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Tobacco Clay Pipes Discovered in the Historical Center of Timișoara*

Zsuzsanna Kopeczny, Remus Dincă

Abstract: On the occasion of rescue archaeological excavations carried out in the historical centre of Timișoara, one of the most important medieval and early modern towns of the Banat region, researches have been made in the “core” of the late medieval and then Ottoman-period settlement. A rich and diverse archaeological inventory has been recovered on this occasion; however only a part of it has been studied and thus published in a first monograph. The present study aims at presenting a small category of ceramic artefacts dated to the Ottoman period (16th–17th centuries), namely the tobacco pipes. The habit of smoking and the use of tobacco pipes have been introduced to this region by the Ottoman and Balkan populations settled here after the Ottoman conquest of Timișoara and of the northern part of Banat in 1552. Based on already existent typologies we have placed the items into categories; however, due to the diversity of their shapes and ornaments, there still are individual and yet unique pipes. As for the workshops that produced them, we could conclude that some of the pipes come from the Balkans (one even bears a craftsman or workshop mark) or even as far as the Orient, while others can be labeled as local products.

Keywords: clay tobacco pipes, Ottoman conquest, historical center, Timișoara.

Introduction

In 2006, the first preventive archaeological researches in the historical center of Timișoara have revealed a rich archaeological material dated to the medieval period (13th–16th centuries) and the early modern period that in this area overlaps that of the Ottoman occupation (1552–1716)¹.

When the results of these excavations were published, the archaeological material was not exhaustively presented, due to more or less objective considerations. For this reason, in order to complete the publication of the material, the present paper aims at discussing one of the yet unpublished lots of artifacts, i.e. the clay tobacco pipes.

Tobacco pipes or chibouks are, among other several categories of artifacts, among the objects that spread to our region along the Turkish-Osman incursions and especially their rule established throughout the 15th and 16th centuries over a large part of Central-Eastern Europe. Tobacco and the habit of smoking were introduced to Europe after the expeditions organized by the European kingdoms of Spain and Holland and the British Empire, reaching Byzantium and the Orient through commercial relations, the Turks in general and then, further on, the Japanese and the Chinese². The first tobacco plantations were established in 1615 in Holland and in 1658 in Portugal³. In the beginning of the 17th century, the Portuguese introduced tobacco in Persia as well. In the early years of the 17th century or maybe even sooner, tobacco entered the Ottoman Empire⁴. The first prohibitive measures were instated by King James I of England, ever since 1604⁵ and then by Sultan Murad IV who forbade not only the consumption of opium, but also that of tobacco in 1633⁶. In order to punish the habit of smoking, a Turk was confiscated his pipe for example and then it was forced up his nose⁷. The punishments were drastic, even leading to executions⁸. Besides the “euphoric” effects of

* English translation: Ana M. Gruia.

¹ The monograph of this research was published shortly, in the following year: Drașovean *et al.* 2007.

² Robinson 1985, 151, see also n. 5.

³ Billings 2008, 77.

⁴ Robinson 1985, 151.

⁵ Robinson 1985, 151, n. 8.

⁶ Costea *et al.* 2007, 335.

⁷ Billings 2008, 88.

⁸ Feneșan 2004, 131, n. 276.

smoking, that triggered the vehement opposition of Muslim religious leaders, another argument in support of its prohibition was the danger of fire⁹. Despite the opponents of the habits and of punishments for those who consumed or dwelled in the commerce of tobacco, it spread extremely fast since it was a significant source of income.

The new habit of smoking, mainly practiced in the military environment but soon having become a widely spread vice, even among women, was opposed in Europe as well due to its negative effect on health and the precautions taken to avoid fires that had a devastating impact on cities during that era.

As for the area under discussion, the new commodity from the New World was grounded through Turkish mediation relatively late compared to Western Europe. After the large Ottoman military campaign of 1551/1552 aimed at conquering Timișoara, the entire region became a province of the Ottoman Empire. The significant Ottoman and Balkan populations settled there (especially soldiers, but also merchants) and the long occupation (of 167 years) have certainly left their mark on local cultural traditions. The first measures against the new habit of smoking date to the second half of the 17th century.

In Transylvania, the first prohibition was decreed in 1662 by prince Mihai Apaffy after having experienced a nicotine intoxication episode himself¹⁰. Regulations on tobacco commerce and consumption became frequent; the 1670 decisions of the Diet in Alba Iulia included the value of penalties according to the social standing of the individual caught smoking¹¹. Legislative measures against smoking seemed, nevertheless, ineffective. Another law, passed in 1683, indicates that smoking was also popular among women who had to pay a fine of 12 forints if caught doing so¹². During the last decades of the 17th century, the official opposition diminished and tobacco started to be cultivated in Transylvania in the first decades of the 18th century¹³. According to D. Gačić the first tobacco plantations appeared in the area under discussion already around the middle of the 17th century; one knows about those in Transylvania, but also, closer to our area of interest, of those around Szeged¹⁴. We consider it unlikely, since at the end of the 17th century in Transylvania, but also in towns in Hungary laws banning smoking and trade were still being issued.

Aspects related to pipe production technology, typology and dating

According to their shape and type, all pipes under analysis are chibouks. Unlike Western-type pipes, made of a single clay piece, chibouks consisted of three elements: the clay item, the wooden shaft and the mouthpiece (Pl. 1.1).

Pipes were pressed in molds, then finished and decorated. In order to create the smoke channel and the firing chamber, two wooden elements were inserted in the clay while it was pressed inside the mold: one was a stick, the other a cone or a cylinder; the connection between the two hollow areas thus obtained was made later, after the item was taken out of the mold¹⁵. In some cases, the decoration was provided in negative, on the surface of the mold; pipes with relief decoration were thus obtained (Cat. 38, 78). The clay employed was very fine, with inclusions of fine sand and sometimes mica. Both common gray clay and kaolin were employed in pipe production. The decorative repertoire contains simple incised elements or more complex models created with stamps or cogwheels and also relief models created since the first stage of pipe modeling in molds (Pl. 2). Some types of pipes were polished and even covered with engobe. The following step in the technological process consisted of firing and/or glazing. Specialists have also published pipes modeled by hand or at the potter's wheel, the latter being typical to the Venetian area. No such pipes were identified in the lot under discussion here.

Specialists who have studied this category of artifacts acknowledge their scientific value¹⁶. Pipe lots, mainly those discovered inside fortifications with clear periods of use, attested in written sources,

⁹ Takáts 1898, 60. Murad IV decreed smokers should be punished by death after a fire devastated Constantinople.

¹⁰ Takáts 1898, 53.

¹¹ Makkai-Szász 1988, 829 (nobles were to pay a fine of 12–50 forints, while serfs had to pay 6 forints).

¹² Takáts 1898, 54.

¹³ Takáts 1898, 58.

¹⁴ Gačić 2011, 19, see also footnote 17.

¹⁵ Kovács 1963, 237.

¹⁶ Davis-Davis 2007, 84.

can provide good elements of dating for other materials or archaeological complexes. In Hungary for example, several earlier pipes were discovered in Bajcsavár, dated on the basis of the short period when the fortification was in use during the final third of the 16th century, before being destroyed¹⁷.

