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Edited by Anna Ridovics and Peter Davey

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THE ACADEMY [www.pipeacademy.org]

The Académie Internationale de la Pipe was founded in 1984 to provide a forum for leading scholars from around the world engaged in any field of study relating to the smoking pipe. The Academy's object is to advance the education of the public in the economic and social history of tobacco and pipe smoking worldwide. Its principal aims are to promote better awareness of the pipe as a cultural, artistic and social phenomenon; to highlight the particular place the pipe holds in the history of peoples and civilizations; to collect, preserve and disseminate evidence relating to its history and associations, and to encourage research concerning the past, present or future of the subject.

Academy members bring their own specialisms in fields such as archaeology, social and economic history and fine art, as well as having the opportunity to collaborate with others in working groups. The annual journal has been established to publish the results of the Academy's work, which will be of relevance to researchers from a wide range of related disciplines.

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The Academy welcomes the submission of original papers that fall within the remit of this journal and which make a valid contribution to knowledge. Further details relating to the format and content of submissions can be found at the back of this journal.

ADDITIONAL COPIES

Additional copies of this journal can be purchased from the administrator, Dr. Susie White, (contact details above).

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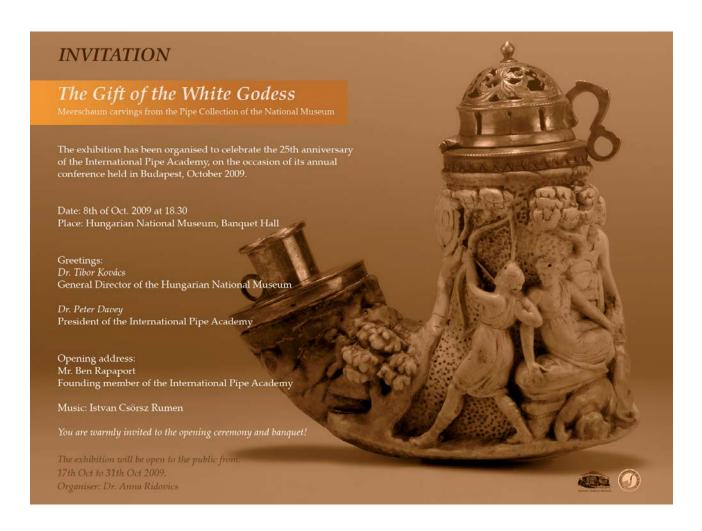
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JOURNAL OF THE ACADEMIE INTERNATIONALE DE LA PIPE

VOLUME 3



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Foreword

History – through a cloud of smoke

We often see history through a cloud of smoke. It's frequently a sign of horror: the smoke of burning villages, towns and cities; the smoking barrels of cannons; the smoke of exploding ammunition. But let's not forget that there are also peaceful clouds of smoke: the smoking chimneys of houses; the smoke of campfires which provide warmth and light in the darkness; or the smoke of flames that merrily crack and pop beneath a cauldron of steaming hot stew. And the smoke of a pipe is also of the peaceful kind.

As far back as I can remember, history has always fascinated me – and the pipe has always been there in history. I can recall three distinct memories connecting its smell to visual images. My father was a heavy smoker and along with cigarettes, he sometimes smoked a pipe as well. He kept the necessary equipment in a copper bowl on his desk and we loved to search through it with my brother and sisters. His pipes themselves weren't particularly old, but the accessories and tools were: yellow crumbs of tobacco fell out of an old, twisted leather bag and his collection of pipe-cleaning equipment was akin to medieval torture devices. Above his desk there was a framed lithograph depicting my great-greatgrandfather – he was a master painter and he drew this self-

portrait with a long pipe in hand. I often studied his bearded face and his typical nineteenth-century clothing (with a pocket-watch on chain) and that pipe, which was used as a visual aid for any discussion (Fig. 1). The third memory comes from the adventure novels of my youth about the Old West, where the smoking of the 'peace pipe' was an essential part of friendly relations with the Native Americans. All this I experienced without being taken by the lure of the pipe or having a passion for smoking. It never gave me that sense of adulthood which rings so loud in the words of Mark Twain's child protagonist, Tom Sawyer, while playing at pirates with his friends, when Tom, the Black Avenger of the Spanish Main asks Joe Harper, the Terror of the Seas: "Joe, you got a pipe? I want a smoke".

This beautiful volume contains studies showcasing the role of pipes in cultural history throughout the centuries. A tranquil and peaceful conversation by the smoke of a pipe is called *pipaszó* or 'word of the pipe' in Hungarian. In that spirit I recommend this book and its 'words of the pipe' to the kind attention of the reader.

Csorba László Director of the Hungarian National Museum Christmas 2011, Budapest



Figure 1: Self portrait, 1887- Miklós Barabás (1810-1898).

Editorial

This third volume of the Journal of the Académie Internationale de la Pipe commemorates a successful conference in Hungary. We hope that it will mark the beginning of a new tradition for the Academy and that in the future it will be possible for us to publish academic papers from our conferences in every volume.

In October 2009 the International Pipe Academy celebrated the twenty-fifth anniversary of its foundation and held its annual conference and general meeting in Budapest. The conference which was based at the Hungarian National Museum, took as its theme 'Between East and West, Pipes and Smoking in Eastern and Central Europe: From early excavated clay-pipes to the culture of artistic meerschaum-carving'. The conference attracted more than 40 participants from 16 countries to listen to ten scientific presentations about this topic. They were also able to study three poster displays and pipe masterpieces in a variety of materials saved in the Museum's stores. A special exhibition entitled 'The Gift of the White Goddess: Meerschaum carvings from the Pipe Collection of the Hungarian National Museum' was opened to coincide with the conference.

The opening address by Ben Rapaport can be read in this volume introducing not only this high quality pipe display, but also the last ten years of Hungarian pipe research and exhibitions. He paid tribute to the famous Hungarian Pipe collector, Irnák Osskó who lived in Germany but worked for the rediscovery of the Hungarian pipe-making culture. During the conference Academy members, at the invitation of its director Mrs. Csilla Móró neé Gócsa, were able to visit the Blaskovich Museum to see its splendid displays of tobacco pipes and to enjoy the warm hospitality. The final visit was to Debrecen, the well known historical pipe-making town, where a special exhibition on Debrecen clay-pipes in Déri Museum and the exciting 'Pipe smoking World Cup' competition by CIPC awaited the participants.

Pipe making is a traditional, internationally well known representative of Hungarian craft and decorative art. The Hungarians became acquainted with the habit of pipe smoking through contact with the Turks and western mercenary soldiers. Hungarian potters took Turkish stub-stemmed clay pipes as a model for their products and developed new forms from them. Important claypipe manufacturing centres were born and prospered in Debrecen, Selmecbánya (present-day Banská Štiavnica, Slovakia) and in the region of the Transdanubian town, Körmend during the eighteenth and nineteenth century. In the last 10 years of archaeological excavations more and more attention has been paid to the seventeenth to nineteenth century clay pipes that have been unearthed in Hungary. These Turkish and Hungarian products are the chief early modern period finds from excavations and it is possible to infer from them processes of cultural

interaction, commercial relationships and the development of crafts. This material is of international significance.

Legends link Hungary with the birth of the first ivory-coloured, artistically-carved, meerschaum pipes. Talented pipe-carvers worked at Pest-Buda especially during the eighteenth and nineteenth centuries. Their work sometimes also made a significant contribution to the foundation of new types which became popular all over of Europe. The most artistic pieces are valuable treasures of museums and private collections.

This international pipe conference was the first of its kind to be held in this east and central region of Europe. The presentations and posters were organised around two main topics. First, comparative research on Ottoman-Turkish finds in the context of Hungarian and international excavations and the birth of Hungarian clay-pipe making; secondly, the importance of international relationships to Hungarian meerschaum-carving in the Habsburg Empire and in Europe.

The core research papers contained in Volume 3 of the Academy's journal are founded on the texts of the lectures and posters presented in Budapest. There were two papers read at the conference which, unfortunately could not be published in this or the subsequent volume: Martin Vyšohlíd (Archaeologist, Archaia, Prague, Bohemia) on 'Prague pipes between east and west (tobacco clay pipes from archaeological excavations' and St. John Simpson (Archaeologist, The British Museum, London, United Kingdom) on 'Ottoman pipes from the Near East'. On the other hand a number of other authors were invited to contribute papers to the volume, as their fields of research were close to the conference theme. But the picture is not complete. Studies of pipe making in Slovakia, Bohemia, Poland, Romania and Russia are absent from this volume. It will be important to attempt to examine pipe-making in these regions as the subject matter for future conferences.

This third volume of the Academy's journal consists of three main parts. The papers in the large first section introduce Hungarian pipe history from the seventeenth to the twentieth century through the writings of archaeologists, art historians and ethnographers. There are wider overviews of the clay-pipe making craft, discussions of possible typo-chronological issues at different periods and analyses of excavated finds from specific sites such as the Eger Fortress, the Ottoman palanka-type fortress at Szekszárd and the nineteenth century Transdanubian Körmend. A short, but very interesting article presents and discusses a unique pipe burning pot from Debrecen. One paper is dedicated to meerschaum pipes with new data about the early use of pipas marinas albas in Hungary. The second main section consists of archaeological papers from neighbouring countries or countries in central or south-eastern Europe such as Croatia, Serbia, Ukraine, Bulgaria and Austria. The final part of the volume is a review of a new book on the history of the clay pipe industry in Schoonhoven in the Netherlands

The conference in Budapest and the production of this volume would have been impossible without the whole-

hearted support and encouragement of the Director of the National Museum, Dr. Tibor Kovács (Fig. 1), to whom the Academy is especially grateful.

Anna Ridovics Peter Davey



Figure 1: Former Director of the Hungarian National Museum, Dr. Tibor Kovács.

Opening address at the Annual Conference of the Académie Internationale de la Pipe, Debut of the Exhibition: *The Gift of the White Goddess*, at the National Museum of Hungary, October 8, 2009

Good evening, ladies and gentlemen. First, I would like to echo the warm welcome to everyone expressed by the Museum General Director, Tibor Kovács, and by the Academy's President, Peter Davey. And, before I forget, a very special vote of thanks to Anna Ridovics whose extra effort made this evening and this entire week possible.

I consider it quite an honour to be chosen to give this opening address. For me personally, I am especially pleased to be among my fellow Academicians and surrounded by the exhibits in this museum, one of the few remaining holy grails of the antique pipe in Europe.

I am not quite sure what Anna had in mind when she asked that I say a few words about the meerschaum pipe as the central theme, to speak for about 10 minutes; frankly, when it comes to meerschaum, there is no possible way to limit a discussion to a few words, or to 10 minutes for all that need be said about the queen of pipes, the white goddess, Venus of the Sea, the choicest and rarest of pipe mediums... but I shall comply with her request.

The written record is rather replete with the history of tobacco pipes crafted in many mediums during the past 400 or so years, and in particular, the history of meerschaum, whose origin, genesis, dare I say, nativity began here in this country. Every student of the pipe accepts the fact that Budapest became the first centre of the meerschaum trade and then it spread to Vienna and other parts of Europe. But a substantive chapter on Hungary has been absent until recently. Credit for adding that chapter goes to Hungary's own. Initially, there is a debt of gratitude to the late Dr. Irnák Osskó who now has a special place in pipe heaven. Together with his friend Ferenc Levárdy, as devoted students of the pipe, they researched and wrote about their lifelong passion as collectors and historians in order to reveal the untold stories of Hungary's tobacco pipe industry, to document and detail the role that thier country's pipe carvers have played. Their intimate knowledge, dedication, commitment and love of pipes produced in their native country can now be shared with the entire world in Our Pipe-Smoking Forebears. The book had been completed by Levárdy just before his death, Osskó edited the manuscript and prepared it for publication in 1994.

Further dramatic proof of Hungary's contribution to the remarkable evolution of the meerschaum pipe, as well as in other local expressions in wood, ceramic, and clay is illustrated in *The History of the Pipemaker's Craft. Hungarian History Through the Pipemaker's Art* organized and written by Edit Haider and Anna Ridovics, the retrospective catalogue published in conjunction with Hungary's millennial celebration in 2000. For those of you who may not know, it was Dr. Osskó who, I am told, proposed the idea to the National Museum of Hungary, to use the tobacco pipe as the keynote theme and as a symbol of national pride to honour its 1,000-year anniversary. Additionally, Haider and Ridovics jointly wrote another book in 2005 illustrating the antique pipes in the Blaskovich Museum, the country's second largest collection. Together, these three volumes now preserve for posterity, in word and picture, the art and craft of Hungarian pipes, and vividly illustrate the breadth, depth, and substance of this country's significant and singular contributions to the annals of tobacco lore. In his book, Dr. Osskó states: 'And now? Now we can only rummage in books and look at pipes to discover that forgotten science.' How prescient he was when he wrote that, not knowing that other relevant publications would follow after his own opus. Now, every pipe collector, researcher, and historian will be familiar with the once 'Who's Who' of Hungarian pipe makers, among them, Adler, Donath, Goldberger, Nagy, Pfeifer, Schmidt, and all the others.

Tonight, in this small, but impressive, exhibition of early pipes, 'The Gift of the White Goddess,' we all can see the products of deft hands, skilled execution, and artistic inspiration at work by an unknown number of nameless artisans in an ever-burgeoning eighteenth and nineteenthcentury cottage industry. Whether the 1723 tale of Count Andrassy and the cobbler, Karl (Károly) Kovács, who allegedly carved two meerschaum pipes, is fact or fancy, the prolific production by meerschaum carvers, wood, amber, horn and ivory turners, silver- and goldsmiths, all the designers, fabricators and assemblers of so many magnificent examples of the pipemaker's art on display here tonight are a testament to these craftsmen of the Kingdom of Hungary and, after 1867, to a yet larger contingent of artisans in the Austro-Hungarian Monarchy, at their finest in plying their trade, working their hands, eyes, and imagination. Parenthetically, one of the Academy's working groups is studying meerschaum, and this year it has created a global database of the names of individuals and workshops affiliated with meerschaum; the number of those working in the environs of Budapest from about 1730 to about 1900 exceeds those in all other continental countries who worked in this field. These statistics indicate that Hungary started earliest and stayed the longest of any European country involved in the manufacture of meerschaum smoking utensils; interestingly, many of this country's native sons immigrated to the United States in the mid- to late 1800s, and set a very high standard in executing meerschaum pipe masterpieces for American consumers. And America has its own legend similar to the story about the Count and the cobbler. Charles Pollak was said to have carved the very first meerschaum pipe in New York City in 1860; Pollak supposedly got his lump from a Rev. Dr. Tyng of Brooklyn, New York, who brought it back from Turkey. Pollak learned how to carve from his father-in-law in Old Buda.

Unfortunately, in our study so far, we have been unable to determine the precise role each individual and workshop played and for how long, what their special skills were, or how vast was their respective, or collective, output. Nonetheless, if we were to include all the wood pipe carvers, clay pipe makers, and associated craftspeople, Hungary's combined influence and impact on pipe formats, configurations, designs, and trade is overwhelming.

I know that many of the Academy members present are wholly devoted collectors and researcher-archaeologists of clay tobacco pipes, but on this evening, and during this conference, I would hope that you will broaden your interest and come to appreciate these Hungarian examples as pipe-worthy companions of the clay and, as important, to acknowledge these exhibits as representative expressions of this nation's contributions to the enduring legacy and evolution of tobacco pipes through time.

On behalf of the Academy, an obligatory vote of appreciation to the Director and all the staff members of this museum who continue to play a role in acquiring, restoring and preserving these pipes and, from time to time, sponsoring exhibitions of these rare objets d'art to the public at large. Within the last twenty or so years, several important museums have been closed, among them the Reemtsma Museum in Hamburg, the SEITA Museum in Paris, the Austrian Tobacco Museum in Vienna, the Larsen Pipe Museum in Copenhagen, the Galerie du Coq Muet, Lausanne, the Dunhill Museum in London, the Museum of Tobacco Art and History, in Nashville, Tennessee, and a few smaller museums that also had a substantial quantity of tobacco-related artifacts, including antique pipes. Sadly, for us, the number of museums we will be able to visit and where we can conduct relevant research in our special field is rapidly shrinking. But, as keepers of this tradition, which is particularly evident during this special week, the National Museum of Hungary and the other museum on the schedule to be visited on October 10, are not following this tragic trend. For this, and I know I speak for all those present, we of the Academy are thankful... and we salute you!

Unless there is another scheduled event that follows my brief introduction, I believe now is the time to wander around, observe, survey, inspect, examine, ogle, admire, and enjoy this exhibit in honour of the 25th anniversary of the International Academy of the Pipe.

Ben Rapaport Founding Member of the Académie Internationale de la Pipe October 2009

Clay pipes in Hungary from the seventeenth century: ten years on

by Gábor Tomka

Introduction

Almost ten years ago the writer was asked to present a summary and attempt to describe the typological development of clay tobacco pipes in Hungary from its beginnings until the end of the eighteenth century (Tomka 2000a). He had to depend on a single paper (Kovács 1963), on some data scattered in scientific literature and on his own experiences at that time. Knowledge of early clay pipes in Hungary has improved considerably in the last decade (Fig. 1). The excavations of Attila Gaál in Újpalánk (in Yeni Palanka) near Szekszárd have yielded almost 100 stratified pieces which can be dated without doubt to the seventeenth century (Gaál 2004). From the fortress of Kanizsa, the centre of a small province in southern Transdanubia, 17 pipes were published by Gyöngyi Kovács (Kovács 2004). Among the finds from Ónod Castle, situated at the south-eastern border of Royal Hungary (today North-Eastern Hungary) about 40 pieces can be dated to the seventeenth century (Tomka 2005). Imre Holl presented 31 pipes found during excavations carried out on the Castle Hill of Buda (Holl 2005, 160-Szabolcs Kondorosy is the first archaeologist

in Hungary who has specialized in researching and publishing clay pipe-finds. In his first article on this topic he published 92 pieces found in Esztergom Castle dated to the Ottoman period (Kondorosy 2007a). In a second paper he presented 116 pieces from Szeged Castle made in the seventeenth century (Kondorosy 2008). In a third article he published 126 pieces interpreted as evidence for Ottoman rule, found in the outskirts of Buda (Kondorosy 2007b).

The great amount of recently published material has made obsolete some parts of the original typology of ten years ago. Although significant advances have been made in this field in recent years, a final typology is still to come due to the high diversity of forms. So the following attempt should be considered as a provisional and temporary solution.

Pipes with clay stems

A. Pipes of Western European origin

Undecorated pipes with more or less biconical bowls are found mainly in fortresses in the hands of Hungarians (Lenti: Závodi 2003, 194–195; Pozsony (Bratislava, Slovakia): Holčík 1984, 89–90; Fülek (Filakovo, Slovakia): Kalmár 1959, LXXVIII. tábla; Szepesvár (Spišsky Hrad, Slovakia): Vallašek 1983, 239, Obr.7. 15; Szitnya (Sitno, Slovakia): Takač 1979, 252, 3; Szendrő: (Fig. 2, Nos. 1-3)). Single pieces are known from Turkish findspots as well however (Buda: H. Gyürky 1981, 55; Szekszárd: Gaál 2004, 264). The majority of these pieces have a

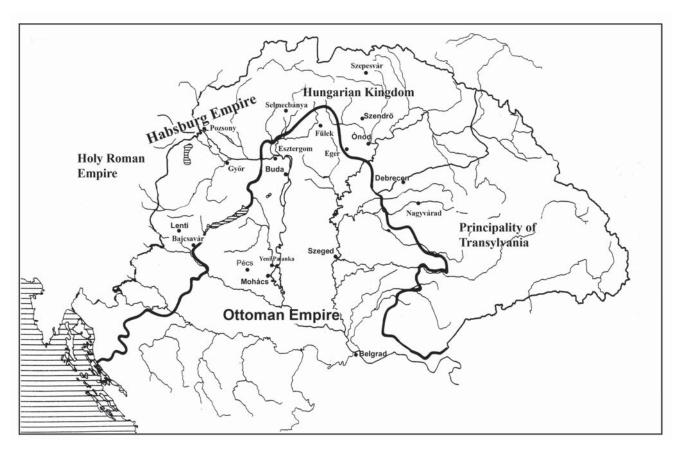


Figure 1: Map of the Carpathian basin around 1590.

greyish white body; pieces of inferior quality are brownish or reddish. They usually have a polished surface. Their form matches contemporary western pipes, but makers' stamps are usually lacking on their heels. At the fortress of Szendrő it can be shown that they were in use in the middle of the seventeenth century, but are missing from find-complexes dating to the end of the century. Pieces of superior quality are thought to be imports while pieces of inferior quality were probably local products.

In Szendrő a few broken pieces decorated on the side of the bowl with a rosette have been found (Fig. 2, No. 6) as well as stems ornamented with *fleur-de-lys* stamps, which prove that different types of claypipes were imported to Upper Hungary from Dutch or German centres (Kügler 1998, 231).

Jonah or Raleigh-pipes are known from Lenti (Závodi 2003, 194–195), Pozsony (Holčík 1984, 89) and Szendrő so far (Fig. 2, Nos. 4-5). Similar pipes are well known in the Netherlands and in Germany (Kügler 1998, 233). Their form recalls the story of Jonah and the whale or (as a not very likely interpretation says) Walter Raleigh and an alligator. They were made of well fired pipe-clay, and were probably all imported. Pieces from Szendrő are datable to around 1650.

A single parallel from Szendrő depicting a shoe (Fig. 2, No. 7) was found in Passau (southern Germany) (Kügler 1998, 231; Mehler 2004, 91), so it was probably imported to Szendrő from afar. Boot-like pipes were not unknown in Hungary either. Parallels to the piece found in Fülek Castle (Kalmár 1959, LXXVIII) were published from south-German territories, too (Mehler 2004, 90–91).

B. Pipes without western parallels

A unique pipe from Szendrő has the special feature of having a clay stem (one can observe even the traces of usage) and a bowl with a pronounced rim (Fig. 2, No. 8). Since the proportions and decoration of the tiny little bowl resemble some wooden-stemmed pipes, it was probably created during the coexistence of western type pipes and pipes with wooden stems. This mixed type could not have spread widely however, since only this very singular piece is known. A glazed piece from Salzburg (Austria) can be cited as a distant analogy (Mehler 2004, 89-90).

The next piece with a clay stem shows extremely primitive features (Fig. 2, No. 9). It was made by hand, decorated unskilfully and fired improperly. It does not seem to be a professional pipe-maker's work. There was obviously no pipe of better quality available. It is quite likely that this piece is evidence of the beginning of pipe smoking.

Recent observations show that a pipe-type with a forward leaning bowl, previously thought to be an early form of clay-stemmed pipe, most likely had a wooden stem. The facetted, funnel-like form of the bowl has no seventeenth century parallels among western European pipes. This type is discussed below among the wooden-stemmed types.

The clay-stemmed pipes (in the Hungarian literature the so called Dutch-type) were in use primarily in the first half or in the second third of the seventeenth century. They were smoked mainly in Royal Hungary, mostly by soldiers and were probably preferred by western (mainly German) mercenaries. The best pieces were imports but more or less successful local copies were produced as well. By the end of the seventeenth century they were displaced by pipes equipped with wooden stems.

Pipes with wooden stems

The majority of clay pipes found in Hungary from the seventeenth century belong to this group. Although some types have become more and more distinguishable in recent years, especially the richly decorated pieces with well articulated bowls are to be considered almost as unique pieces further on. It seems certain that several types coexisted from at least the second third of the seventeenth century onwards. These types or forms could interact, the change of forms could follow the rules of evolution and reduction respectively. The quantity of published material is not yet sufficient for any unquestionable typological evaluation of the extremely diverse forms and decorations to be attempted.

A. Pipes without sharp segmentation of the small bowls (tubular pipes)

The bowls of these pipes are not off-set from the stemsocket. Neither the upper or the lower parts of the bowl are separated. These pipes have small bowls and usually they do not have a wreath or ring on their stem-socket.

There is a form found mainly in Turkish sites which has an unarticulated, sometimes faceted bowl leaning forward, often getting wider towards the rim (Eger: Kovács 1963, III.t. 1, VII.t.1; Esztergom: Kondorosy 2007a, 309-310, 315 (Fig. 3, Nos.1-2)). Although the shape of the bowl differs from contemporary pipes in western Europe (it is more like eighteenth century pieces), its position resembles them. That was the reason for its former (false) classification as a pipe-type with a clay stem. Recently published pieces with intact necks (Varga 2011) demonstrate that they had stem-sockets. The position of the bowl implies that they once had a short wooden stem. The formal resemblance to clay-stemmed pipes could possibly hint at a genetic connection which eventually indicates an early date. Their material is reddish or brownish; some pieces show traces of polishing.

A group of sparely decorated pipes contains usually unglazed, roughly made pipes (Eger: Kovács 1963, III.t. 8–10; Szekszárd and Buda (?): Gaál 2004, 273, 279; Ónod: Tomka 2005, 611–612; Buda: Holl 2005, 164; Esztergom: Kondorosy 2007a, 313–315) (Fig. 3, Nos. 3-5). Bowl and stem-socket join at around 90°. The colour of the ceramic body can be various: white, yellowish, brownish, pale reddish or even grey. Sometimes they are lightly polished, sometimes rouletted. Their simple design and unarticulated form suggests an early date, but the possibility that they were produced even in the last

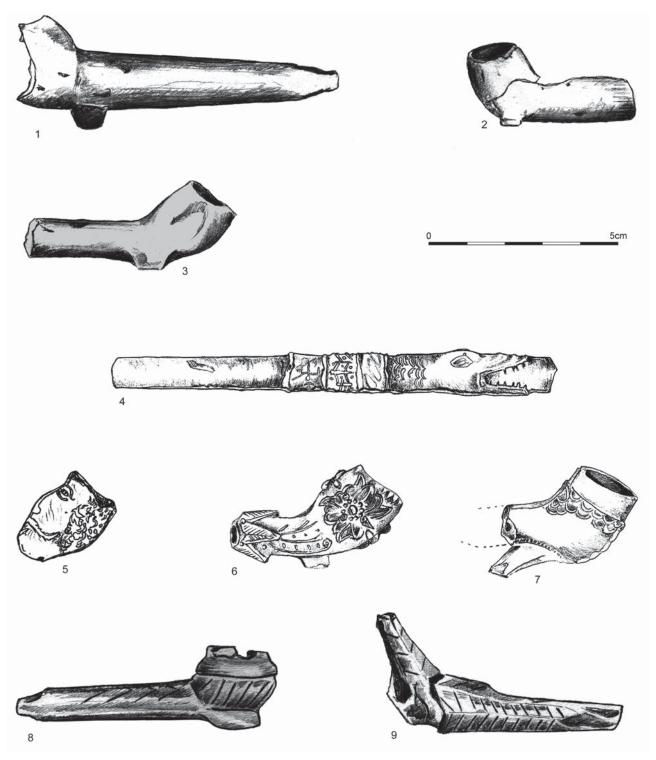


Figure 2: Clay pipes from Szendrő (1-9).

decades of the century for consumers with lower demands cannot be excluded.

There is a well-distinguishable group of pipes which have very tiny bowls and are usually glazed. The upper and the lower part of the bowl are separately decorated, but they do not have any sharp formal distinction. One of the two most widespread types of this group has fluting on a great part of its bowl and stem-socket. The upper part of the end of the stem-socket is usually rounded (Fülek: Kalmár 1959, LXXVIII.t; Eger: Kovács 1963, 260, III.t.

4; Szekszárd: Gaál 2004, 277 (Fig. 3, No. 6); Esztergom: Kondorosy 2007a, 319–320). The other common type has rosettes on both sides of the globular bowl and fluting on its stem-socket. This type can be regarded as a transitional form between pipes with and without articulated bowls (Eger: Kovács 1963, 247, III. t. 6; Nagyvárad (Oradea, Romania); Emődi 1998, 31, 73; Szekszárd: Gaál 2004, 277–278; Pécs: (Fig. 3, No. 7); Buda: Holl 2005, 163). The type could have an unglazed forerunner, found in Buda and dated to the 16th century (Bertalan 1997, 345). Their material is usually white or yellowish white. Glazed

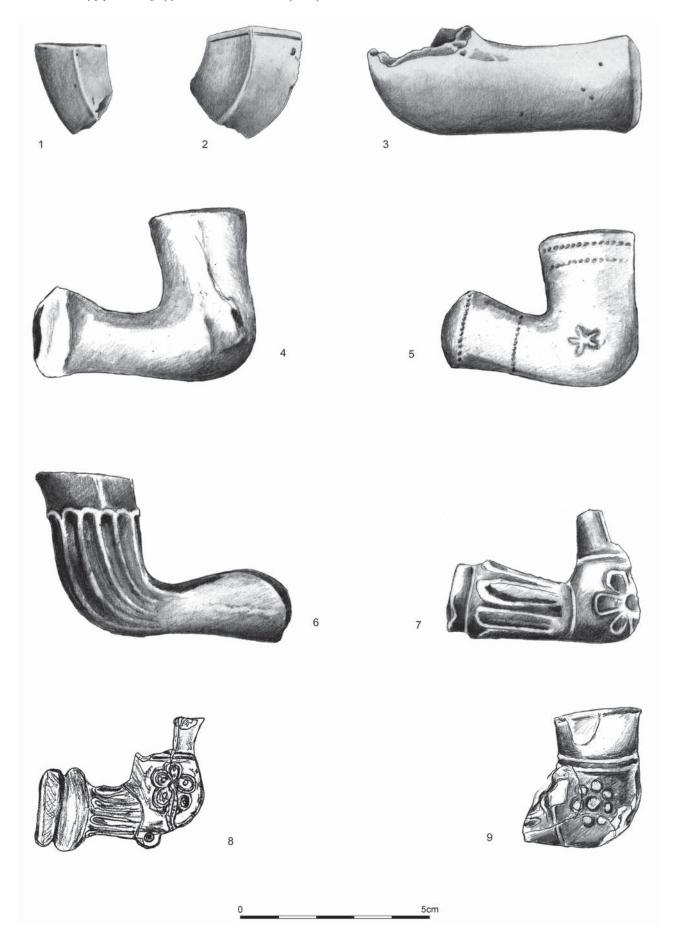


Figure 3: Clay pipes from Esztergom (1-3) (after Kondorosy 2007a, 311, E9, E8, E10), Szekszárd (4-6) after Gaál 2004, III.t. 47, 53, 54), Pécs (7), Szendrő (8-9).

pieces were produced before 1660 (Barcs: Kovács 1998, 170, 13. k. 1), but the use of a piece enriched with a wreath can be proved in Szendrő up to the 1670s (Fig. 3, No. 8). The type with fluted bowls seems to be more uniform; the type with a rosette occurs on the Christian side of the border in many variations too. The bigger, deformed variations are likely to be derivations from the end of the seventeenth century (Tomka 2003, 312 (Fig. 3. No. 9)).

