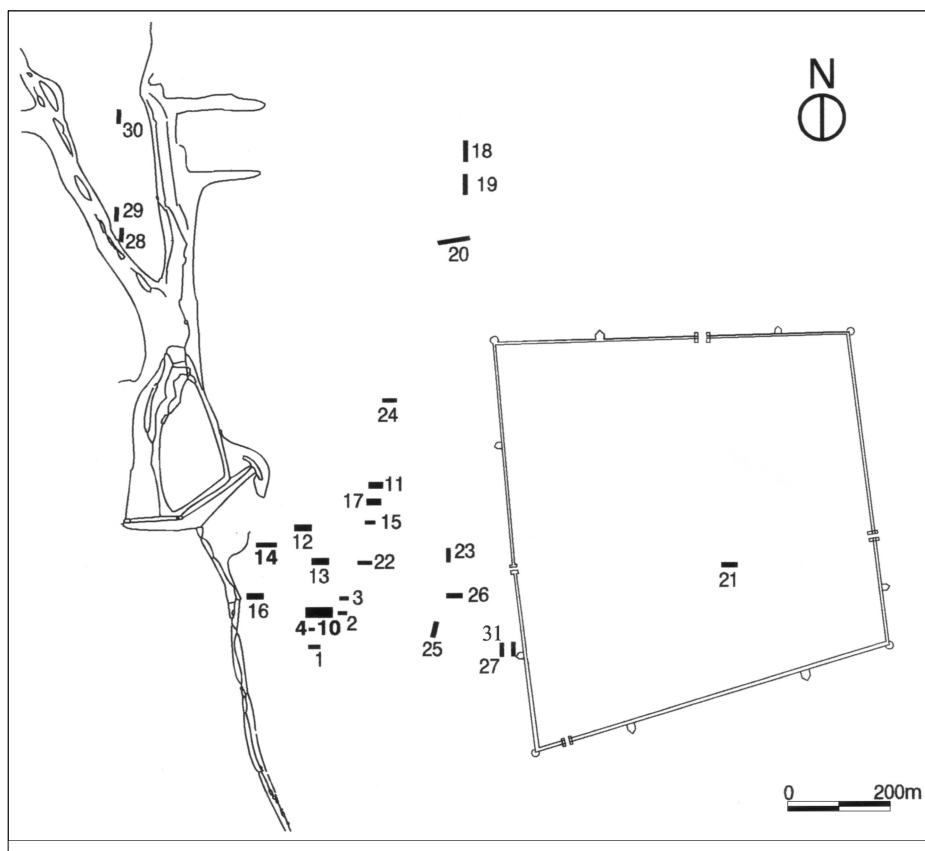
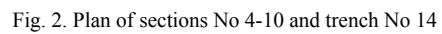


Fig. 1. Trenches in the Outer City of Pliska excavated from 1997-2001 by the Bulgarian-German archaeological team

of different production activities. Most numerous are the finds connected with iron processing – large amounts of slag, charcoal, ash, bellows and pig iron. There are also sherds of melting pots, drops, slag and damaged adornments, etc., probably stemming from the casting of non-ferrous metals. Fragments of glass vessels, drops of glass and molten amorphous glass residue on the other hand point to glassmaking. The animal bones found in large quantities could also have been further processed for different purposes. As usual, the ceramic material is most numerous, with some of the potsherds surely belonging to vessels spoiled during the firing. This is evidence for the existence of pottery workshops in the area.

Several dwellings (or parts of them) were also discovered in both trenches – No. 10 in section 4; No. 20 in sections 6 and 7 and No. 32 in trench 14 (Fig. 2). They were dug in the earlier cultural layers, thereby destroying them, and date in the second period. The present paper focuses on the pottery of the first period (eighth-ninth century).



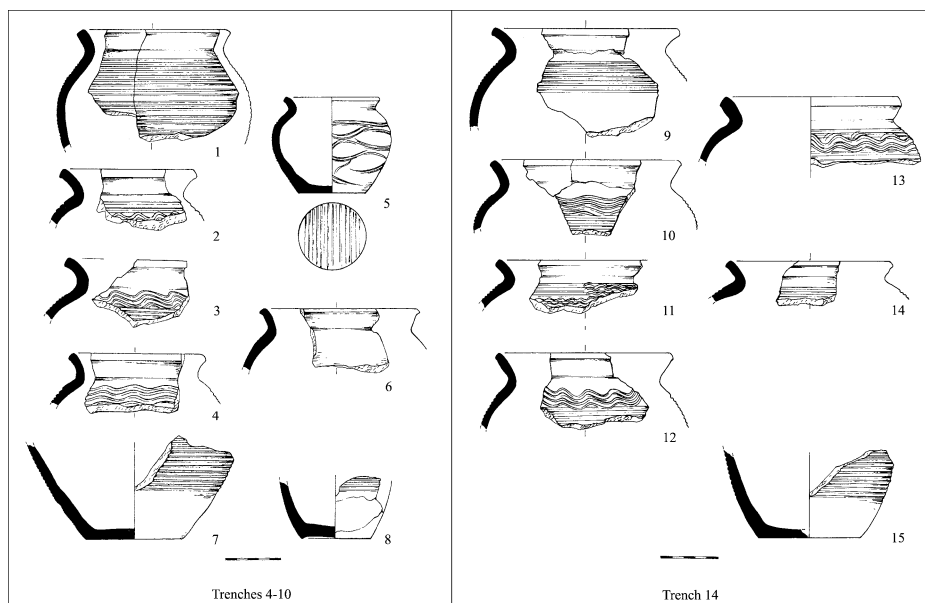


Fig. 3. Fragments of pots made of sand-tempered clay and decorated with incised lines. Trenches No 4-10 and trench No 14

Almost all finds belong to early medieval ceramic groups well documented for Bulgaria. According to their purpose in the household, cooking, table and storage ware can be distinguished. Parts of the vessels, decorated with incised patterns, are made of clay containing numerous sand inclusions and were fired in an oxidising atmosphere. Others, decorated by polishing, are made of pure clay and were fired in a reducing atmosphere. It is worth mentioning that within certain sections and layers, pure clay-pottery is in considerable amount, sometimes even prevailing. Due to long-term contact with iron objects and the impact of moisture many potsherds now bear rusty brown spots.

Cooking ware

Contrary to its quantitative abundance, its assortment is limited to only one form – pots. The material is very fragmentary – only rim, wall and bottom pieces have reached us. In most cases the bad state of preservation gives no clear idea of the pots' actual shape.