Taking into consideration the fact that pipes were produced in molds, they are serial products. If the identification of series is easier in the case of pipes with simpler shape and decoration and the suggested typology seems to have been generally accepted by specialists in the field, in the case of Turkish lule or pipes of Oriental influence, the identification of series faces certain difficulties, mainly caused by the endless variation of their decorative motifs. There are also contradictions among the different typologies. Kovács Béla's article¹⁸ published in 1963 contains one of the first published pipe lots from the neighboring area and the first typology. The author has grouped pipes in four main categories: "Netherlandish" pipes, "Turkish" pipes, mix-shaped pipes¹⁹ and "Hungarian" pipes. Bulgarian and Croatian authors have also published studies focusing on pipes even since the early 70s of the previous century²⁰. More recently, the research of this category of artifacts has gained momentum, as part of a larger context of research focused on the Ottoman period and the material culture that the "conquering" Ottomans have brought and established. Besides works mentioning such discoveries, ample studies and catalogues have been published by specialists who show a special interest in such artifacts²¹. The same trend can be noted for the Orient. In Romania, the archaeology of the Ottoman era is only taking its first steps; for a long period, artifacts of this period were not recognized, ignored, or in the best case believed to be of ethnographic interest. Turkish materials, including pipes, were published in wider monograph works²². There are very few such studies available for the area of Banat²³. Due to the state of research in our country, we had to turn to analogies from closer or farther areas and to employ the results of foreign specialists.

Pipe description

I. Reddish, undecorated pipes

Both the bowl and leg of these pipes are polygonal in section. The common trait of all sub-variants consists of the thin leg and decorative strip around the mid-length of the leg. The pipes were made exclusively of gray clay and their outer surface was covered with a layer of reddish, shiny²⁴ slip (engobe) and black marble-like decoration (Cat. 14, 17–18, 22, 27–28, 32). As for the quality of the fabric and of the execution, one can state that these are the most modest pipes. They must have been produced for general use, probably employed by common soldiers part of military troops and, why not, by civilians of lesser means.

According to Béla Kovács's typology, these pipes belong to the so-called "mix" type, variant II, i.e. made according to Ottoman models²⁵. They rather share common traits with Western-type pipes, typical for their lack of molding; the idea was formulated earlier by R. Robinson²⁶ and taken up more recently by Sz. Kondorosy as well, in his publication of pipes discovered in the fortification of Szeged²⁷.

In the case of the first three variants we will subsequently present, certain peculiarities are visible in the modeling of the ring. The fourth variant, due to the peculiarity of the disk-bowl, shows evident

¹⁷ Kovács 2004, 121, n. 3.

¹⁸ Kovács 1963.

¹⁹ Inside this category, the author distinguished between pipes imitating Turkish shapes and pipes following western models.

²⁰ Bekić 1999–2000, Bekić 2010, Stoyanova.

²¹ Haider-Ridovics 2000, Gačić 2011. The richest bibliography available on the topic can be found in the end of this study.

²² Rusu *et al.* 2002.

²³ N. Dinu analyzed the Oriental pottery discovered in the historical center of Timișoara; v. Drașoveanu *et al.* 2007. More recently, Z. Markov published a study of Balkan pistols in the collection of the Museum of Banat in Timișoara (Markov 2011), followed by another material focusing on the collection of yataghans preserved by the same institution (Markov 2012), thus opening the way to the study of weapons typical to the period under discussion.

²⁴ Kondorosy 2008, 338. In our case, the existence of polish can no longer be determined due to an unfortunate conservation procedure, when the item was impregnated with gloss. Nevertheless, in the case of a few items that were not thus treated, one can notice the absence of polish, most probably the result of prolonged use.

²⁵ Kovács 1963, 247–248.

²⁶ Robinson 1985, 173.

²⁷ Kondorosy 2008, 338.

Ottoman influence. Except for this element, according to its shape, material and finishing (reddish engobe), the item clearly belongs to this type of pipes.

Analogies can be found in most fortifications in present-day Hungary that were at some point under Ottoman rule (Buda²⁸, Eger²⁹, Ónod³⁰, Szekszárd³¹ and Szeged³²) and were of a shape popular for a long period, from the second half of the 17th century until the middle of the 18th century³³. They were produced in the Balkan area where they were found in large quantities, especially in Kyustendil³⁴; the center of their spread was in the workshops of Sofia, active since the early years of the 17th century³⁵. The presence of Balkan populations in the Ottoman troops stationed for the defense of the fortifications and territories under the rule of the Crescent³⁶ is well documented, thus it is possible that such pipes were brought from the above mentioned production centers. According to the large number of reddish pipes discovered in Szeged as compared to the very few such items noted in other settlements, Sz. Kondorosy also expressed the possible existence of a workshop in Szeged. Gaál Attila also believes that these are local products of lower quality, dated to an early spread of pipe when craftsmen painted gray pipes with iron oxide in order to “correct” the error during firing and in order to give gray pipes a nicer color³⁷. One must note the large number of pipes of this type in our lot: 34 items out of all 78 (representing 43.5 %); this supports the hypothetical existence of a production center in the area.

I. 1. *Pipes with star-shaped-section rings*

A lot of 17 items belong to this sub-category (Cat. 1–18). The shape of the ring, assembling a star in its section, is due to transversal impressions made with a rounded stick or even by finger. These impressions (made with the stick on the ring) can be more or less stressed.

I. 2. *Pipes with notched rings*

The grooves on the ring, present on pipes of the first sub-type, are replaced by thick notches. Out of all pipes under discussion, seven were identified as sharing this peculiarity (Cat. 19–23).

I. 3. *Pipes with simple rings*

This is the less represented variant, only consisting of three items (Cat. 24–26).

I. 4. *Pipes with simple ring and disk*

As noted above, despite the fact that this item (Cat. 27) has an extra formal element in shape of a flat disk placed on the lower part of the bowl and should thus be placed among disk pipes, its other characteristics are common to pipes presented here: fabric quality, the use of reddish engobe and the simple ring have made us include the item in a fourth variant. No analogies are available to the present state of research.

I. 5. *Undetermined pipes*

Due to their fragmentary state of preservation upon discovery and thus lacking precisely those elements with characteristics that would determine the sub-type they belong to, nine pipes cannot be said to belong to any variant in particular.

II. *Pipes with accented ring, decorated with the cogwheel and with relief “grape bunches”*

According to Gábor Tomka’s observations, this type of pipes appeared in the last two decades of the 17th century and is believed to be the first variant of the “Hungarian” pipes³⁸. The general characteristics of this type of pipes consist of the wide and convex ring bearing cogwheel decoration, cylindrical leg, usually undecorated and the bowl consisting of two parts: the lower, semi-spherical part, surmounted by a cylindrical “chimney”. In the lower part, the leg continues over the bowl in the shape of a pointy “tongue”; its contour is stressed by a cogwheel-made stripe. Cogwheel decoration also

²⁸ Kondorosy 2007, 277, Pl. 5/B119–121.

²⁹ Kovács 1963, 260, Pl. III/14–15.

³⁰ Tomka 2005, 613, Pl. 2/7–11.

³¹ Gaál 2004, no. Cat. 34–70.

³² Kondorosy 2008, 359–360, Pl. III/Sz43–51; Pl. IV/Sz53–96.

³³ Tomka 2005, 612.

³⁴ Robinson 1985, 173.

³⁵ Kondorosy 2008, 340, n. 31.