B. Polished pipes with swollen bowls without sharp segmentation

This large group of pipes with characteristic forms (Simontornya: Gaál 2004, 270–271, Nr. 34 (Fig. 4, No. 1); Ónod: Fig. 4, No. 2) can be divided into smaller groups, some of them demonstrably later than the seventeenth century. They were particularly popular in the southern and eastern part of the territory subjected to the Ottomans (Kondorosy 2008, 338-340), but they were used in Hungarian fortifications at the northern edge of the Great Hungarian Plain as well (Tomka 2005, 612-613). Their bodies are almost exclusively reddish and are normally covered with a thin layer of slip which is usually polished. Their stem-sockets are narrow, with polygonal collars and star-shaped wreaths. Their bowls are swollen, the tops often leaning forward. Their fabrics and surface treatment show similarity to the unsegmented pipes with forward-leaning bowls, of which they can be assumed to be the predecessors. Similarities can be observed with the undecorated reddish pipes with hemispherical bowls as well. Because of the swollen bowl and the segmented stem-socket this should be typologically later; its production presumably started in the second half of the seventeenth century, but certainly before 1686.

C. Pipes with Hemispherical, Undecorated Bowls

1. The most common type at seventeenth century sites in Hungary usually has a reddish fabric and is wellpolished (Szendrő: Fig. 4, Nos. 3-4; Buda: Fig. 4, No. 5). They usually have no wreath on their stem-sockets, the ends of which broaden slightly. The cross-section of the stem-socket is either circular or polygonal, most often seven sided. The keel is well defined. On some pieces the keel reaches the front of the upper part of the bowl, while on others it flattens into the front of the bowl. The angle between stem-socket and bowl is usually around 90 degrees, but can also be acute. A knob of uncertain purpose was usually formed on one side, exceptionally on both sides, of the bowl. This knob seems to be more frequently on the right side of the bowl. The rim is often cylindrical, but an octagonal prism form is not rare either. The great amount of finds makes the possible subdivision of this group likely (Kondorosy 2007b, 255). The examples stamped with rosettes, found in Újpalánk, may be local variations (Gaál 2004, 262, 265-266). These types were appreciated not only in the whole territory of the Ottoman occupation but also in Christian fortifications along the border (Tomka 2005, 314).

2. The fabric of the second type is more varied (Fig. 4, Nos. 6-7). The fired clay can be brownish, orange or even yellowish white. They are generally unpolished always

having a wreath at the end of the stem-socket. They are characterised by the rouletted decoration and a rosette made of points on their rims. According to the finds from Újpalánk, this type is not present at Turkish sites until 1686. On the other hand they are found in Christian fortifications like Ónod (destroyed in 1688) (Tomka 2005, 608–609) or in Szendrő (blown up in 1707). This type seems to be particularly frequent in Christian fortifications along the Ottoman border. It is highly probable that it originated in the early simple Turkish type, and can be considered as the first Hungarian pipe-type. The use of this type appears to begin in the last quarter of the seventeenth century and continued into the first decades of the eighteenth.

D. Pipes with decorated, hemispherical or globular bowls This group seems to be the most heterogenous. The examples cited here are not at all exhaustive.

1. Unglazed pipes with richly stamped globular bowls are almost all unique pieces (Esztergom: Kondorosy 2007a, 311, E21; Szeged: Kondorosy 2008, 335-336 Sz9-Sz 14; Buda: Tomka 2000a, 129, 5g/11 (Fig. 5, No. 2), Kondorosy 2007b, 274, B4). They were preferred in the Ottoman army and in towns with inhabitants from the Balkans but some single pieces could have reached the Hungarian borderfortifications too (Lenti: Závodi 2003, 194-195; Szendrő: Fig. 5, No. 3). Their colour is often greyish, yellowish or buff but almost never reddish. Their stamped decoration is often restricted to the upper part of the globular bowl (Eger: Kovács 1963, 259, 1. t. 1, 3; Szekszárd: Gaál 2004, 285; Nagykanizsa: Kovács 2004, 123, 130; Esztergom: Kondorosy 2007a, 311, E20; Szeged: Kondorosy 2008, 358 Sz10 Fig. 5, No. 1). On some pieces horizontal rouletting or grooved lines can be observed (Eger: Kovács 1963, 259, 1. t. 2; Buda: Kondorosy 2007b, 274 B7).

2. The bowl was most frequently divided by vertical impressions. This could be done by incising the bowl. These pipes are usually unglazed and are found in seventeenth century contexts exclusively at Ottoman sites (Szekszárd, Gaál 2004, 285 Nr.78 (Fig. 5, No. 4); Buda: Kondorosy 2007b, 274 B11 (Fig. 5, No. 5)).

A more efficient method was to form a gadrooned or petalled bowl in the mould. In the case of globular bowls gadrooning can cover the whole surface. In ovoid bowls it is usually restricted either to the lower, or to the upper part of the bowl. Rouletting was often used to accentuate the vertical divisions (Eger: Kovács 1963, 259, 1. t. 5; Szendrő: Fig. 5. No. 6; Szeged: Kondorosy 2008, 357 Sz2 (Fig. 5, No. 7); Szekszárd: Gaál 2004, 280 Nr. 58, 75 (Fig. 5, Nos. 8-9); Buda: Kondorosy 2007b, 274 B20; Holl 2005, 164). Another glazed type bears a moulded fishbone-like decoration on the vertical segments (Eger: Kovács 1963, 259 1. t. 10; Szekszárd: Gaál 2004, 281 Nr. 61) Ónod: Tomka 2005, 610 (Fig. 5, No. 10); Esztergom: Kondorosy 2007a, 311 E19). The segments of the bowls with compressed proportions were often formed softly like petals. This type is glazed quite often, too (Pécs: Fehér 1959, XII. t. 4; Onod: Tomka 2005, 619; Kondorosy 2007b, 274 B17 (Fig. 5, No. 11)). A simple type with exclusively

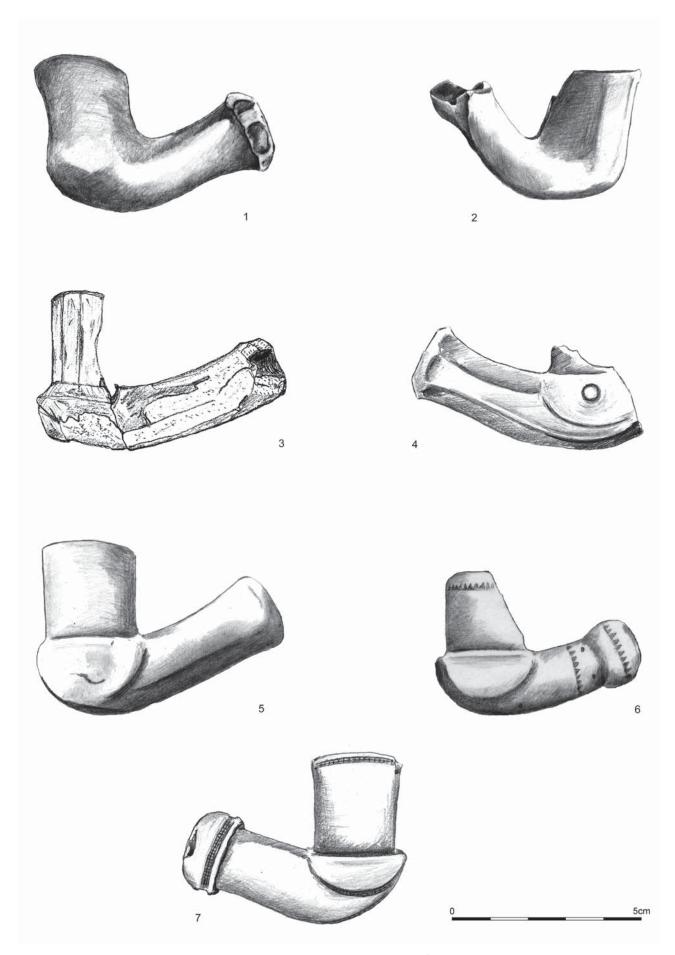


Figure 4: Clay pipes from Simontornya (1) after (Gaál 2004, III.t. 34), Ónod (2, 7), Szendrő (3-4), Buda (5) (after Kondorosy 2007b, 275, B26), Szeged (6) (after Kondorosy 2008, Sz36).

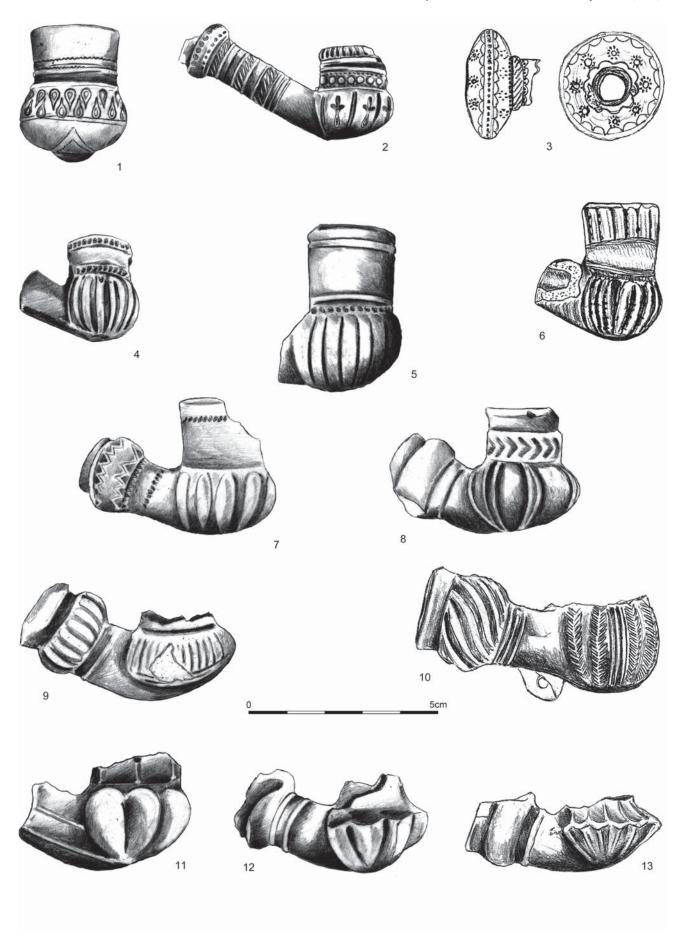


Figure 5: Clay pipes from Szeged (1), Buda (2), Szendrő (3, 6), Szekszárd (4, 8-9, 12) (after Gaál 2004, IV.t. 78, III.t. 58, III.t. 75, III.t. 64), Buda (5, 11) (after Kondorosy 2007b, 274 B11, 274 B17), Szeged (7) (after Kondorosy 2008, 357 Sz2), Ónod (10, 13).

moulded decoration which has a hemispherical lower bowl and which is segmented vertically sharply is found at almost all sites. This small-sized type is almost always glazed (Pécs: Fehér 1959, XII. t. 19, 24; Eger: Kovács 1963, 243 1. t. 11; Détshy-Kozák 1967, 105; Szekszárd: Gaál 2004, 281 Nr. 64 (Fig. 5, 12); Nagykanizsa: Kovács 2004, 122, 129; Ónod: Tomka 2005, 618 (Fig. 5, No. 13)).

A further small-sized glazed type should be mentioned here which has vertical divisions or ribs only on the upper part of the bowl (Ónod: Tomka 2005, 619; Szendrő: Fig. 6, Nos. 1-2). Examples of this type can be cited from fortifications in Borsod Country (Northeast Hungary). Therefore this form seems to be an early Christian innovation, judging its age from the size.

The glazed examples were usually made in white clay. This material is quite suitable for glazing because the colours of the glaze appear clear and shiny on the light surface.

E. Pipes with disc-shaped bowls

A distinctive group of pipes have flat, disc-shaped bowls. In a formal typology the disc-shaped bowl can be regarded as a secondary development which could take its origin from hemispherical bowls. On the other hand there is evidence for smoking pipes with disc-shaped bowls from as early as 1660 (Emődi 1998, 31, 73). Therefore either the forms of the globular and disc-shaped bowls diverged fairly rapidly or the angular, carving-like forms are the result of an independent, parallel evolution.

A proportion of the pipes with disc-shaped bowls have smooth keels comparable with those of pipes with hemispherical bowls. These pieces are usually richly stamped (Ónod: Tomka 2005, 614 (Fig. 6, No. 3); Szeged: Kondorosy 2008 359 Sz41 (Fig. 6, No. 4); Buda: Holl 2005, 162; Kondorosy 2007b, 257).

Another type of pipe with a disc-shaped bowl is characterised by a keel with a broken profile. Although unglazed pieces are more frequent glazed pieces are also known. They usually have a stem-socket with a polygonal cross-section and a richly decorated wreath. This type seems to be used mainly by the occupants of such sites as Pécs: (Fig. 6, No. 5), Szeged (Kondorosy 2008, 359 Sz38 (Fig. 6, No. 6)) and Szekszárd (Gaál 2004, 278 Nr. 52 (Fig. 6, No. 7)).

F. Flat bottomed pipes

Flat-bottomed pipes are quite rare. Stamped decoration is almost always present on them. Their rims are often angular (Pécs: Tomka 2000a, 124-125 (Fig. 7, No. 8); Eger: Tomka 2000a, 125; Buda: Kondorosy 2007b, 257, 277 B114 (Fig. 6, No. 9)). Pipes with bowls terminating in a flat bottom or a flat calotte of a sphere and equipped with a conical chimney have been published in greater numbers from Buda (Holl 2005, 162, 164 and Szeged (Kondorosy 2008, III.t. Sz40-41). These types seem to be preferred by the subjects of the Ottoman Empire.

G. Special forms

Some forms have no parallels yet. Among the items published from Buda a piece with a shell-like bowl probably representing a carnation should be mentioned (Kondorosy 2007b, 258, 277 B116). Another piece at the same site imitates a shoe pointing in the direction towards which the smoker is looking (Kondorosy 2007b, 257, 277 B115) (Fig. 6, No. 10). A pipe depicting a man's head looking in the same direction (unlike the Jonah-pipes) was reported from Fülek Castle (today Filakovo) (Kalmár 1959, 37). Another piece showing a Turk's head came to light in Buda, was in use presumably in the middle of the seventeenth century (Holl 2005, 163). This type which became popular later can only be of Christian origin considering the moslim prohibition of depicting humans.

Dating

Although more and more pipes have been published which were excavated by modern archaeological methods, there is still the problem that the majority have no archaeological context. There is no scientific method available to date pipes with the desired accuracy of 20 to 30 years. There is a single broken piece bearing an incised date (Tomka 2005, 612, 615). There are only a handful of early hallmarks, whose interpretation and date remain uncertain.

Due to the military defeats of the Ottoman Empire fortresses were abandoned *en masse* at the end of the seventeenth and at the very beginning of the eighteenth centuries. Pipes found during excavations carried out on these sites are apparently datable to the seventeenth century. These finds can contribute to the identification of early smoking implements in the Ottoman Empire and in eastern Europe even without proper archaeological context. During modern excavations stratigraphic evaluation is essential even in the case of early modern finds. So hopefully a lot of well-dated pieces will be published soon.

The fortress of Bajcsavár was only in use for some 20 years till the end of the 16th century (Kovács 2001, 195). Barcs was abandoned in 1664 (Kovács 1998, 155). Újpalánk was destroyed in 1686 (Gaál 2004, 260). Ónod was not rebuilt after the fire in 1688 (Tomka 2000b, 206), and Szendrő was blown up in 1707 (Tomka 2002, 118). When estimating the age of the pipes found at these sites possible secondary use of the ruined fortresses has to be considered. For example, at Drégely Castle the pipes alone revealed that the castle which was ruined in 1552 was partially in use again in the seventeenth century (Majcher 2005, 121). At Ónod Castle archaeological research has shown that the ruin was revitalised in the first half of the 19th century. A number of pipes came to light from this period (Tomka 2005, 607–608).

The other method of dating pipes is typo-chronology. Types are dated by their attributes and are then ordered presuming a constant change on the analogy of biological evolution.

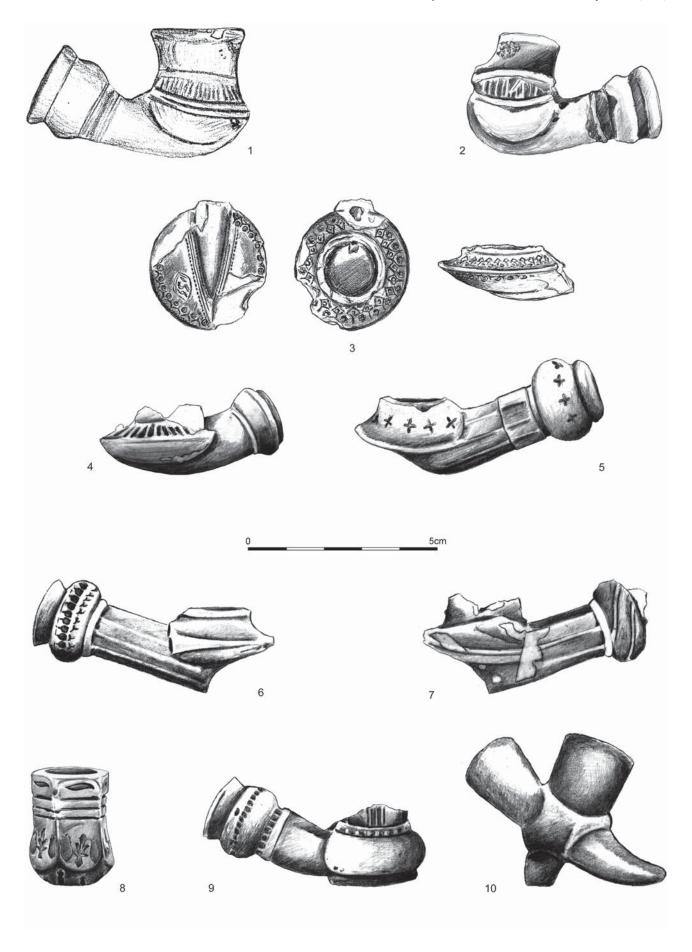


Figure 6: Clay pipes from Szendrő (1-2), Ónod (3), Szeged (4, 6) (after Kondorosy 2008, 359 Sz41, Sz38), Pécs (5, 8), Szekszárd (7) (after Gaál 2004, III.t. 52), Buda (9-10) (after Kondorosy 2007b, 277 B114, B115).

According to a combination of both methods, the earliest piece from an authentic context is probably the one found in Bajcsavár (Kovács 2001, 213 Fig. 11, No. 3). Although it was found in a fortress built against the Ottomans, it had a wooden stem. The fortress was abandoned at the turn of the sixteenth and seventeenth century, so this piece can de dated to the same period. So tiny, unarticulated pipes seem to be the oldest. These forms resemble western types, so they probably had a common origin. As time passed by the pipes became more articulated and segmented and their size grew slowly. However pipes with rosettes belonging to this early group were in use as late as the 1670s (like in Szendrő). The undecorated pipes with unsegmented heads could be in use for a similar long time due to their simplicity. Pipes with clay stems were popular in the first half or in the second third of the seventeenth century, according to the excavated groups from Szendrő. The spread of undecorated pipes with hemispheric bowls can be contemporary with the general spread of smoking (it means the second third of the seventeenth century). Pieces with angular rims and/or angular stem-sockets may be earlier, but the co-existence of angular and rounded forms cannot be denied. This type has a long-term usage as well. Its variation with washed contours (what is thought to be later Kondorosy 2007b, 255-256)) was smoked in Újpalánk before 1686 (Gaál 2004, 268 Nr. 23). Another piece, stamped with a Christian hallmark, was probably lost in Esztergom after the year 1683 (Kondorosy 2007a, 312-313). The similar piece from Ónod Castle was probably made before the destruction of the castle in 1688, and surely before the second decade of the eighteenth century. The early Hungarian pipes with hemispherical bowls were used in Ónod as early as the 1680s. If these pieces had only been lost when the ruin was levelled in the early years of the eighteenth century, parallel finds from Szendrő Castle are definitely older than 1707. That pipes with swollen heads and red polish were in use as early as the 1680s is proved by finds in Újpalánk and Onod. Their absence in Szendrő shows that they did not spread over the border-zone until the end of the seventeenth century. More precise dating of a majority of the seventeenth century pipes is still impossible.

Areal occurance

The amount of published material makes it possible to attempt to establish regional or local groups. Such as for example: a stamped variation of hemispherical bowled pipes in Újpalánk (Gaál 2004, 262), the frequent occurance of reddish unsegmented bulgy headed pipes in Szeged (Kondorosy 2008, 338, 340) or the glazed type which has an indented upper part of its bowl at sites in Borsod County. Types which were almost exclusively used by the Ottomans (including the Balkanic/ southern Slavic population of course) can be distinguished: such as the type with disc-shaped bowl and broken profiled keel. On the contrary, clay-stemmed pipes, or the early Hungarian hemispherical bowl types were smoked almost exclusively on territories ruled by the Christians. In the absence of excavated workshops the definition of production centres is not yet possible. Rare hallmarks, unique stamps and

pipes from the same mould can eventually bring us closer to find the traces of workshops. Makers' seals and stamps prove that the same workshop produced various types simultaneously, for example Christian workshops supplying the area from western Transdanubia to the northeastern part of recent Hungary (Lenti: Závodi 2003, 194; Esztergom: Kondorosy 2007a, 312; Ónod: Tomka 2005, 608-610). Some pipes were found in Buda bearing the hallmark H A O or V H O. Szabolcs Kondorosy supposes a Christian workshop producing pipes under Ottoman rule in Buda (Kondorosy 2007b, 264). In spite of the finds which can be associated with the recapture of Buda and accompanied one of the pieces with the above mentioned hallmark the writer believes that this workshop came into operation immediately after 1686. During the Ottoman occupation it seems unlikely that Latin letters would be used as hallmarks. Even, when part of the inhabitants of Buda were Christian, the predominant orthodoxy would have been overwhelming. The letter O could refer to the German name of the city, 'Ofen'.

Way of life

The mapping of archaeological finds can be useful for confirming social differences. It is remarkable that in the seventeenth century pipes are much rarer at rural sites than in fortresses. It can be concluded that the army was the transmitter and main practitioner of the new habit. Tobacco was not cultivated in Hungary until the end of the seventeenth century. Therefore the drug was imported and was expensive. Pipes coming to light from the most important commercial and administrative centres respectively from the vicinity of the headquarters of the fortresses tend to be not only more elaborate but also bigger in size. Mapping pipe-finds could possibly reveal places used frequently by smokers. It is certainly not surprising that many more fragments of pipes can be found in the area of the gates of fortresses than in the vicinity of gunpowder-magazines.

Inter-ethnic relations

The occurence of western imported pipes in castles in Hungarian hands can be explained by the presence of western mercenaries. The Hungarian male costume as well as weaponry became similar to the Ottomans' habits in the 16th century. Also early clay-stemmed pipes were overshadowed by pipes with wooden stems coming from the Balkan Penninsula. So the view that it was the Ottomans who took over smoking from the Hungarians at the Hungarian frontier region (Faroqhi 2000, 217) can be certainly denied. The habit of smoking tobacco probably reached Hungary from the west and from the south approximately at the same time. From what can be established through written sources and by the earliest archaeological finds Turkish influence may have been the stronger. Christian soldiers took over the new habit from the Turks, they sometimes even used Turkish pipes. So Hungarian pipes can be derived from Ottoman pipes, but, from the end of the seventeenth century the Hungarian pipe-working craft went its own way.

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Clay pipes in eighteenth-century Hungary

by Szabolcs Kondorosy

At the end of the seventeenth century in 1686 Buda, the former royal residence, was liberated from Turkish rule, and so the dominant part of the occupied region of the country. The liberation saw the end of 150 years of rule brought spreading desolation. The three parts of the divided country were reunited. So the Hungarian Kingdom entered a new geopolitical situation, and significant socoeconomic changes occurred.

In order to assess whether these changes affected pipe-making inland and in what ways, several sizeable (Eger, Szeged, Buda) and a number of smaller published pipe finds assemblages are available from the eighteenth century. The end of the 'archaeological age' in Hungary is 1711 (this is the end of the Rákóczi's war of independence), so these modern finds are not considered to belong to it. For this reason there is no exact chronological record of them but anyway they predominantly turn up in disturbed fills. Nevertheless with the information available it is possible to date these pipes approximately.

All photographs are by the author.

Hungarian pipes

In Hungary the Turkish style, double-piece pipes had spread, and remained in use throughout the period. Dutch style pipes only appeared initially, in the seventeenth century at the Hungarian border fortresses, probably as the possessions of West European mercenaries. On the basis of the finds from Eger Castle Kovács Béla has defined the main groups of eighteenth century pipes in Hungary (Kovács 1963). He derived all of them from a Turkish age pipe group. Tomka Gábor separated the first Hungarian mass-produced type from this 'Turkish group' (Tomka 2000a, 31-32).

Mass-produced types

In the Turkish age, in the second half of the seventeenth century, simple, massive pipes became dominant in the occupied part of the Hungarian Kingdom, the Hódoltság (Kovács 1963, 255). Probably the first Hungarian massproduced type (M1) was developed under the influence of this Turkish 'common' pipe on the other side of the border, in the remaining area of the Hungarian Kingdom (Tomka 2000a, 31). Beside the basic formal conformities the main distinctive features of M1 are the wreath, the even shank, the round bowl and keel, the notched-rouletted ornament in defined places and the crude, red surface (Fig. 1). The simultaneous existence of Turkish and Hungarian types is proven by an example from Buda, that imitated Hungarian types, but its fabric and Turkish stamps obviously refer to the provenance, furthermore the joint occurrence of examples of Turkish and Hungarian types from a



Figure 1: The Turkish 'common' type (1) and the first Hungarian mass-produced type, M1 (2) (Buda).

Turkish pit in Buda provide complimentary justification (Kondorosy 2007b, 256). After the reunification the M1 type occupied the earlier area of the Turkish 'common' type and persisted for a long time, until about the middle of the eighteenth century.

An additional typical and permanent feature of this type is the ornament on the chimney, which was made in the mould. There is a set of convex points on the right and/ or the left side, rarely completed with lines (Fig. 2, Nos. 1-5). Occasionally flower figures also occur (Kondorosy 2007b, 259, B139) (Fig. 2, No. 6). On the basis of the circular dot design of some examples it is presumed that their development was under the influence of the dot rosette (Kondorosy 2008, 343) that had spread in the South German area (*punktrosette*: Szill 2002, 53, Gruppe 8, Abb. 6, Geiss-Dreier 2002, 40-42, Abb. 3, 4, Kat. No. 32, 44, 49). In this case the rosette was soon modified. In some assemblages the dots are more often set on the right side, so its heat conductor or supporting role has been assumed (Tomka 2000a, 31).

Similar ornament occasionally turns up on the shank, but is always on both sides, and is as equal as possible given its hand-made nature. However, it is still not geometrical, but represents plants. These are usually bush like designs consisting of simple lines (as stem) and points (as flowers, leaves) (Fig. 2, Nos. 7-9). The idea of this linear design

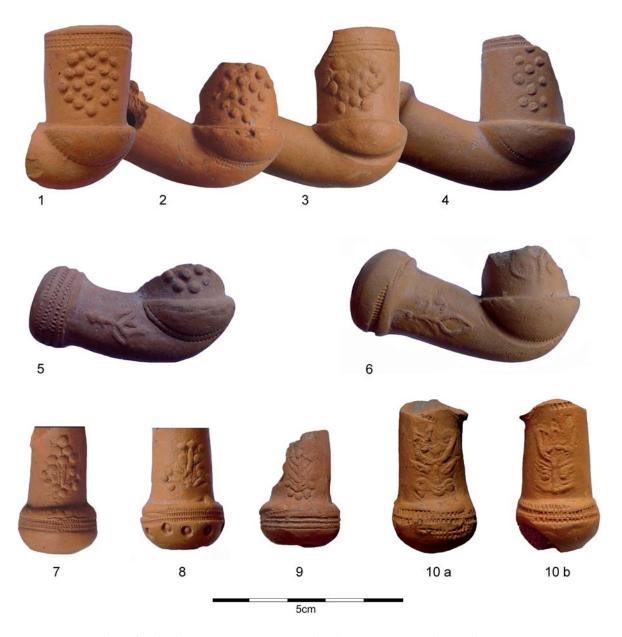


Figure 2: The first Hungarian mass-produced type, M1 (Szeged: 1, Buda: 2-10).

is probably derived from the representation of a pair of branches running along the stem of Dutch style pipes (Geiss-Dreier 2002, 43, Abb. 5, 6, Kat. Nr. 62-65), but those designs are simpler and more reduced in length. However, outline drawings of flowers are also known on the shank (Drenko 1976, 126, Obr. 9/3; Kondorosy 2007b, 259, B139-141) (Fig. 2, Nos. 5, 6 & 10). This already seems to be a Hungarian feature, especially the tulip shape - the flowers on Dutch-style pipes are composed of smaller parts.

Since shank decoration never occurs without chimney decoration, it is possible that the chimney decoration appeared earlier, and was later applied to the shank.

Further development of this type of ornament resulted in the detachment of the next mass-produced type of this century (M2), and this decoration is its main characteristic. The shank and chimney are completely covered by ornament (Fig. 3, Nos. 1-5). These are mostly geometrical designs: varied patterns of points, lines and curves in separated strips. Initially these features alone defined the new type. Its size and shape and even the notch-rouletted ornament of the wreath is the same as the M1 type. Unlike the unchanging M1 type, however, the M2 type has a varied development. In the beginning the size of the pipe decreased and the chimney turned slightly conical (Fig. 3, Nos. 1-3). Later the semi-globular bowl became angular (Fig. 3, Nos. 4-5) and the wreath decorated with oblique incisions. Finally, the relief pattern on the chimney changed into incised (stamped) motifs (Kondorosy 2007b, 259-260) (Fig. 3, No. 6). During these changes the angle of the shank and head decreased. This may have been connected to a lengthening of the wooden stem.

The patterns of this type give a unique opportunity to recognize examples from the same mould, and its variants also provide chronological meaning. Floral designs also occur on the chimneys of the earlier pieces. In addition to the usual red fabric white variations are also known.



Figure 3: The second Hungarian mass-produced type, M2 (Buda: 1, 2, 4, Szeged: 3, 6, Esztergom: 5).