The sand-tempered pots do not display a great variety in either shape or ornamentation (Fig. 3). Seemingly, most of them possessed an ovoid body, a narrow neck with a mouth turned outward and a rounded or obliquely cut lip. The rim diameters vary between 7 and 16 cm, with the majority measuring 12-14 cm. The bottoms are

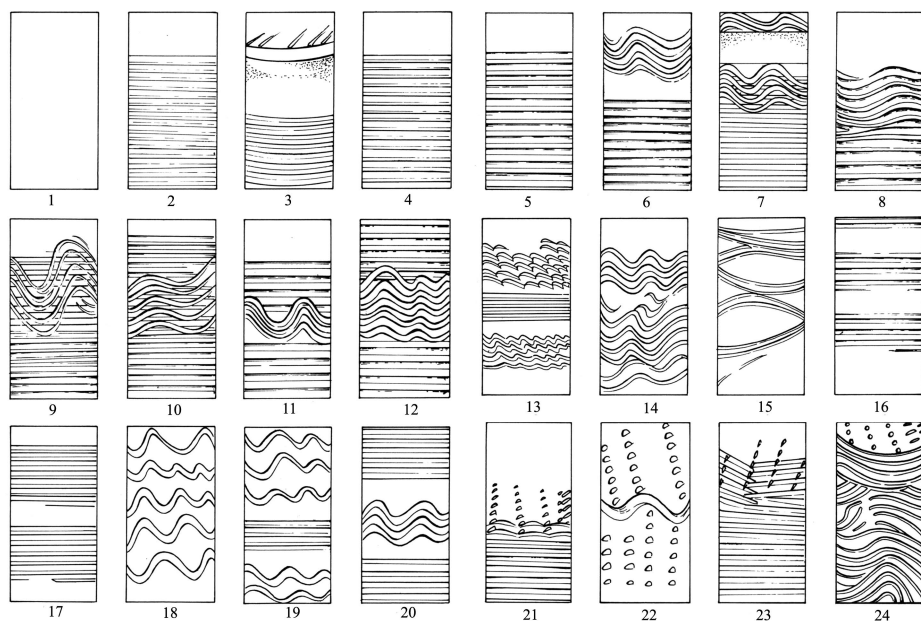


Fig. 4. Incised ornaments on vessels (pots and storing jars) made of sand-tempered clay. Trenches No 4-10

flat and have a diameter from 7-8 cm to 10-12 cm. Although fragments without any decoration are occasionally found in different layers, the decorated ones prevail. The most characteristic ornament consists of straight lines, shallowly, or, most often, deeply incised by means of a comb, covering almost the entire body. Sometimes beneath the mouth of the vessels, above, over, or between these straight lines there is a band of 4-8 wave lines, made with the same combs (Fig. 4.6-12, Fig. 5.3, 6-10); single wave lines or their various combinations with grooves are rare (Fig. 4.3, 21-24, Fig. 5.11).

Most of the pots were thrown on a slow potter's wheel, rotated by hand. Some of them are rather heavy and plump; single coils are visible on the inner side of their walls, immediately above the bottoms. Small imprints from fallen off grains of sand are to be seen on the bottoms. Some of the bottoms also have relief rims on the periphery and/or potters' marks, with a circle or a cross in a circle being the most frequent types of marks. There is one mark which was cut before firing. The other vessels bear regular concentric lines on the inner side of the walls. They were obviously made on a more improved wheel, closer to the fast potter's wheel.

Quartz sand, limestone or feldspar are admixed to the clay as tempering materials. The colour of the vessels after firing is yellow-brown, orange-red or brick red, with the cross section of the walls revealing a grey or grey-black core. Some potsherds show traces of secondary contact with smoke, possibly due to their discarding in such a milieu,

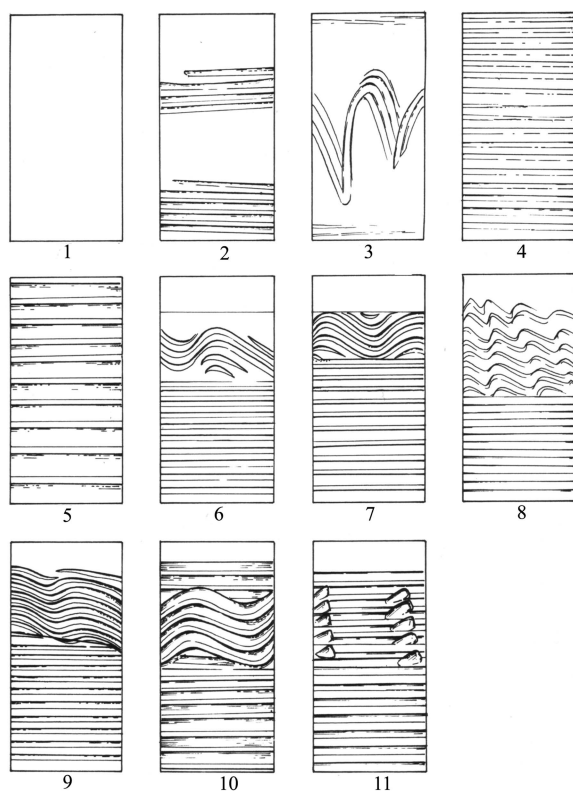


Fig. 5. Incised ornaments on vessels (pots and storing jars) made of sand-tempered clay. Trench No 14

e.g. among burning or smouldering materials. It is interesting to notice that the inside of the pots sometimes feature a very thin grey-blackish layer. It resembles a manganese varnish which could have been intentionally applied in order to prevent leakage.

Only one small pot could be completely restored (Fig. 3.5 and 6.1). This pot, as well as the rim fragments with wide rounded shoulders, belong to Type III or XIII, Variant A and B according to the classification of Bulgarian house pottery.⁴ Similar intact or restored vessels are known from other sites in or not far from Pliska (Fig. 6.4-8), e.g. Mound XXXIII,⁵ the bi-ritual cemetery near the village Kjulevča and the cemetery of the neighbouring village Vojvoda.⁶

The fragments from pots made of pure clay are considerable in quantity, amounting to one third of the ceramic finds from layers 9 to 15 in trench 14 and in the last layer 15 even prevailing. The most frequently measured diameters of the rim fragments are 12 and 14 cm. Some of them have high (2.5-4 cm) and almost conic necks (Fig. 7.1-3),

4 Dončeva-Petkova 1977, 51-53, 60-61.

5 *ibid.*, Cat. No. 126-130, 172-175.

6 Vážarova 1976, 94, 102, 105-106, 125, 141, fig. 48.5, 50.2, 57.3, 59.2, 62.2, 74.7, 87.2.



Fig. 6. Pots made of sand-tempered clay with incised decoration. 1. trench 4b; 2. trenches 4-10; 3. trench 14; 4. pot from the cemetery at Kjulevča village, Šumen district; 5. pot from the cemetery at Vojvoda village, Šumen district; 6-8. vessels from Mound XXXIII in Pliska

while others have rather short ones (Fig. 7.4-6). The lip is rounded, either broad or narrow and only rarely thickened. As several fragments show, some of the pots had handles; unfortunately, the exact vessel shape remains unclear.