³⁶ These populations have also brought archaic-shaped pots, made on the slow wheel or even by hand (discoveries of such Balkan pottery, yet unpublished, were made in Timișoara, during archaeological excavations in the Huniade Castle).

³⁷ Gaál 2004, 261.

³⁸ Tomka 2005, 610, see also note 16.

features on the bowl's rim. In the present lot, in the case of all items with preserved leg, it is flanked by molded grape bunch decorative patterns, consisting of small protuberances. The sub-variants display differences in decoration, but the shape of the pipes remains the same.

II. 1. Pipes with decoration consisting of "grape bunches"

According to their decoration, size and shape, two pipes in this sub-category seem to have been created in the same mold, by the same workshop (Cat. 40, 42).

Analogies for this type of pipe can be found mainly on the territory of the Kingdom of Hungary: in Buda³⁹, Eger⁴⁰ and the fortification of Szeged⁴¹. Sz. Kondorosy dated pipes discovered in the vilayet center of Buda to the period between the last decades of the 17th century and the beginning of the 18th century⁴². Similar pipes were also found in Vršac, dated to the second half of the 17th century and believed to have been produced in the Habsburg Empire⁴³. The decoration seems to have been typical to southern Germany during the end of the 17th century⁴⁴. B. Kovács stressed the functional role of this relief decoration on the upper part of the bowl, stating the fact that it allowed for the smoker to hold the pipe better⁴⁵. More recently, Sz. Kondorosy argued against this theory on the basis of the fact that, in general, the decoration is only located on one half of the bowl⁴⁶, namely on its right side.

II. 2. Pipes with grape bunch decoration on the bowl and leg

The grape bunch motif features on two sides of the bowl, while on the left it is slightly different: the protuberances are grouped around a threefold "branch" (Cat. 37).

II. 3. One variant of this type consists of one pipe that has a third, central girdle, instead of the three cogwheel girdles that border the leg and the bowl (Cat. 43). Due to the fragmentary state of preservation of the item, one cannot know if this pipe as well had the grape bunch motif on the bowl. An analogy has been found in Budapest⁴⁷.

II. 4. Pipe with cogwheel decoration on the ring and leg

Since it is a leg fragment, one cannot reconstruct the decoration of the bowl (Cat. 44), but taking into consideration the presence of cogwheel decoration on the ring and the body of the leg as well, we chose to include the item in a sub-category of this pipe type⁴⁸.

II. 5. Taking into consideration the fact that in several cases the pipes were only preserved in fragments, namely only the leg, one cannot estimate their precise inclusion in the above-mentioned sub-types; most probably, these items also belong to the variant with grape bunch decoration on the bowl (Cat. 45–47).

III. Turkish pipes

For this type of pipes, the typical decorations are made by cogwheel and revolving shutter; the combination of such decorations is extremely significant for analogies and dating⁴⁹. In the case of pipes from Timișoara, the most frequent revolving shutter decoration is toothed, created with a disk with thicker or more distanced arms, thus producing a series of rectangles, triangles, or zigzags and fir tree needles (Pl. 2, Cat. 55, 54, 57, 51 and 50). Stamped decorative motifs have the shape of leaves, rosettes, or lozenges (Pl. 2, Cat. 55, 56, 48, 54, 66 and 50). The same ornaments can be found on pipes discovered on the territory of Hungary⁵⁰ and Serbia⁵¹. Some of the decorative motifs seem to have a long tradition, preferred by craftsmen until the 19th century⁵².

³⁹ Kondorosy 2007, Pl. 6/B127–132.

⁴⁰ Kovács 1963, Pl II/4, 609.

⁴¹ Kondorosy 2008, Pl. VI/Sz121, Sz122, Sz124.

⁴² Kondorosy 2008, 342–343.

⁴³ Gačić 2011, 114, Cat. 128–129.

⁴⁴ Kondorosy 2008, 343.

⁴⁵ Kovács 1963, 240, 242.

⁴⁶ Kondorosy 2007, 343, see also note 42.

⁴⁷ Kondorosy 2007, Pl.6/B135–137.

⁴⁸ One cannot exclude its possible inclusion in another pipe type.

⁴⁹ Kondorosy 2008, 332.

⁵⁰ Kondorosy 2007, 273, Pl. 1.

⁵¹ Gačić 2011. For the time being, we could not find analogies of Turkish pipes with stamped decoration in the few archaeological reports that we have consulted focusing on sites from the Orient (Sinai, Khirbat Burin, Zir'in etc.). See Saidel 2008, Burin 2006, Simpson 2002, Bouzigard-Saidel 2012.

⁵² Gačić 2011, 30, Cat. 106.

Our lot does not include any Turkish pipes with craftsmen marks and this makes the identification of their production area more difficult. In the same time, one can note a combination of Western and Easter-style elements in the production of these pipes. This makes us presume that some of them were probably produced in local or Balkan workshops. Besides the well-known central workshops of Istanbul and Burgas, the conquered provinces also had known production centers, such as the above mentioned ones of Varna and Sofia in Bulgaria and Thebes and Athens in Greece, where Turkish masters often worked⁵³. The absence of workshop or craftsmen marks can nevertheless be an indication in the dating of such items since the practice of marking pipes only spread during the 18th century⁵⁴. The primary material used in the production of the pipes is also relevant for the dating of Turkish pipes: kaolin, mainly used during the 16th–17th centuries, was slowly replaced by common clay; reddish items were preferred and the color was obtained through firing or covering the pipes with a layer of engobe⁵⁵. The size of the bowl, more precisely its volume, can also be helpful in the chronological framing of the items, since it grew larger as tobacco became cheaper.

We must note that some of the pipes in our lot (Cat. 66, 67) show no traces of secondary firing inside the bowl and were thus probably never used. Pipes reached distant areas through commerce or as personal possessions and, as previously noted, soldiers played a significant role in their spread.

In the subsequent paragraphs we will group the pipes in major categories, according to their primary material and decoration. Almost each item is unique in shape or overall decoration, thus representing a sub-type.

III. 1. *Kaolin pipes with stamped and/or cogwheel decoration*

The bowls of the first three items are similar in structure: spherical bowl, surmounted by a cylindrical and slightly flared chimney. The decoration of the bowls is also similar. Some authors have suggested such pipes could also be of the “Greek type”⁵⁶.

a. The cogwheel decoration starts near the stamped rosette placed on the bottom of the bowl, from which radial incisions extend towards the middle of the bowl and continues on the leg and bowl (Cat. 48). Due to the fragmentary state of preservation, we can no longer note the shape of ring.

b. The lower part of the bowl, strongly accented through radial grooves that also start by the rosette on the bottom of the bowl, is shell-shaped (Cat. 49). The ring imitates a turban and is delimited by a cogwheel-decorated stripe. The chimney is broken. Similar, even identical pipes were discovered in Jeni Palánk⁵⁷ and Buda⁵⁸, but also further away, in Corinth⁵⁹. Less elaborated variants were also discovered in Babadag⁶⁰.

c. This item is a more elaborated variant of the first two (Cat. 50). The bowl’s rim has the shape of petals with stamped rosettes. The grooves are marked by decoration in the shape of grain ear or fishbone. For this item, we are aware of analogies in Buda⁶¹ and Corinth⁶².

d. One notes the very fine fabric of the item (Cat. 51). The connection area between leg and bowl has the shape of a triangle marked with an incision; stamped lozenges, placed in several rows, decorated the bowl. This type of decoration is very frequent, noted on items from the fortification of Szeged⁶³ and from Corinth⁶⁴. Taking into consideration the quality of the primary material, one cannot exclude its possible production in a central workshop.

e. Pipe of relatively large size, with strong ring resembling a turban, with cogwheel decoration forming oblique notches (Cat. 52). Fir-tree shaped decoration was stamped on the bowl. Similar items were published from Buda⁶⁵ and Jeni Palánk⁶⁶.