A variant of this type has an ear-like, bridge element between the bowl and the shank which probably served to fix the pipe to its wooden stem (Fig. 3, No. 5). The M2 seems to have been a long-lived form, from the middle of the century, probably extending to the beginning of the nineteenth century.

This shank ornament is found on a unique, conical head, where bloomed tulips are among the typical motifs (Fig. 4). The tulip motifs occur on the shanks of M1 and also on the chimneys of the M2 type. It would seem obvious to suggest that this decoration reflects the influence of the well-known Dutch tulip. However, these motifs were wide-spread in the Turkish period, for example in faience and can also be found on Turkish pipes as small stamps, and were popular in Hungarian late Renaissance decorative art, for example in ceiling paintings in churches. From there they became elements of popular art, so they are Turkish and not Dutch in origin.

The odd thing about this pipe is the five pointed cross on both sides of the shank. It is not impossible that it is a maker's mark. There are rows of little knobs at the base of the head above a widening conical heel. Although heeled pipes are known in Hungary from a few places, their cylindrical heads are decorated without relief, with only grooves or incised motifs, and a single row of raised

dots on the base (Eger: Kovács 1963, 254, VII. t. 4, Várad: Doru 2002, 187, Pl. LXXXVI. 7, Debrecen: Makoldi 1994, 25, 21. á). The origin of the heel was a western influence deriving from Dutch style pipes. Since pipes with cylindrical heads (M3, see later) developed around the beginning of the nineteenth century, and heeled pipes are only a collateral line of this type, the heel was an effect of a late influence, but this element has been slightly spread.



Figure 4: Oblique heel pipe (Buda).



Figure 5: The third Hungarian mass-produced type, M3 (Szeged: 1, Buda: 2-5).

A sudden formal change saw the arrival of the third mass-produced type (M3, Fig. 5). The bi-partite nature of the pipe came to an end, the head and the chimney fused, and became the typical high, cylindrical form. Relief ornament disappeared. Only the incised wreath and the scratched ornament on the head survived from the M2 type. This type continued into the nineteenth century and then developed the extremely tall chimney which generally characterises the manufactured pipes (for example in Selmecbánya/Schemnitz). Debrecen was an important centre making this type of pipe.

Although only a few whole pipes have been recovered (Kondorosy 2008, 343, 344), it seems certain that during the century the internal capacity of the mass-produced types significantly increased (M1: 7,1 ml, M3: 15,9 ml).

Uncommon types

Although the rare forms, compared to Turkish centuries, reduced in proportion, not only the form of the Turkish 'common' pipe existed forward in the eighteenth century. Besides it can trace continuity of smaller groups. However, this continuity included in all cases harmonized changes in form and in ornament. Among them need to be emphasized the soft, arched mouldings, rounding edges, smoothed wreaths and grooves).

This tendency appears in a late form of the Turkish 'common' pipe with soft, rounded lines, but at the same time its recognizable basic form and specifically polished surface is preserved (Tomka 2005, 608, 610, 1. t. 2, Závodi 2003, 194, 15. kép 4, Kondorosy 2007a, 312-313, E29). These uncommon items carry makers' marks,

which is rare at this period. These are represented by a closed crown above the monogram L Z. Because these methods of surface treatment were only known and used by Turkish masters, these examples prove the work of Turkish craftsmen who had stayed in Hungary after the liberation.

The tulip-shaped forms that appeared in the Turkish period began to flourish. The heads are higher than the earlier ones, and their arched line no longer break the bowl-chimney boundary. A group of them have rosettes on both sides of the head (Esztergom: Kondorosy 2007a, 320, E98, E100, Kanizsa: Kovács 2004, 123, 3. kép 17, Buda: Kondorosy 2007b, 261, B188), which presumably came from the Turkish period (Fig. 6, Nos. 4-5). Foreign parallels can be seen from a workshop in Warsaw dating to the first half of the eighteenth century (Meyza 2004, 57, Abb. 4), and the application of rosettes is known in Wrocław (Breslau), too (Witkowska 1998, 317, Ryc. 22/g, h). Another group of tulip-shaped pipes is characterized by fine, baroque relief ornament from trailers and leaves (Szeged: Tomka 2000b, 121, 5a/1, XXII. t., Kondorosy 2008, 345, Sz152-153, Esztergom: Kondorosy 2007a, 321, E102-103, Buda: Kondorosy 2007b, 261, B189-190), which cover the great part of the surface (Fig. 6, Nos. 1-3). Analogies have been published from Silesia, where they were thought to have been imported (Wrocław: Kluttig-Altmann 2005, 25, Abb. 20). Although tulip-shaped pipes were made in Poland, this influence in all probability arrived from Hungary. An example of another type, which has a maker's mark, indicates a direct Polish connection (Kondorosy 2007a, 323, E125).

Workshops

In certain settlements the number of pipes from the same mould significantly increased in the eighteenth century compared with the Turkish period. One reason for this might be the growing role of local production (to the detriment of trade) (Kondorosy 2007a, 324). It seems probable that clay pipe makers had become established in the bigger settlements. No remains of eighteenth centuryworkshops have yet been discovered and excavated, nevertheless the differences between the existing assemblages of pipes from a few settlements indicate local production. At this time the greatest clay pipe making centre was Debrecen. Until 1872 the craft was based on a guild together with the potters. At the end of the eighteenth century this town's regional hegemony is demonstrated by the existence of over 100 master pipe-makers and an annual production running into many millions of pieces. But it is not clear how large a role Debrecen played in the creation and production of the earlier Hungarian massproduced types (M1, M2).

Makers' marks

The first inland Roman letter makers' marks appeared around the turn of the seventeenth to eighteenth century on products implying Turkish influence. However, monogram marks in the eighteenth century are still rare, instead of which point and line combinations were applied (Kondorosy 2008, 345-346, Sz153, Sz155). Makers' marks are not found on mass-produced pipes.

Glaze

The proportion of glazing was reduced compared with the Turkish period (Tomka 2000a, 32); the glaze is often poor and shows new colours (Kondorosy 2007a, 324).

Reuse

There are high-quality examples in which the broken shank has been filed down (Kondorosy 2007b, 261, B191). In an other case after breaking the whole shank has been enlarged from the remaining 2mm. wide smoke hole to 7.5 mm. for a new wooden stem (Kondorosy 2007b, 264, B165). These examples of reuse reveal the smoking habits of the poor.

Imported pipes

In the first half of the eighteenth-century Turkish/Balkan trade connections had not yet been interrupted or, indeed, revived. This is proven by artefacts in the form of a few, high-quality products (Kondorosy 2008, 345, Sz154, 347, Sz169-170). On the other hand pipes also turn up in written sources, involving the so called 'Greek' merchants' inventories of custom, shop or legacy.

Besides these fine ornamented examples there is another mass-produced type that is well known in the Turkish period. This occurs at more sites in the Balkans (Greece, Croatia) and many settlements in Hungary (Hódoltság) (Fig. 7), as well as in the Mediterranean ports. The



Figure 6: Tulip-shaped pipes, with baroque ornament (1-3) or rosette (4, 5).



Figure 7: Polished, red slipped type from Hungary (Szeged: 1-3, 5, 6, Buda: 4).

greatest numbers are known in Sofia (Bulgaria) and in Szeged (South Hungary). The polished, red slip surface indicates their Turkish provenance. On the basis of the distribution of finds production of this type was localized in Sofia (Stančeva-Nikolova 1988, 139, O. 11), and, for the same reason, it can be assumed, in Szeged, too. Indeed, more variants exist in Hungary, which have not been published from Bulgaria (Kondorosy 2008, 338-341, with further references). The type still occurred in Hungary in the middle of the eighteenth century (Tomka 2005, 612), but the survival in Hungary of its special Turkish surface technique for so long is improbable. Therefore, these late examples must be imported pieces.

Summary

The eighteenth century shows the success of both past and present; Turkish traditions and western influences. The exclusive presence of Turkish-style pipes, in other words linking with the Turkish pipe region, and the general form of the first Hungarian mass-produced types can also be attached to the Turkish past. More types of surface relief ornament came from Germany: the raised dot rosette (*punktrosette*) in the last decades of seventeenth century, and, maybe following this, plant decoration on the shank (M1). The heel as a late western influence can be dated to the second half of the eighteenth century. The role of German colonists migrating to Hungary in the

eighteenth century is assumed to be the mechanism for its arrival. From the beginning the forms and ornament, however, were modified, and, after their adoption, created specifically Hungarian types. Other examples indicate Polish connections, primarily in the beginning of the eighteenth century; although these are mostly unique items, nevertheless they indicate a new tendency, the birth of a new cultural fellowship.

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Clay pipes from Eger Castle

by Emese Varga

Introduction

The István Dobó Castle Museum of Eger keeps thousands of clay pipes. Excavations started from the 1860s (Ipolyi 1865, Pataki 1934) and many more and more beautiful pipes turned up from the Turkish era and also from modern historical times. The materials were not only found during excavations:"Wherever you kicked once in the ground in the castle, a pipe turned up"- as some of the oldest employees of the castle recall their memories of childhood.

In 1963, Béla Kovács created Hungary's basic typological system of pipe research on the basis of about 700 pipe artefacts found between the two world wars (Kovács 1963). After this, nobody dealt with the pipes in Eger, even though during the last 50 years more than 6000 clay pipe pieces have been taken from the excavations into museum storage.

In the past few years, attention has been drawn back to the clay pipes that turned up during archaeological excavations. Archaeological and cultural historical publications have

been written one after the other about pipes and smoking habits. Through the disclosure of the larger collections (Gaál 2004, Kondorosy 2007, 2007b, 2008 and Tomka 2005) there is a possibility of creating a more accurate chronological order. For this work, it is inevitable to process the pipe material of Eger, as it is a considerable amount and both its occurrence and circumstances are known. Based on this, it is assumed that the knowledge of this material can add to the results that exist so far. The processing of the pipe material from Eger Castle begins with the material from the north-eastern bastion and the Earth Bastion (Földbástya) (Fig. 1). During the inspection of the 187 clay pipes, the main point was to acquire the most information about the circumstances of their discovery and stratigraphic position. The detailed documentation of the excavation written by Károly Kozák made it possible to look through and use his observations.

The excavation of the Earth Bastion

The systematic excavation of the Earth Bastion began at the end of December 1957. Before the start of the excavation, the bastion was completely covered with soil; there was no trace of an edifice of stone on the surface. It was a fortunate circumstance that soil had broken in near the south-western outer corner of the previously explored Gaol Bastion (Tömlöcbástya), and a vaulted room had become visible under the ground. Passageways were

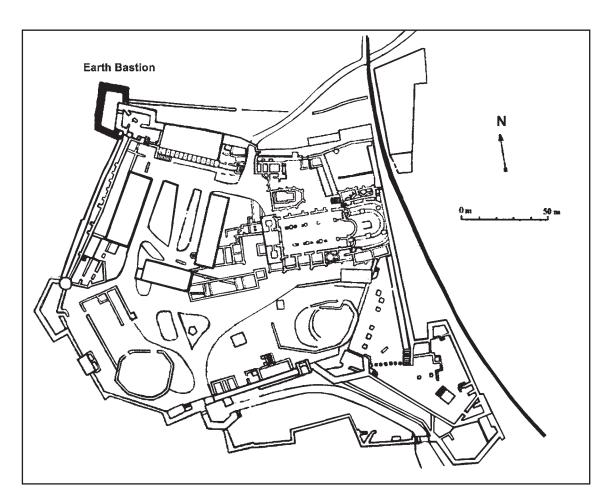


Figure 1: Eger Castle (Giber 2009, 50)

found to open from the room. The passage system was about ten meters below the court of the castle. The layers and the levels implied that they hid the remains of a huge edifice made of stone, probably a bastion, underneath the thick detritus of the New Age, and the passages are in the walls of this edifice (Kozák 1966, 99). The object was covered with more meters of detritus in some places, and its removal took years of hard work. Slowly the oblong shape and structure of the bastion stood out. The edifice was built in front of and around the Gaol Bastion; it had an irregular oblong shape, was about 17 by 30 meters large, and was made of square hewn stone (Kozák 1969-70, 254). The three to four meter thick walls straddled more rooms. On the southern area, there is a lengthwise cannon room built with through-vaults; it had two loopholes and a corridor to one of the passages. By the cannon room, a great room is situated, which is connected to it with two vaulted passageways. Only the remains of the throughvault were found. Beside the great room, a third room was also discovered, the northern room of the bastion (Kozák 1966, 99). The stairways and passageways to the lower rooms of the bastion lead to the northern room (Kozák 1966, 100). During the excavation of the rooms and passageways, many artefacts came to daylight, amongst which were many clay pipes.

During the processing of the pipe material from the Earth Bastion, it is an important question to find out how and when the detritus got to the rooms of the bastion in which the huge amount of pipes was found. The sources do not say anything about the filling. On the basis of the excavation, it can be assumed that the dungeons of the Earth Bastion were filled through the aperture of the central room's broken vaults. The detritus is uniform; it was not possible to form layers. The artefacts found in the fill are very mixed; there are also artefacts from the sixteenth to the twentieth century. Most of the material probably got to the bastion in rubbish taken out from the castle. Besides the Turkish era pipes and stove tiles with knight-shaped ornaments, nineteenth century pipes from Selmec and bronze coins issued in 1861 were also found amongst the artefacts. A coin from 1916 proves that a part of the detritus got there in the first decades of the twentieth century. As the clay pipes turned up from different layers, stratigraphic observations could not be invoked for determining their age.

Clay pipes from the Earth Bastion

The chronological classification and the categorization of the 187 pipes was undertaken on the basis of shape, decoration and finish. The basic typology of Hungarian pipe research was laid down by Béla Kovács on the basis of pipes found in Eger Castle. Even though his work has been superseded in some respects on the basis of newer researches, in the case of the Eger pipes it provides an essential starting point. Thanks to the processing of the larger collections in Hungary in the last decade newer pipe typologies have been born with the work of Szabolcs Kondorosy and Gábor Tomka (Kondorosy 2005, 12-45,

Tomka 2000, 28-32). In the categorization of the pipes found in the Earth Bastion, an attempt was made to fit the materials into the Hungarian typological system by basically dividing the Hungarian from the Turkish pipes, and within these groups, by defining formal variations. In the case of Eger Dutch pipes also need to be mentioned.

The question of the Dutch pipes

As in the case of all of the bigger types, it is characteristic that in the aspect of the material, shape and decoration, discrepancies can be seen between the pieces. Although one thing is for certain, Dutch pipes can only be invoked if the pipe has the primary criterion: it has a long, one-piece clay stem, or it demonstrably had. This type of pipe is typical in the castles of Slovakia (Felvidék). Pieces like these are known chiefly from Pozsony, Fülek, Szendrő, Selmecbánya, and Szepesvár (Tomka 2000, 28-29). Buda is the only place from where demonstrably Dutch clay pipes have turned up that were possessed by the Turks (H. Gyürki 1981, 55). Béla Kovács found two pieces to be of this type out of the 700 pieces from Eger he examined (Kovács 1963, 239). Although, these two pieces showed differences in shape from Dutch pipes, and because they were fragmentary, their stem formation was uncertain. Because of this, it seems doubtful that they were in fact Dutch pipes. Neither Gábor Tomka finds it proven, but he allows that it might come from the times before Eger's fall in 1596 (Tomka 2000, 29), and the soldiers from the West who served there might have taken them in, as Béla Kovács also assumes (Kovács 1963, 255). This uncertainty around the categorization derives from the unfortunate fact that the long clay pipes broke mainly at their thin stems. Thus mostly they turn up in a way that seems to show Dutch characteristics in their shape and material, but the most necessary part for their categorization is missing.

It might be helpful to examine the four pipes that most resemble Dutch pipes from the point of shape and material that turned up at the Earth Bastion. They are non-glazed, greyish brown or reddish brown, once shiny-surfaced pieces. The bowl is connected to the socket at an obtuse angle, and in every case there is a sharp angle piece on its bottom. The two pieces Béla Kovács thinks to be Dutch closely resemble these ones. Whilst of the four pieces three were fragmentary and their sockets were missing, one was complete (Fig. 2, No. 1). At the end of the thin, long socket, there is a wreath. Based on this, it is doubtful that the other three almost similarly shaped pipes had clay stems (Fig. 2, No. 2).

As there is no Dutch pipe in the material from between the two world wars and neither in the 6000 already processed pipes, it must be presumed that this type of pipe never occurred in Eger. On the basis of this, it is probable that smoking became widespread at Eger Castle only after 1596, and that the appliance for this was mainly the short-stemmed, so-called Turkish pipe.

Turkish type pipes

The common feature of the pipes in this group is that the

short socket was connected to a wooden stem, which is unlikely to survive in the archaeological material. Apart from this common feature they can have many different attributes on the basis of shape, ornamentation and finish.

Angular, carving-like pipes The three pipes in this group could be the first Turkish-type pipes i.e. occurring since the 1600s (Tomka 2000, 28). Their characteristic feature is the white or light grey colour, and the well-prepared body. The bowl is flat and disk-shaped; the rim is missing. The head runs under the socket and is connected to it in a vaulted arch. On the only piece which has a socket (Fig. 2, No. 3), there are Turkish traits: the collar, the turbanshaped wreath, and a part of a stepped-ring. Two similar pieces were found in Jeni Palánk and Szeged (Gaál 2004, 278, 52; Kondorosy 2008, 359, III. t. Sz38). In these two cases, only the bowl remains intact. This is enough though to place the Eger piece into this group on the basis of the characteristics of material and the finish. The populous and various categories of Turkish pipes could evolve from this type with the head end of the socket bending towards the head. The developmental branches diverge into two, on the basis of the bowl's shape being either flat or roundish (Tomka 2000, 28).

Flat bowl pipes Flat bowl clay pipes were fashionable from the first half of the seventeenth century (Tomka 2000, 30, 1. t). This group, consisting only of two pieces, shows interesting shapes and rich ornamentation. The motives were printed with metal stamps into the material of the pipes. The pipe in Figure 2 (No. 4) is very unique. It is special, because it is flat, and the trapezoid-shaped bowl is ornamented with spear-shaped prints, and on its nicked, cylindrical socket a thin bronze circle runs around. It was made from a very fine, well-sorted, good-quality, yellowish white fabric. The socket shows up underneath the head forming a keel and runs until the shoulder of the bowl. The keel is emphasized with cogwheel ornamentation.

Roundish and ovaloid bowl pipes The group of roundish and ovaloid bowl pipes are characteristic of the 1650s (Tomka 2000, 30. 1. t). The pipes in this group (19 pieces) have roundish or oval bowls and a cylindrical, concave or upwardly distended rim is connected to them. Unfortunately, in many cases the upper part of the bowl is missing. The bowl itself is richly ornamented. It can be observed In some of the pieces made in grey fabric that between a half and the whole of the bowl's surface is densely ornamented with small rows of cogs (Fig. 2, No. 5). Where the socket is visible even the wreath and the stepped-ring is ornamented. The keel usually does not reach to the shoulder of the bowl. In many cases, the lower half of, or the whole bowl, is articulated with etched lines. It happens that robust, vertical nicks are formed, but it is also usual that the bowl or the neck is decorated with different stamps (Fig. 2, No. 6).

Pipes with base The next three pieces should be discussed separately because of their uniqueness in ornamentation and shape. All of them have a peculiar shaped bowl, and on its bottom there is a thin, round base with stamps.

Bases are very rare, but are widespread over a larger geographical territory. They appear in Várna (Stančeva 1972, 83, O. 6), Provadija (Haralambieva 1986, 144, T. II. 9) and Kerameikos (Robinson 1983, 274) among many other places. They were probably made in the seventeenth century, though closer age definition is not possible. Unfortunately all of the three pieces lack their rims and sockets. They are characterized by the good-quality white or light grey coloured fabric. The ornamentation is very diverse. On one piece (Fig. 2, No. 7), tiny flowers run around above the shoulder of the bowl, while on the other piece (Fig. 2, No. 8), rosettes cover the surface of the bowl. The bowl of the pipe in Figure 2 (No. 9) is divided into three parts. A wide ring runs around at the height of the shoulder. The part under this is ornamented with densely etched lines, the part above it is decorated with stamps of plants. The base in this case is thinner and higher than the previous two. The pipe is unique because the shape and ornamentation - the rosette sealed on the bottom of the base- create a poppy-head-like shape.

Segmented-bowl pipes The segmented-bowl pipes appeared from the beginning of the seventeenth century (Tomka 2000, 30). The common feature of the pipes in this group (21 pieces) is that their bowl is segmented into at least five (Fig. 3, No. 2), but usually more parts (Fig. 3, No.1). The most typical pieces are the ones that are segmented to upwardly broadening parts from the centre point with 'V' shaped nicks. This is a very common type in Hungary, pieces are known from many places like Jeni Palánk (Gaál 2004, 281, 63-67), Kanizsa (Kovács 2004, 122), Ónod (Tomka 2005, 618, 4. t. 1), Esztergom (Kondorosy 2007, 314, E34, E35), Buda (Kondorosy 2005, 27-28), Pécs (Fehér 1959, XXXVIII. t. 19). Almost all of them are made in white or light grey coloured bodies, only one piece is made in a red fabric. Most of them are glazed with different colours. Pieces occur with beige, yellow, yellowish brown, green and brown glaze. The pipe in Figure 3 (No. 3) has a unique glazing, as on the light yellow glaze, some dark brown dots are placed. There is a similarly decorated pipe in the Mór Wosinszky Museum's collection (Gaál 2004, 282, 69). The sockets in this group are usually closed with roundish, plain or segmented wreaths and the cylindrical, widening steppedring is connected to this. The use of the stamp is typical mainly in the case of the non-glazed pipes. The line of stamps is usually in the belt above the shoulder of the bowl, above the segments (Fig. 3, No. 2), and also the rosette stamp in the centre point.

There are distinct pieces in the group which have pine branch-like segments on the bowls (Fig. 3, No. 4). This shape occurs all over the territory of Ottoman Hungary, but with only a few pieces. Similar ones are known from Esztergom (Kondorosy 2007, 311, E19), and Ónod (Tomka 2005, 619, 4. t. 5-6). In some cases it is possible to define the transition between the simple segmented and the pine branch type, namely the simple and the articulated pieces are alternate (Fig. 3, No. 5). On the basis of the two pieces which have their rims, the segmenting with nicks or with thin rings could be characteristic. The thin shoulder

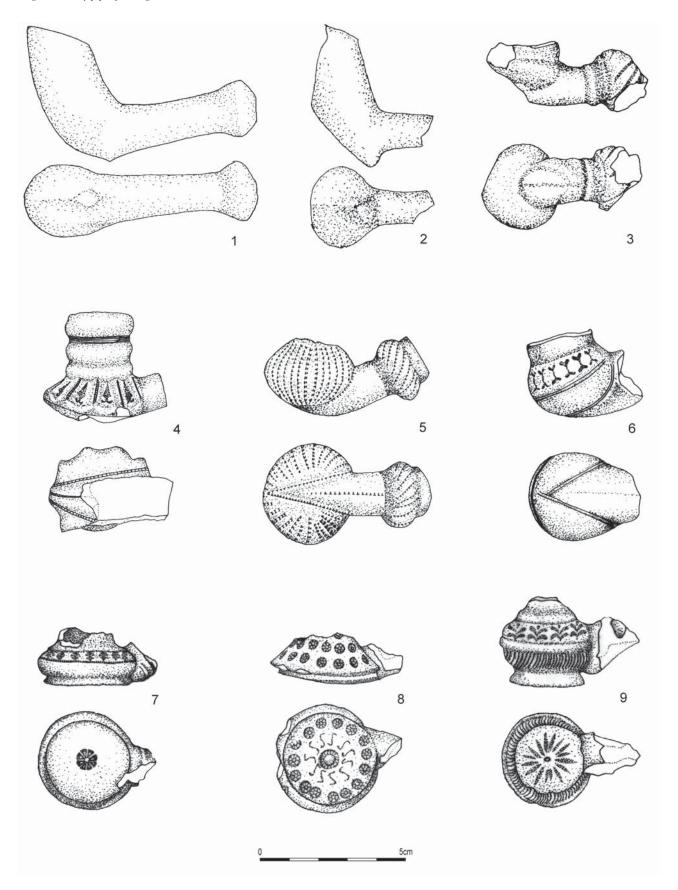


Figure 2: Clay pipes from Eger Castle: sharp-angled pipes (1-2), disc-shaped bowl (3), segmented bowl (4), oval bowls (5-6), pipes with base (7-9).

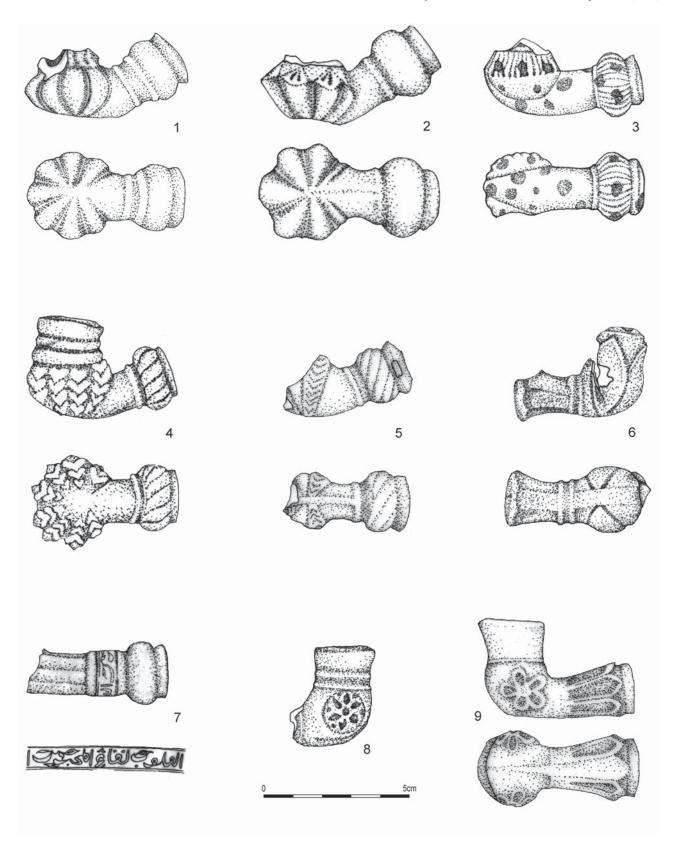


Figure 3: Clay pipes from Eger Castle: Turkish segmented pipes (1-5), cup shaped pipe (6), decorated socket (7), rosette pipes (8-9).

in front of the roundish, obliquely segmented, turban-like wreath and the stepped-ring as the sealing of the socket occurs in every piece.

Glazed, cup-shaped turkish pipes Non-segmented headed pipes, which resemble a cup (Fig. 3, No. 6), belong to this group (12 pieces). They are characterized by a white or light grey body, and also the lustrous yellow or yellowish brown glaze. They are mostly small sized, the bottom of the head is a bit depressed, the rim is downwardly widening and flares out a bit. They have a collar where the bowl and the socket meet. The socket is usually plated, but it also occurs in a round shape. In all cases, the end of the socket is shaped like a trumpet. The bowl is engraved with petal motifs.

Turkish pipe sockets The pipe fragments in this group (21 pieces) could not be categorized into any of the aforementioned groups because of the lack of the bowls. Because of their idiosyncrasies in shape, what kind of head was attached may be inferred, but of course nothing can be proven unequivocally.

The most special piece has an Arabic sign on it (Fig. 3, No. 7). The socket is polygonal, made of white material and has a light yellow glaze; on the end of the socket there is a round belt with an Arabic inscription. A roundish wreath and cylindrical stepped-ring is connected to the socket. For the interpretation of the inscription similar pieces have been employed. On one piece in the Mór Wosinszky Museum's collection there is a similar inscription to the one found in Eger (Gaál 2004, 286-287. 83). It must be added that the two pipes are in different material, as the one in the collection is grey, in a reduced firing and is non-glazed. Apart from this, the piece from Palánk is a perfect counterpart for the object under examination. The Latin spelling of the inscription is 'AL QLÚB LIQA AL MAHBÚB' according to Attila Gaál, which means the following: 'the meeting of the brave with the loved one'. Because the Arabic words can usually be interpreted in many ways, the explanation of this is not easy. Probably the owner of the pipe is the one who meets the loved one. The phrase 'brave' might imply that he was a soldier. 'The loved one' phrase imposes another question. It is not unambiguous whether it is a transcendental spiritual entity, maybe Allah. Gaál also thinks it possible that this meeting would be facilitated by opium blended with the tobacco (Gaál 2004, 275).

Rosette pipes This group is a very popular one amongst Turkish type pipes. The characteristic of the pipe is that on both sides of the bowl there is either a stamped or moulded rosette. Their counterparts can be found widely in Hungary, like Nagyvárad (Emődi 1998, 31. 38/3), Szendrő (Tomka 2002, 300, 6), Esztergom (Kondorosy 2007, 311, E15, E17) and Jeni Palánk (Gaál 2004, 278, 48). The first versions of the type could have emerged around 1600 (Tomka 2000, 30, 1.t. 5-8). The pipes on which the rosette is stamped and is uneven are considered here to be the earliest (Fig. 3, No. 8). There are two pieces like this in the Earth Bastion's pipes. In both cases these

are negative (incuse) rosettes with six petals, and the two stamps are very similar. In the 1650s, a new pipe shape appeared which was ornamented with rosettes in relief with five or six petals, and its socket was nicked with shapes like oblong leaves (Fig. 3, No. 9) (Tomka 2000, 30, 1. t. 6). The bowl is usually roundish; the upwardly broadening rim which leans forward hardly ever remains. A thin cylindrical piece is connected to the end of the nicked socket. Generally speaking, these pipes were made from white or greyish material, and were covered with green or yellow glaze. There is only one non-glazed piece among the rosette pipes from Eger. In the beginning of the eighteenth century, a further development of the type can be the version with a wreath (Tomka 2000, 29), though there are no examples of this from Eger.