The pots are made of pure clay containing tiny glimmer pieces; small quartz grains or limestone pieces are more than rare. The colour of the vessels is grey, grey-black, grey-brown, yellow-brown or reddish-orange. The inner or outer surface layer is most often grey, the core being black. There are also yellow or reddish-orange sherds with an evenly coloured cross section.

The decoration shows a greater variety than the incised ornaments of the sand-tempered pots. Apart from the well-polished shiny surface (Fig. 8.12, 25), different combinations from horizontal, vertical or diagonal polished lines are to be seen, e.g. the quite typical grid pattern (Fig. 8.2-4, 25-32). Sometimes the polished lines are combined with incised horizontal lines (Fig. 8.5-12, 39). The walls of the pots with pale colour are not always even, sometimes being wavy and/or having flutes (Fig. 8.35-36, 40). All of them were thrown on a slow potter's wheel. Relief marks are rare, obviously because after forming the vessel, the potters smoothened the bottoms. Some sherds of this group also show traces of smoke on the inner and outer surface. The available

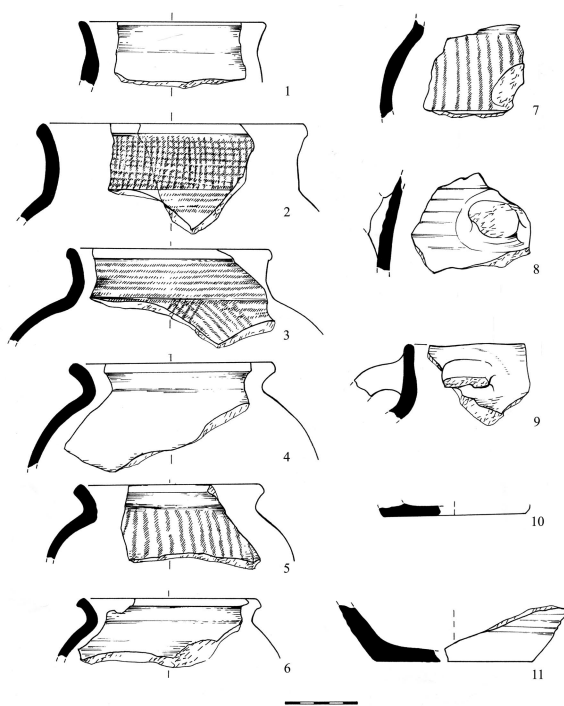


Fig. 7. Fragments from pots made of pure clay and decorated by polishing. Trenches No 4-10 and trench No 14

vessel parts belong most probably to pots with ovoid bodies, as known from Mound XXXIII in Pliska,⁷ the cemeteries near Novi Pazar⁸ and Kjulevča,⁹ as well as from other bi-ritual cemeteries (Fig. 9).

Table ware

Table ware is represented by jugs, double-handled flagons and dishes. The *jug* form is maybe the most interesting one, attested by rim, wall and handle fragments (Figs 10-12). The rims vary in form. Some of them are threefold (Fig. 10.1-4, 12.1-4) and belong to large vessels; while others are funnel-like and belong rather to small jugs. Some of the necks are modelled very carefully, but in the prevailing part of the fragments the single coils are still well visible on the inside (Fig. 10.1-3, 5, 7, Fig. 12.2-3). This part of the vessel demands the greatest skilfulness: because of the narrow opening, the potter has not always managed to remove the traces from coiling. The same technical feature is

7 Dončeva-Petkova 1977, 56, Cat. No. 152-156.

8 Stančev/Ivanov 1958, table XV.

9 Vážarova 1976, 96, fig. 50.5, 105, fig. 59.1, 106, fig. 62.3.

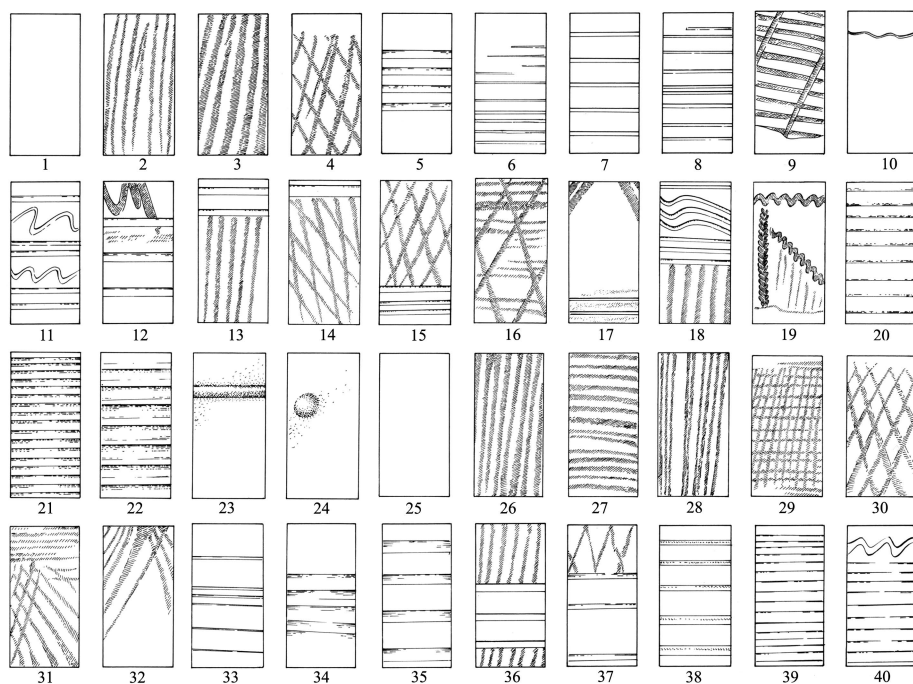


Fig. 8. Ornaments made by polishing on pots, jugs, *amphora*-like flagons, dishes and storing jars.
1-24. trenches no 4-10; 25-40. trench no 14

visible at the upper parts of the walls of certain specimens (Fig. 10.15-18, 20-23). These vessels were also crafted on a slow potter's wheel. Their colour is mostly grey, but also pale or dark yellow.

Polishing is the most typical decoration, as it is the case for the pots made of pure clay (Fig. 8.1-4, 13-16, 21-22, 25-32). Some additionally attached relief elements are also present – small lumps or strips (Fig. 8.23-24, Fig. 10.24-25), as well as small pseudo-handles (Fig. 10.21-23). The jugs from Mound XXXIII, the north junction of the secret passage at the so-called Krum palace,¹⁰ the cemeteries near Novi Pazar, Kjulevča and Bdinci, etc. feature the same elements (Fig. 13).¹¹

Among the numerous ceramic material only four fragments belong most probably to *double-handled flagons* (Fig. 14). The rims are funnel-like and possess horizontally cut lips. The clay material is without any inclusions and the vessels have become grey, grey-brown or pale brown after firing. Reproduced in various techniques, with different

10 Henning/Dončeva-Petkova 1999, Cat. No. 117.

11 Stančev/Ivanov 1958, table XVII; Vážharova, 1976, 99, fig. 53.10, 101, fig. 54.2a, 116, fig. 69.2, 123, fig. 73.1, 125, fig. 75.2.