⁵³ Gačić 2011, 29, Robinson 1985, 152.

⁵⁴ Robinson 1985, 161.

⁵⁵ Robinson 1985, 153, 161.

⁵⁶ <http://philippe.gosse.pagesperso-orange.fr/Chioggia/intro.pdf> (accessed 15.10.2012).

⁵⁷ Gaál 2004, no. cat. 51, 72, 78.

⁵⁸ Kondorosy 2007, Pl. 2/B11–12.

⁵⁹ Robinson 1985, Pl. 61, A1, 13–14.

⁶⁰ Costea *et al.* 2007, pl. IV/5, 7–8.

⁶¹ Kondorosy 2007, Pl. 2/B19.

⁶² Robinson 1985, Pl. 47, C2.

⁶³ Kondorosy 2008, 333, Pl. III/Sz39.

⁶⁴ Robinson 1985, Pl. 50.

⁶⁵ Kondorosy 2007, Pl. 2/B3.

⁶⁶ Gaál 2004, no. Cat. 79, 81.

f. The shape of this pipe cannot be reconstructed because of its fragmentary state of preservation (Cat. 53). The bowl, with simple, flattened ring, is only decorated with stamped rosettes and leaves. There are also decorative motifs made with the cogwheel. A perfect analogy of the item, but made of gray clay and through oxidant firing, of brick-red color, was discovered on the territory of Serbia⁶⁷ and dated to the 17th century.

g. The item is fragmentary; only the bowl has been preserved (Cat. 54). As a peculiarity, one can mention the almond-shaped ring, with ends pulled on the sides and decoration consisting of small stamped rosettes; cogwheel decoration also features on the leg.

h. Leg fragment, with cogwheel decoration on the ring (Cat. 55). An analogous decoration of the ring with three rows of cogwheel decoration can be mentioned in the case of pipes discovered in Oradea⁶⁸ and also in Smederevo (Serbia), dated to the 17th century⁶⁹.

h. Ring with cogwheel decoration consisting of oblique notches in shape of a turban; the same decoration can be noted on the leg as well (56). A similar item, dated to the 18th century, was discovered on the territory of Serbia, in the fortification of Smederevo⁷⁰.

III. 2. *Kaolin pipes decorated with Arab writing*

A single item is decorated with Arab writing (Cat. 57). One notes the fine fabric and good quality decoration. The lower part of the bowl extends into a disk; the latter's rim bears cogwheel decoration. The upper part is in the shape of a chimney. Items of similar shape were found in Babadag⁷¹ and Corinth⁷².

III. 3. *Pipes made of gray clay, with cogwheel decoration and incisions*

We included in this category three items made of gray clay and fired in an oxidant atmosphere, thus reaching shades of brick-red and reddish.

a. The first item, fragmentarily preserved, has the ring in shape of a turban, with oblique cogwheel-made notches (Cat. 58). The clay employed in its making is very fine and the color after firing is bright reddish. An analogy can be found among the pipes in Fort Čanjevo⁷³.

b. The second item also has the ring in shape of a turban with simple oblique notches (Cat. 59). On the fragmentarily preserved bowl one can note floral/geometric (?) decoration created with the cogwheel.

c. The final item in this category is part of the group of pipes with spherical bowl and chimney (Cat. 60). The lower part is decorated with grooves. We were able to identify a similar item, with an entirely-preserved bowl, among the pipes from Athens⁷⁴.

III. 4. *Pipes made of gray clay, with disk, sole and stamped decoration*

Unfortunately, we only have a fragmentary item of this type, with just the lower disk-shaped part of the bowl preserved (Cat. 61). The lower part of the disk is decorated with grooves and the upper part with stamped rosettes. On the bottom, the pipe has a sole for increased stability, also decorated with rosettes and shaded triangles. Such items are very frequent in 19th-century visual sources⁷⁵. Discovered analogies are also dated rather late, to the 18th–19th centuries⁷⁶. An analogy in pipe shape and bowl decoration has been found in Castle Hill⁷⁷.

IV. *Glazed pipes*

Glazed decoration is not typical to Turkish pipes. In Greece, such items only represent 0.3–2% of all finds, while in Bulgaria the percentage is slightly higher, reaching 0.9–3.8%⁷⁸. One notes the high number of such discoveries in the area of Hungary and Romania, probably due to the spread of glazing in the field of pottery. Glazing was mainly employed in the case of kaolin artifacts. Among the pipes

⁶⁷ Gačić 2011, 81, Cat. 25.

⁶⁸ Rusu *et al.* 2002, Pl. LXXXVII/11.

⁶⁹ Gačić 2011, 75, Cat. 1.

⁷⁰ Gačić 2011, 85, Cat. 36.

⁷¹ Costea *et al.* 2007, Pl. VI/7.

⁷² Robinson 1985, Pl. 57.

⁷³ Bekić 2010, Fig. 2/3.

⁷⁴ Robinson 1985, Pl. 61, A9.

⁷⁵ Robinson 1985, Pl. 43.

⁷⁶ Gačić 2011, 110; cat. 106, 114.

⁷⁷ Petruzelli 2002, Fig. 10.4.

⁷⁸ Kondorosy 2008, 334; see also note 10.

discovered in Timișoara-*Cetate*, there are 11 glazed items, representing 13.9% of all items and 45% of the 24 Turkish-type pipes.

The typical decoration of such pipes is made with the cogwheel, having various shapes, but there are also stamped decorations, incisions, even relief floral motifs already impressed in the mold. One must also note that most glazed items are made of fine clay fabric. From the point of view of their shape, one can note as a common trait the fact that the bowl is bell-shaped, with flared rim. The color of glaze employed in the decoration of pipes discovered in Timișoara combines green and yellowish, dark brown and green. One also notes a play of nuances, especially in the case of yellow and brown glazes, in order to stress the relief decoration.

One immediately notes the small size of glazed pipes, which suggests that they can be dated earlier, in the end of the 16th century and the 17th century. This dating is also supported by discovered analogies.

We could identify six types of glazed pipes, usually consisting of a single item.

a. Bell or tulip-shaped bowl, with molded relief zigzag decoration and yellowish glaze (Cat. 62). An analogy can be identified in Eger⁷⁹, similar only in the shape of the bowl and the decoration of its upper part.

b. Leg fragment, with almond-shaped ring and relief floral decoration (Cat. 63). Covered with yellowish, greenish and dark brown glazes.

c. Entirely preserved item with bell-shaped bowl; on the lower part of the bowl one can note radial grooves starting from the base (Cat. 64). The ring with oblique notches suggests the shape of a turban. Analogies can be found among the pipes discovered in Eger⁸⁰, while an identical item has been mentioned in Buda⁸¹. Despite having a slightly different ring, a pipe discovered in the fortification of Belgrade is also similar and dated to the 17th century⁸².

d. This variant includes two items, one fragmentarily and one entirely preserved, both covered with greenish glaze (Cat. 65–66). In both cases, the leg is decorated with grooves or rather stylized leafs and on the bowl one can note two flowers in relief, placed on opposite sides. This type of pipes is often discovered during archaeological excavations and is generally dated to the 17th century. Analogies have been discovered in Eger⁸³, Jeni Palánk⁸⁴, Ónod⁸⁵, but also in the Orient⁸⁶. An identical, though unglazed pipe was found in Serbia⁸⁷.

e. The pipe is made of gray clay and its decoration consists of stamped rosettes and cogwheel-made motifs (Cat. 67).

f. The final item in the category of glazed pipes is simple and without decoration (Cat. 68). The glaze is dark green.