Red, polished pipes The red, polished pipes represent another main developmental branch within the Turkish pipes. They are characterized by a reddish, brownish body and a superficial polished layer, which was falsely presumed to be paint. The earliest versions occurred in the beginning of the seventeenth century, and the type changed in shape, but survived the time of the Ottoman occupation (Tomka 2000, 30). The pieces that turned up from the cellar of the Szent György Square in Budapest which was filled in baroque times prove the survival of the type until the end of the eighteenth century (Tomka 2005, 612). The type is represented in a great number (2 dozen) among the pipes that turned up from the Earth Bastion. The bag-shaped or later cup-shaped bowl is connected to the thin, polygonal socket, which is usually sealed by a star shaped wreath (Fig. 4, No. 1). It can be observed in many pieces that there is a polygonal collar on the socket, the bowl is plain, and the wreath is shaped like a star. The pieces that not only have a flat socket but also a flat head can probably be dated to a later point of time (Fig. 4, No. 2). Counterparts of this piece are known from Onod (Tomka 2005, 613, 2. t. 7), Palánk (Gaál 2004, 271, 34), Szeged (Kondorosy 2008, Sz61, Sz63). From the viewpoint of shape and finish those clay pipes can be grouped here, which have a cup shaped head, plain, round socket, and an edgy rimmed, disk shaped wreath (Fig. 4, No. 3). Because of its simplicity, Szabolcs Kondorosy thinks this shape is the earliest, which was later changed to the star shaped, then the tapered star shaped wreath (Kodorosy 2007, 317).

Red bodied Turkish pipes The next group examined is the group of 'common pipes' (13 pieces), which can be considered to be the ancestors of the Hungarian pipes. As a matter of fact, it is hard to define where the end is of the Turkish pipes and the start of the Hungarian pipes. Béla Kovács puts them in the same category (Kovács 1963, 240-241, 244-245). All of them have a red body and are non-painted, non-glazed, simple shaped pipes. Their common feature is that the hemispherical shaped bowl and the cylindrical rim keenly detach from one another. Probably undecorated, angular, socketed and rimmed pieces were made in the earliest period (Fig. 4, No. 4). Their first occurrence can be dated to the early period of the seventeenth century (Tomka 2000, 30. 2. t. 1). After

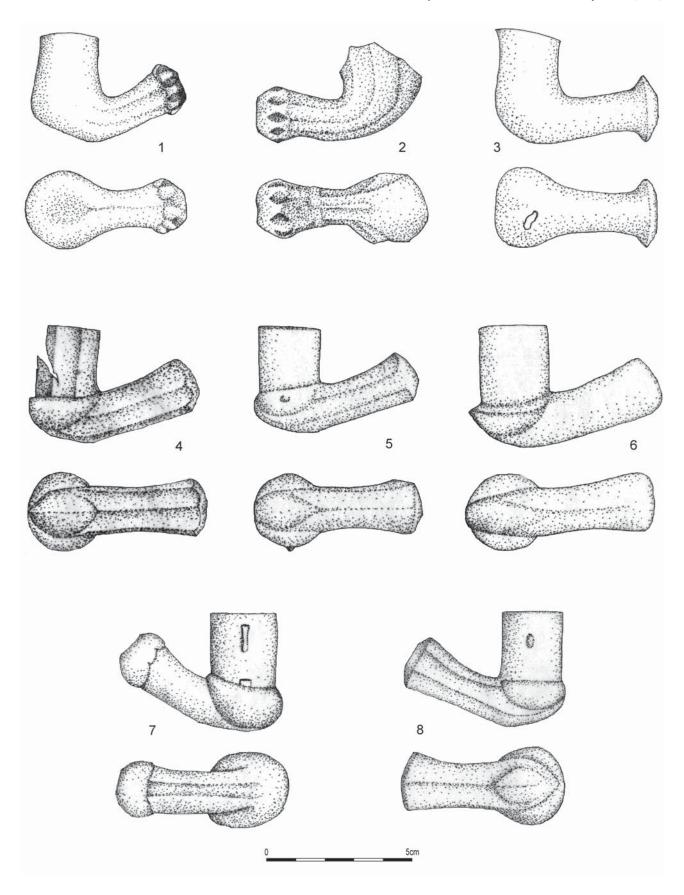


Figure 4: Clay pipes from Eger Castle: red-bodied Turkish pipes (1-8).

them, pieces with tall, simple rims and angular (Fig. 4, No. 5) or round shapes (Fig. 4, No. 6) sockets appeared. Their common feature is that instead of the wreath, the socket just broadens, and none of them has ornamentation. On the bottom of every piece, an edge runs, which turns into a wide, eye-shaped plated ornament on the bottom of the bowl. This is one of the phenomena in the red bodied pipes which confirms that they are Turkish in origin. In the case of the pipe in Figure 4 (No. 7), there is a deep, wide nick instead of the edge or plated ornament. In many cases a small plastic spherical overlay can be observed on one side of the bowl, usually on the right. In the case of the pipe in Figure 4 (No. 8), the overlay is on the rim, not on the bowl.

Red bodied Turkish pipes are very common in Hungary. They appear in great numbers among the pipes from Eger (Kovács 1963, 259, II. t. 1-2, 5-7), Fülek (Kalmár 1959, LXVIII. t), Hollókő (Kozák 1975, 31. kép), Szolnok (Kovács 1984, 27. t. 1), Nagyvárad (Emődi 1998, 32. á., 1, 30), Nándorfehérvár (Marjanovič-Vukovič 1973, szl. 22, 214), Pécs (Fehér 1959, XII. t. 1, 119). Fragments also occurred at Kanizsa (Kovács 2004, 122.), Jeni Palánk (Gaál 2004, 264 -268, 1-25), Szeged (Kondorosy 2008, 359, Sz34) and Ónod (Tomka 2005, 609. I. t. 2). The type is not known from other areas of the Ottoman Empire (Kondorosy 2005, 29). The same shape with a stamped rosette is known from many places. Similar shaped, but glazed pipes are rare, but occurred at Eger (Kovács 1963, 244-245) and Fülek (MNM 61.1170.C).

The type is presumably connected to soldiery (Kovács 1963, 256). The hypothesis of Béla Kovács is proven by the prevalence and the massive build-up of the parts of the type. In the course of the excavations in the suburbs, the type also turns up from rubbish pits, consequently it was widespread amongst the poor as well (Kondorosy2005, 30).

Hungarian pipes

Hungarian clay pipes are the proximate descendants of the red bodied Turkish pipes (Fig. 5, Nos. 1-7). Hungarian pipes can be divided into two groups according to their characteristic shape and ornamentation. The earlier, simpler pieces which indirectly developed from the Turkish 'common pipes' (Fig. 5, Nos. 1-3) evolved and spread in the last decades of the seventeenth century and the beginning of the eighteenth (Tomka 2000, 31, 2. t. 3). They do not occur in Turkish contexts. Their common feature is the red, un-glazed body and the similar shape to the Turkish ancestor. The bowl's hemispherical shape remains; the rim is long and cylindrical, only the sealing of the socket is different, as it is closed with a wide, mushroom cap-shaped wreath. The pipe in Figure 5 (No. 2) can be classified here, and it has no wreath. These pieces may be the transition from the 'common pipes' that are the source of the shape (Kondorosy 2008, 343). The type is characterized by the spheres placed on the rim's right or both sides in different positions. They mostly form a rectangle (Fig. 5, No. 3) or rhombus (Fig. 5, No. 1). In the case of the fanciest pipe (Fig. 5, No. 3), the combination

of plastic sphere and rod ornamentations can be found on both sides of the rim. The hypothesis that these knobs had a function and were not only ornaments came to light in connection with the Turkish 'common pipes'. The pipe is often decorated with cog-wheels, mostly the upper part of the rim, the wreath and both sides of the keel.

The typical Hungarian clay pipes evolved from the bulk goods in the eighteenth century and they belong definitely to this type according to their ornamentation and motifs (Fig. 5, Nos. 4-7). They are characterized by a shortened socket, which is connected to the bowl at a small angle. The socket is richly decorated with plastic stripes and small spheres in most cases, which almost seem overcrowded. In almost all the cases a wreath is attached; it is shaped turban-like with nicks. The bowls often have an angular shape (Fig. 5, Nos. 4-5). The upwardly slightly widening rim is heightening in its ratio and is connected to the bowl. The ornamentation of the rim is created with etching and with a tube pressed into the material, so that they create the shapes of smaller and bigger circles. Motifs like this stand out as pictures known from Hungarian folk art (Kovács 1963, 248). In the middle of the eighteenth century there was another change in shape, when the bowl and rim parts were united, and the non-segmented, tall, widening cylindrical shaped bowl came into fashion (Fig. 5, No. 6) (Tomka 2000, 32). The shape of the wreath and socket remained the same with the difference that the socket became undecorated. Only in the case of the pipe in Figure 5 (No. 7) was no wreath attached and the motifs on the bowl are slightly different from the others.

The fact that this type was widespread is proven by the numerous archaeological artefacts found in Eger (Kovács 1963, 260, IV. t. 1-9), Ónod (Tomka 2005, 611, 1.t. 10, 2.t. 1-4), Várad (Emődi 1998, 1. ábra 1), Füzér (Simon 2000, 129, 61. ábra 1), Szepesvár (Vallašek, A., 1983, Obr. 7. 2), Körmend, Bonyhád, Sárospatak (Nagy 2001, 247, Plate XLIV, K2, Lev.1, B3) and Szeged (Kondorosy 2008, 362, VI. t. Sz135-147). The fact that this type of pipe was found among the refuse of a pipe factory in Győr that operated at the end of the eighteenth century indicates that the type was long-lived (Tomka 2000, 32).

Nineteenth century pipes found in the excavation

During the excavation of the Earth Bastion 33 nineteenth century pieces turned up. In the archaeological publications only Szabolcs Kondorosy has dealt with New Age materials (Kondorosy 2008, 347-348). These pieces made in a metal mould show great similarities in shape. Their surface is reddish, black or white in every case. The black pipes were embedded in sawdust, and the stifled smoke gave them their nice black colour, which was glazed with beeswax (Levárdy 2000, 105). In almost every piece, the red and black pipes were fitted with a very flat, standard cylindrically shaped wreath. It can be observed in two cases that because of mechanical strain, the stem opening has been strengthened with a metal reinforcement. The white pipes wear a broad, roundish wreath, most of which is covered by plastic tendril ornamentations. Their rims

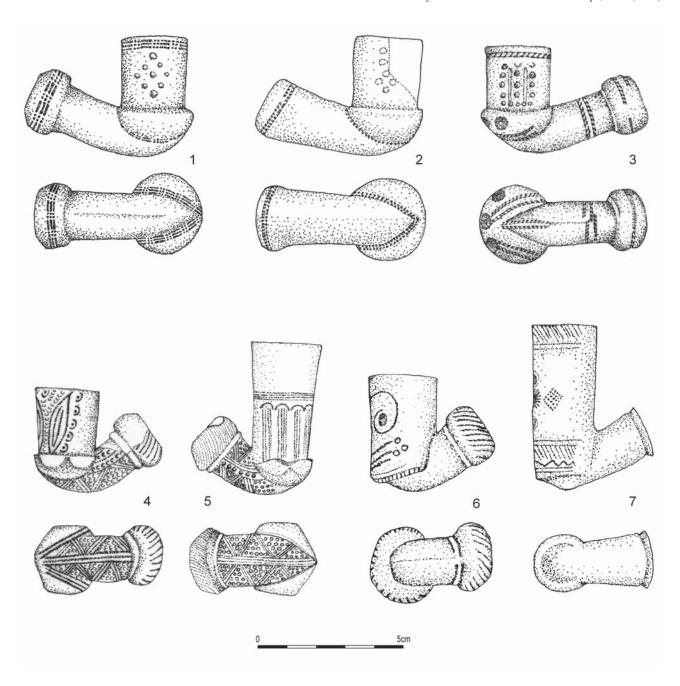


Figure 5: Clay pipes from Eger Castle: Hungarian pipes (1-7).

are tall, thin and roundish or angular. Both in the case of the red and black pipes the bowls are segmented into seven parts, as in a shell. The angular rims are connected to this type of bowls.

These pipes bear the stamps of the workshop or the factory where they were made in many cases. Amongst the figurative-stamps crowns, crests, lilies, crests with a crown, rosettes, two hammers and a star in a circle, or a human head can be found. The maker's name or the town where the pipe was made can be read in many stamps. For example: 'W. HELLER SCHELMNICZ', 'A. RESS', 'HELLER F', 'ANTON PARTSCH', 'SVARTZ ISAK', 'PODRECS', 'MOHÁCS', '...u b r i k', 'M. Honig· SCHEMNITZ', 'PROTO COLIRT', 'TAKACS SELMECZI', 'PODRII', 'COLN', 'CAFE' stamps occur.

Selmecbánya was the most well-known centre for pipe making in that era. Pipe making boomed in Selmec in the beginning of the eighteenth century (Levárdy 2000, 101). The emergence of the Selmec pipe shape can be dated to the 1830s or 1840s. The leading pipe maker was Mihály Hőnig at that time. His clay pipes were famous almost worldwide (Levárdy 2000, 102). The pipe with the 'M. Honig· SCHEMNITZ' stamp which was found in the Earth Bastion should be connected to his name. This clay pipe fragment has a grey body and is glazed black. The stamp confirming its origin is placed on the left side of the round socket, above which there is a small rosette. In connection with this piece one of L. Ferenc's statements is thought provoking. There is always a triangle ornamented with a five point star with the H sign in the Hőnig pipes (Levárdy 2000, 105). The aforementioned sign is not found on the piece found in Eger. In the 1860s the leading master pipe makers were Johann Partsch, István Mihalik, and Károly Zachar in Selmec. One of the pipe sockets could derive from the Partsch workshop. There is an embossed oak leaf shaped motif on the bottom of the fragment. The 'ANTON PARTSCH' sign is situated on the right side of the fragment with a stamped lily. The 'W. HELLER SCHELMNICZ' sign also indicates a master's handwork from Selmec. Vendel Takács from Zólyom also learned the trade in Selmecbánya, who made pipes in Zólyom from 1895 (Levárdy 2000, 107). The seal 'TAKACS SELMECZI' from one of the pipes might be this Selmec master's work.

Analysis of the ornamentation of the pipes found in the Earth Bastion

The ornamentations on the pipes might be from the negative, embossed decorations, or the pieces could be ornamented with nicks and pinches before finishing. The ornamentation of the most common model can be observed in the pipes with rosettes, and as in most of the cases the rosette is embossed on the two sides of the head. On some of the parts of the segmented pipes there is an embossed pine branch or a motif that resembles a pine branch (Fig. 3 Nos. 4-5). These were also made in a mould. After taking the piece out of the mould, the master decorated the pipes with stamps, rolled stamps or with etchings most of the time. The most common motif on the Earth Bastion pipes is the stamped rosette (Fig. 2, No. 8). The second most liked pattern could be the pine motif (Fig. 2, No. 6). There are of course numerous, less common or unique stamps besides these two most common forms. There were also hearts, half-circles, tulips, flowers with stems and leaves (Fig. 2, No. 7) and 'S' and 'X' (Fig. 2, No. 6) motifs. The motif lines created with the rolled stamp were more universal than the previous ones. They could appear on the wreath, stepped-ring, the keel and also both sides of the socket, bowl, and rim as well. It is very common that this type of decoration is placed on more parts of the pipe. The most common form of the rolled stamps is the cogwheel. This motif is continuously present on Hungarian clay pipes until the 19th century (Kondorosy 2007, 308). The motifs created with etched stripes are primarily Hungarian. This naturally does not mean that they did not occur on Turkish pipes at all. Broad, long, deep etched stripes often decorate the wreaths, bowls or both on the Turkish pipes (Fig. 2, No. 8), but it is considered to be typically a Hungarian type of ornamentation. For the plotting of floral motifs on the rim, this type of decoration was often used (Fig. 5, Nos. 4-7). The ornamentation with different sized tubes pressing into the material was also used at the same time as the etching motif. One beloved variation of the etched motifs is the decoration with nicked lines, which also can be observed on the socket and rim of Turkish pipes.

Conclusion

The clarification of the stratigraphic position of the pipes would have been an important question during the examination of the pipes that turned up from the Earth Bastion. Unfortunately this was not possible because of the peculiarity of their occurrence. Thus the analysis had to proceed only from the peculiarities of shape and ornamentation, and the nature of the material and the surface, as had been seen in previous studies. An attempt was made to follow up the hypothetical developmental lines defined by Gábor Tomka in the material of Eger, differentiating between Hungarian and Turkish type pipes. Dissociating more developmental branches in the Turkish type was possible. The angular, the rosette, the red polished and the Turkish common pipes were forming different branches. The Hungarian pipe evolved from the latter, with its own, peculiar ornamentation. The approximate chronology of the pipes was thus definable. The clay pipes found in the Earth Bastion came from after the time when the Turks took hold of the Castle. The Turkish type pipes can be dated back to the beginning of the seventeenth century until the middle of the eighteenth century. Since the end of the eighteenth century the majority of the pipes were Hungarian types. These ones were changed by the manufactured pipes in the nineteenth century. During the examination of the ornamentations, it turned out that European-wide tendencies were characteristic in Eger as well. The examination of the New Era material sheds light on the fact that the most popular pipes in Eger in the nineteenth century were the products of the Selmec workshops.

On the whole it can be stated that the pipe material of the Earth Bastion shows basic similarities with material from other castles occupied by the Ottoman Empire. It was not possible to include local peculiarities like the workshops, the masters, the supply of material and commerce as part of the examination. In the future, the analysis of the remaining 6000 clay pipes might answer many questions. One line of questioning is connected to the chronology of the pipes. When did each type occur, and how long was it fashionable? How accurate is the dating of each layer by the clay pipes? The other line includes questions about the local, regional peculiarities. A conspicuous problem is the question why so many pipes turn up from Eger. It could be interesting to examine them in connection with economic and cultural historical events. What kind of trade relationships do the pieces refer to, or in the case of a local mark, where, in which workshop, by which masters was the huge number of pipes made? What can be discovered about fabrication techniques? What quality clay source was available to the masters in Eger? The information provided by written sources should also be clarified. Where can the counterparts of the pipes in Eger be found? What quantity and quality of product is encountered in the Eger region? An important task would be to examine the ratio of painting, glazing and polishing and also to compare the results with materials that come from other castles.

Hopefully, if an answer for these questions can be found in the future this would be important not only in a local historical context. The material soon to be processed from Eger will provide a significant contribution to pipe research not only in Hungary, but also in all the territory once occupied by the Ottoman Empire.

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Pipes from the time of the Turkish occupation in the collection of Wosinsky Mór Museum

by Attila Gaál (Translated into English by Anna Kádár and Flóra Bernáth)

Clay pipes are undoubtedly the most often found and also provide very spectacular memories of enjoying tobacco with or without additional narcotic substances. Hungarian archaeological collections register thousands of fragmented, but relatively few undamaged pipes from the castles and settlements of the Ottoman period. For a long time most of them were entirely unpublished, or at the most only their laconic description came out attached to other findings. From 1963 until 2000 readers interested in this topic could barely find studies in this field, except for Béla Kovács's essential typology of the rich findings of the castle excavation of Eger (Kovács 1963, 235-262; 1967, 104-107). This study among others was used by Gábor Tomka as a reference in his fundamental work about clay pipes from the seventeenth and eighteenth century. His work is one of the most valuable studies in the volume linked to the shared exhibition of the Hungarian National Museum and Balatoni Museum of Keszthely (Tomka 2000, 25-32). In the twenty-fourth note of his study - although admittedly in an incomplete form - he listed a carefully gathered bibliography of published and occasionally even unpublished clay pipes. For this reason in this study we do not repeat his list.

Even thought a broader description could not fit into the time-limits of this research, for those interested it can be mentioned, that in the beginning of the 1970s 610 fragments of often marbled, variously coloured and decorated, clay pipe were found cutting through the waste hole of a workshop while installing their drains. At this site no further finds have been saved or excavations carried out. The fragments can be studied at the Ethnographic Collection of the Wosinsky Mór Museum. The findings were first analyzed by Zoltán Nagy. According to his study there were only two pieces decorated figuratively. Two hundred and sixty-one pieces have stamps (Nagy 2001, 73, Plate CXXVII).

When presenting the clay pipes of Wosinsky Mór Museum of Szekszárd, the typological advice of both mentioned authors (Kovács, Tomka) have been used, even though by now it has become clear that further refinements are needed in this field based on new findings identified precisely by chronological categorization. It must also be anticipated that the objects listed below cannot fully meet this requirement either. Unfortunately most of them were not brought to the surface by excavations, but were found during above-ground collecting led by Gyula Mészáros the museum director. This research was going on for several years at Jeni Palánk - the site of a small, Turkish,

wooden fortification with palisaded earthen walls, the socalled *palanka* - extending also to its related settlements and located north of Szekszárd (Fig. 1).

Numerous site surveys were completed between 1960 and 1975 - the beginning of the excavation of *palanka* - after the autumn and spring ploughing. During this period, numerous Turkish objects and fragments from the time of the Ottoman occupation were found. This indicated also the intensifying deterioration of the area that became evident during the excavation.

Újpalánk Castle, built in 1596, was mentioned in the contemporary travelogue of Henrik Ottendorf and also Eveliya Celebi (Hermann 1943, 49). Celebi emphasizes that the castle was constructed by Ottoman Turks, moreover he states that it was Sultan Muhammad III, conqueror of Eger, who built it in protection of the wooden, twentyarch bridge of Sárvíz. He listed ten houses, one djami and ten cannons in the castle. In addition, he mentioned that the one-hundred man garrison received its salary with the soldiers at Szekszárd Castle. Outside the castle, at the wooden bridge that crossed the River Sárvíz in Celebi's time (and based on his information!), there was a military post where wine was taxed under the supervision of the agha (Turkish master). According to Celebi only wine was taxed, other goods were not. Outside the castle - well separated from Szentmiklós and Szerdahely, Hungarian villages, there was only one settlement for the soldiers and their relatives who - according to the findings - had Slavic origin and came to live in the palanka only during wartime. According to Celebi there were only a few houses, gardens, shops and fishing nets in this tiny village (Karácson 1904, 206).

After 1686, the year in which the village and *palanka* were demolished, its casually reconstructed ruins served as a custom office until 1694, and then it functioned as a Bailiff's Office until 1703 (Holub 1974, 38-39). Later on its old name, Palánki Sziget (Island at *Palanka*) was changed to Csemetekert (Sapling Garden), which also reflects its new character. By the early 1960s the territory had been parcelled into narrow pieces of land in order to create gardens and farms, where grapes, fruit, cereal and corn were produced. The other large group of clay pipes originating from this area was found at the castle excavation started in 1975. By that time the land was owned by the County Hospital. It was (and still is) under large-scale production - generally of corn and wheat in annual rotation.

Unfortunately, by the middle of the twentieth century, the above-mentioned farming methods had levelled most of the emerging surface of the *palanka*, moreover, as a consequence of deep ploughing, ploughshares had penetrated the old ground surface over a significant part of the territory (most of the pipes were found in this jumbled soil).

There are two facts that can be considered remarkable



Figure 1: Representation of Jeni Palánk from H. Ottendorf's 1663 travelogue (from: Der weeg von Ofen auff Griegisch Weissenburd oder Die beschreibung der alda gelegenen Palanken und derselben gantzen gegendt. (1662/67), Vienna War Archives, Map Collection, K VII, 2-15: Kézirat).

about the pipes found at Jeni Palánk and its surrounding 'Turkish' settlement (which was rather South-Slavic, as already mentioned). First, Jeni Palánk functioned as a Turkish fortress for ninety years. Its soldiers, who lived there in this period, from 1596 until 1686 lost, or rather threw away their very fragile pipes that quickly became useless. If it is accepted that the habit of pipe-smoking became widespread in Hungary from the end of the sixteenth century until the beginning of the seventeenth century, and that it was introduced by soldiers - in this case Turkish soldiers - then these findings may be linked to this first period and despite the fact that their archaeological sites are uncertain, we can state, that their typological comparison is possible. There is also an early, so-called 'Dutch pipe' in the display - unfortunately in a very fragmented state.

Secondly, this statement is also supported by the fact that the finds from Jeni Palánk lack pieces decorated with spots in rhomb-shaped pattern, with incised patterns imitating a tulip, with small circles or keen and sharp stripes ... etc., that are characteristics of imported types, undoubtedly of Turkish influence, but originating from Hungarian

workshops (regarding the patterns of Hungarian-type pipes, see also: Kovács 1963, 252, 253). These specific pipe-forms can also occur at other sites dated by ceramics to the eighteenth-nineteenth century. As a matter of fact, only one late piece like this was found during the Gyula Mészáros survey, but this piece could also have originated from later times. It is possible, that it got there during agricultural activity, as did other small objects of late origin. The fact that such later pipes were entirely missing from the area of the *palanka* is only explicable with difficulty since - as has already been explained - it later became a custom office and a Bailiff's Office has functioned there until 1703. The reason for this absence might be the fact that the office that was in quite a poor financial state and could employ only one person.

Six further pipes are exhibited in the Turkish room of Simontornya Castle. These undoubtedly Turkish and Turkish influenced pipes were presented at the castle exhibition in the early 1970s among finds that were excavated from that area. In spite of this, during this present work, the writer has slowly come to the conclusion that the pipes exhibited there are not from Simontornya. This fact is supported by their early inventory number. It is most likely that Erzsébet Lócsy, director of the exhibition borrowed these objects from another Hungarian collection. Eventually it is hoped to clarify their origin, but, even so, it seems important to present them here. Other Turkish clay pipes from the collection are randomly found objects that were discovered in gardens, vineyards or in plough-soil mostly as a result of agricultural activity. These pipes are more or less in one piece, or barely harmed, since those fragmented can be recognized with much more difficulty. Each piece in the collection is given a serial number according to the main typological groups. Black and white photos and serial numbers are added to the descriptions in the final chart.

Unglazed red clay pipes

Dark red, brick red, yellowish red, unglazed pipes, smaller or bigger fragments came to the surface during the Jeni Palánk excavations, or were found during surface collection in the area. The 'Dutch-type' fragment is classified as part of this group as well (Fig. 2, No. 1). Based on its type it has been listed first, though it is not certain that it is the earliest piece among the pipes presented. The curiosity of this piece is related to its reddish colour, unlike the white, ivory-white or grey coloured versions mentioned by Gábor Tomka (Tomka 2000, 28). It may be only by coincidence, but considering its material, colour and the badly fired, grey layer of the crack on its surface, these pipes show similarity to another group of reddish pipes having traces of red soil paint on their surface (Fig. 3, Nos. 34-40), that were assigned by Béla Kovács into his second group of so-called mixed types by, considering them as imitations of Turkish pipes (Kovács 1963, 246 and panel No. III. 14). Since the desired red colour could not be reached, the surface of these badly fired pipes has apparently been coloured with red soil paint. If this hypothesis based on material, colour and weak technical execution is appropriate it can be stated that the eight fragments presented here (Fig. 2, No. 1 and Fig. 3, Nos. 34-40) originated from the early Hungarian pipe making period, when western and Turkish pipes were copied - though of a very poor quality.

As a curiosity and a parallel it has to be mentioned that on these pipes with very short stem sockets and swollen bowls - except for No. 34 and No. 38, which were assigned to this group on the basis of fabric alone- an embossed ring can be noted in the middle of the stem socket. In addition the pieces Figure 3, Numbers 34, 35, 36 and 40 have a flattening running along the lower surface of the stem socket towards the bowl. Another of their uniform features is that even though they look cylindrical a weak angularity is notable and palpable on their stem sockets similar to some Turkish pipes. Both mentioned features are also characteristics of the examples that have scored decoration and knobs on the end of their stem socket, therefore the difference among them is simply technical not chronological.

The following group of unglazed, reddish clay pipes, with hemispherical bowls should, undoubtedly, be considered to be of Turkish origin. These pipes can be found with stem sockets and tobacco chambers showing extremely diverse forms. This may mean a progress over time but also may point to a difference between certain workshops. Considering the ninety years existence of the palanka more precise dating of the reddish pipes with hemispherical bowls and long stem sockets was not possible, however it seems certain - as the quoted authors also assumed - that the earliest of these pipes were those with angular bowls and stem sockets. The stem socket and bowl meets at an acute angle, almost a right angle. The end of the stem socket is simple, rounded without broadening. There is only one exception (Fig. 2, No. 6) the stem socket of which is angular and star-shaped at the end. These pipes are fired at adequate temperatures with carefully prepared clay, and eventually their colour became different tones of red. Their surface is polished with a technique similar to burnishing with pebble stones, although performed with other instruments - maybe with a small wooden or bone plate. It has a dense and shiny look. Figure 2, Number 2 is an exception which is over-fired and clinkered. There are three fragments among these stamped with ten-petalled rosettes. Since they have no parallels among the other finds, - which can be also a consequence of difficulties mentioned in the preface - it is assumed that these pipes might be products of either local or nearby workshops.

The following type is also characterized by a long stem socket but in this case it is already roughly cylindrical. This type has a cylindrical bowl as well. It should be noted that the facetting of the upper part of the stem socket and the small surface created by the keel flattening into the lower side of the bowl, is similar to pipes in the group mentioned before (Fig. 2, Nos. 21, 22, 23).

There is also a transitional form characterized by a cylindrical bowl but angular stem socket. The stem socket

is usually seven-sided, but there are some nine-sided examples among them as well (Fig. 2, No. 13). Among these there is also an irregular piece, which is typical in all regards, except for its matt, pallid, greyish-brown colour (Fig. 2, No. 24). It is likely that it was not well prepared, not smoothed and compressed and probably not fired at an adequate temperature.

There are also examples of this transitional type (Fig. 2, Nos. 25, 26), that have already smooth, cylindrical stem sockets (with some upper facetting) and the mentioned flattening of the keel under the bowl, but their bowl is 'still' angular. The well-elaborated, eight-angled, fragmented bowl (Fig. 3, No. 42) has also been included in this group, considering it to be a copy of the red, polished prototype. The material and surface of this piece is ivorywhite, and the flattening under the bowl is substituted by two articulated impressions.

There are three further fragmented bowls (Fig. 2, Nos. 17, 18, 19) that certainly belong to one of the two abovementioned categories, but a more precise classification is not possible since their tobacco chambers are cylindrical, with nothing remaining of their stem sockets.

The collection includes three unique red (reddish) unglazed pipes with long stem sockets. One is a piece with an intact stem socket and bowl profile (Fig. 2, No. 33). This has a cylindrical bowl narrowing upwards, and a stem socket that is also cylindrical. The end of its stem socket is cut almost vertically, and it does not show broadening. The lower part of its bowl is flat and plate-shaped. In spite of this the keel flattens into the lower part of the bowl, as was general in the case of the earlier types with hemispherical bowls. On the upper part of the stem socket near its end there is a 0.5cm, eight-rayed, circular stamp. Since this unparalleled piece was found during the excavation of a seventeenth century castle ditch filled with waste (ditch No. 26/E) its dating is uncertain. The stamped mark might supply some evidence regarding the origin.