Fig. 9. Pots made of pure clay and decorated by polishing. 1. Mound XXXIII; 2. cemetery at Novi Pazar; 3-4. cemetery at Kjulevča

colour and decoration, the form of the double-handled flagons (known also as *amphora-like flagons*) is widespread in early medieval Bulgaria during the pagan period.¹²

Of special interest are eight rims (Fig. 15.1-8), two bottoms, one handle and more than 80 wall pieces belonging to single- or double-handled flagons; as well as two spout pieces (Fig. 15.9-10) belonging to “teapots”. They could be classified in a particular group of luxurious vessels, very carefully modelled from pure clay and displaying a pale yellow colour. Some of the wall sherds bear traces of red slip, the spout fragments and one wall piece of yellow-green glaze. Such vessels, 36 being completely restored (Fig. 16.1-6), were found 25 years ago in the south junction of the secret passage, which supposedly burnt down together with the so-called Krum palace.¹³ One “teapot” is also known from Mound XXXIII (Fig. 16.7). Other wall, handle and bottom fragments also belonging to single- and double-handled flagons were found in both trenches. These vessels were also crafted on a fast wheel, also display a pale yellow colour in different nuances and are covered with red slip. Such pottery is characteristic for the lowest cultural layers of the earliest buildings and along the stone walls of Pliska.¹⁴

Sections 4 to 10 delivered 15 fragments of dishes (Fig. 17.1-7, 9, 11-13), trench 14 only two (Fig. 17.8, 10). Two vessels are represented by more than one fragment. Because of the wide-opened and low body, the exact shape of these vessels could

¹² Dončeva-Petkova 1977, 78-82.

¹³ Rašev 1985, 42; *idem* 2004, 61-100; Bălgarite 2004, Cat. No. 13.

¹⁴ Dončeva-Petkova 1973, 14-16; *idem* 1979, 91, fig. 23; *idem* 1992, 496, fig. 1-3; Henning/Dončeva-Petkova 1999, Cat. No. 118-119; Milčev 1985, 34; Georgiev/Vitljanov 2001, 114, fig. 47.1-3, 5-6; Dimitrov 2003, 201-202, table I.27.