V. Undecorated pipes

Ten pipes, of various simpler or more complex shapes, were included in this group characterized by the lack of decorative motifs. Some of these items can nevertheless be included in clearly defined series.

a. Two items, one fragmentarily and the entire entirely preserved, are similar in shape to Western-type pipes: simple tubular leg, accented cylindrical ring, prolonged bowl with a rim indicating the outer fitting of the mold and tear-drop-shaped in section. What makes the entirely preserved item particular is the motif stamped on the right side of the bowl, in its upper part, most probably a craftsman mark (Cat. 70, Pl. 2). Identical pipes were also discovered in Szeged, one having the same mark stamped on the bowl⁸⁸. Both the items in Szeged and Timișoara display the same black marble-like decoration, noted in the case of pipes in the first category. The spread and origin of this type of pipes are similar to those of reddish pipes; they were mostly discovered in the

⁷⁹ Kovács 1963, Pl. I/10.

⁸⁰ Kovács 1963, Pl. II/5.

⁸¹ Kondorosy 2007, Pl. 5/B106.

⁸² Gačić 2011, 78, cat. 13.

⁸³ Kovács 1963, Pl. III/6–7.

⁸⁴ Gaál 2004, 277, no. cat. 45 a.

⁸⁵ Tomka 2005, Pl. 5/1.

⁸⁶ Saidel 2008, Fig. 3/9.

⁸⁷ Gačić 2011, 77, Cat. 8.

⁸⁸ Kondorosy 2008, 361, Pl. I./Sz102; V/Sz100–102.

Balkan region and were produced in the workshops of Northern Bulgaria, i.e. in Varna⁸⁹. The dating is also similar to that of reddish pipes: the 17th–18th centuries.

b. Two other pipes (Cat. 73–74), made of kaolin and gray in color, are typical due to their tulip-shaped bowl⁹⁰, simple cylindrical bowl and bi-trunk-shaped ring. The V-shaped connection line between leg and bowl is marked by a slightly grooved line. Similar items were noted in Szeged⁹¹ and Buda⁹². Pipes no. 68 and 77 might belong to this type, but due to the fragmentary state of the bowls, this identification is not certain. The ring is slightly different than that of the other two pipes.

c. One of the widely spread pipe types is only represented in Timișoara by a single item (Cat. 72). They were also found in Buda⁹³, Eger⁹⁴, but even closer, in Szeged⁹⁵. One could also mention here the leg fragment with slightly flattened end and brick-red color (Cat. 71), but its extreme fragmentary state of preservations prevents all certain identification of the category it might belong to.

d. From the point of view of their shape, pipes no. 75 and 76 resemble those with cogwheel decoration and grape bunches, but they lack all decoration. The ring is more accented and is preceded by a girdle in relief. The large size of these items is another of their peculiarities, indicating they were used in a later period when the price of tobacco had decreased.

VI. Pipes with relief decoration and sole

There is just one such item, modeled in kaolin clay, molded with floral or wheel-and-spikes motifs placed on the two lateral sides of the bowl (Cat. 78). A simple circular sole can be noted on the bottom of the bowl and on the front side there is another flattened rectangular surface decorated with horizontal lines or rather prolonged stamped triangles, placed in two columns. Unfortunately, we cannot decide on the shape of the ring or the bowl's rim, since these elements are broken. This type of pipes with relief decoration is dated to the 17th century; the dating is also supported by their discovery in upper layers. Similar pipes, with slightly different floral decoration, were discovered in Szeged⁹⁶, Buda⁹⁷ and Nagykanizsa⁹⁸ and are considered a late local variant of Turkish pipes.

Conclusions

Through their number and especially the diversity of their shape and decoration, the pipes discovered in Timișoara allow for the creation of a first typology based on the characteristics of the item and the available research results.

The items were found in all researched sites: Libertății square, 9 Mai Street and Sfântu Gheorghe square. In most cases, the items were discovered in the upper layers, unfortunately disturbed by town planning works that required archaeological investigations; they thus lack clear context and cannot be dated very well through stratigraphic methods. This is also valid for the inverse method of dating the “complexes” with the help their inventory. The relative chronological framing of “complexes”, such as the houses, has been made merely based on the stratigraphy.

A small number of items were discovered in the area of the necropolis identified in St. Gheorghe square (Cat. 14, 32, 53). Among them, the first was recorded in the filling of tomb M6. Several tombs, part of an inhumation horizon dated to the Ottoman occupation period according to coins discovered inside them, were discovered around the former medieval parish church that the Turks turned into a mosque⁹⁹.

⁸⁹ Kondorosy 2008, 341.

⁹⁰ The shape of the second pipe is less molded and the bowl's rim is missing.

⁹¹ Kondorosy 2008, 345, Pl. VII/Sz156.

⁹² Kondorosy 2007, Pl. 5/B110.

⁹³ Kondorosy 2007, Pl. 3–4.

⁹⁴ Kovács 1963, Pl. II.

⁹⁵ Kondorosy 2008, Pl. II/Sz15–23.

⁹⁶ Kondorosy 2007, 346, Pl. VII/Sz160. The author believes that this type of pipe reveals oriental influences, since the flared rim, in shape of a collar, is a trait of Turkish pipes. This element can also be noted in the case of pipe no. 73.

⁹⁷ It is also provided with a ring between the bowl and the leg that allowed for the pipe to be connected to a cord. Kondorosy 2007, Pl. 7/B196–197.

⁹⁸ Kovács 2004, Pl. 3/17.

⁹⁹ Drașovean *et al.* 2007, 48.

Some of the items were found inside the culture layer at the surface of streets paved with timber, dated to the Ottoman period, but lacking more precise chronological identification (Cat. 5).

One of the items in the grape-bunch variant was found in a layer corresponding to a layer of Austrian leveling, which coincides with the dating of these pipes in the 18th century.

The conclusions one can formulate after analyzing this lot of pipes are general in character.

The items are part of the material culture typical to the Ottoman era; they are dated between the end of the 16th century and the 18th century. Early, 17th century pipes are of the Turkish-type, with stamped decoration, made of kaolin and small glazed pipes. The absence of craftsmen marks indicates the same period of production with difficult-to-set upper and lower chronological limits. We can still state that they were not produced later than the first decades of the 18th century when a new type appeared: pipes made in large series, of bigger size, with prolonged cylindrical bowls or bowls polygonal in section, bearing master marks, typical to the Habsburg period.