Another finely made piece, Figure 2, Number 23, is also fabricated with a flattened bowl. It is also notable, that while the stem socket was smoothed and polished horizontally, its edge is cut in a 1.2cm. wide part - measured from the mortise - with a diagonal, rotating technique. The third pipe raises perplexing questions. Even though the find is related to the castle excavations it was found in 1979 during the arrangement of the foreshore of the River Sió in the Turkish occupation layer. This yellowish red, unpolished, pipe, the material of which is soft in a crayonlike manner, recalls the features of the next category with its shortened stem socket, and with the very sharp angle between its bowl and stem socket. Its six-sided bowl and, articulated six-sided stem socket is reminiscent of the earliest, angular types. Another contradiction is that the keel ends under the bowl without flattening. The articulated six-sided terminal of the stem socket ending in a globular shape is also very unusual.

Here, the question of the knobs, seen on some of the

unglazed, red pipes should be mentioned. Among the pieces discussed in this review eight have a knob on the right side of the bowl, three on the left side of the bowl, and one on the right side of the stem socket! In three cases the knob on the bowl has a rib running towards the broadening edge of the bowl. The only parallel for this last example is among the few pipes found at the Eger Castle excavations in 1967.

Although their function is yet to be established it is the contention of the writer that the knobs on the sides of the bowl (and in the case of the one mentioned example on the side of the stem socket) and also the relief ribs served the same purpose. Béla Kovács is surely right in saying that the knobs were not decorating features, considering that they are sometimes articulated, while in other cases they are small and barely noticeable (Kovács 1963, 240).

The argument of Gábor Tomka, that these small figures on the surface served for ease of handling and better heat dissipation is hardly acceptable since these 3x5mm-sized figures are barely sensible for a soldier's hand (Tomka 200, 31). In addition, their heat dissipation surface is negligible in relation to the surface of the bowl.

In the writer's view the knob on the left and right side - and also that on the stem socket - , the combination of the knob and rib-like line, and possibly the stamped rosette on Figure 2, Numbers 3 and 33, are distinctive signs of certain workshops. However, only an extended observation that compared and catalogued hundreds of pieces could establish if this were the case.

Finally the latest group of five red and unglazed pipes consists really of yellowish rather than red pieces. One out of the five pipes is intact and undamaged; in the other four cases the bowl is partly or entirely missing. The intact piece (Fig. 2, No. 29) is the most strongly glazed one, whereas on one piece (Fig. 2, No. 30) only part of it is notable. All of them were made with cylindrical bowls and stem sockets with a terminal that is more or less articulated and rounded at the mortise. The upper and lower part of the bowl and the stem socket meet at a sharp acute angle. The hemispherical bowl is divided by the narrowing elongation of the lower stem socket that arches, reaching the rim without flattening. This is particularly evident on the upper photo of pipe Number 30 and on the lower photo of pipe Numbers 31 and 32. The stem socket of the pipes was polished by horizontal smoothing, however, on two pieces a concentric and a diagonal shaping is clearly visible.

Catalogue

Figure 2, numbers 1 to 20

1. Originally polished piece, red on the inner and outer surfaces. A very thin, reddish layer can be noticed on its surface. The cracked surface is dark grey and badly fired. It has a forward-leaning bowl; its heel is pointed on the bottom. It is a highly fragmented part of a one-piece, claystemmed, so-called 'Dutch pipe'.

L: 3.9cm, H: 2.8cm; Inv. No.: P.92.177.1. Locality: Jeni Palánk castle excavation.

2. Reddish, dark rust-brown, over-fired piece. Its stem socket and tobacco chamber is eight-sided. The upper part of the bowl joins the stem socket at a fine, acute angle. There is a hardly notable knob on the left side of the bowl. Under the bowl the well defined keel opens to a flattening. The end of the stem socket is rounded.

L: 6.5cm, H: 3.8cm; Inv. No.: P.92.159.1. Locality: Jeni Palánk excavation of *palanka*.

3. Red, polished pipe with damaged stem socket incomplete at the end. According to the remaining parts the bowl was eight-sided. The stem socket is also octagonal. The keel flattens into the bottom of the bowl creating a 2cm surface, in the middle of which there is an eight-petalled rosette, 0.5cm in diameter (see picture below).

L: 6.4cm, H: 2.6cm; Inv. No.: P.66.159.1. Locality: Jeni Palánk, site survey, surface find.

4. Red, polished, fragment. The stem socket is eight-sided. The keel flattens into a 2.2cm surface below the bowl. The end of the stem socket is rounded. The upper part of the bowl is completely missing. There is a 0.4cm, coneshaped knob on the lower left side of the bowl.

L: 5.7cm, H: 2.9cm; Inv. No.:66.158.14. Locality: Jeni Palánk, site survey, surface find.

5. Polished, red pipe with complete, eight-sided bowl. The stem socket is also eight-sided, even though it is strongly truncated. The upper part of the bowl is at a fine, acute angle with the stem socket. The keel flattens into a 2cm surface on the bottom of the hemispherical bowl. The outer surface of the bowl is heavily covered with soot.

L: 3.2cm, H: 4.1cm; Inv. No.: P.92.157.1.

Locality: Jeni Palánk, excavation of *palanka*, ditch No. 47/D.

6. Red, polished, pipe with intact, eight-sided stem socket. The keel flattens into the front of the bowl creating a 2cm, flat surface, articulated by deep scoring. According to the remains the bowl was also eight-sided.

L: 6cm, H:1.5cm; Inv. No.: P.92.152.1. Locality: Jeni Palánk, excavation of *palanka*.

7. Yellowish red, polished pipe with intact, eight-sided stem socket. Under the bowl the keel runs into a 2cm flattening, its surface is raised. According to the remains, the bowl was also eight-sided. The end of the stem socket is rounded, but edges are also visible on it.



Figure 2: Catalogue numbers 1 to 20.

L: 6.7cm, H:1. 6cm; Inv. No.: P.92.163.1. Locality: Jeni Palánk, excavation of *palanka*.

8. Yellowish red pipe-head with intact bowl and truncated stem socket. Both are eight-sided. At the end of the stem socket, near the bowl, the keel has a 2.4cm flattening articulated by deep scoring that runs along the upper part of the stem socket. On the outer bowl on a plain surface, there is a 1.2mm wide raised rib, ending in a button, set off from the lower edge of the bowl, articulated by the same deep scoring as seen around the above mentioned flattening. (see: Détshy-Kozák 1967, fig. 26-7).

L: 4.8cm, H: 4cm; Inv. No.: 66.77.4.

Locality: Jeni Palánk, site survey, surface find

9. Red, polished fragment. The end of the eight-sided stem socket is rounded, under the bowl the keel runs into a 2.4cm raised surface. There are stamped, ten-petalled rosettes on this flat surface, on the partially remaining right side of the bowl and around the end of the stem socket - with the exception of its lower section. On the right side of the bowl, on its one, remaining, outer section the beginning of two raised rib can be noted.

L: 7cm, H: 3cm; Inv. No.: 63.405.1.

Locality: Jeni Palánk, site survey, surface find.

10. Red, polished, fragment. The bowl and the truncated stem socket are both eight-sided. The keel flattens into the lower part of the bowl forming a 2.5cm long surface, articulated by deep scoring. Both sides of the bowl are flattened; two ten-petalled rosettes can be noted. On the right side of the bowl, on its one, remaining, outer section the beginning of two articulated ribs can be noted.

L: 4.5cm, H: 3cm; Inv. No.: 63.405.1.

Locality: Jeni Palánk, site survey, surface find.

11. Yellowish-red, polished fragment. According to the remains of the stem socket it was eight-sided. The keel flattens into the lower part of the bowl, forming a 2.3cm long surface articulated by deep scoring. On this flat surface a ten-petalled rosette can be noted with two further examples on the sides of the bowl.

Diameter of the bowl: 2.8cm; Inv. No.: 63.403.1. Locality: Jeni Palánk, site survey, surface find.

12. Red, polished piece. The end of the seven-sided, facetted stem socket is rounded. There is a slight flattening, weakly articulated by scoring on the lower side of the bowl. The shape of the upper part of the bowl cannot be distinguished. There is an articulated knob on the right side of the bowl.

L: 6.7cm, H: 2cm; Inv. No.: 69.217.1.

Locality: Jeni Palánk, site survey, surface find.

13. Yellowish-red, polished piece. There is a strongly arched flattening on the lower part of the crosswise elliptical bowl. The cross-section of the stem socket and the bowl is articulated by deep scoring. The same division can be noted at the meeting point of the lower, and the upper part of the bowl. The nine sided stem socket is narrow on the bowl's side and broadening towards the

other end. The upper part of the bowl cannot be evaluated, but according to its type it was presumably cylindrical.

L: 6cm, H: 1.7cm; Inv. No.: no number

Locality: Jeni Palánk, site survey, surface find.

14. Red, deteriorated, originally polished piece. The seven-sided stem socket is facetted. The rounded end of the stem socket is seven-sided. There is a 1.3cm, very short, weakly articulated flattening under the bowl. There is no deep scoring around it. On the left side of the bowl a fragmented knob can be seen. The upper part of the bowl cannot be evaluated, but according to its type it was presumably cylindrical.

L: 6.2cm, H: 1.8cm; Inv. No.: P.92.175.1. Locality: Jeni Palánk, excavation of *palanka*.

15. Red, polished piece. The stem socket is seven-sided; its end is seven-sided in a star-shaped form. There is a 2.7cm. long, articulated flattening in relief on the lower part of the stem-socket under the bowl. There is an articulated knob on the right side of the bowl. The upper part of the bowl was cylindrical, (!) but only its small truncated piece remains.

L: 6cm, H: 2.3cm; Inv. No.: P.92.174.1.

Locality: Jeni Palánk, excavation of *palanka* ditch No. 74/D.

16. Yellowish-red polished fragment with soot contamination on part of its seven-sided stem socket. There is a 2cm long, weak flattening on the lower side of the stem socket under the bowl. The upper part of the bowl was cylindrical.

L: 6.1cm, H: 2.9cm; Inv. No.: 63.406.1.

Locality: Jeni Palánk, site survey, surface find.

17. Red, polished, fragmented bowl with tobacco chamber. There is an articulated knob on the right side of the bowl, and a 2.3cm flattening on its lower side. The upper part of the bowl is cylindrical.

Diameter of the bowl: 2.2cm, H: 4.2cm; Inv. No.: P.92.153.1.

Locality: Jeni Palánk, excavation of palanka.

18. Buff, fragment covered with soot. There is an articulated knob on the right side of the bowl. On its lower part a long flattening can be noted, that is 2.6cm even in this fragmented state. The upper part of the bowl is cylindrical.

Diameter of the bowl: 2.3cm, H: 4.1cm; Inv. No.: 69.217.1. Locality: Jeni Palánk, excavation of *palanka*.

19. Buff, rustic, slightly polished fragment. On the lower part of the bowl there is a 2.8cm long, arched flattening. On the right side of the cylindrical bowl there is a rib in relief, ending in a knob, that sets off from the middle of the tobacco chamber (the upper side of the bowl), and not from the rim.

Diameter of the bowl: 2.3cm, H: 4.3cm; Inv. No.: P.92.156.1.

Locality: Jeni Palánk, excavation of palanka.

20. Red, polished fragment. The lower part of the bowl was hemispherical while the upper part was cylindrical. On the lower part of the bowl there is a 1.8cm flattening. It is without parallel that the knob is on the right side of the stem socket and not where it normally is, on one side (or in some cases on both sides) of the bowl.

L: 3.9cm, H: 1.8cm; Inv. No.: 67.28.11.

Locality: Jeni Palánk, site survey, surface find.

Figure 3, numbers 21 to 40

21. Reddish brown, polished piece covered with soot on the bowl and on the cracked surface due to firing. Stem socket is cylindrical but it ends in a 2.3cm flattening under the bowl. The cylindrical bowl's upper part is facetted; the end of the stem socket is rounded in the same way as the eighteenth-century fragment. There is an articulated knob on the right side of the bowl.

L: 6.5cm, H: 1.7cm; Inv. No.: P.92.151.1. Locality: Jeni Palánk excavation of palanka.

22. Yellowish red, weakly polished piece. The bowl and the stem socket are cylindrical. The end of the stem socket is rounded. There is a rib in relief on the bottom of the stem socket that ends in a 2.6cm, arched flattening under the bowl. There is a knob on the left side of the bowl.

L: 6.8cm, H: 2.9cm; Inv. No.: 63.404.1.

Locality: Jeni Palánk, site survey, surface find.

23. Reddish coloured piece with polished surface. Stem socket is horizontally smoothed. Both bowl and stem socket are cylindrical.

L: 6.6cm, H: 3.5cm; Inv. No.: P.84.48.1. Locality: Jeni Palánk, excavation of palanka.

24. Greyish-brown, dull clay pipe. Stem socket meets the bowl in a fine acute angle. Its bowl is quite high and cylindrical. The stem socket, as well as the end of it, is seven-sided. There is a 2.2cm flattening under the bowl, at the bottom of the stem socket. Its right side is heavily covered with soot. A 1.2cm rib in relief runs along the right side of the bowl, ending in a button (see Nos. 6 and 17). L: 5.9cm, H: 4.4cm; Inv. No.: P.92.191.1.

Locality: Jeni Palánk, excavation of palanka.

25. Light reddish, weakly polished piece. Bowl and stem socket meet at an acute angle. The horizontally smoothed cylindrical stem socket ends in a flattening of 2.3cm under the bowl. Based on the truncated remains, the bowl was six-sided. There is a knob on the right side of the bowl.

L: 5.5cm, H: 3cm; Inv. No.: P.92.176.1.

Locality: Jeni Palánk, excavation of palanka, ditch No. 25/E.

26. Light reddish, weakly polished piece. The stem socket and the bowl meet almost at right angles. The horizontally smoothed cylindrical stem socket ends in a slightly sensible flattening of 2.3cm under the bowl. Based on the truncated remains, the bowl was six sided.

L: 5.7cm, H: 2.5cm; Inv. No.: 66.159?

Locality: Jeni Palánk, site survey, surface find.

27. Yellowish red, unpolished clay pipe. It is similar in many aspects to the polished pipes, with facetted stem socket and bowl, already mentioned, however, it seems to be a late imitation of them. The hemispherical bowl runs upward according to the stem socket. They meet in a strong acute angle, both of them are six sided. Unlike the previous ones, the keel, running on the lower part of the stem socket, does not end in a flattening under the bowl, but meets the edges on its left and right side in a narrowing form, at the front of the bowl. The six sided button-shaped part at the end of the stem socket is also a late aspect. The surface of the bowl is partly covered with soot.

L: 6.1cm, H: 4.3cm; Inv. No.: -

Locality: Jeni Palánk, from the layer of the Turkish occupation, outside of the palanka.

28. Yellowish red, weakly polished fragment. Its surface is stained, and covered with soot. The stem socket and the bowl meet almost at right angles. The bowl is cylindrical; the end of the stem socket is rounded. On the right side of the bowl a fragment of a rib in relief can be noted, running from the upper part of the bowl.

L: 5.5cm, H: 2.5cm; Inv. No.: P.92.181.1 Locality: Jeni Palánk, excavation of palanka.

29. Yellowish red, polished, undamaged clay pipe. It is covered with soot outside. It is lightly cone-shaped. Its cylindrical bowl meets the similarly cylindrical stem socket at an acute angle that has a rounded end. Lots of craters can be noted on its surface with lime bubbles.

L: 4.2cm, H: 3.9cm; Inv. No.: P.86.62.1

Locality: Jeni Palánk, excavation of palanka.

30. Brick-red, matt, unpolished piece with soot marks on the front of the bowl. The end of the cylindrical stem socket is rounded. Based on this fragment the bowl was cylindrical as well. The stem socket and the bowl meet at an acute angle.

L: 5.7cm, H: 1.9cm; Inv. No.: P.92.178.1 Locality: Jeni Palánk, excavation of palanka.

31. Brick-red, weakly polished piece. The end of the cylindrical stem socket is rounded. Based on this fragment the bowl was cylindrical as well. The stem socket and the bowl meet at an acute angle.

L: 6cm, H: 2.1cm; Inv. No.: P.92.179.1

Locality: Jeni Palánk, excavation of palanka.

32. Yellowish-red piece, polished with smoothing. The end of the cylindrical stem socket is rounded. Based on this fragment the bowl was cylindrical as well. The stem socket and the bowl meet at an acute angle.

L: 6.2cm, H: 2.6cm; Inv. No.: 63.401.1

Locality: Jeni Palánk, site survey, surface find.

33. Yellowish-red clay pipe, polished with smoothing. The bowl and the end of the stem socket are similar in form; both are cylindrical. The end of the stem socket is cut straight. There is a 0.5cm, eight rayed, wheel-formed stamp, with a rosette at the upper part of the end of the



Figure 3: Catalogue numbers 21 to 40.

stem socket. It does not serve as decoration but rather it seems to be a mark that identifies the workshop where it was made. The bowl is flat, broadening in a plate-like manner with a flattening on its bottom.

L: 6.7cm. (as restored) H: 4.4cm (as restored); Inv. No.: P.92.160.1

Locality: Jeni Palánk, excavation of palanka.

34. Brick-red, partly restored pipe with an almost bright red layer on its surface. The globular bowl's profile breaks while reaching upwards from the stem socket. The opening of the cylindrical bowl is diagonally cut. It is heavily covered with soot. The stem socket is cylindrical; it ends in a knobbed, eight-sided star shape. There is a 1.8cm flattening on the end of the stem socket near the mortise (see Kovács 1963, III. t.14).

L: 6cm, H: 3.8cm; Inv. No.: SL 28. 32

Locality: Simontornya, excavation of palanka.

35. Fragment with brick-red coloured body. There is an almost bright red layer on its surface. The stem socket is eight-sided, but this is hardly notable, it seems almost cylindrical. The stem socket is divided by a hardly palpable ring at the middle. On its bottom a strong rib runs forward towards the line of the bowl. This rib sets off from a 1.3cm flattening at the beginning of the stem socket. The end of the stem socket broadens shaping an eight-sided star form (see Koyács 1963, III. t. 14).

L: 5.7cm, H: 2.9cm; Inv. No.: P.92.162.1 Locality: Jeni Palánk, excavation of *palanka*.

36. Fragment with brick-red coloured body. There is an almost bright red layer on its surface. The stem socket seems to be cylindrical, but it is palpably angled; it is divided by a hardly sensible ring at its central line. On its bottom, at the end of it there is a 2cm flattening. The end of the stem socket broadens, shaping an eight-sided star, of which three knobs are missing (see Kovács 1963, III. t. 14).

L: 4.3cm, H: 1.6cm (central line diameter of the stem socket); Inv. No.: 63.116.1

Locality: Jeni Palánk, site survey, surface find.

37. Badly fired, facetted stem socket, yellowish red on its surface. The inside of the cracked surface is dark grey. The fragment is segmented by a hardly notable ring. The opening of the stem socket is broadening and having knobs, similar to Nos. 31 and 32. Many of these knobs are broken off. A thin red layer remains on some part of its surface.

L: 3.9cm, H: 1.3cm (central line diameter of the stem socket); Inv. No.: 63.358.1

Locality: Jeni Palánk, site survey, surface find.

38. Fragmented piece, brick-reddish inside as well as outside. The middle of the cracked surface is dark grey, due to bad firing. There is a very thin, almost red layer on its surface. It seems to be similar to Nos. 31 and 32 regarding its material and colour, however is different in some aspects. Its thick, and certainly cylindrical stem

socket, its sharp ring without knobs differ from the previous examples. Based on this fragment, the bowl was broad

L: 4.2cm, H: 2cm; Inv. No.: 63.119.1

Locality: Jeni Palánk, site survey, surface find.

39. Yellowish-red, badly fired fragment. The inside of the cracked surface is dark grey. On some parts of its surface a thin red layer remains. The short stem socket that meets the bowl at a right angle seems to be cylindrical, but it is palpably facetted. In the middle it is divided by a hardly notable ring. According to the size of the pipe, the bowl was big and broad. The end of the stem socket is narrowing in a cone shape. On its surface eighteen furrows imitate (?) the knobs distributed in star form. (See Nos. 31, 32)

L: 4cm, H: 4.2cm; Inv. No.: 63.120.1

Locality: Jeni Palánk, site survey, surface find.

40. Badly fired, yellowish red stem socket. The inside of the cracked surface is dark grey. On some part of its surface a thin red layer remains. There is a 1.7cm flattening at the end of the stem socket, which is narrowing in cone shape. Nineteen furrows imitate (?) the knobs distributed in star form.

L: 3.6cm, H: 1.4cm (diameter of the centre line of the stem socket); Inv. No.: 63.120.1

Locality: Jeni Palánk, site survey, surface find.

Figure 4, numbers 41 to 60

41. Reddish, well fired fragment of a stem socket, polished with flattening. It is cylindrical or rather elliptical. The end of it is broadening, decorated with seven knobs in an irregular star-shaped distribution. (Does it represent the type with polished red material, which the creators of *painted* pipes Nos. 34 to 40 intended to copy?)

L: 2.8cm, H: 1.9cm (at the end of the stem socket) Inv. No.: 63.357.1

Locality: Jeni Palánk, site survey, surface find.

42. Ivory coloured, unglazed bowl. The eight-sided tobacco chamber is broadening upward. The bowl is flattened and hemispherical. On the two bottom sides, two progressively narrowing impressions run forward. Based on this fragment the stem socket was cylindrical. (Even though its colour is different from the colour of the other pipes in this group, it is placed here because of its strong similarities). H: 4.2cm; Inv. No.: -

Locality: unknown.

It has to be admitted that the creation of chronological order among Turkish or Turkish-originated pipes has had to rely on many fewer supporting facts, than is the case of the unglazed, red pipes. Neither do the statements of the two quoted works seem to be convincing in all aspects. Moreover, there are many pipes or fragments of undoubted Turkish-origin in the County Tolna collection that cannot be placed in either of the suggested groups. One weakness in this ongoing work - the author is entirely aware of it - is the lack of publication of those Turkish pipes that are in other Hungarian or foreign museums. In

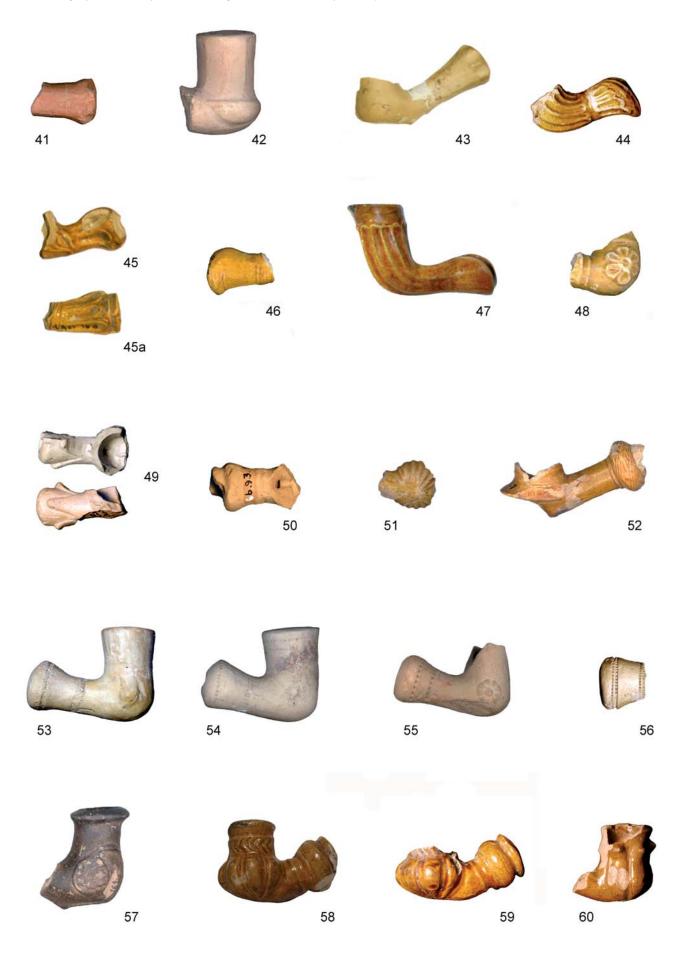


Figure 4: Catalogue numbers 41 to 60.

addition there are many difficulties in the acquisition of articles and other sources. After fixing this shortage the classification of the pipes of our collection will definitely be easier and more reliable.

Accordingly, later in this catalogue the pipes are grouped by type only when their category is assured. The possibility of being mistaken is high, because in most cases all that exists is either fragments of stem socket, or bowls, or a combination of the two. Without knowing all their parts they could be assigned to many different groups. In spite of this the only way of assisting future research is by publishing the photographs and precise descriptions of these items.

43. Unglazed fragment of a stem socket and bowl with the truncated fragment of the tobacco chamber, made of white material. The stem socket is eight-sided as far as the ring in relief at the bottom of the bowl. The end of the stem socket is broadened and star shaped, with eight knobs. Until this point, it shows similarity to the redbodied polished pipes, with facetted and knobbed stem socket, mentioned above (Tomka 2000, 1.t. 2. type). The bowl, however, contradicts this categorization. Its flattened bottom heavily breaks upwards. In addition, it is cylindrical. Its curiosity is that the bowl was found in 1966 and the stem socket in 1969.

L: 5.2cm, H: 3.8cm; Inv. No.: P.84.58.1 Locality: Jeni Palánk, site survey, surface find.

44. Fragment of bowl of a lightly polished clay pipe with the truncated fragment of the stem socket. It is made of yellowish red material, and is entirely brown on its surface. On the bottom of the elliptically cut stem socket there is a strong rib, running into a leaf-shaped flattening under the ball, decorated with nine indentured spots. On the other side of the 'leaf decoration' the rib is running forwards, and divides into two, at the first part of the bowl. As a tendril it curves on the two sides of the bowl and broadens into a disc, with indentured spots beside their edge. The cylindrical bowl's rim strongly bends outwards; its upper part is arched.

H: 4cm; Inv. No.: P.92.161.1

Locality: Jeni Palánk, excavation of palanka.

45. Fragment of a bowl with truncated fragment of the stem socket, made of white material, glazed with glittering yellow colour. Both bowl and socket are furrowed. There is a rib between the bowl and the stem socket. The end of the stem socket is arched diagonally. Based on this fragment, the bowl leaned forward (See Kovács 1963, 246, 260. III. panel no. 4; Kalmár 1959, LXXVIII. panel no. 8., 12).

L: 4.6cm, H: 2cm. (at the end of the stem socket); Inv. No.: 63.174.1

Locality: Jeni Palánk, site survey, surface find.

46. Fragment of the bowl and truncated fragment of the stem socket, made of white material, glazed with glittering yellow colour. The stem socket is furrowed with 2x3 lengthwise impressions. It is divided from the bowl with

a hardly notable, bulging ring. Part of a tendril in relief is notable on the fragmented bowl.

L: 3.7cm, H: 1.7cm; Inv. No.: 66.156.32.

Locality: Jeni Palánk, site survey, surface find.

47. Fragmented stem socket made of white material, glazed with glittering yellow colour. The end of the stem socket is diagonally arched. The upper part of the short, seven-sided stem socket is bulging. It was divided from the bowl with a broad ring in relief.

L: 2.8cm, H: 1.9cm; Inv. No.: P.92.185.1. Locality: Jeni Palánk, excavation of *palanka*.

48. Clay pipe, made of white material, glazed with glittering yellow colour. The stem socket is cylindrical; the end of the stem socket is arched diagonally. The bowl leans forward. From the meeting point of the bowl and the stem socket, more and more intensive furrows run and stop 0.9cm below the diagonally cut edge. The right side of the stem socket is incomplete.

L: 6.7cm, H: 4.6cm; Inv. No.: 63.202.1.

Locality: Bátaszék.

49. Ivory white, unglazed fragment of stem socket and bowl. On the left side of the bowl there is a decoration in relief, consisting of two arches. The cylindrical stem socket as a four-petalled flower-cup embraces the simple, cylindrical ending of the stem.

L: 3.7cm; Inv. No.: 66.93.8.

Locality: Jeni Palánk, site survey, surface find.

50. Quite small fragment of the lower part of a bowl, with a small fraction of the cylindrical stem socket. Its material is red, glazed with glittering yellow colour. From the bottom of the bowl thirteen, slightly broadening gadroons in relief are running upwards.

L: 2.6cm; Inv. No.: 67.28.8.

Locality: Jeni Palánk, site survey, surface find.

51. Ivory white, unglazed, cylindrical fragment of a stem socket. A slightly emerging, 0.5cm ring is running around its centre line. The end of the stem socket is broadening, while the end of the stem has a simple cylindrical shape.

L: 3.8cm; Inv. No.: 66.93.9.

Locality: Jeni Palánk, site survey, surface find.

52. Fragment made of light coloured material, with glittering yellow glazing. There is a twisted socket ring, decorated with double stripes of recumbent 'S' shapes at the end of the eight-sided stem socket. The end of the stem is broken off. The straight profile of the stem socket is broken at a sharp angle, at the front part of the pipe, forming a heel, which is connected to a flattened, disc-shaped bowl that leans towards the stem. Its curiosity is, that even though the sharp edge of the plate's left side was chipped off before the last phase of fabrication, it was still finished, with the chip fired and glazed (Tomka 2000, 1. panel no. 9).

L: 6.9cm, H: 2.8cm; Inv. No.: 63.149.1.

Locality: Jeni Palánk, site survey, surface find.

53. Yellowish white clay pipe restored on the right side of the bowl. The bowl and the stem socket meet almost at a right angle. The globular lower part of the bowl reaches upwards, without segmentation into the upper part of the bowl, which is first slightly narrowing, then broadening towards the rim. On the right side of the bowl, there is an articulated knob. The same shape on the left side is more blurred. A two-rowed, zigzag pattern created by a shaper wheel is running around the middle of the cylindrical, arched stem socket, around the end of the stem, at its widest part, and 0.6cm under the rim.

L: 5.9cm, H: 2.6cm; Inv. No.: P.84.58.1.

Locality: Jeni Palánk, excavation, ditch No. 60/C.

54. White clay pipe, with matt surface. Its bowl is restored on its right side and near the end of the stem. The globular lower part of the bowl reaches upwards without segmentation. There is a star-shaped knob on both sides of the bowl. There is a double line of rouletted decoration 0.4cm under the rim, and at the central line of the cylindrical stem socket. The end of the rounded stem is decorated with a single, rouletted line of dots.

L: 5.2cm, H: 3.8cm; Inv. No.: P.84.58.1.

Locality: Simontornya, excavation of *palanka* (round bastion (rondella)).

55. Yellowish white fragment. The bowl is broadening upwards. The globular lower part of the bowl reaches upwards, without segmentation, into the fragmented upper part, that has a blurred, nine-petalled rosette in relief on its right side. Fraction of a rouletted decoration can be noted under the cracked surface on the flattened cylinder-shaped bowl. The same pattern can be found in two lines at the end of the stem.