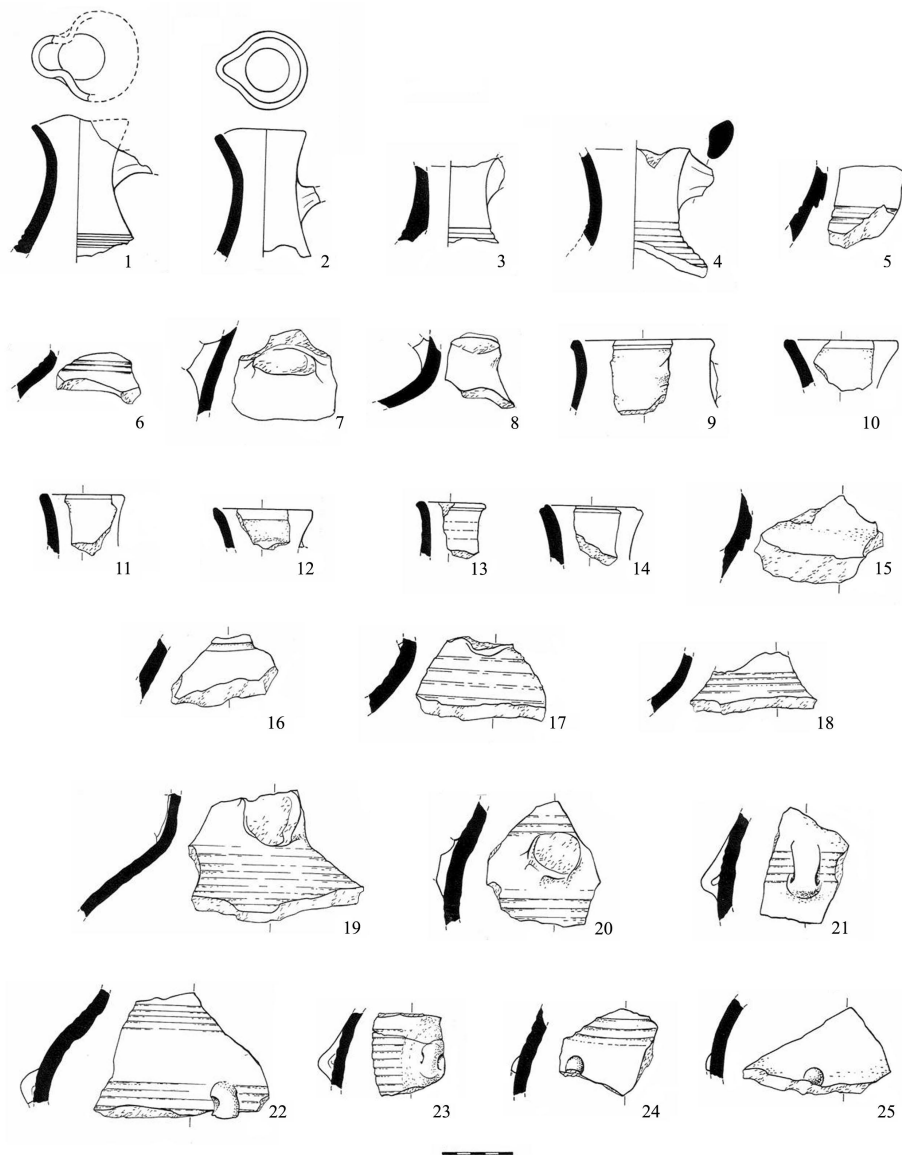


Fig. 10. Fragments belonging to grey jugs



Fig. 11. Fragments belonging to grey jugs

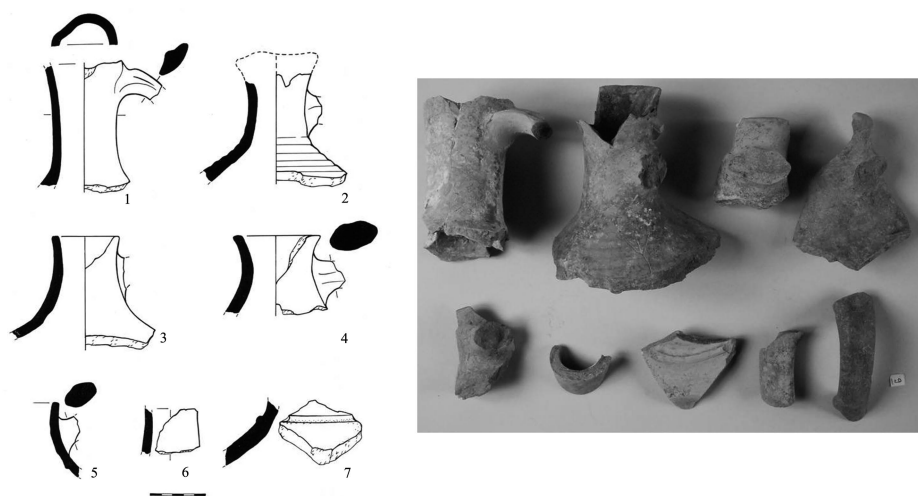


Fig. 12. Fragments belonging to yellow jugs

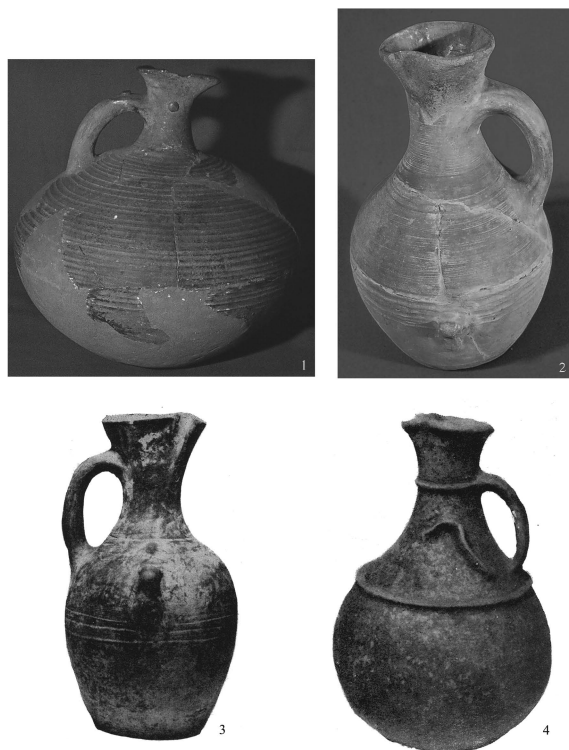


Fig. 13. Jugs. 1. Mound XXXIII in Pliska; 2. cemetery at Novi Pazar; 3-4. cemetery at Kjulevča

be established more precisely and, though few in number, three different types may be distinguished. The dishes of the first type have a spherical body and according to the rim shape could be further divided into five variants. The shoulders of the second type are bigger in diameter than the rim and their body narrows abruptly towards the bottom. The dishes of the third type are characterised by their bi-conical body. The vessels are of grey or grey-black colour, these of Type II dark yellow and ochre.

Storage ware

Storage ware can be divided into storage jars and *amphorae*. The storage jars look exactly like the cooking pots, only being bigger in size. The fragments of such vessels are numerous; coming in a considerable number from the fifth layer of the large trench (sections 4-10). It seems possible that they were ordered if required or were used in the nearby smithies.

The storage jars of the first group are made of clay mixed with sand or other tempering materials. The rim diameter measures from 18-24 cm and the wall thickness

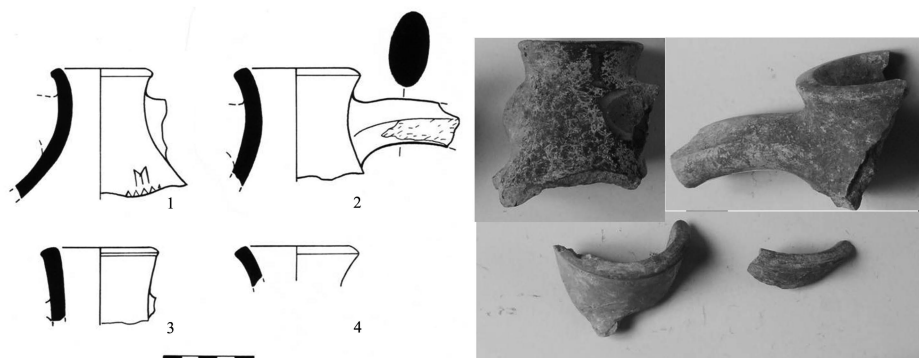


Fig. 14. Fragments belonging to *amphora*-like flagons

from 1.2-1.4 cm (Fig. 18.1-5). A number of fragments coming from different sections and depths may be distinguished – they are characterised by the good quality of firing, a yellowish to light brown colour and, above all, by the presence of a large quantity of feldspar inclusions in the clay. The great amount of tempering material most likely had the purpose of preventing any deformation of the vessels during modelling and firing.

The storage jars of the second group prevail (Fig. 18.6-14, Fig. 19). They are made of pure clay and were fired in a reducing atmosphere. Most of them are excellently formed on an improved potter's wheel, turned by hand or even by foot. One bottom piece with yellow-brown colour bears a relief mark in form of a circle on the outside; at the same time four concentric circles (traces from the potter's fingers) are to be seen on the inside (Fig. 19.2), which are a result of the high rotation speed of the wheel. Such specimen are of great importance because they illustrate in a good way the transition from the slow, hand-rotated potter's wheel, towards the fast, foot-rotated one. The decoration consists of various ornaments (Fig. 8.1-4, 6-22, 29-40). The firing quality is very good – the colour of the fragments is even on the surface and in the cross section. Apart from grey storage jars there are also those of yellow or yellow-brown colour. In some cases even the shape of the vessels could be restored. There are jars resembling the three complete specimens from Mound XXXIII (Fig. 21.1), with others having two handles and rounded bottoms (Fig. 18.11-12). It is to be noted that there are also defect pieces which are a product of bad preparation of the clay or failure during the firing process.