As for their shape and decoration, we were able to identify both pipes of the types known in the specialized literature as “Western”, “Hungarian”, or “Habsburg” (type I and II), produced in local workshops and pipes of Balkan or even oriental origin. The first were nevertheless more numerous (ca. 58 items, representing 73, 4 %). The large number of pipes of a certain type (type I, 36 items) might indicate the possible existence of a workshop in the area, as it has already been suggested for the pipes in Szeged. The relatively large number of glazed pipes can be explained by the wide spread character of glazing, reaching a peak during this period.

Regarding the quality of the items, one can note both the more modest pipes, most probably used by soldiers and the finer pipes, with complex and refined decoration, probably brought in from the renowned production centers in order to meet the taste of wealthier people, as is probably the case of the pipe with Arab writing.

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CATALOG

Abbreviations:

D. l. = diameter leg; *D. b.* = diameter bowl; *D. r.* = diameter ring; *H.* = height; *L.* = length; *M* = grave.

1. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl and leg polygonal in section, ring with grooves.

D. b.: 2.9 cm, *H.*: 4.1 cm, *D. r.*: 1.9 cm.

Sfântu Gheorghe square, S2, upper layer.



2. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl and leg polygonal in section, ring with grooves.

D. b.: 2.7 cm, *H.*: 3.8 cm, *D. r.*: 1.9 cm.

Sfântu Gheorghe square, S2 upper layer.



3. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl and leg polygonal in section, ring with grooves.

D. b.: 2.5 cm, *D. r.*: 1.6 cm.

Sfântu Gheorghe square, S2, upper layer.



4. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, with engobe, no decoration, ring with grooves.

D. r.: 1.7 cm.

Sfântu Gheorghe square, S2, eastern area, near the channel and brick foundation.



5. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section, ring with grooves in the upper part.

D. b.: 2.5 cm, *D. r.*: 1.7 cm.

9 mai Street, S 1, leveling layer of the Turkish street.



6. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. b.: 2.7 cm, *H.*: 3.9 cm, *D. r.*: 1.9 cm.

Sfântu Gheorghe square, S2, upper layer.



7. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl and leg polygonal in section, ring with grooves.

D. b.: 2.6 cm, *D. r.*: 1.9 cm.

Sfântu Gheorghe square, S2, upper layer.



8. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. r.: 1.8 cm, H.: 3.8 cm.

Sfântu Gheorghe square, S2 upper layer.



9. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. l.: 2.6 cm, D. r.: 1.9 cm.

Sfântu Gheorghe square, upper layer.



10. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. b.: 2.5 cm, D. r.: 1.8 cm.

Sfântu Gheorghe square, S2, upper part layer.



11. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. b.: 2.6 cm, D. r.: 1.9 cm, H.: 3.7 cm.

Sfântu Gheorghe square, S2, area of building C1.



12. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. r.: 1.9 cm.

Sfântu Gheorghe square, S2, area of the house C2.



13. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. b.: 2.5 cm, D. r.: 1.9 cm.

Sfântu Gheorghe square, upper layer.



14. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. r.: 1.7 cm.

Sfântu Gheorghe square, S2, filling of M 6.



15. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. r.: 1, 9 cm.

Sfântul Gheorghe square, upper layer.



16. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section.

D. r.: 1.8 cm.

Sfântu Gheorghe square, S2, upper layer.



17. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, ring with grooves.

D. r.: 1.7 cm.

9 mai Street, S2, first layer.



18. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. r.: 1.9 cm.

Sfântu Gheorghe square, upper layer.



19. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. b.: 2.6 cm, D. r.: 1.9 cm.

Sfântu Gheorghe square, S2, upper layer.



20. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, ring with grooves.

D. r.: 1.7 cm.

Sfântu Gheorghe square, S2, layer under the level of horizontal beams, area of the house C3.



21. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. r.: 1.6 cm.

Sfântu Gheorghe square, S2, upper layer.



22. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, ring with grooves.

D. b.: 2.5 cm, D. r.: 1.6 cm.

Sfântu Gheorghe square, S2 upper layer.



23. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section, ring with notches.

D. b.: 2.3 cm, D. r.: 1.6 cm.

Sfântu Gheorghe square, -1 m from the walking level.



24. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg and bowl polygonal in section, simple ring.

D. b.: 2.8 cm, D. r.: 1.9 cm, H.: 3.7 cm.

Sfântu Gheorghe square, S2, material from the layers in the upper half.



25. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, leg polygonal in section, simple ring.

D. r.: 1.7 cm.

Sfântu Gheorghe square, upper layer.



26. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, simple flattened ring.

D. r.: 2.1 cm.

Sfântu Gheorghe square, S2, layer in the upper part.



27. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand with mica content, lower part of the bowl disk-shaped, incomplete oxidant firing, simple leg and bowl, no decoration. Outer layer of red engobe.

D. b.: 2.4 cm; D. d.: 4 cm; D. r.: 2.1 cm.

Sfântu Gheorghe square, S2.



28. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section, ring with grooves.

D. b.: 2.7 cm, H.: 3.9 cm.

Sfântu Gheorghe square, upper layer.



29. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section, ring with grooves.

D. b.: 2.7 cm, H.: 3.9 cm.

Sfântu Gheorghe square, S2, upper layer.



30. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section, ring with grooves.

D. b.: 2.6 cm, H.: 4 cm.

Sfântu Gheorghe square, S2, the first layer.



31. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section, ring with grooves.

D. b.: 2.8 cm, H.: 3.8 cm.

Sfântu Gheorghe square, -1m from the walking level.



32. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section.

D. b.: 2.7 cm, H.: 3.7 cm.

Sfântu Gheorghe square, S2, area M11 and M13.



33. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section.
D. b.: 2.4 cm, H.: 3.9 cm.

Sfântu Gheorghe square, S2, upper layer.



34. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section.
D. b.: 2.3 cm, H.: 4.2 cm.

9 mai Street, S2, the first layer.



35. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section.
D. b.: 2.5 cm, H.: 4.2 cm.

Sfântu Gheorghe square, upper layer.



36. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, no decoration, bowl polygonal in section.
D. b.: 2.7 cm, H.: 4 cm.

Sfântu Gheorghe square, S2, upper layer.



37. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, bowl with grape bunch decoration, lower part, cogwheel decoration, rim decorated with the cogwheel. Threefold branch decorative motif on the leg. Simple ring with cogwheel decoration.

D. b.: 2.4 cm; D. r.: 2.2 cm; H.: 4 cm.

Sfântu Gheorghe square, S2, area of building C1.



38. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, grape bunch decoration on the bowl, lower part, cogwheel decoration, rim decorated with the cogwheel.

D. b.: 2.5 cm; H.: 4.3 cm.

Sfântu Gheorghe square, upper layer.



39. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, grape bunch decoration on the bowl, lower part, cogwheel decoration, rim decorated with the cogwheel.

D. b.: 2.4 cm; H.: 4.3 cm.

9 mai Street, the first layer.



40. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, grape bunch decoration on the bowl, lower part, cogwheel decoration, rim decorated with the cogwheel.

D. b.: 2.5 cm; H.: 4.3 cm.
9 mai Street, the first layer.



41. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, grape bunch decoration on the bowl, lower part, cogwheel decoration, rim decorated with the cogwheel.

D.b.: 2.6 cm; H.: 4.6 cm.
Sfântu Gheorghe square, S2, upper layer.



42. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, grape bunch decoration on the bowl, lower part, cogwheel decoration, rim decorated with the cogwheel.

D. b.: 2.6 cm; H.: 4.6 cm.
9 mai Street, upper layers.



43. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, cogwheel decoration on the lower part of the bowl. The ring is stressed, simple, with cogwheel decoration.

D. r.: 2.4 cm.
9 mai Street, *passim*.



44. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, the leg is decorated with two cogwheel-made circles. The ring has a circle in the lower part, also made with the cogwheel.

D. r.: 2.3 cm.
Sfântu Gheorghe square, upper layer.



45. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, the ring is stressed, simple, decorated with the cogwheel. A stain of brown-yellowish glaze on the leg.

D. r.: 2.3 cm.
9 mai Street, the first layer.



46. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe. Simple ring decorated with the cogwheel.

D. r.: 2.5 cm.
Sfântu Gheorghe square, *passim*.



47. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe. Simple, stressed ring decorated with the cogwheel.

D. r.: 2.5 cm.
9 mai Street, the first layer.



48. Fragmentarily preserved pipe, made of kaolin paste, fine fabric with inclusions of fine sand, oxidant firing, with engobe, bowl decorated with grooves, upper part decorated with the cogwheel and in the lower part a stamped rosette

D. b.: 2.7 cm; H.: 3.9 cm.

Libertății square, *passim*.



49. Fragmentarily preserved pipe, made of kaolin paste, fine fabric with inclusions of fine sand, oxidant firing, gray color, bowl decorated with grooves and a stamp in the lower part. The ring is stressed, decorated with oblique incised lines and cogwheel decoration is placed on the upper part of the leg, near the ring.

D. b.: 2.6 cm; D. r.: 2.1 cm.

Sfântu Gheorghe square, S2, the first layer.



50. Fragmentarily preserved pipe, made of kaolin paste, fine fabric with inclusions of fine sand, oxidant firing, gray color, the bowl's disk is decorated with grooves forming grain ears, the bowl per se decorated in rows, with rosette stamps and cogwheel decoration in the upper part.

D. b.: 1.9 cm; H.: 3.4 cm.

Sfântu Gheorghe square, S2, layer in the upper part.



51. Fragmentarily preserved pipe, made of kaolin paste with gray engobe, fabric with inclusions of fine sand, oxidant firing, lower part of the bowl decorated with triangular stamps placed in three horizontal rows and the bowl per se decorated with vertical incisions forming rows. The connection line between leg and bowl is marked with two parallel incised lines in shape of a „V”. the ring is stressed, simple, undecorated.

D. b.: 2.5 cm; D. r.: 2.2 cm.

Sfântu Gheorghe square, upper part.



52. Fragmentarily preserved pipe, made of kaolin paste with inclusions of fine sand, oxidant firing, with engobe, the bowl is decorated with fir-tree-shaped stamps and cogwheel decoration in both the upper and lower parts. The ring is stressed, decorated with lines incised with the cogwheel, oblique, while the upper part of the ring and the leg are decorated with the cogwheel.

D. b.: 2.4 cm; D. r.: 2.3 cm.

9 mai Street, *passim*.



53. Fragmentarily preserved pipe, made of kaolin paste, fine fabric with inclusions of fine sand, oxidant firing, white-gray color, upper part of the ring decorated with leaf-shaped stamps, upper part of the leg decorated with stamped rosettes and the part facing the bowl bears cogwheel decoration.

D. r.: 2.1 cm.

Sfântu Gheorghe square, S3, level of tomb M 11.



54. Fragmentarily preserved pipe, made of kaolin paste, fine fabric with inclusions of fine sand, oxidant firing, with engobe. The ring is decorated with stamped rosettes in groups of three, on both sides and the pipe's leg bears cogwheel decoration.

D. r.: 1.7 cm.

9 mai Street, *passim*.



55. Fragmentarily preserved pipe, made of kaolin paste with engobe, fabric with inclusions of fine sand, oxidant firing. The ring is stressed, with cogwheel decoration in three rows.

D. r.: 1.9 cm.

Sfântu Gheorghe square, S2, upper layer.



56. Fragmentarily preserved pipe, made of kaolin paste with inclusions of fine sand, oxidant firing, with engobe. The ring is stressed, decorated with oblique cogwheel-made lines, while the leg is also decorated with the cogwheel.

D. r.: 1.6 cm.

Sfântu Gheorghe square, *passim*.



57. Fragmentarily preserved pipe, made of kaolin paste, fine fabric with inclusions of fine sand, oxidant firing. On the middle part of the bowl is an Arabic text; the lower part of the bowl is bi-trunk-shaped and its maximum diameter bears cogwheel decoration. One can note traces of secondary firing.

D. r.: 2.4 cm, H.: 3.7 cm.

Sfântu Gheorghe square, S 2, area C3, layer on the level of the horizontal beams.



58. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, the ring is decorated with oblique incised lines, made with the cogwheel.

D. r.: 1.5.

Sfântu Gheorghe square, S2, area C2, house leveling layer and the layer beneath this leveling.



59. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, circular cogwheel-made decoration on the upper part of the ring and oblique notches on the flat side. The leg is also decorated with the cogwheel and the bowl displays a rosette-shaped stamp inside a cogwheel-made circle.

D. r.: 2.1 cm.

Sfântu Gheorghe square, S2, upper layer.



60. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, the bowl decorated with geometric shapes and the disk with grooves. The lower part of the disk is decorated with the toothed cogwheel.

D. b.: 2. cm; D. d.: 3 cm.

Sfântu Gheorghe square, S2, upper layer.



61. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, the bowl decorated with incisions, rosette-shaped stamps on the upper part of the disk, disk decorated with grooves. Between the grooves and the stamped rosettes one notes a decoration consisting of groups of three triangles. The lower part of the disk ends in as rectangular sole, decorated with four rosette stamps, while the contour of the sole is decorated with the toothed cogwheel.

D. b.: 2.5 cm; D. d.: 3.9 cm.
Sfântu Gheorghe square, S2, upper layer.



62. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, glazed, yellow color with random brown spots. The bowl is decorated with petal-shaped grooves.

D. b.: 2 cm; H.: 3.9 cm.
Sfântu Gheorghe square, S2, upper layer.



63. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, glazed, yellowish and brown color, leg polygonal in section, simple, undecorated ring.

D. r.: 2 cm.
Sfântu Gheorghe square, eastern terminus area.



64. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, glazed, yellowish, brown and green color, traces of secondary firing. The bowl is decorated with grooves that start on the bottom of the bowl, near its connection to the leg. Between the bowl and the border there are two simple girdles and the upper part is flared. The ring is stressed, decorated with oblique incised lines preceded by a simple girdle.

D. b.: 2.3 cm; D. r.: 2 cm; H.: 3.3 cm.
9 mai Street, eastern area.



65. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, glazed, light green color, leg with stressed grooves and a circular incision can be noted on the ring.

D. r.: 1.7 cm.
Sfântu Gheorghe square, S2, area C2, house building leveling layer and the layer beneath this leveling.



66. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, glazed, yellowish brown color. The bowl is decorated on the sides with floral motifs with 5 petals, the leg has stressed grooves and the ring has a circular incision.