L: 5.1cm, H: 3.2cm; Inv. No.: P.92.158.1. Locality: Jeni Palánk, excavation of *palanka*.

56. Fragment of an unglazed stem socket, made of yellowish-white material. As a matter of fact, it is only the end of the cylindrical stem, on which two double lines of rouletting can be noted, 1.1cm apart from each other. It was placed into the category of rouletted, rosette-decorated pipes, due to the slightly broadening, arched ending of its stem.

L: 1.9cm, diameter at the end of the stem: 2.1cm; Inv. No.: 66.93.7

Locality: Jeni Palánk, site survey, surface find.

57. Fragment of the bowl of a clay pipe, with fraction of the stem socket, all made of white material, covered by glittering yellow glaze. There is a rib, running around at the cross-section of the stem socket, a six petalled rosette, with a circle in its centre on both sides of the globular bowl, and, above this, a rib running around the edge of the truncated bowl (Type: Tomka 2000, 30, 1. panel no. 6, 7). L: 3.2cm, H: 2.5cm; Inv. No.: 66.156.33.

Locality: Jeni Palánk, site survey, surface find.

58. Clay pipe, made of white material, glazed with glittering yellow colour. The end of the stem socket and the right side of the bowl are incomplete. The left profile is

intact. The socket ring is simple, undecorated. A rib runs around the middle of the short stem. The hemispherical bowl is divided into seven gadroons, each by one rib. Above, a row of chevrons, incised in a circular pattern, runs around the bowl. The bowl is arched, the rim curves outwards.

L: 5.3cm, H: 3.2cm; Diameter of the socket ring: 2.2cm; Inv. No.: 77.33.1.

Locality: unknown.

59. Fragment of the lower part of a bowl with stem socket, made of white material, glazed with glittering yellow colour. The socket ring is simple, undecorated. A rib runs around the middle of the short stem. The hemispherical bowl is divided into seven gadroons, each by one rib. Above, a row of chevrons incised in a circular pattern run around the bowl, however by now only a part of it is notable on the left side because of damage.

L: 5.3cm, diameter of the socket ring: 2.2cm; Inv. No.: P.92.190.1.

Locality: Jeni Palánk, excavation of *palanka*, ditch No. 25/E.

60. Fragment of a stem socket with damaged bowl, made of white material, glazed with glittering yellow colour. Small pipe; cylindrical stem socket. The bottom of the bowl is divided into five gadroons in relief forming opening tulip petals that wrap the tobacco chamber. The rim curves outwards.

L: 3.1cm, H: 3.1cm; Inv. No.: P.92.187.1.

Locality: Jeni Palánk, excavation of palanka.

Figure 5, Numbers 61 to 80

61. Truncated fragment of stem socket and bowl, made of white material, glazed with glittering yellow colour. The bowl and the stem socket are not separated; together they create a swollen bowl without segmentation. Its stem socket was cylindrical. The five (?) gadroons dividing the bottom of the bowl are alternately plain, or decorated with rows of 'V'- shapes in relief, increasing upwards in size. H: 3.4cm; Inv. No.: 63.312.1.

Locality: Jeni Palánk, site survey, surface find.

62. Stem socket with truncated fragment of the bowl, made of white material, covered with yellow colour that has lost its brightness. The socket ring is simple, undecorated. A rib runs around the middle of the short stem. The starting point of the gadroons, separated by ribs, can be noted on the fragment of the bowl.

L: 4cm; Inv. No.: P.92.189.1.

Locality: Jeni Palánk, excavation of palanka.

63. Truncated fragment of a stem socket and bowl made of light coloured material. Some dark, brownish spots can be noted on the light yellow, matt, glazed surface. There is a grey layer on the central parts of the cracked surface. The line, where the two halves of the mould met is clear, especially on the bottom. The stem is strong; there is a twisted ribbing on its ring that was shaped by deep, double lines running in parallel. The bottom of the flattened, hemispheroid bowl is decorated with eight,



Figure 5: Catalogue numbers 61 to 80.

lightly articulated gadroons in relief, starting from the middle and broadening upwards.

L: 5cm, H: 1.6cm; Inv. No.: P.83.13.24. (Found without context in segment No. 56).

64. Truncated fragment of a stem socket and bowl made of a white material and covered with light yellowish glaze. The socket ring is undecorated. The stem is simple and quite rough. The hemispherical bowl is decorated with seven deeply arched gadroons, starting from the middle and broadening upwards. Based on the surviving remains the tobacco chamber was eight-sided.

L: 5cm, H: 2.3cm; Inv. No.: 66.156.34.

Locality: Jeni Palánk, site survey, surface find.

65. Fragment of a stem socket and a bowl, made of dark grey material, black on its surface, fired in a reduced manner. The bottom of the flattened, hemispheroidal bowl is segmented by nine gadroons in relief, starting from the middle, and broadening upwards. Its plate-shaped upper part is decorated with elliptic circles intaglio. The socket ring is covered with two pairs of twisted lines. The end of the stem is broadening and articulated.

L: 5.4cm, H: 1.7cm; Inv. No.: 66.326.9.

Locality: Jeni Palánk, site survey, surface find.

66. Fragment of a stem socket and bowl made of dark grey material, black on its surface fired in a reduced manner. There are the beginnings of gadroons in relief on the fragment of the lower part of the hemispheroid bowl. On its upper part there is a circle of elliptic dots intaglio and the starting point of another gadroon is noted. The end of the stem is broken off. The socket ring is decorated with twisted ribbing, consisting of thick and thin ribs. A rib runs around the middle of the short stem.

L: 3.8cm, H: 1.7cm; Inv. No.: -

Locality: Jeni Palánk, site survey, surface find.

67. Fragment of a stem socket with bowl, made of yellowish white material, with green glaze. Slightly articulated gadroons and its fragments are noted on the bottom of the hemispheroid bowl. Originally it was decorated with nine broadening gadroons running from the middle upward. The end of the stem is damaged. The socket ring is decorated with a twisted ribbing, consisting of thick and thin ribs. A rib runs around the middle of the short stem. The glaze mostly has smoothed the bowl's weak relief decorations; in fact on the upper edge of the plate-shaped bowl it has almost covered the whole pattern. L: 5cm, H: 1.7cm; Inv. No.: 70.45.1.

Locality: Jeni Palánk, site survey, surface find.

68. Fragment of a stem socket made of white material with green glaze. The end of the stem is broadening. The socket ring is decorated with twisted ribbing.

L: 3.4cm; Inv. No.: 66.153.5.

Locality: Jeni Palánk, site survey, surface find.

69. Fragment of a cylindrical stem socket, made of bright material. It has a light yellow glaze on its surface, with dark brownish decorating marks. A rib runs around the middle

of the short stem. There are three dark brownish marks in regular distribution on the surface of the broadening end of the stem. There are hardly notable hollows diagonally running around the socket ring covered with glaze.

L: 3.3cm; Inv. No.: P.92.186.1.

Locality: Jeni Palánk, excavating of palanka.

70. Fragment of an unglazed stem socket made of white material. Between the diagonal circular lines there is a 'running dog' relief decoration on the socket ring. The end of the stem is broadening.

L: 2.8cm; Inv. No.: 66.156.31.

Locality: Jeni Palánk, site survey, surface find.

71. Fragment of an unglazed stem socket with bowl, made of yellowish white material. The short cylindrical stem socket is connected to the globular, swollen bowl. A pressed in, zigzag decoration is running around on the bowl. There are two deep circles above, dividing it from the upper part of the bowl that is broken off. On the middle of the short stem a rib is notable. The socket ring is undecorated. The end of the stem is broadening and sharp.

L: 5.2cm, H: 3cm; Inv. No.: P. 92.165.1. Locality: Jeni Palánk, excavation of *palanka*.

72. Fragment of an unglazed stem socket with bowl made of greyish-white material. There is a rosette in the middle of the lower part of the almost entirely globular bowl. Thirteen gadroons segmenting the bowl have a starting point further up from the rosettes, towards the rim. At the meeting point of the bowl and the gadroons there are some horizontally circular deep lines. Above this a rouletted ring can be noted, consisting of diagonal lines. The upper part of the bowl is missing. Instead of an articulated rib, in the middle of the stem noted in other cases, here a cylindrical wreath is notable similar to the one above. This runs up also to the side of the simple socket ring. The end of the stem is simple, cylindrical.

L: 4.8cm, H: 2.4cm; Inv. No.: P. 83.13.23. Locality: Jeni Palánk, excavation of *palanka*.

73. Fragment of stem socket with bowl made of greyish white material, glazed with glittering yellow colour. There are thirteen broadening gadroons set off from the bottom of the almost entirely globular bowl. Part of two horizontal, circular ribs can be seen on the upper part of the bowl fragment. The lower one runs at the endings of the gadroons, the other one runs 0.7cm distance from it. There is a hardly noticeable rib between the bowl and the socket ring, decorated with twisted, circular ribs. This is connected to a pierced knob below. It was presumably made for the fixing cord. The end of the stem is simple, slightly broadening.

L: 5.4cm, H: 3.5cm; Inv. No.: P. 92.188.1. Locality: Jeni Palánk, excavation of *palanka*.

74. Fragment of unglazed stem socket, made of middle grey material, fired in a reduced manner. A rib runs around the middle of the short, cylindrical stem socket. The ring is not sharply divided from the stem socket. It

flattens together with it in a mace-like manner. Its surface is decorated with twenty-seven horizontal ribs. The end of the stem is broadening, but slightly globular.

L: 3.9cm; Inv. No.: P. 92.172.1.

Locality: Jeni Palánk, excavation of palanka.

75. Fragment of unglazed stem socket and bowl made of middle grey material, fired in a reduced manner. A rib runs around the middle of the short, cylindrical stem socket. The ring is not sharply divided from the stem socket. It flattens together with it in a mace-like manner. Its surface was originally decorated with twenty-five horizontal ribs, but some of them are broken-off. The end of the stem is broadening, but also slightly globular. The meeting line of the mould is clearly visible, mainly on the bottom of the pipe. The flat, hemispherical bowl leans forward. The elongation of the heavily arched stem socket reaches this part in a gradually narrowing manner. A rib runs around the broadest part of the bowl; above it there are twenty-eight vertical ribs. On the bottom of the bowl fragment there is another circular rib.

L: 5.6cm, H: 2.1cm; Inv. No.: P. 92.170.1.

Locality: Jeni Palánk, excavation of *palanka*, ditch No. XIX/D (well).

76. Fragment of unglazed stem socket and bowl made of grey material, fired in a reduced manner. At the bottom of the fragmented bowl a circular deepening is notable that is 0.5cm in diameter. There are gadroons setting off from this point towards the upper part of the bowl. Their direction is radius-like. They are not relief, but are segmented by deep lines. There is a ring in relief on the cylindrical stem socket followed by the remarkably big, but flat socket ring. Two rouletted patterns run around its two sides. The end of the stem is short and simple. At the bottom of the stem socket, there is a circular stamp 0.6cm in diameter, decorated with Turkish punctuation marks on its surface.

L: 4.9cm, H: 2,3cm; Inv. No.: 63.313.1. Locality: Jeni Palánk, site survey, surface find.

77. Fragment of unglazed stem socket made of light grey material, fired in a reduced manner. There is a ring in relief on the cylindrical stem socket followed by a broadening, but flat socket ring. The end of the stem is short and simple. At the bottom of the cylindrical stem socket there is a 0.8cm long, 0.5cm wide rhombus-shaped, impressed stamp with four half-moon shaped marks and dots that are blurred in the middle.

L: 2.9cm; Inv. No.: P.92.171.1.

Locality: Jeni Palánk, excavation of *palanka*, surface find from the territory of the *palanka*.

78. Tiny, unglazed bowl with fragment of stem socket made of yellowish white material. At the bottom of the globular bowl there is a stamped rosette, with eight dots on its petals. Near this rosette, fourteen gadroons set off separated with deep scoring. These are terminated by semi-circles, incised with a tube. There are two circular, rouletted lines, decorating the intact upper part of the bowl that is heavily sooted. These are divided by a deep groove.

The rim is broadened; it is straight-cut on its upper part. An impressed, rouletted line was on the thin, cylindrical stem socket. Since the stem socket broke off here, the cracked surface is regular.

L: 3.9cm, H: 2.8cm; Inv. No.: P.92.164.1. Locality: Jeni Palánk, excavation of *palanka*.

79. Unglazed clay pipe made of light coloured material. The stem socket is thin, eight-sided. At the end of the stem socket near the mortis, a circular rib is notable. The end of the stem socket is broken off. The right side of the bowl is chipped. The lower elongation of the heavily arched stem socket runs in a slowly narrowing manner to the first part of the nearly globular bowl. There is a rouletted decoration on both sides that is connected to another, also incised, decoration that circles on the widest point of the bowl. Above this, strongly indented decorations run around the narrowing part of the bowl. These were made with tubes and a lance-shaped stamp. The broadening, heavily sooted rim is straight-cut. There is a ring-shaped rib below.

L: 5.2cm, H: 3.6cm; Inv. No.: 80.623.34. Locality: Jeni Palánk, excavation of *palanka*.

80. Fragment of a stem socket and bowl split lengthwise, made of grey material, fired in a reduced manner. The stem socket is stamped with longish, lance-shaped leaves. The twisted, deepening decorations notable on the bulging socket ring are similar to them in style. A rouletted decoration runs around both sides of the socket ring and on the upper part of the fragmented bowl.

L: 4.4cm, H: 2.3cm; Inv. No.: 63.152.1.

Locality: Jeni Palánk, site survey, surface find.

Figure 6, numbers 81 to 104

81. Yellowish, almost intact clay pipe, reminiscent of meerschaum. Only a part of the ring from the end of the stem is broken off. There are soot-marks on the opening of the bowl that was polished with smoothing. In the middle of the cylindrical stem socket a circular rib can be noted. The lower part of the arched, sharply narrowing stem socket reaches the first part of the rim of the bowl, having a flat bottom. There is an impressed, rouletted decoration on both of its sides and at its central line. The same kind of decoration runs around the widest part of the bowl. Above this, eight, strongly stamped, lance-shaped decorations can be noted on the narrowing surface of the bowl. The diagonally cut rim is leaning out.

L: 5.7cm, H: 3.7cm; Inv. No.: 63.201.1. Locality: Vörösmarty street, Szekszárd.

82. Unglazed clay pipe, polished with smoothing, made of light grey material, fired in a reduced manner. The bowl is fragmented and chipped on the left side. There are twisted, impressed lines and bulging 'running dog'-shaped decoration on the socket-ring. On both sides of the socket ring and between the upper and lower part of the bowl a rouletted decoration runs around in one line. The same kind of decoration borders the narrowing bottom of the stem socket running along until the front of the bowl. There is an Arabic text, repeated four times above and

below the widest part of the bowl. In the middle of the text and at its ends, on the two sides of the stem socket, there are three impressed, lance-shaped stamps. The upper part of the bowl is arched and straight-cut. The transliteration of the title in Roman script is: LIQA> AL MAHBÚ(B) that means: encounter with the love(d one). An alternative transliteration: LIQA AL-MAJBUR carries the figurative reading: The encounter of the one who is forced (almajbur) to God (with God?).

L: 5.4cm, H: 3.5cm; Inv. No.: -Locality: Szekszárd, Kisbödő.

83. Fragment of an unusually long stem socket, made of gently mudded, grey material, fired in a reduced manner. The piece has broken off the bowl at the cross-section of the stem socket. There are two impressed points on the flat ending of the stem. At the centre line of the bulging socket-ring and between the end of the stem and the socket ring, a double-lined, dotted decoration runs around. In addition, both sides of the socket-ring are decorated by circular stamped rows of tiny, mihrab-shaped marks. Near the bowl half of the stem socket is eight-sided, half is cylindrical. The eight-sided part is decorated with lanceshaped stamps at the edges of the facets; the cylindrical part has a 1.1cm sized Arabic text between dotted rows. The text consists of one more word than was noted in the case of pipe No. 82. : AL QLÚB LIQA> AL MAHBÚ(B) (encounter of the braves with the love(d one).

L: 5.2cm, Diameter of the stem socket at the title: 1.6cm; Inv. No.: P.92.169.1.

Locality: Jeni Palánk, excavation of palanka.

84. Fragment of an unglazed stem socket made of white material. There is a *mihrab*-shaped stamp on each facet of the eight-sided stem socket. Above their peak there are impressed circles decorated with rays (*cf.* Fig. 6, No. 84). Between the rectangular stem and the bulging socket-ring there is a ring of arched deepening. The decoration of the socket-ring is twisted, consisting of tiny impressions arranged like wooden shingles. The end of the stem is broken off.

L: 3.3cm, Diameter of the socket ring: 2.2cm; Inv. No.: 66.153.4.

Locality: Jeni Palánk, site survey, surface find.

85. Fragment of an unglazed stem socket and bowl, made of greyish white material, with the truncated fragment of the six-sided upper part of the bowl. A rouletted decoration is notable at the middle of the cylindrical stem socket, on the bulging socket-ring, and another towards the stem. The same kind of decoration runs around at the edge of the flat bowl's bottom and on the angular, upper part of the bowl. The full circle of this decoration is three quarter complete. The bottom of the rounded bowl is decorated by five rosettes forming a circle, and one more in the middle. L: 5.8cm, H: 2.5cm; Inv. No.: P.92.166.1.

Locality: Jeni Palánk, excavation of palanka.

86. Fragment of a stem socket, made of grey material, fired in a reduced manner. At the lower part of the stem socket the start of two rouletted lines of dots can be noted. Two similar lines of decoration run around both sides of the bulging socket-ring, only these are rouletted lines, instead of dots. The surface of the socket-ring is decorated with serially stamped (rouletted?), lance-shaped leaves. In this way the surface has become knobbed (*cf.* Fig. 6, No. 86). L: 2.6cm, Diameter of the stem socket: 1.5cm; Inv. No.: 67.28.9.

Locality: Jeni Palánk, site survey, surface find.

87. Fragment of a greyish-white, unglazed, cylindrical stem socket. Some parts of the cracked surface are brick red. Next to the socket-ring on the bowl's side a 0.5cm, rouletted cross-pattern runs around the stem socket. The bulging socket-ring that forms a turban shape is decorated with strong ribs running around it diagonally.

L: 3.6cm, Diameter of the socket-ring: 2.1cm; Inv. No.: 67.28.3.

Locality: Jeni Palánk, site survey, surface find.

88. Fragment of a stem socket, with glittering dark brown surface. The cracked surface is grey. Since the stem socket is broken off at the cross section, it is probable that the pipe was very short and small-sized. The cylindrical stem socket is separated from the bulging socket-ring by an arched deepening. Around the ring there was a decoration of diagonal rows, alternating either with lines, or *mihrab*-shaped patterns (see picture below). The cylindrical and straight-cut end of the stem is leaning out.

L: 2,7cm, diameter of the socket-ring: 2cm; Inv. No.: P.92.181.1.

Locality: Jeni Palánk, excavation of palanka.

89. Fragment of an unglazed socket-ring with the end of the stem made of white material, fired until the end of the stem became meerschaum-colour. In the deepened area that divides the socket-ring from the end of the stem there is a decoration of rouletted dots. The same rouletting can be noted on the widest part of the broadening socket-ring. The end of the stem is cut straight.

Diameter of the socket-ring: 2.2cm; Inv. No.: 66.93.10. Locality: Jeni Palánk, site survey, surface find.

90. Yellowish-red, unglazed fragment of a stem socket. On the lower part of it a fraction of a rouletted line can be seen, running in the bowl's direction. The same pattern can be found on the two sides of the socket ring, and repeatedly on its surface, in a diagonally twisted direction. The end of the stem is short and simple. A rib runs around the central line of the stem socket.

L: 3.8cm, diameter of the socket ring: 2.4cm; Inv. No.: 66.93.12.

Locality: Jeni Palánk, site survey, surface find.

91. Grey fragment of stem socket with light sandy, porous surface. The unusually long and slim, cylindrical stem socket is widest at its end near the mortise. The stem socket narrows towards the bowl. On the lower part of the bowl impressed plant ornament can be noted. At about one third of the stem socket measured from its end near the mortise, a rouletted circle can be noted around it. Following this, a circular decoration of rouletted and once more crossed 'x'



Figure 6: Catalogue numbers 81 to 104.

pattern runs around the stem socket. After this, towards the mortise, the end of the stem socket suddenly broadens to a sharp and narrow socket ring, which is separated by a rouletted line from the short, straight-cut end of the stem socket

L: 5.1cm, diameter of the socket ring: 2cm; Inv. No.: 63.154.1.

Locality: Jeni Palánk, site survey, surface find.

92. Greyish-brown, polished, unglazed fragment of a stem socket, with bowl fired in a reduced manner. The richly decorated, cylindrical stem socket is thickest at its end near the mortise. Starting from this end it gradually narrows towards the bowl, and reaches it without a lower limb. The lower part of the bowl sinks below the line of the stem socket. On the bottom of the bowl a deep line runs towards the front, bordered by two lines, starting from a small circle, stamped in with a tube. The end of this line cannot be seen because of the crack. A flute was running around between the upper and the lower parts of the bowl, which is where the pipe was later broken. The two sides of the bowl are decorated by two thirteen-petalled, stamped rosettes. Each rosette is 1cm in diameter, and has a larger dot in the middle and small dots between the outer ends of the petals. The stem socket is decorated with a line of circles, stamped in with a quite narrow tube, which is bordered by a deep line towards the bowl and two others towards the end of the stem socket. After this a 0.7cm, undecorated part follows. The next decoration running around the stem socket is two more deep lines, followed by a rouletted decoration of blurred patterns. The biconical socket ring, with sharp fault line is decorated by lines, carved with a tube, segmenting the ring on both sides, in a circular manner. The rhythm of the alternating carvings turns the edge of the ring to a wave-like form. The end of the stem is short and cut straight. As a type it is similar to Détshy-Kozák1967, Fig. 27/1.

L: 5.8cm, diameter of the socket ring: 2cm; Inv. No.: P.92.168.1.

Locality: Jeni Palánk, excavation of *palanka* ditch No. 19/E.

93. Brick-red fragment of a bowl with dark brown colouring on the outside. It is swollen at the lower part and narrowing upwards. On the bottom of the bowl there is a nicely shaped rosette. This decoration - according to the traces on the fragment - was repeated on the other side of the bowl. The upper part of the bowl has a rouletted decoration in relief, formed by circular lines bordering a cross pattern. Below - and presumably also on the missing upper side - there is another ring of small, *mihrab*-like, rouletted impressions.

H: 4cm; W: 2.4cm; Inv. No.: P.92.182.1.

Locality: Jeni Palánk, excavation of *palanka* ditch No. 26/F

94. Light brown fragment of an unglazed stem socket. The inner part of the cracked surface is grey. The width of the cylindrical fragment gradually decreases towards the bowl. The small and sharp socket ring arches out from the stem socket. The end of the stem has broken off. The stem

socket is decorated by one horizontal tulip - unfortunately in a very fragmented state. Near the socket ring on the bowl's side there is circular row of ♠ patterns, bordered by two rouletted lines of dots.

L: 4.1cm; W: 2.1cm; Inv. No.: 63.200.1.

Locality: Jeni Palánk, site survey, surface find.

95. Light-coloured, deteriorated fragment of a bowl, covered with orange glaze. Based on the shape of the truncated remains, the stem socket was cylindrical, and the base of the bowl was round, lightly bulging. On the edge of the bowl, above its broadest part there is a deep line, repeating twice at the first two-thirds of the bowl. Between these two deep lines, around the lower part of the bowl there are five, 1.1cm, eight-petalled rosettes. There are three more of these in line at the centre of the bottom of the bowl. On both the left and the right side of this line there are two twelve-petalled rosettes, 0.9cm in diameter. L: 3.8cm, H: 2.8cm; Inv. No.: 63.150.1.

Locality: Jeni Palánk, site survey, surface find.

96. Unglazed clay pipe, polished with smoothing, made of yellowish-red material. The upper part of the bowl is heavily covered with soot on the inside and the surface. The cross-section of the stem socket and the sides of the hemispherical bowl are decorated with deep scoring. On its cylindrical upper part dense fluting can be noted. The opening of the bowl is diagonally cut. Between two incised lines, an arched impression is running around the last third of the cylindrical stem socket that broadens towards the end of the stem. The bulging end of the stem is stamped with eleven, heart-shaped designs, each three-petalled (see pictures below).

L: 4.7cm, H: 3.7cm; Inv. No.: 63.402.1.

Locality: Jeni Palánk, site survey, surface find.

97. Fragment of stem socket and bowl, made of gently-mudded, grey material, fired in a reduced manner. There is a wide, not too articulated socket-ring on the end of the cylindrical stem socket. A double-row decoration, consisting of parallel lines sets off from the lower side of the bowl in the middle of the stem socket.

L: 4.6cm, diameter of the stem socket: 2cm; Inv. No.: 63.349.1.

Locality: Jeni Palánk, site survey, surface find.

98. Fragment of green stem socket and bowl, made of light material, partly glazed with bluish-green colour. The globular bowl is covered with many tiny impressions. This makes up the body of a dragon, or crocodile-like animal figure, the two eyes of which are notable on the bowl, near the stem, while its beak-like, opening mouth, made with teeth, runs in circles around the end of the stem.

L: 4.5cm, H: 1.9cm; Inv. No.: 67.27.21

Locality: Jeni Palánk, site survey, surface find.

99. Fragment of green-glazed stem socket and bowl, made of light material. The globular bowl is covered with numerous tiny knobs. The lines, where the two halves of the mould meet, are clearly distinguishable at the bottom and upper part of the stem socket. The pipe was

not smoothed before glazing. The end of the stem is cut straight.

L: 4.5cm, H: 2.1cm; Inv. No.: P.92.167.1. Locality: Jeni Palánk, excavation of *palanka*

100. Fragment of a large bowl, made of red material. It is coloured brown and polished with smoothing. There is a quilted row of dots between two parallel, decorating lines, running around the stem socket under the straight-cut rim. Because of its extreme size, at first it was doubtfully assorted to the category of pipes, but the analysis of the pipe No. 99 of Simontornya supported this classification (see also next entry).

H: 4.5cm, W: 3.1cm; Inv. No.: P.92.183.1. Locality: Jeni Palánk, excavation of *palanka*

101. Large, red-coloured clay pipe, made of red material, polished with smoothing. The upper part of the bowl is restored on the right side. The stem socket is cylindrical and has a narrowing at the middle. The end of the stem is bulging. There is a sharp broadening in place of the socket ring. A row of small circles, stamped with a slim tube, sets off from the bottom of the stem socket. The line diverges into three branches, and ends in a nine-petalled, dot-centred rosette at the two sides and at the front of the upper part of the bowl. There is a circular decoration, consisting of quilted lines in three rows at the end of the stem. There are two rows under the upper part of the bowl, covered with soot.

L: 6.8cm, H: 4.4cm; Inv. No.: 51.2805.

Locality: Simontornya Castle (pencil handwriting on the surface of the pipe: 'stray find').

102. Red and yellow, unglazed clay pipe, lightly polished with smoothing. The right side of its bowl is restored. A rouletted ring of lines runs around the short, cylindrical stem socket at its centre line. The short, straight-cut end of the stem is also decorated with a ring of lines. Around the narrow, cylindrical socket ring there is a circular runningdog decoration. The lower, forward-leaning part of the stem socket divides the bowl in two gadroons. The centre line of the stem socket and the borders of the gadroons are decorated by rows of half circles and dots. At the broadest part of the bowl there are two deep lines, above them a 1.2cm high fluting. The rim is segmented by two deep lines and decorated by a ring of lines, similar to the decoration of the stem socket. On the left side of the bowl there is a 1.1cm long stamp with Arabic letters, the trademark of the pipe-maker workshop, made in 'personal style'. The title Ibrahim bande connects bande (slave, dependant) to the pipe-maker's name, which is a characteristic expression of humbleness. The expression became popular later, on stamps of the nineteenth century. On the right side of the name there is another small title: Rukn al-Salheyya, referring to the location of the workshop.

L:6cm. H: 4.1cm; Inv. No.: 1951/1556.

Locality: Simontornya Castle, castle exhibition.

103. Red and yellow, unglazed clay pipe, lightly polished with smoothing. The rim is restored in the front and on the right side. Short, arched stem socket, with wide,

cylindrical socket ring in relief, decorated with a circular, rouletted pattern of diagonal lines. Next to the socket ring a rouletted ring of lines runs around the stem socket. The end of the stem is short and cut straight. The swollen, globular lower part of the bowl is decorated with vertical ribbing, setting off from the bottom, and finishing at the centre line of the bowl, marked with a circular rib. The shape of the upper part of the bowl is narrowing then broadening upwards.

L:5.9cm. H: 4.1cm; Inv. No.: 1951/682.

Locality: Simontornya Castle, castle exhibition.

104. Large fragment of a yellowish-white bowl and stem socket, with dark green glaze. On the end of the octagonal stem socket near the stem there is a large socket ring in relief, decorated with thirteen stamped, lance-shaped leaves (see Fig. 6 No. 104). The end of the stem is simple, cut straight. The angled stem socket, narrowing on the lower side reaches as far as the front of the bowl. The narrowing part of the flattened, globular bowl is decorated with ten leaves, identical to those on the stem socket.

L:7.2cm. H: 3cm; Inv. No.: 51.451.

Locality: Simontornya Castle, castle exhibition.

Handwriting on the stem socket: *K-i oldal É és D-i kapu közötti út felett. Szórvány* - 'Above the road between the East side - North and the Southern gate. Surface find'.

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Deception: clay-pipe-faking workshops in Körmend in the first half of the nineteenth century

by Zoltán Nagy

Introduction

At the end of June 1984 a clay-pipe site was stumbled upon in the course of trench digging in the courtyard of the house at 55, Rákóczi Street in the western-Hungarian town of Körmend in the county of Vas. The finds unearthed in the trenches made their way to the local Dr.László Batthyány-Strattmann Museum where, using a special archaeological method of his own, the writer of these lines researched an area of some 18 sq. m. in 1988, 1998 and 2000 (Fig. 1). With the aid of a 200cm. wide measurement frame attached to excavation sections and a measuring stick divided into centimetres the spatial coordinates x = width, y = lengthand z = depth, were attached to the finds for the purpose of identification, making possible later analysis of their relationship with one another. After the excavation of the first two square metres this method was applied only from the appearance of the 'pipe layer', that is between a depth of 95 and 100cm, and 140 and 145cm. With the passing of time (1988, 1998, 2000) altogether 2296 evaluable finds were unearthed, among them 817 (35.6%) pipe fragments, 105 (4.6%) factory tile fragments, 95 (4.1%)

pieces of metal, 105 (4.6%) glass fragments, 106 (4.6%) bones,186 (8.2%) 'old plates' – bowls with ribbed edges and fragments of plates – 7 (3.8%) ceramic stove tiles, 202 (8.8%) grey, unglazed and 259 (11.3%) red unglazed, that is altogether 757 (32.8%) earthenware fragments and 38 (1.6%) other finds: mud-flake pieces, pieces of charred wood, eroded pebbles, a piece of basalt, a piece of whetstone, three eighteenth century musket flints, a 'fisheye pattern' pipe stamp (R55.III/C 150-63-145) and two copper coins (*krajcár*), one minted in 1801 (R55. III/G-H 40-70) and one in 1816 (R55. I/A115-25-135).