The fragments of *amphorae* are of a considerable number (Fig. 20) and either of dark (grey, grey-black) or light colour (yellow, yellow-brown, brick red). There are parts of walls, rounded bottoms and handles. One bottom is narrow, massive and conical in shape. Two pieces belonging to one and the same vessel were found at different depths (layers 6 and 7) in section 7d. The lip and part of one handle were broken, but the neck and the other handle remained intact; on these parts some signs were incised after firing

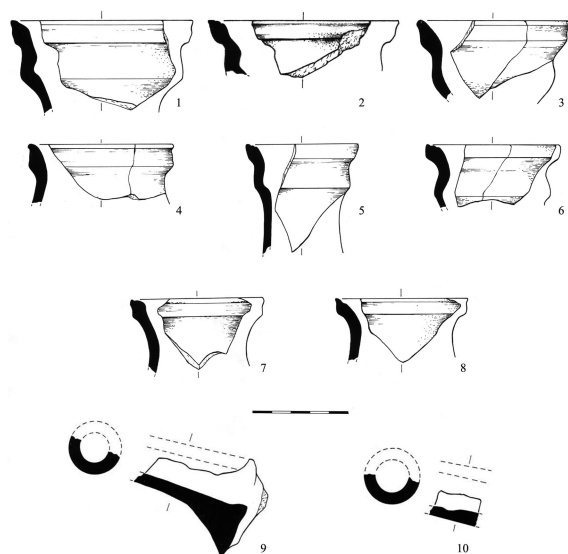


Fig. 15. Luxurious pottery. 1-8. rims belonging to one- or double-handled flagons; 9-10. spout fragments belonging to spouted vessels

(Fig. 20.1, Fig. 21.3). The surface of this vessel was smoothened; the resulting specimen closely resembling a restored *amphora* from the secret passage at the so-called Krum palace, 42 cm in height.¹⁵ Another specimen coming from layer 10 in trench 14 looks very much like the *amphorae* from Mound XXXIII – it displays the same short neck, funnel-like rim and colour.¹⁶

The various ceramic materials from both trenches is quite fragmentary and was probably discarded there as waste. Nevertheless, this pottery gives important information about the techniques applied by the potters and the usage of these vessels in the household. As usual it also presents good material for dating. As such it shows similarities to the material from other excavation sites in Pliska, e.g. the secret passage at the so-called Krum palace, the earliest buildings in the city centre, the lowest layers along the stone fortress, Mounds XXXIII and XXXIV, as well as from cemeteries of the pagan period, found not far away from Pliska.

The clay material yielded from different outcrops in the vicinity: A large number of fragments, with pale yellow, dark yellow or brown-yellow colour, are made of local high-quality clayey. The same is valid for the luxurious pottery from the secret passage and for the pottery covered with red slip; this material also contains tiny glimmer pieces. A great part of the pots and the storage jars are made from clays of lower quality mixed with sand. Other tempering material like feldspar was also used for a group of pots and storage jars with a yellow-brown colour.

¹⁵ Rašev 2004, 80, fig. 21.

¹⁶ Henning/Dončeva-Petkova 1999, Cat. No. 50.



Fig. 16. Luxurious pottery. 1-4. one-handled flagons; 5. *amphora*-like flagon; 6-7. spouted vessels. 1-6. secret passage at the so-called Krum palace; 7. Mound XXXIII

The vessels made of pure clay and decorated by polishing (pots, jugs, *amphora*-like flagons, dishes and storage jars) are considerable in number. According to this criterion that kind of pottery from the “industrial quarter” of Pliska shows certain similarities to the material from the settlement and the relevant cemetery near Topola village, Kavarna district and to the bi-ritual cemeteries at Novi Pazar, Kjulevča, Balčik (cemetery 3), Devnja (cemeteries 1 and 3), etc. The vessels are usually grey in colour, but there are also yellow ones – mainly jugs, dishes, storage jars and *amphorae*.

As it was already pointed out, the prevailing part of the vessels were crafted by means of a slow potter’s wheel, rotated by hand. This is primarily indicated by the relief marks and the peripheral rims on the bottoms; further by the hardly visible coils or simply cracks in the walls on the contact points between them or by the inevitable stacking of coils on the inside of jugs’ and flagons’ necks; finally by the traces from smoothing on the inside and outside surface. The discussed bottom piece (Fig. 19.2) is an example for the usage of an improved potter’s wheel, which must have achieved a higher rotation speed. The above mentioned 8 rims, 2 spouts and more than 80 wall pieces, identical with the superior vessels from the secret passage at the so-called Krum palace, are a product of other craftsmen using a fast potter’s wheel, rotated by foot. The fact that these fragments were found in such an area outside the fortress walls, where different production activities took place, shows that the workshop, where these vessels were

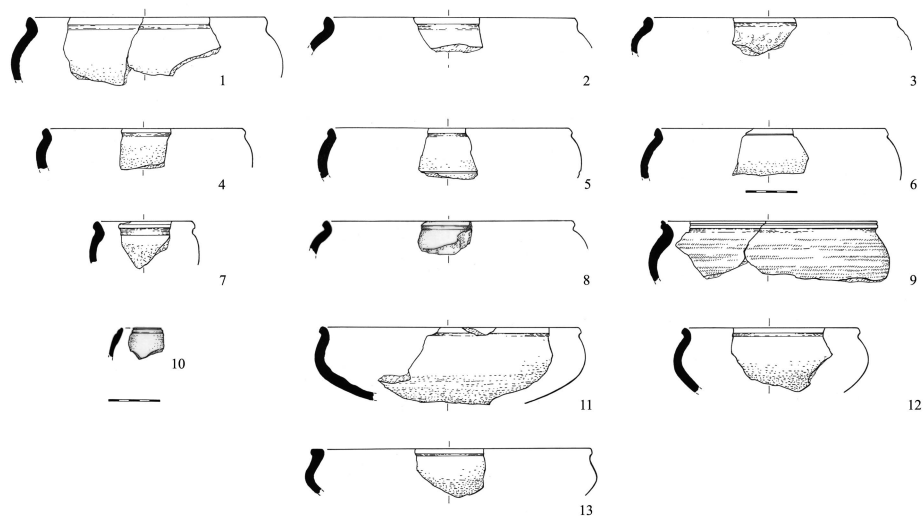


Fig. 17. Fragments belonging to dishes. 1-7, 9, 11-13. from trenches no 4-10; 8, 10. from trench no 14

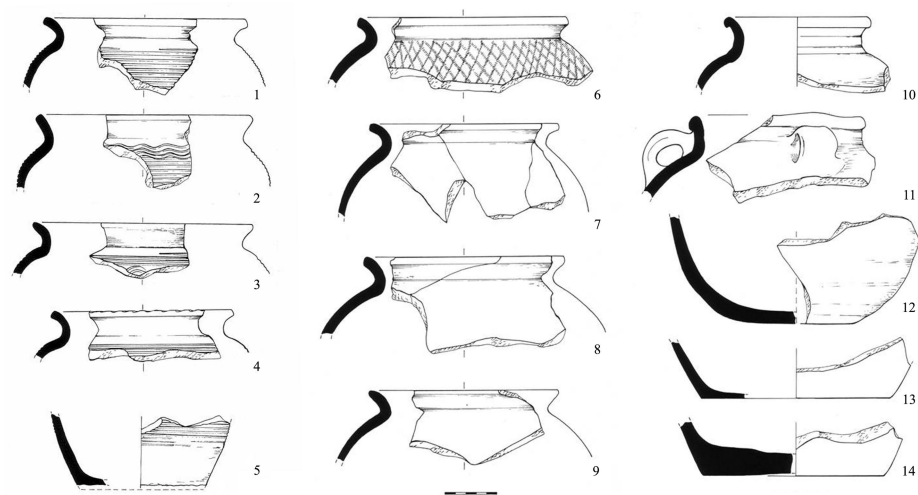


Fig. 18. Fragments belonging to storage jars. 1-5. fragment made of sand-tempered clay; 7-14. fragments made of pure clay and decorated by polishing