D. b.: 2.2 cm; D. r.: 1.6 cm; H.: 3.4 cm.
Sfântu Gheorghe square, S2, layer in the upper part.



67. Fragmentarily preserved pipe, made of gray clay, fine fabric with inclusions of fine sand, oxidant firing, glazed, olive green color with darker spots. The ring is decorated with a circular incision, the lower part of the bowl with two V-shaped stripes, decorated with the cogwheel and framed by two incisions.

D. b.: 2.4 cm; D. r.: 2.1 cm.

Sfântu Gheorghe square, -1m from the walking level.



68. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing. The ring is decorated with a circular incision. The outer surface of the pipe is covered in brown yellowish glaze. There are no traces of secondary firing inside the bowl.

D. b.: 2.4 cm; D. r.: 1.9 cm.

Sfântu Gheorghe square, S2, terminus eastern area.



69. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, simple, undecorated leg and ring.

D. b.: 2.3 cm, D. r.: 2.1 cm.

Sfântu Gheorghe square, S2, upper layer.



70. Fragmentarily preserved pipe, made of clay, fine kaolin-like fabric with inclusions of fine sand, oxidant firing, pink color, simple, undecorated ring.

D. r.: 2.1 cm.

Sfântu Gheorghe square, S2, upper layer.



71. Pipe made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, pink color, fan-shaped stamp on the bowl and simple, undecorated ring and leg.

D. b.: 2.2 cm; D. r.: 2.1 cm; H.: 4.8 cm.

Sfântu Gheorghe square, S2, upper layer.



72. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, simple, undecorated ring.

D. r.: 1.9 cm.

9 mai Street, *passim*.



73. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, simple, undecorated ring and leg.

D. b.: 2.2 cm; D. r.: 2.1 cm.

9 mai Street, *passim*.



74. Fragmentarily preserved pipe, made of kaolin clay, fine fabric with inclusions of fine sand, oxidant firing, gray color. Shows no decoration, in the lower part of the pipe the leg extends on the bowl in shape of a prolonged triangle, simple flattened ring, flared border.

D. b.: 2.3 cm; D. r.: 2.1 cm.

9 mai Street, layer 1.



75. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, shows no decoration, simple, flattened ring.

D. b.: 2.3 cm; D. r.: 1.7 cm.

Sfântu Gheorghe square, S2, upper layer.



76. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, shows no decoration, simple, flattened ring.

D. b.: 2.3 cm; D. r.: 2.1 cm.

Sfântu Gheorghe square, S2, upper layer.



77. Fragmentarily preserved pipe, fine fabric with inclusions of fine sand, oxidant firing, with engobe, undecorated bowl, ring and leg.

D. b.: 2.6 cm; D. r.: 2.8 cm; H.: 4.5 cm.
9 mai Street, upper layers.



78. Fragmentarily preserved pipe, made of clay, fine fabric with inclusions of fine sand, oxidant firing, with engobe, the ring is simple, undecorated.

D. r.: 2.7 cm.

Sfântu Gheorghe square, S2, east terminus area, upper part.



79. Fragmentarily preserved pipe, made of kaolin paste, fabric with inclusions of fine sand, oxidant firing, bowl decorated with floral motifs on both sides and on the front side it displays a rectangular sole with cogwheel decoration placed on two rows.

D. b.: 2.3 cm.

Sfântu Gheorghe square, S2, layer 1.



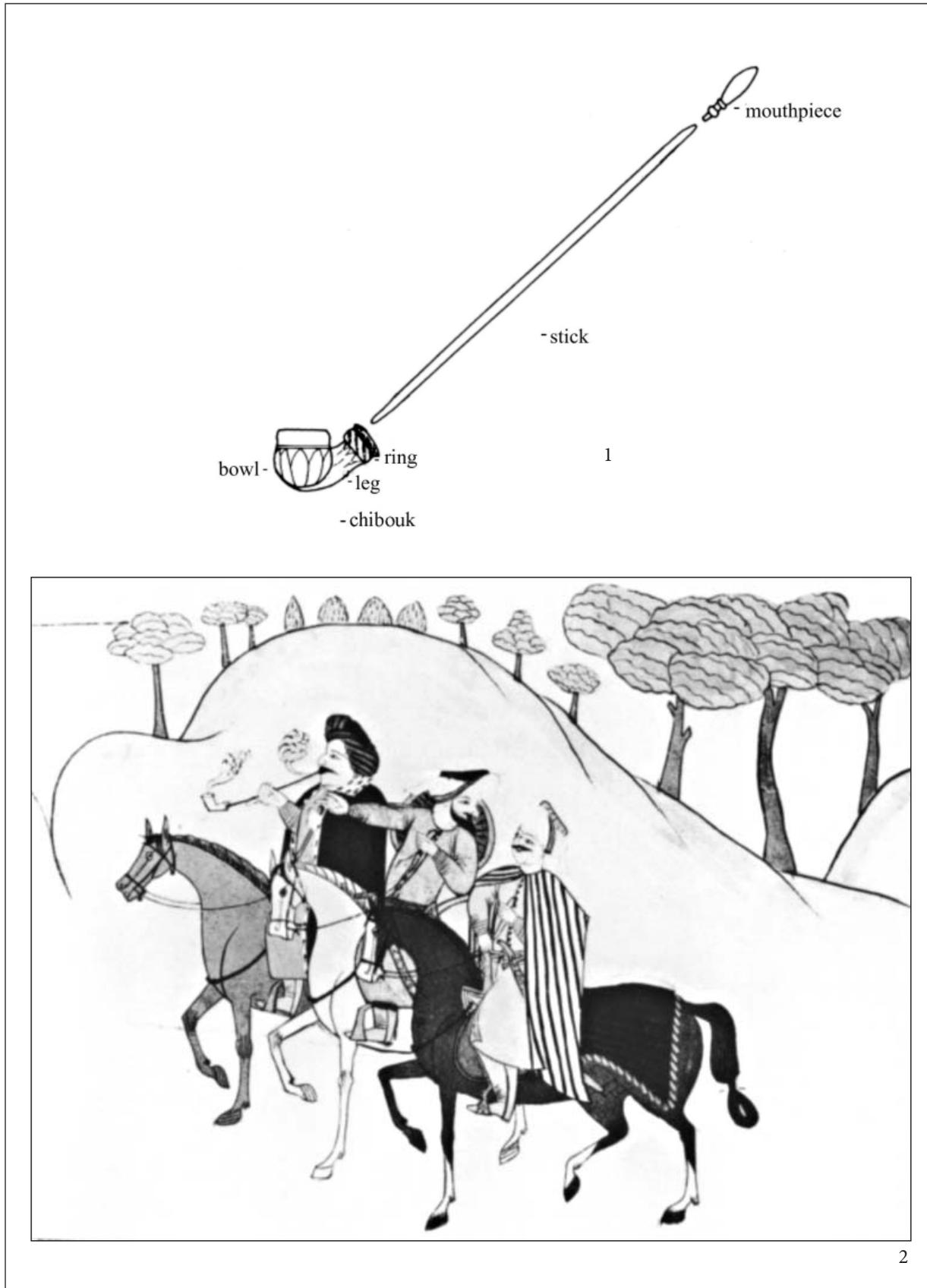


Plate 1. 1. Elements of a chibouk-style pipe; 2. Turkish miniature (17th century)
(taken from Robinson 1985, Pl. 34).



Plate 2. Types of decoration and craftsmen's stamps (?) – Cat. 70.