Clay-pipe fragments disposed of in the first half of the nineteenth century as industrial waste can be found in two provenances (Körmend town centre, 55, Rákóczi St., Körmend), upon nearly half of which personal stamps can be studied. In the course of filling in the town-centre ditch at the time of making the foundations for the Monaco coffee-house in 1990, stock was taken of another 798 scrapped pipe fragments of similar age.

Quite apart from the clay pipes of these two provenances, a number of shorter articles, studies (Nagy 1990, 1992, 1998, 2000, 2001a, Nagy 2002), exhibitions and a book (Nagy 2001b) summarising the arising questions and results of research into similar unearthed finds in Transdanubia arriving in museums have been born complete with analyses of the related literature, but at that time the earlier fact of pipe faking that had emerged during examination of the unearthed finds was not given step-by-step consideration.



Figure 1: Pipe excavation in 55, Rákóczi St., Körmend in 1998; exposed Section III/A-D 120-140cm.

Master pipe-makers in Körmend

Out of the more than 800 pipe fragments unearthed at the 55, Rákóczi Street site, out of which nearly a half had a maker's stamp, not one bore the name of a known Körmend pipe-maker. It is true that in 1988 and in 1998 (Fig. 2, Nos. 14-15) the stamp of SALOMON FÜRST was discovered, but at the time no particular importance was attached to it. The name stamps of noted Körmend pipe-makers registered in 1828 - Moyzer Pinter, János Svarcz, János Szicsek - were sought in vain.

However, two years later there was an unexpected turn of events. At the time when the foundations of the Monaco coffee-house were being laid among the rubble used to fill in the old town ditch, a number of pipe fragments appeared, among which two flaunted the stamp FÜRST in Körmend (Fig. 2, Nos. 10-11). The stamp HIRSCH In Körmend appeared on one single piece (Fig. 2, No. 16). A new problem arose in solving these names, for neither appears among the 1828 register of Körmend artisans. Upon re-examination of the entire list it was surprising to discover the name Fürst Salomon alongside No. 391, who was registered as a self-employed merchant. As only one of the Jewish families of Körmend went by the name of Fürst at this time, it seems reasonable to presume that it was his name that was stamped upon the pipe fragments that were discovered at both of the Körmend sites. The precise nature of Salomon Fürst, trader, is however shaken by data of three years later, according to which, obliged in 1831 to pay two forints tax, he lived by handicraft as the head of a household of nine which included, in addition to his wife and three children, two servants and two servingmaids (VaML Conscriptiones Judeorum Ö 285/5/62 1-5. 1831). The register of Jews only reports the name of the head of the household, and that he was an opifex, that is, an artisan, which is an occupation liable to taxation. However, there is no way of knowing what trade he pursued but, on the basis of the maker's stamp on the pipe fragments, it can be presumed that it was pipe-making. From this comes a local trading pipe-maker, whose name however could be recognised on just four out of 1,593 pipe fragments painstakingly excavated and collected over a period of ten years.

A manufacturer or trader by the name of *Hirsch* has been sought in vain in the registers of Jews for the years 1809-1831 and the incomplete, surviving registers of births, deaths and marriages. However, at the time of laying the foundations of the Monaco coffee-house a great many fragments bearing the maker's stamp SCHWARTZ in Körmend turned up from the trenches of the town-centre drains. It seems probable that the workshop of Johannes Schwartz 'pipe-maker', who was taxed two forints for his skill, and who is known of from the Jewish register of 1831, must have been situated nearby. In 2001 new trenches were dug behind the cinema car park in the vicinity of the Monaco and between the earlier sites, from which nearly 150 new finds appeared which, aside from numerous Kis-Azar, Podrecsány, M. Hönig, Anton Parsch, Partsch, Bodnár, Schwartz, Cörmend and Körmend

stamps, two pipe fragments were unearthed bearing the long-sought-for *Pintér Moyzer* in the lingual form *MOS BINDER* (Fig. 2, Nos. 17-18). The mirror German translation of the name Pintér in contemporary Latin and Hungarian inventories may point to the language of the area of export or to the mother tongue of the maker. All that is known of a pipe-maker called Moyses Pinter who worked with an apprentice is that in 1828 in Körmend the carpenter József Nixy leased him half of his home, which comprised two rooms, a kitchen and a cellar, for an annual ten forints. Maybe he too was a trader, for on January 2, 1858 in the register of marriages he appears as a *Klein Gründler*, father of the bride.

It is difficult to draw conclusions from incomplete information. To this day how many pipes as finished products the Körmend pipe-makers manufactured over an estimated generation cannot be known with certainty. At the two relatively large sites only the decorative style and chosen form of *Johann Schwartz* could be recognised with any certainty. So far nobody has been able to explain how the pipes of further-off regions made by well-known pipe-makers and pipe-making centres (e.g. Anton Partsch, in Theresienfeld, Mihael Hönig, Ignatus Bognar Schemnitz, K.Azar (now Malé Ozorovce, Slovakia), Podrecsány (Podrečany, Slovakia) came to be found under the ground in Körmend as waste of industrial proportions.

However, the large number of clay pipes stamped SWARTZ in Körmend and CÖRMEND, KÖRMEND did make it possible through a verification examination of each stamp to complete a comparative micro-examination. It was a great surprise to find, unambiguously, that the Körmend workshops, without exception, faked in thousands the products of their contemporaries living outside Körmend by using the personal and brand marks made specifically for this purpose and forms in their own possession.

This study will prove this assertion with illustrated examples, demonstrating each and every stage in this process.

Under two masters' names - one Napoleon

Now we concern ourselves with the conclusions that can be drawn through study of the pipe finds, desiring to prove that in Körmend, in the first half of the nineteenth century, a workshop operated that consciously faked every piece that was manufactured here.

Useful experience was gained in mapping out the finds under 55, Rákóczi Street, Körmend on squared paper. Upon evaluating one by one the finds of the sections we drew up the long- and cross-sections of the excavations on the basis of which we came to the conclusion that as far as the 'pipe layer' was concerned a single filling had taken place on the site of the building in Rákóczi Street (Nagy 2001b, Table XVII).

From these sections the unevenness of the original ground, over which the household waste and assorted pipe

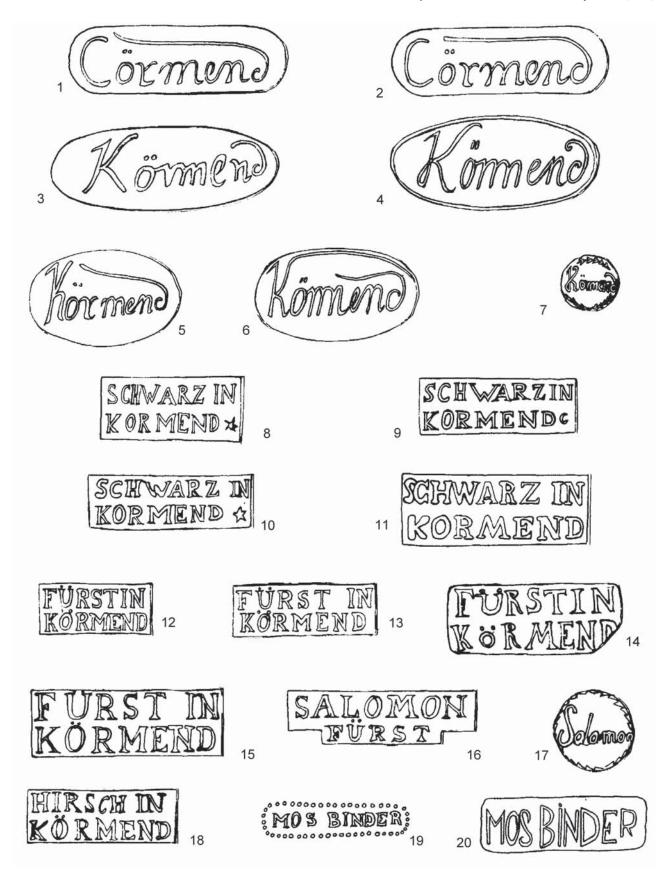


Figure 2: The stamps of local clay pipes made in Körmend and turning up in the course of the excavations.

1-2 Cursive Cörmend stamps [1: KB 84.26.45; 2: KM 88]; 3-7 Cursive Körmend stamps [3: KB 84.26.125; 4: KB 84.26.32; 5: KB 84.26.63; 6: KB 66.436.1; 7: V 258]; 8-11 SCHWARZ IN KORMEND stamps [8: KM 170; 9: KB 84.26.63; 10: KM 208; 11: KB 84.26.32]; 12-15 FÜRST IN KÖRMEND stamps [12: KM 48; 13: KM 50; 14: B.SM 83; 15: KM 49]; 16 SALOMON FÜRST [R 55 III/A 85-72-121]; 17 Cursive Salomon stamp [KM 56]; 18 HIRSCH IN KÖRMEND stamp [KM47]; 19-20 MOS BINDER stamp[19: KB 2001.1.1; 20: KB 2001.1.2].

rubble was spread, appears clearly (Fig. 1). The sudden change in relief can be studied well on the long-section of Section III, which resulted in the 'pipe layer' increasing from the general thickness of twenty centimetres to forty centimetres (RHM Ht.1785-2000).

The answer to the most difficult question was whether the pipes had been spread all at once or over a longer period, or whether the presumed evening out of the site had taken place all at once, at a time deliberated upon, or in stages.

In the course of studying the various sections it transpired that at around 80-100 centimetres below the surface a layer of rubble began which contained clay-pipe fragments. From the microanalyses it also became clear that the infill comprised more or less evenly distributed alternating layers of domestic waste interspersed with brick rubble and clay pipes (Nagy 2001b, Tables XVI, XVII, XIX - XXIII).

It was conspicuous that of the several hundreds of pieces found over an excavated area of nearly twenty square metres, hardly more than a handful could be fitted together. After the long process of projecting them on squared paper the fragments that could be glued together group by group were compared. As the excavation method also made possible a spatial demonstration, it was possible to define the distances apart from each other of the connecting pieces both horizontally and vertically.

At 55, Rákóczi St., Körmend the excavation sections were evaluated by groups of objects: 1. pipes, 2. old bowls, 3. removable stove tiles for cleaning, 4. unglazed grey tile fragments, 5. unglazed grey tile fragments, 6. glazed tile fragments, 7. factory hard tile fragments, 8. glass fragments, 9. metal, 10. bones, 11. glued finds (RHM Ht. 1771-2000).

In the case of the clay pipes it was possible to mark out 325 items with a maker's mark and 442 without any stamp on a bird's eye view section drawing (RHM Ht.1771-2000). It became visible on the 'section map' that the clay pipes bearing the stamps of ANTON PARTCH, M. HÖNIG, AMSTATTER JOSEPH BARTSZ, BODNAR SCHEMNITZ, S. STEINER and SALOMON FÜRST were spread about everywhere; that is, they did not form an independent group, or put another way it appears that at the time they were buried a number of pipes bearing various makers' marks were destined to be thrown out at the same time.

The positions of the figural pipes showed the same picture. The pipes depicting Napoleon were found to be the most suitable for examining connections within the same group. It was observed that the 12 Napoleon figures, out of 600 objects in Section III, evenly filled the space at a depth between 115 and 140cm; that is, the time of production agreed with the time of the infilling (RHM Ht, 1785-2000).

Even more interesting was the observation characterizing

the group of pipes of an unusual colour. Upon examining the 'flesh-coloured' clay pipes - the pink ones in strong contrast with terra-cotta colour - it transpired, based on the experimentation by the Vas County potters András Zsilinszky and Adrianna Farsang whereby the clay was re-fired at 1100°C, that the clay pipes spread around the twenty square metres originated from one, or at most two clays of identical composition, making it easily possible for them to have been made at one time, and maybe even in the same kiln.

In the case of the unusual terra-cotta and 'flesh-coloured' pieces with different makers' marks depicting Napoleon, the fact of local faking can be taken as indisputable not only because the form and figural motifs are identical, but because despite the clay being mixed with different colouring agents all three pipes have identical, elegant rhombus-patterned brim ornamentation. It would be very difficult to decide who really had made which of the strikingly identical pipes discovered at the same provenance and bearing the makers' marks S. STEINER, (Fig. 3, Nos. 1-2) and JOSEPH BARTSZ (Fig. 3, Nos. 3-4).

However, a number of pieces turned up bearing the Napoleon motif popular at the beginning of the nineteenth century. In the excavation section marked III/C, in the layer between 114-141cm, nine terra-cotta pipes were unearthed stamped S. STEINER (Fig. 3, No. 2); nearby in Section III/A, four stamped JOSEPH BARTSZ, and in Section III/E at a depth of 110cm and a little farther off more pipes without the Napoleon figure but stamped JOSEPH BARTSZ (Fig. 3, Nos. 5-6). This last is of interest because it can be taken as certain that there was an inlay depicting Napoleon inserted into the bi-partitioned form as can be seen in the display cabinets of the pipe exhibition at Banská Štiavnica in Slovakia (earlier Selmec, Selmecbánya in Hungary) Municipal Museum (Nagy 2001b, XXXXII. t. 1).

However, there is evidence regarding the concurrence of the infill layer that is more conclusive than the examination of colour, once the spatial positioning of the pipe fragments is investigated. Using data from the excavation notebook for the 'History of the Hungarian Pipe' exhibition, organised by the National Museum between February-April, 2001 with a Hungarian and English catalogue which attracted much interest, it proved possible to prepare an exhibition reconstruction depicting a detail from R55. Section III/C with finds - among them clay pipes - placed on a 5cm glass plate. In the centre, in the deepest, 140-centimetre layer, lay the clay pipe depicting Napoleon (Fig. 3, No. 1), the lower part of which, had been discovered in the highest, 120-centimetre pipe layer. Yet there is no doubt that the pieces once belonging together were fired in the same kiln. The broken pieces were part of a single load destined at the same time for disposal, for the fitting pieces – separated by twenty centimetres of rubble – lay below the surface practically one below the other (RHM Ht.1825-2001 – excavation reconstruction).

When did the clay pipes get below the surface?

A statistical publication prepared in 1823 reads that:

... there are greasy, true Podrecsány pipes made of heavy clay and faience and fired black, and there are imitations which have been blackened with smoke. The pipes of Selmecbánya are partly gilded, those of Debrecen are of red clay, partly Turkish in form, with a low, wide head, the Kis-Azar pipes have a double base and Saxon, or Meisen form (...). The splendid pipes of Podrecsány, Selmec and Kis-azar have been known for a long time. Körmend, Sopron and Pest also manufacture clay pipes (Prikler 2000, citing Note No. 123 of Keeß's 1823 imperial statistics).

This is the starting point, or rather, since the phrase 'known for a long time' is used by the author, it can be said that people knew of pipe-making in Körmend prior to 1823.

One thing is certain: that the edict of tolerance issued in 1781 by Joseph II made it possible for Jews to pursue crafts and to open factories. In Körmend the 1817 Jewish census eliminates the possibility that this craft was pursued at that time, and so the establishment of the workshop must remain as being the early 1820s.

This supposition is largely borne out by studying the drawings of the pipes found under the ground, for the date 1825 can be found below three identically depicted imperial heads on a black and a terra-cotta pipe respectively stamped Cörmend (Fig. 4, Nos. 1-2) and SCHWARTZ IN KÖRMEND (Fig. 4, Nos. 3-4); in other words, these pieces of industrial waste could not have reached the town's dump earlier than the dates appearing on the pipe fragments.

Two other items of interest have turned up away from the town centre, from below 55, Rákóczi Road (Fig. 4, Nos.



Figure 3: Lessons to be learnt from the Körmend pipe excavations: identical Napoleon pipes bearing different name stamps.

1 Two joining fragments of a Napoleon pipe [R55.III/C 133-72-140 and R55 III/A96-68-140]; 2 S. STEINER stamp on Napoleon pipe R55 III/C133-72-140; 3 Two joining fragments of a Napoleon pipe [R55 I/27-72-135 and R55 III/A96-68-140]; 4 JOSEPH BARTSZ stamp on Napoleon pipe R55 III/A96-68-140; 5 Pipe with fluted bowl with a Joseph Bartsz stamp on the [R55 III/A62-87-135]; 6 JOSEPH BARTSZ stamp on R55 II/A 62-87-135.



5-6). The black pipe fragments show a steamer with sails in the shape of a galleon, in the carved prow of which, according to witness borne out by the originals, is depicted the Emperor Francis I, King of Hungary. This ship was built by Venetian shipbuilders in Florisdorf, near Vienna. It was christened the Franz I, and made its maiden voyage amid great celebration between Vienna and Pest on 4 September, 1830 (Fig. 4, No. 7). This pipe is proof that the filling in of the site of the house at 55, Rákóczi Street can in no way have begun prior to that date.

In 1990 a black pipe bearing the inscription *König von Ungarn Krönung Spende* (King of Hungary/Coronation gift) and the Podrecs stamp entered the museum collection. A mounted, crowned king on the coronation hill, sword swishing toward the heavens, is depicted on the pipe's bowl. It seems to have been made on the occasion of the coronation in Pozsony (now Bratislava, Slovakia) of Ferdinand V in 1832 (Fig. 5, Nos. 1-4). The base of this pipe was also identified among the black fragments unearthed at the time of building the foundations for the Monaco coffee-house (KM 291), except that here the stamp read M. HÖNIG SCHEMNITZ, meaning a new piece of faking.

The third piece of evidence is constructed upon a distant analogy. An unusual depiction of an animal can be seen on black pipe fragments belonging to each other and stamped SCHWARZ IN KÖRMEND (Fig. 5, Nos. 5-7). A veiled figure leading a harnessed giraffe on a long rope is walking through a desert symbolised by a palm-tree. On another fragment in worse condition there is an indented baroque coat-of-arms monogrammed G.S. and Podrecs (Fig. 5, Nos. 8-9), further indication that in the early 1830s Johann Swartz was undoubtedly faking the famed black pipes of Podrecsány. The pictorial appearance may appear exotic, but as regards parallels Indians, hippopotami and elephants made their appearances in calendars and the popular gutter press. The giraffe on the clay pipe can also be studied as it appears on the face of the cooper's stave plane, made according to the date carved into it in 1832.

The above examples allow the conclusion that the pipe-making workshops were active in the 1820 to 1840s. While they were active they made not only 'ordinary' pieces, but finely-worked figurative items that nurtured

the Habsburgian Hungarian kings (Francis I, Ferdinand V) and Napoleon cults, but they also produced curiosities depicting, apart from pieces from Viennese classicism (imperial heads, mythological figures, gorgon heads), the first Danube galleon-shaped sail-and-steamship or the exotic giraffe. The makers (and retailers) of these listed pieces, according to the makers' marks, were Körmend masters who, in the 1820s to 1840s continuously faked the works of the best-known workshops and their masters, winners of prizes at industrial exhibitions, operating between 100 and 300 kilometres away at the centres of Selmec (now Banská Štiavnica, Slovakia), Theresienfeld, Kis-Azar and Podrecsány.

Lessons of microanalysis

In the course of the years spent at the Körmend pipe excavations one-and-a-half thousand pipe fragments were meticulously examined to the last detail. Meanwhile we slowly learnt not to believe what was obvious. If we had to establish the authenticity of a pipe-maker's name and sphere of operation through a clay pipe complete with stamp, we would still be in a difficult position if we were to lift it up from the ground beneath our feet, because one must not believe in mere writing.

The centuries-old *objet d'art* in the hand, even if is only a broken piece of pipe made out of clay, must be scrutinised most carefully for its own signs of identification: tiny differences in style and deficiencies resulting from human imperfection must be systematically treated, the everincreasing body of data being compared in order that exceptional phenomena come to light.

Techniques used in decorating the pipes reveal much about their makers. Before they were dried, the pipes, now removed from their moulds, were treated with various stamps, pricking wheels and embellishing tools. The pipe bodies were given small markings to give them the appearance of having been 'handmade'. Cogwheel patterns, hollow and full ribbon decorations, beading, semicircular arches, plaited braids, rope-laying, hollow and full rhombus chains, rosettes, stamped leaf decorations, delicate rhomboid ribbed latticework patterns, fish-eye pattern palmettes, acanthus leaves, hachured triangles, star decorations, fluted lines, a field of punched multiple waves - all of these created a particular local style.

Figure 4 (opposite): The dating of the deposition of the pipes.

1-2 A black earthenware pipe with the date 1825 set below three identically depicted imperial heads and stamped Cörmend (1: back view of the pipe with the date 1825 moulded on it; 2: cursive Cörmend stamp) [KB 84.26.1]. 3-4 A red earthenware pipe with the moulded date 1825 set below three identically depicted imperial heads and bearing the Schwartz in Körmend stamp (3: back view; 4: SCHWARTZ IN KÖRMEND stamp) [KM152]. 5-6 Black pipe fragments showing a steamer with sails in the shape of a galleon, in the carved prow of which is depicted the Emperor Francis I, King of Hungary [5: R55 84.25.24, 6: R55I/A140]. 7 Etching of the maiden voyage of the paddle steamer Franz 1 on the 4th of September 1830 (after Bíró 1985, 11).



Figure 5: Did the pipes depicting the Hungarian king and the exotic giraffe arrive at the dyke infill later than 1830?

1-4 Black earthenware pipe showing a crowned king on a coronation hill with swords reaching to heaven and bearing the inscription König von Ungarn - Krönung Spende, that is 'King of Hungary - Coronation gift'; also bearing the Podrecs stamp (1: right-hand side view; 2: back view, 3: left-hand side view, 4: PODRECS stamp) [KM345]. 5-7 Two joining fragments of a black earthenware pipe showing a veiled figure leading a giraffe through the desert. 5: socket end of pipe [KM97]; 6: broken bowl with decoration [KM 161]; 7: stamp on socket SCHWARZ IN KÖRMEND [KM97]. 8-9 Black earthenware pipe fragment with indented baroque coat of arms monogrammed GS and Podrecs (8: left-hand side view showing stamp; 9: Podrecs stamp) [KB 2001.2.5].

The traces of tiny tools used in the workshop have characteristics, and their use can only be observed in the products produced *in situ*. It would appear that these tools employed for a specific purpose were not used in the distant workshops, and that the imitators were unable to create perfect replicate patterns. The simple methods of embellishment in many cases betrayed origins in particular workshops, and so can be used effectively to map out fakes and analogies.

These minute observations are important for this research, and sometimes decisive. Again and again products made by human hand have to be scrutinised under the microscope in search of an original sign which the mass-produced pieces cannot hide from for long; after all, 'to err is human'. The occasional error and signs of intention, the indisputable marks of deception must be hunted out.

Five percent of the 105 drying trays studded with nails were from the start intended as waste, 'because properly 100 pieces were a quantity', and so only the pieces that were initially deformed, cracked and broken can be examined, which is why the exact reason why it was/might have been necessary to throw out the visibly damaged pipes for any other reason is not known.

Was it considered a fault if the lily-shaped maker's mark was stamped on either side of a Partsch stamp (Fig. 6, 1), or possibly one over the other, (Nagy 2001b, XXXVI.t 2; Figure 6, 2) or if the ZU THERESIENFELD trademark was stamped twice on the pipe's brim (Fig. 6, No. 3)? Did it count as an error if, as a black pipe fragment bears witness, the usual K.AZAR (Kis-Azar) crested master's mark was stamped on both sides without the name (Fig. 6, Nos. 4-5)? Or perhaps it is a chance mistake when the stamp ZU THERESIENFELD, is discovered on the stem of the marbled, insignificant fragment with the maker's name SVARTZ In Körmend which is incompatible with the sphere of operation of the workshop (Fig. 6, Nos. 6-8) or next to the same SCHWARTZ in Körmend stamp a lily in a small oval frame, (Fig. 6, Nos. 9-10) even if it is known that this symbol - at least among those unearthed in Körmend - is attached to the pipes of ANTON PARTSCH?

It is not clear why the maker's names K.AZAR and ANTON PARTSCH and lily hallmark and the ZU

THERESIENFELD stamp existed among the master craftsmen of Körmend, when these producing companies lie a significant distance away from the small one- or two-man workshops of Körmend's Jewish pipe-makers. The mere fact that the Körmend masters had five or six different sets of letters to create their own name stamps deserves contemplation (Fig. 2). Numerous variations of carved names can in any case be observed which do not tally with the letter forms and masters' marks on the pipe fragments preserved elsewhere. On the other hand, this difference can only be noticed if the stamps are examined one by one and drawn at identical size (M=4:1).

It also appears strange that while on the one side of a small black pipe fragment made following the Kis-Azar pattern the Baroque coat of arms - depicting a lion holding a drawn sword in its claw - with the monogram G.S. can be found, on the other the Latinised form of the settlement *Cörmend*, familiar from eighteenth-century documents, has been stamped (Fig. 6, Nos. 11-13). This 'chance error' is undoubtedly such a one that reveals the intention to fake.

This particular example is also proof that all of the black pipes found here with a similar crest and the K.AZAR stamp were not made in the Slovak-Hungarian village in Zemplén County (Schwartner 1798), but here in the Körmend pipe-making workshop together with the other, otherwise authentic-looking forty pieces. This can only have happened if at the time of enacting the master was holding a Cörmend stamp in one hand and a K. Azar stamp in the other...

The next 'slip' can also be found upon a black fragment, this time originating in a decorative motif. On the base of the pipe, in a medal-like frame with a beaded rim, can be seen the head of an aigretted warrior with an enormous moustache, wearing a turban-like fur cap. On the side of the pipe, in an oval frame, is the stamp BODNÁR SCHEMNITZ (Fig. 7, No. 1). Under Item 661 of the Selmecbánya datasheet for the 1828 census there appears the name of the pipe-maker *Ignatus Bodnár*, who works regularly and properly employs four boys - that is, he is a real person, even though no examples could be found of any examples of a mark attached to his name in the No. 3 display cabinet of the Selmecbánya town

Figure 6 (overleaf): Errors and false claims caught in flagrante on excavated Körmend pipes.

1 Lily stamp either side of a PARTSCH stamp [KM320]; 2 Lily mark stamped over that of JOSEPH BARTSZ [R55 III/E 257-80118]; 3 ZU THERESIENFELD stamped twice on socket rim [KM565]; 4-5 Black pipe fragment with the crested maker's mark of Kis-Azar on both sides [KB 2000.1.24]; 6-8 Marbled socket fragment with a SVARTZ IN KÖRMEND stamp on the side and ZU TERESIENFELD on the rim [KB 2001.2.1]; 9-10 Red earthenware pipe with both a Schwartz and a lily stamp (9: View of left side of the pipe showing the stamps in position; 10: Detail of SCHWARTZ IN KÖRMEND and lily stamps) [KM248]; 11-13 Black pipe fragments with a Kis-Azar type of crested mark on one side and a Cörmend stamp on the other side of the socket (11: Right side view of the socket and part of the base of a fluted bowl; 12: Kis-Azar type of stamp with a Baroque style coat of arms depicting a lion holding a drawn sword in its claw, with the monogram G.S. either side; 13: Cursive Cörmend stamp) [KB 2001.1.48].





Figure 7: The master's mark of Körmend pipe-maker Johannes Schwartz under that of Bodnár of Selmec and Fürst of Körmend.

1-4 Socket and base of bowl of a black pipe fragment (1: the stamp of BODNÁR SCHEMNITZ; 2: underneath of socket; 3: turbaned figure on the base of the pipe; 4: side view) [KM391]. 5-6 Fluted bowl in red earthenware with the BODNÁR SCHEMNITZ stamp on the side [KM407]. 7-8 Black earthenware fragment with a Fürst stamp on one side and a Körmend hallmark on the other (7: FÜRST IN KÖRMEND stamp; 8: turbaned figure – the Körmend hallmark) [KM50]. 9-11 Fürst black pipe fragment with Hönig stamp and maker's hallmark (9: HÖNIG SCHWARTZ stamp; 10 & 11: woman's head maker's mark) [R55 III/35-111-110].

museum, where the unearthed, unfinished products are exhibited. Two others pursued the same craft: Florianus Tandler and Mathias Rauch. At Körmend, 48 fragments with hallmarked names entered the possession of the local museum. On the base of the above-mentioned clay-pipe's broken fireplace can be seen a wide annulus made up of fine rhomboid lines (Fig. 7, Nos. 2-3). After examining several hundreds of pipes it transpired that the aigretted figure was in fact the hallmark of JOHANNES SCHWARTZ (Fig. 8, Nos. 1-3; KM 234), but that it could at the most be found on those pipe fragments stamped Cörmend attached to his name (Fig. 8, Nos. 4-5), meaning that it is more than likely to be a fake, along with the other pieces made locally and bearing the BODNAR stamp. In other words the stamp came out of the drawer of the Körmend workshop in order that the well-known trademark BODNÁR IN SCHELMETZ could be stamped onto the still-damp wall of the clay pipe (Fig. 7, Nos. 5-6). If this is the case, then in citing the embellishing technique of the Schwartz workshop it is also true that the terra-cotta once-fired waxed pipe fragment with BODNAR SCHEMNITZ stamped in an oval frame with identical letters into the still-soft clay (Fig. 7, 5-6) can also be considered a local product, that is, a fake, due to the use of the fine rhomboid wide annulus decoration on the fireplace and the two-pronged braided cord decoration employed in the SCHWARTZ workshop.

It is however difficult to judge how to regard the aigretted head stamped into the converse side of the piece with the stamp FÜRST IN KÖRMEND (Fig. 7, Nos. 7-8) of the operating Körmend workshop, for why should the local inhabitant have been faked? The Fürst 'collection', comprising altogether two examples, provides no clear answer; maybe some explanation can be provided by the financial activities of Fürst, entered in the 1828 census as a merchant

It is known from Herald Prikkel's 2000 book *Castellum*, *Paris und Pfeiferei* that the name of Franz Brunnel, founder of the Traursdorf factory, also appeared stamped on clay pipes, although he did not make pipes but financed the operations of the factory. Only mould-makers from this factory who might have also made name stamps are known. The 'tin moulders' here were Weigand (1838-1842) and Franz Langsch (1842-1852).