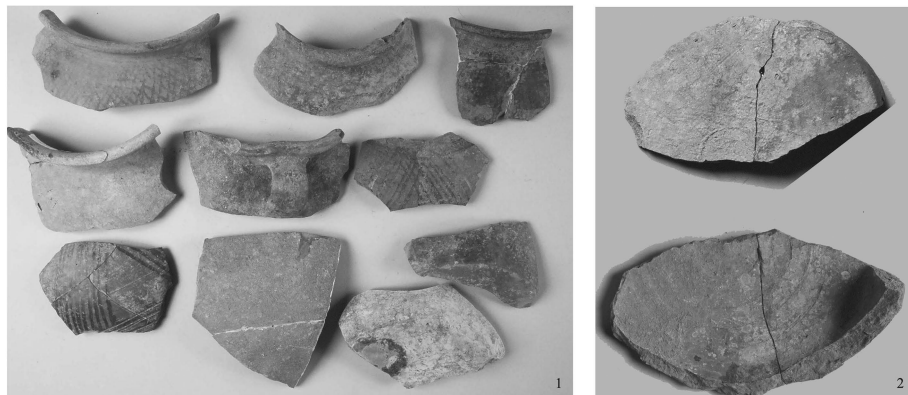


Fig. 19. 1. Fragments belonging to storage. 1. fragments made of pure clay; 2. bottom piece with a relief mark made on an improved hand-rotated potter's wheel

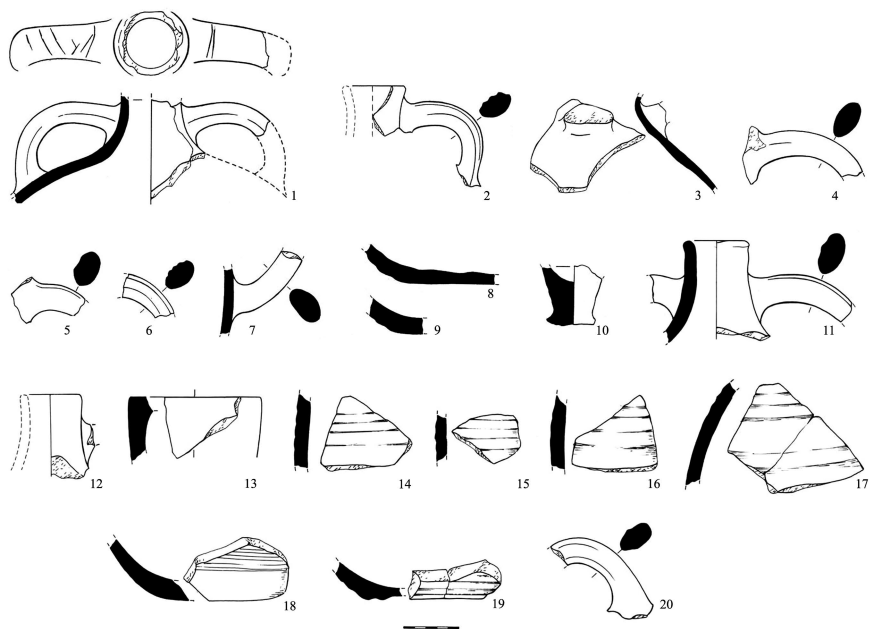


Fig. 20. Fragments belonging to *amphorae*. 1-10. from trenches no 4-10; 11-20. from trench no 14

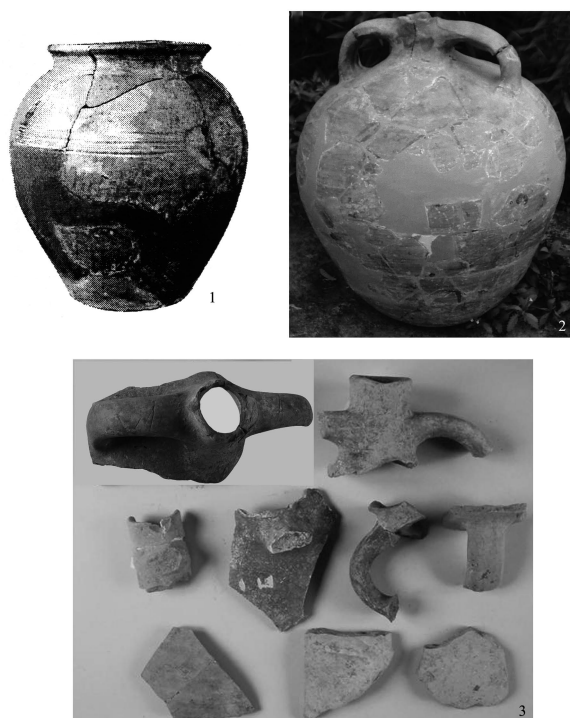


Fig. 21. 1. storage jar from Mound XXXIII; 2. *amphora* from Mound XXXIV; 3. fragments belonging to *amphorae* from trenches no 4-10 and trench no 14

made, was also situated here, on the bank of the Asar dere River. These potters chose and processed the clay material very carefully. Moreover, they excellently mastered the firing process and were familiar with the techniques of glazing and slip covering. In the same or in nearby workshops potters must have worked, making the red slip-covered vessels, which were also thrown on a fast wheel but are more massive and rough in their outside appearance. Apart from this group of pottery there are other vessels crafted on a fast wheel. They were made of pure clay and display a yellow, light brown, ochre red or grey-black colour after firing. The large storage jars and the *amphorae* also required a high measure of skill; they were tastefully decorated and in most cases also very well fired. Nevertheless, there are also fragments with defects. The production waste is due to bad clay preparation or, mainly, to an unsuccessful firing procedure – resulting in irregular colouring, surface peeling, cracking or crater building (Fig. 22). Such sherds could be described as production waste; they were undoubtedly dumped as being useless.

Undisputedly, most of the clay vessels were locally produced, as it is the case in the settlement at Topola, where the relevant pottery workshop has been excavated.¹⁷ According to their shape, the vessels from our excavations show a great similarity to

¹⁷ Bobčeva 1981, 198-199.

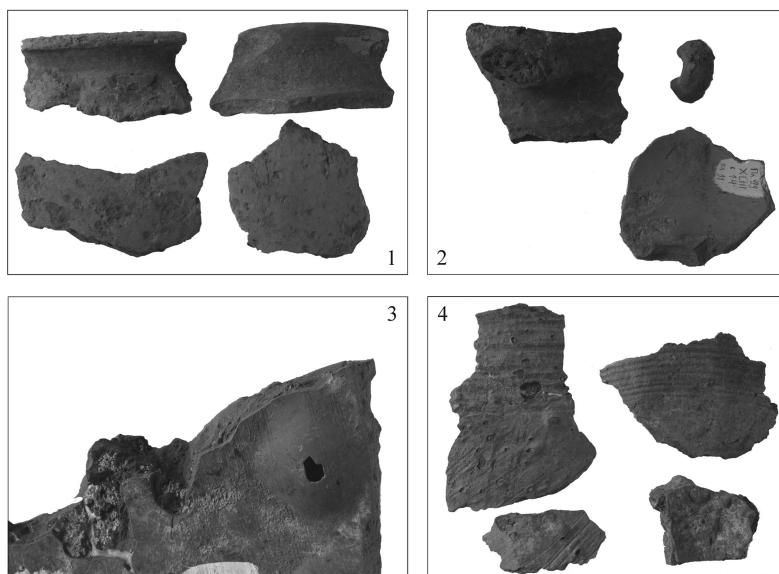


Fig. 23. Production waste

the vessels from the bi-ritual cemeteries of the pagan period. Especially close morphological and decorative relationship exists with the pottery from the nearby cemetery at Kjulevča, possibly indicating further distribution of the ware produced in the workshops in the Asar dere area within the neighbouring region. The intact vessels from this and other cemeteries give us an idea about the shapes of our often fragmentary material. On the other hand, it is sure that the pottery from our excavations was produced for use in everyday life and not as a grave good. Otherwise, storage ware (jars and *amphorae*), normally not found in cemeteries, couldn't be present here. The luxurious flagons, *amphora*-like flagons and spouted vessels, which are imitations of metal specimen, were ordered especially and only for the court of the Khan. The problem of the origin of the potters producing them remains difficult because this group of vessels combines different elements. Some of them stay close to the pottery production of neighbouring Byzantium, others to the Late Avar yellow pottery of Middle Europe. However, the features typical for the so-called "new style", which was current in Middle Asia during the seventh and eighth centuries, apparently prevail.

The unearthed ceramics were produced in the same period when intensive smithing activities were practised in this region. Here, to the west of the stone fortress and along the Asar dere River the "metallurgical factory" of Pliska was placed. It is without doubt that the armour for Krum's army "completely dressed in iron" was manufactured here. The vessels from the secret passage are also dated to this period. It was most probably

burnt down during the campaign of emperor Nikephoros I in 811.¹⁸ Other dating materials were found in sections 4 and 10, e.g. a bone needle container in section 4a, layer 6 and a fingering with loose ends in section 10a, layer 5. Similar containers are known only from the early pagan cemeteries.

Another observation also deserves our attention. Searching for suitable parallels, it became clear that a lot of the fragments find their exact matches among the vessels from Mound XXXIII, situated not far away and to the northeast of the fortress. The same is true for the fragmentary material found in the core of Mound XXXIV, two *amphorae* whose lowest parts have been completely restored. These observations could only mean that the materials discovered from 1997 until 2001 were accumulated simultaneously with the erection of this mound. This is covered with a mighty layer of yellow loess, 4 m thick at its uppermost point. The same sediment was also found in our trenches, within or between the layers of burning. This material is present everywhere on the territory of the former medieval capital, some 0.80-1 m below the plough horizon. It is quite possible that the earth dug for the foundations of the stone fortress, built just after the demolishing fire in 811, was accumulated on top of Mound XXXIV or was scattered where we found it in our trenches.

(translation: Vasilena Petrova)

Bibliography

- Bobčeva 1981: Любка Бобчева, „Прабългарско селище при с. Топола, Толбухински окръг“, in: *Плиска – Преслав* 2, София 1981, pp. 198-201.
- Dimitrov 2003: Янко Димитров, „Наблюдения върху битовата керамика на обект 31 в Плиска“, in: *Плиска – Преслав* 9, Шумен 2003, pp. 181-221.
- Dončeva-Petkova 1973: Людмила Дончева-Петкова, „Ранносредновековни ангобирани съдове“, in: *Археология* 15/3, 1973, pp. 14-20.
- Dončeva-Petkova 1977: Людмила Дончева-Петкова, *Българска битова керамика през ранното средновековие (втората половина на VII - края на X в.)*, София 1977.
- Dončeva-Petkova 1979: Людмила Дончева-Петкова, „Западната крепостна стена в Плиска (проучвания на южния сектор през 1973 и 1974 г.)“, in: *Плиска – Преслав*, 1, София 1979 pp. 81-97.
- Dončeva-Petkova 1992: Людмила Дончева-Петкова, „Региональные варианты древнеболгарской керамики“, in: *Четвърти международен конгрес по славянска археология: Доклади и съобщения* 1, София 1992, pp. 496-517.
- Henning/Dončeva-Petkova 1999: Йоахим Хеннинг/Людмила Дончева-Петкова (Eds), *Първопрестолна Плиска: 100 години археологически проучвания*, Франкфурт на Майн 1999.
- Georgiev/Vitljanov 2001: Павел Георгиев/Стоян Витлянов, *Архиепископията – манастир в Плиска*, София 2001.

18 Mijatev 1943, 117, 129.

- Mavrodinov 1948: Никола Мавродинов, „Разкопки и проучвания в Плиска“, in: *Разкопки и проучвания* 3, 1948, pp. 159-170.
- Mihajlov 1955: Стамен Михайлов, „Археологически материали от Плиска (1948-1951)“, in: *Известия на Археологическия институт* 20, 1955, pp. 49-181.
- Mijatev 1943: Кръстю Миятев, „Крумовият дворец и други новооткрити постройки в Плиска“, in: *Известия на Археологическия институт* 14 (1940-1942), 1943, pp. 71-135.
- Milčev 1960: Атанас Милчев, „Археологически разкопки и проучвания в местността Асардере – Плиска, през 1959 г.“, in: *Годишник на Софийския университет. Философско-исторически факултет* 53, 1960, pp. 33-66.
- Milčev 1985: Атанас Милчев, „Разкопки и проучвания на южната порта в Плиска“, in: *Плиска – Преслав* 4, София 1985, pp. 16-43.
- Rašev 1985: Рашо Рашев, *Плиска: Пътеводител*, Шумен 1985.
- Rašev 2004: Рашо Рашев, „Керамични съдове от подземния ходник на Крумовия дворец в Плиска“, in: *Плиска – Преслав* 10, Шумен 2004, pp. 61-100.
- Stančev/Ivanov 1958: Станчо Станчев/Стефан Иванов, *Некрополът до Нови пазар*, София 1948.
- Bългарите 2004: *Българите и техните съседи през V – X в. Каталог към изложба*, Варна 2004.
- Vážarova 1976: Живка Въжарова, *Славяни и прабългари по данни на некрополите от края на VI – XI в. на територията на България*, София 1976.