Fürst must have been quite wealthy, for his household of nine had two servants and two servant maids. He may have financially supported the pipe-maker SCHWARTZ, and with his capital he featured as a business associate in the workshop of Johannes Schwartz. This may explain why his name and master's mark appear on the pipe and on a black pipe fragment pressed into a replica mould with the stamp HÖNIG SCHWARTZ, the maker's mark of a woman' head (?). The figure is more discernible on the pipe stamped BODNAR SCHEMNITZ (Fig. 7, Nos. 9-11). This may also mean that Salomon Fürst was faking both the famed Hönig of Selmecbánya and Bodnár at the same time.

An aigretted head can be observed on the back of the ANTON PARTSCH pipe with ZU TERESIENFELD stamped upon the socket rim, which is taken to be the result of a moment's inadvertent carelessness (Fig. 8, Nos. 7-10).

There is conclusive force in the fact that the names SWARTZ, CÖRMEND, and ANTON PARTSCH can be observed on various pipes pressed into the same mould (Fig. 3, No. 6). Anton Partsch († 1859) was director of the pipe factory at No. 32, Theresienfeld, not far from Wiener Neustadt; even during his lifetime his maker's name and mark (a lily) were successfully converted into a tool of Körmend pipe-faking. Partsch had enjoyed some success when he exhibited 49 pipes at the 1835 Vienna Exhibition. At this time he and his 30 employees made 500,000 pipes every year, most of his exports going to Hungary. From 1842 Joseph Partsch also worked here; a misspelling of his name may cause him to be identified with JOSEPH BARTSZ of Körmend.

Two terra-cotta, heavy clay pipes dug up in the courtyard of 55, Rákóczi St. are worth paying attention to; with their shell-shaped bases and thick, 'eight-fingered' octagonal fireplaces they are of completely identical form. On one can be found the stamp BODNAR SCHEMNITZ (R55 III/B.33-183-111) and on the other M.HÖNIG SCHEMNITZ (R55. 84.25.32). Who made which?

Selmecbánya's Mihály Hönig was a most notable pipemaker who, according to certain scholars, worked from the first third of the nineteenth century in the workshop of his father Anton Hönig, later led by his widow in the Felső

Figure 8 (opposite): The master's mark of Körmend pipe-maker Johannes Schwartz under that of ANTON PARTSCH.

1-3 Pipe made by Johannes Schwartz with his hallmark of a turbaned figure (1: left side view of the pipe with the stamp on the side of the socket; 2: the JOHANNES SCHWARTZ stamp; 3: Turbaned figure stamp on the underneath of the bowl)[KB 68.513.3]. 4-5 Schwartz pipe with broken base, stamped Cörmend on the socket (4: Left side view of the pipe with stamp on the socket; 5: Cursive Cörmend stamp) [KM88]. 6 Example of the turbaned figure stamp on a similar Cörmend pipe [Ua. KM 87]. 7-10 Anton Partsch pipe with aigretted figure stamp (7: Side view of the pipe with the stamp on the left side of the socket; 8: ANTON PARTSCH stamp; 9: Aigretted figure stamp on lattice background; 10: ZU THERESIENFELD stamp on the socket rim) [KM316].



Rózsa street. According to legend, in 1852 he received an order from America of such size that his workshop, mainly equipped with simple hand tools and able to turn out at most 60-70 pipes a day, was unable to satisfy it and so he had to refuse it. Altogether 70 pipe fragments have been unearthed at the two Körmend provenances; based upon the above all of them can be regarded as fakes. This assumption is supported by the find of five pipes which are the spitting images of one another save for the stamp on their sides, each of which is different. One black pipe made through the reduction process is almost intact and can be reconstructed: its special feature is a gnarled, ribbed base with four crested ridges and a fireplace with an outward-curving mouth. Among its companions, another black piece, two terra-cotta and one marbled variation are known. Of the last four, the bowls were broken off during preparation or firing. Apart from the tiny, delicate handiwork, all five agree perfectly in size and are the works of a single mould. The formation of the ridged ornamental line of the pricking-wheel near the base differs in that one is plaited, another has a cog-wheel pattern, while with the third a stripe composed of a double line filled in with rhombuses runs all the way along the two sides of the pipe's base. Taking the clay pipes in turn, on the first the impression can be seen of SCHWARTZ IN KORMEND (Fig. 9, Nos. 1-2), on the second that of K.AZAR (Fig. 9, Nos. 3-4), on the third *Podrecs* (Fig. 9, Nos. 5-6), on the fourth Salamon (Fürsdt Salamon) (Fig. 9, Nos. 7-8) while on the fifth is visible, stamped one over the other, that of M. HÖNIG (Fig. 9, Nos. 9-10).

Little is known about the pipe-making centre of Kis-Azar (Malé Ozorovce, Slovakia). On one side of the pieces unearthed in 2001 can be seen the impression K.AZAR, and on the other, in an oval field beneath KISAZAR, a bird with outstretched wings (KB 2001.1.60). The filled rhombus decoration drawn along an arc below the head of the pipe was a speciality of the Schwarz workshop. There is another on a similarly stamped piece (KB 2001.2.3). It is characteristic that the same double empty chain of rhombuses below the fireplace of the pipe fragment with the K.AZAR stamp appears in the same place on the one marked PODRECS (KB 2001.1.55) and the K. AZAR pipe (KB 2001.1.59), which decorative motif is typical of Körmend, and was almost certainly made using the tools from the Schwarz workshop. The double braid ornamentation running in a half-arc below the pipe bowl is another stylistic motif of the Schwartz workshop.

These pipe fragments turned up either from the earth dug up at the time of laying the foundations for the Monaco coffee shop in 1990 or ten metres away in Bástya Street when pipes were being laid in 2001, and so it must be

accepted that they all originate from the same Körmend workshop. When the fragments arriving at the museum were being sorted they were placed in a pile together with a number of their companions, in order to contemplate what person or persons might have made them, and when. It can be imagined that five identical moulds were being used at the same time, though this is only possible in theory. Instead, the writer prefers to assume that the pipe clay of three faulty products was worked while still damp with identical tools of the trade (pricking-wheel, rotary wheel). The stamps SCHWARTZ (Fig. 9, No. 2), Salamon (Fig. 9, No 8) and K.AZAR (Fig. 9, No. 4) were presumably made at one time and with one tool. The other two arrived at the drying board from the same mould, but perhaps at a different time and with the use of other tools. In this case it is still valid that the stamp was pressed into the pipe clay and the decoration work done while it was still damp having been turned out of the mould; that is, it was not hired work on half-finished products that was taking place in Körmend. It has already been seen on an earlier example that the Schwartz and Fürst products bore identical marks, and so maybe now too it can be presumed that the relationship between the two pipe-makers was that of partners and not of production. That apart, for the most part the forged work of Johannes Schwartz can be accounted for.

What has it been possible to glean from sources about this remarkable man? In the tax register for the market town of Körmend in the 1828 national census he appears under No. 385 as a displaced Jewish villain (40 years old), a 'pipe-maker who incessantly at his work, mostly keeping lads, though at present having none'. He lived in one household with two adult brothers, his wife and a daughter. In the 1831 Jewish census two lads and a girl servant appear alongside the family of three, evidence of the family's status and material condition. The register of deaths shows that János Schwartz was born in 1788 in Neutra (Nyitra, now Nitra, Slovakia), but died in Körmend of 'the infirmity of age' on June 30, 1878, aged 85.

For the sake of proof more can be provided from this illuminating list. Such, from the aspect of pipe colour, are two pairs of pipe fragments. All of the 'five-fingered' pieces with the simple, cylindrical fireplaces on a shell-shaped foot were made in the same mould, but two different clay compounds were used in the course of production. On one of the sandy-coloured clay pipes can be seen the stamp SCHWARTZ IN KÖRMEND (Fig. 10, Nos. 1-2), and on the other that of *Cörmend* (Fig. 10, Nos. 3-4), while one of the terra-cotta pieces is stamped *Partsch* (with the lily master's mark) (Fig. 10, Nos. 5-6) and the other ANTON PARTSCH (with the lily master's

Figure 9 (opposite): Examples of pipes from the same mould, with ribbed base and four crested ridges, stamped with the makers' names Schwartz, K. Azar, Podrecs, Salamon and M. Hönig.

¹⁻² Pipe stamped SCHWARTZ in Körmend [KM202]. 3-4 Pipe stamped K.AZAR [KM58]. 5-6 Pipe stamped Podrecs [KB 2001.1.54]. 7-8 Pipe stamped Salamon [KM56]. 9-10 Pipe stamped M. HŐNIG [KM59].



mark) with (...) THERESIENFELD on the rim (Fig. 10, Nos. 7-9). It is conceivable that the use of two different clays was dictated by an expansion in choice of ware, but it is also possible that the pieces were simply made at different times. The shade of colour of the clay pipes also agrees, and so in this case it can truly be assumed that the workshop of János Schwartz manufactured the complete series of Cörmend stamps.

The Holy Crown of Hungary was a promising theme for pipe-makers as for others. Körmend and elsewhere mass-produced pieces of varying sizes. The various sizes at which they were to be produced *in situ* were determined by the identical ornamentation of the oval frame on the body of the pipe. The three clay pipes shown here are good examples of products identically set up but produced in different sizes. The largest bears the ANTON PARTSCH (Fig. 11, Nos. 1-2) stamp, the two smaller ones, black and marbled, those of SWARTZ IN KÖRMEND (Fig. 11 Nos. 3-5) and PODRECS (Fig. 11, Nos. 6-8). The oval frame around the crest, comprising a double line filled with rhombuses, is proof of their having been produced in one workshop.

In the middle of the nineteenth century the Körmend workshops offered a wide selection of clay pipes for their associates in the pipe peddling trade. Here, retailing at that time did not occur by choosing out of catalogues, because - in contrast with the Vasvár and Bonyhád pipemaking workshops - no number punches appear on the pipes on the Körmend pipes page. The assumption can be made from the material from the diggings that the more ornamental and the plainer clay pipes which were dug up from the land of the Monaco coffee shop were produced from 169 separate moulds, from among which the Jewish master pipe-maker Johannes Schwartz alone must have sold 41 types, stamped with his own name. A smaller area was excavated at the Rákóczi Street site, and perhaps thanks to that the selection was reduced to 58 separate moulds of which 24 items are stamped with the trademark Joseph Bartsz and 11 pipe moulds have no mark, in other words the total local Körmend selection comprised 227 different clay pipes.

Overview: the double naming of Pápa; how M. Hönig became the *honi ipar* (home industry) in Pápa

There is nothing new under the sun. The first Pápa pipemaking manufactory was founded somewhere around 1848. According to this research, despite the proximity of Körmend its operations did not affect the established product structure here, for the names of Pápa pipe-makers do not appear on Körmend pipes. In 1851 Elek Fényes's geographic dictionary mentions a 'smaller kind' of pipe factory in connection with the names of *József Toch* and *Heinrich Schlesinger*. Their names are found stamped into examples of unearthed fragments that had found their way to the Pápa museum. A double 'linkage' appears on these pipes; that is, they manufactured pipes under their own names both in Pápa and in Selmecbánya. Proof of this are the stamps *Jos. Toch Papa, Jos Toch Semniz*, and Slezinger, Slezinger Schemnitz, but the same 'doubling' can be observed in the case of the makers' stamps *Breuer Schemnitz-Brauer Papa*.

Not only was it characteristic of the nineteenth and twentieth century products of the factory at Pápa that by utilising the bought-up collection of Selmecbánya patterns it poured out ever more beautiful pipes, but also that they distributed the famous M. Hönig pipe with its Glück Auf! motto depicting a miner and his tools, now with the inscription Honi ipar Boscovitz: that is, to put it delicately, they 'overlaid' an established product earlier placed on the market by someone else. The date 1842 appears on headed notepaper of Sámuel Boscovitz as the date of the company's establishment, but this cannot be true as regards his person unless it refers to the date of a smaller pipe-making company which existed earlier and was bought up by him. The name Sámuel Boskovitz does not appear among the craftsmen in the 1848 census of Pápa's Jewish inhabitants. It is also true that at a very low price he bought up the Zólyom workshop of Vendel Takáts, who had gone bankrupt in the 1910s, in which there may have been earlier pipe-making forms and tools, among them most probably a mould and stamp from the estate of the master craftsman, Hönig. In this, for a while at least, Pápa kept alive the traditions of Selmecbánya through reusing the earlier pipe moulds. Possibly a century earlier the same process had been acted out in Körmend in the search for new markets.

Abbreviations

DBSLM = Dr. László Batthyány-Strattmann László Museum (Körmend)

KB = Körmend town centre provenance

KM = Körmend (town centre) Monaco coffee house provenance

R55 = 55, Rákóczi St., Körmend provenance

RHM Ht. = (Rába Museum of Local History, local history archives)

VaML = Vas Megyei Levéltár Archive of Vas County

Figure 10 (opposite): The names SCHWARTZ – CÖRMEND – PARTSCH – ANTON PARTSCH impressed into pipes made in two different clays but in identical moulds.

1-2 Sandy coloured clay pipe stamped SCHWARTZ IN KÖRMEND [KM340]. 3-4 Sandy coloured clay pipe stamped Cörmend [KM90]. 5-6 Terra-cotta coloured clay pipe stamped Partsch with the lily master's mark [KM93]. 7-9 Terra-cotta coloured clay pipe stamped ANTON PARTSCH (with the lily master's mark) with THERESIENFELD on the socket rim [KM317].





Figure 11: Three clay pipes bearing the Hungarian crown. The names SCHWARTZ – PODRECS – ANTON PARTSCH stamped onto identical forms but different sizes.

1-2 Red clay pipe (larger size) bearing the stamp ANTON PARTSCH [KM64]. 3-5 Black clay pipe (smaller size) bearing the stamp SWARTZ in Körmend [KB 84.26.13]. 6-8 Marbled clay pipe (smaller size) bearing the stamp PODRECS [KM348].

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An interesting monument to the memory of Debrecen pipemaking: the pipe-pot

by Emőke P. Szalay

For centuries, the Debrecen pipe was sought after throughout the historic area of Hungary that filled the Carpathian Basin, and even beyond its borders, in Western Europe. It was the potters who made the pipes.

In Hungary, the earliest potters' guild was formed at the beginning of the sixteenth century. The beginnings of the history of the Debrecen potters' guild can be traced back to the mid-sixteenth century; their charter of 1574 has survived in the records of the town's magistracy (Archiv of Hajdú-Bihar County IV. 1011/3. 1574. 30th of Nov. 634-637). In the charter, in the list of clay work that the master potters were permitted to engage in, only the manufacture of pots and stoves are mentioned.

The mention of pipe-making in Debrecen is found for the first time at the end of the seventeenth century. As it was far easier to master than pottery, the town council turned a blind eye when elderly potters and widows pursued this activity (Ecsedi 1932, 8).

In 1703 the town's magistracy, at the request of the potters' guild, gave official permission to widows to make pipes:

A Fazekas céh instáll, hogy a pipacsinálást a szegény Eözvegyeknek engedgye meg a N. Tanács. Meg is engedtetik olyan conditioval, hogy itt a városban edgyet se adgyanak el, hanem öszveséggel külsőbb adják el (Ecsedi 1932, 8).

The Potters' Guild requests that the Honourable Council allows poor Widows to engage in pipemaking. It does so, on the condition that they do not sell so much as one within the town, but sell all of them outside the town.

In the course of the eighteenth century the better part of the potters turned from pottery to pipe-making. This is supported by statistical work from the end of the century which, in providing information about Debrecen, mentions that pipes of excellent quality are fired in the town. The number of master craftsmen engaged in this work is so significant that it is recorded that the pipe-makers had formed their own guild (Ecsedi 1932, 9). But the public records show that this is an error, and that the pipe-makers never had an independent guild.

In the eighteenth century, and especially at the end of the century, the guild of Debrecen potters had one of the greatest memberships in the country. The guild documents and tax records, *Classificatio opificorum*, give the names of around 100 masters each year.

One source deserves attention which gives a qualification to this large number by clarifying the difference between the potters and the pipe-makers. In 1785, in a register of craftsmen and their products prepared by royal command, the potters' guild appears in two places. The first goes under the title of *Fazekas céh revizidje a hivatal folytatása szerént* (A revision of the potters' guild according to the authorised pursuit of their trade), and lists 103 masters with 286 persons working in their workshops. Fortunately, the source does not end with the list of names, but also turns to their products, including pipes. In the last rubric of the register the total number of pipes produced at the time of the census is given, according to which 2,394,000 pipes were made in the workshops in 1785.

The second list goes under the title A fazekas céh mesterei (Masters of the potters' guild). Here only 50 names are listed, alongside them the apprentices and boys, of which there were 17 and 52 respectively. What is interesting about the two registers is that the names listed in the latter also appear in the first list, showing that the pot-making potters also made pipes (P. Szalay 1986, 36-38). From this it would appear that out of the large number of master craftsmen listed in the potters' guild, only a half were listed as potters. At the same time it is worth noting that even these masters made pipes as well as pottery, while the other half of the guild's membership were only pipemakers (P. Szalay 1986, 4).

The next statistical source, *Die Statistik des Königreichs Ungarn*, coming hardly a decade-and-a-half later (Schwartner 1798), deals with Debrecen pipe-making at some length. One must accord special attention - he writes - to Debrecen's native industry, their famous pipe-firing. Here, 138 master craftsmen, together with their wives, children, assistants and apprentices fire more than 10,000,000 red-clay pipes every year. There was also a great demand for the mouthpiece accessories, of which 100,000 were made in a year (Ecsedi 1932, 9).

The popularity of the Debrecen pipe carried on into the nineteenth century. In 1818 the fame of the Debrecen Makra pipe is recorded.

An 1847 entry states that 10,000,000 pipes were made. These were black. The mouthpiece-makers turned 200,000 mouthpieces. This gigantic turnover, in addition to satisfying the home demand, was transported abroad to France, England and the USA, to be purchased by sailors (P. Szalay 2000, 35).

The making and firing of pipes

The Debrecen pipe was made out of the red clay found at the town's western limit. The master formed a small stick out of the prepared clay: this was the rolling process. He placed the upper peg into the rolled piece, now bent in half, and then pressed it into a mould. He put the end peg into the smaller part. So he prepared the model and then it was followed by the forming of the neck.





Figures 1 & 2: Déri Museum pipe-pot. 1. (left) profile of the pot; 2. (right) detail of the base.

After drying came embellishment or refinement, in the course of which the pipe-maker carved the form according to necessity and then decorated the sides and neck by impressing patterns made out of wood, bone or later iron. After being thoroughly dried the pipe was polished with beeswax after which it was fired. The dried-out pipes were placed into a pipe pot. This so-called canvas pot was an unglazed container which really was shaped like a pot. In shape it widened out upwards and was pot-bellied; depending upon its size it could hold 80, 100 or 120 pipes. Between 50 and 60 of these pots full of pipes were placed into the kiln for firing. The tops of the pots were covered with tiles and sealed with a thin layer of clay. This required some skill, for if the clay layer closed too firmly, then the pipes did not fire properly and became bluish or, as they said, suffocated. In the centre of the inside of the kiln there was a pillar around which the pipe pots were placed in circles on stones. Heating, for which short pieces of wood were used, took three hours. After this, larger pieces of wood were used, in the course of which the fire enveloped the containers. The carbon was drawn out after 28-32 billets had been burnt. 'When the pot was nice and white and the pipe was shining like silver, they ended the firing' (Ecsedi 1932, 24).

If the person doing the firing didn't understand their job the operation failed, the pipes stuck together and became useless and had to be thrown out. 100-120 kg of wood was used in the firing process, producing 3,500-4,000 pipes. The day after the firing the pipes were poured out of the pots onto a piece of cloth or sacking.

One of the curiosities of the Déri Museum is its pipepot (Museum Accession Number V. 77. 87. 1. Height: 20.5cm. Lower diameter: 19cm), Figures 1 to 4. There is no information about its accurate provenance, because it was saved as a leftover residual from the old storage



Figure 3: Déri Museum pipe-pot showing the pipes inside the pot.



Figure 4: Detail of pipes inside the Déri Museum pipepot.

inventory. It became a museum piece around the turn of the nineteenth- twentieth century. On the basis of the earth colour ornamentation on the surface of the one-handled container, this simple 'canvas pot', made out of heat-proof material, was probably made in Rév in the county of Bihar. Its neck is broken, making it possible to place the pipes inside (Figs. 3-4). There are traces of plastering on its exterior. There are fired pipes inside the container.

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Meerschaum pipes in eighteenth- and nineteenth-century Hungary

by Anna Ridovics (Translated into English by Andy Rouse)

First evidence for meerschaum pipe-carving

In twentieth-century specialist literature it was Robinson's article of 1985 that re-drew attention to the early days of the meerschaum pipe. According to seventeenth-century travellers meerschaum pipes were already being produced in Greece, then part of the Turkish Empire, in the middle of that century. In 1668 Eveliya Celebi travelled to Greece, visiting Thebes (Théba, Thivai, Thiva, or Theben can be found north of Athens in Boiotia) (Fig. 1). Here he observed that:

of this white stone they make chibouk bowls, which they carve very beautifully... they also make various vases, incense-burners and carved cups, which, when they work them with yellow wax, appear to be gold; when they are polished with butter they become hard as stone (Robinson 1985, 168).

The English traveller George Wheeler (1650-1723) visited Thebes in 1675 (Wheeler 1682). According to his description:

The Stone... is of the colour of the new Cheese, and almost as soft, ... carve very curiously into Bowls of Pipes... as soon as it is dry, groweth very hard, as white as Snow...The best are sold for Ten Aspers apiece, and the worser sort for Five Aspers....Some of them I bought, and do reserve among my natural curiosities (Beckmann 1782, 54-56; Robinson 1985, 168).

Between 1700 and 1702 the French botanist Tournefort noted the characteristics of Thebes and Negropont (today Euboia island, Greece) meerschaum:

The bowls of their pipes are larger and more commodious than ours. Those of Negropont and of Thebes are of a natural earth which one carves with a knife as it leaves the quarry, and which hardens afterward (Robinson 1985, 168).

One hundred years later, in around 1809-1810, Hobhouse visited Thebes, but saw no trace of pipemaking. Presumably all the meerschaum of Thebes had been quarried by that time (Robinson 1985, 168). By the beginning of the nineteenth century these quarries

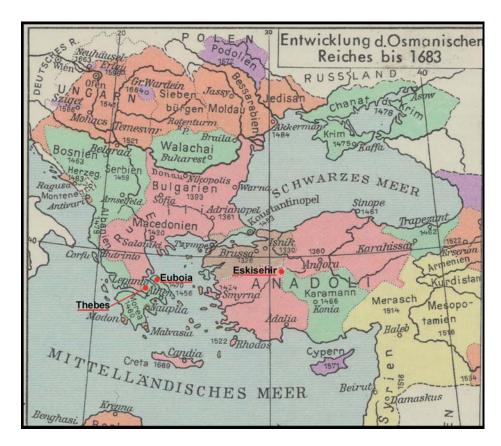


Figure 1: Map of the Ottoman empire at the end of the seventeenth century (detail of the central part). Thebes and Negropont (Euboia) island - meerschaum mining places in Greece in seventeenth century. Eskisehir - the most important meerschaum mining centre till now.

were exhausted, which is why nothing is heard of these territories later on.

In the course of the eighteenth century increasing scientific interest was attracted to this substance, which was the raw material for quality pipe-cutting. It was greatly valued. In the seventeenth century the meerschaum pipe and meerschaum as a substance had been viewed as rarities in Europe. Wheeler purchased meerschaum pipes for his 'natural curiosities' collection (Beckmann 1782, 55; Robinson 1985, 168). At that time they were uncertain as to its composition. As it was light, white and floated on water, at first, in the eighteenth century, explorers considered it to be the casing of the squid, which contained lime (from which it later received one of its scientific names - sepiolite). Others believed it to be hardened sea-foam, from which is derived the Latin, German and Hungarian names - spuma maris, meerschaum, tajték. According to the Hungarian historical etymological dictionary (Történeti Etimológiai Szótár) the Hungarian word tajtékkő first appears in sources of 1570.

Mineralogists published a number of serious studies on the subject from the 1780s. The results of eighteenth-century research in mineralogy and pipes were summarized in a lecture in 1781 by the Göttingen university professor, Johann Beckmann (1739-1811) (Beckmann 1782).

Other works from the period are by Georg Friedrich Wille (1796) and J.G. Binz (1799). In 1781 Johann Wiegelb was among the first to perform a chemical analysis 'on the nature of this earthy material, as its name causes some to have an entirely false impression as to its origin':

Es wäre wohl gut, wenn ich von der Naturgeschichte dieses erdigen Körpers etwas anführen könnte, zumahl da dessen Benennung bey einem und dem anderen von seinem Ursprunge einem ganz falschen Bedriff veranlasset haben mag' (Wiegelb 1782).

Meerschaum is a mineral which in scientific circles was known as *sepiolith*, *Argilla lithomarga or Talcum lithomarga*, *spuma maris* (Beckmann 1782, 52; Wille 1796, 337). It is a magnesium silicate, which essentially is a combination of feldspar, magnesium, carbon, water and clay. It can be found at a depth of around 40 metres, in lump-shapes. Eighteenth-century studies place its main provenances as the area around the Sea of Marmara and the settlement of Kitchik or Kiltschik, which was owned by a dervish monastery, some five hours distance from the town of Konya in Central Anatolia, Turkey (Beckmann 1781, Wille 1796, 337). In this Anatolian region we can find today Eskisehir which is one of the most important and famous meerschaum mining centres with the best quality meerschaum (Fig. 1).

Early meerschaum pipes

Rebecca Robinson surmised that the meerschaum pipes discovered in the course of excavations in Corinth and Athens were similar to those produced in Thebes, or may even have been made there, or their material originated from there (Robinson 1985, 167-170, 192-193, 201). Seventeen meerschaum fragments were unearthed at the time of the excavations, of which two were coloured black and seven can be dated as seventeenth to eighteenth century. Their form in all aspects is akin to the red clay pipe (lüle). Two pipes are from Athens and one from Corinth which has a bent tube (Fig. 2, No. 1-3). In the pipe A43 (Fig. 2, No. 1) the shank is at right angles to the bowl. The other pipes from Corinth have more sack-like or tulip formed bowls (Fig. 3). These pipes are simple pieces with incised decoration easily confused with grey clay pipes. Robinson saw this kind of meerschaum pipe only in Constanza (Museum of Natural History and Archeology of Constanza) and Mangalia (Museum of Curiosities) in Romania (Robinson 1985, 169, 62, note). Citing Beckmann, Ferenc Levárdy also writes in his book that simple meerschaum pipes pressed from meerschaum were made in Turkey, of which many made their way



Figure 2: 1. Meerschaum pipe from Robinson's excavations in Athens, from a grave dated from the seventeenth to the nineteenth centuries (after Robinson 1985, Pl. 64, A44 (MC1281)) [L: 4.9cm, H: 3.8cm]; 2. Meerschaum pipe from Robinson's excavations in Athens, seventeenth century (after Robinson 1985, Pl. 64, A43 (MC1306)) [L: 4.7cm H: 4.7cm]; 3. Meerschaum pipe from Robinson's excavations in Corinth, seventeenth century (after Robinson 1985, Pl. 59, C127 (MF-11419)) [L: 2cm. H: 3.5cm].

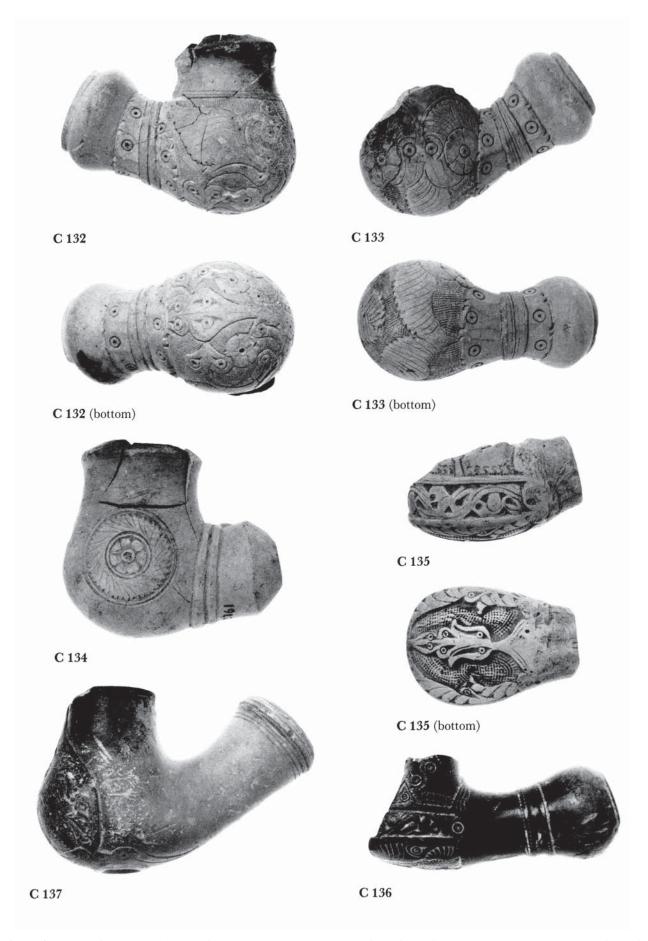


Figure 3: Meerschaum pipes from Robinson's excavations in Corinth, eighteenth century (C 132, 133, 134); eighteenth to nineteenth century (C 135, 136, 137) [C132 L: 6.1cm H: 4.5cm; C133 L: 6.3cm H: 3.4cm; C134 L: 5.8cm H: 5.1cm; C135 L: c4.6cm H: 2.5cm; C136 L: 6.6cm; and C137 L: 7.4cm H: 4.7cm] (after Robinson 1985).

along the trade routes. In the last third of the seventeenth century, in the Balkan, Eastern-Central European areas under Turkish occupation, high-ranking soldiers may have smoked pipes made from meerschaum alongside those of clay at diplomatic meetings relating to Turkish-Balkan trade.

The literature on pipes has not really discovered these pieces. It is known from Levárdy that pipes made out of white stone (lületaschi) were among the items plundered from the Turks by the Polish King John Sobieski at the 1683 siege of Vienna (Levárdy 1994; 2000, 121, following Rapaport 1998, 50). Unfortunately it has not been possible to discover the original source (Ferenc Levárdy died while the manuscript was at the printer's, and the task remained with his friend, Dr. Irnák Osskó. This is why references in the footnotes are missing in many parts of the volume). It is possible that meerschaum pipes were smoked along with coffee and sherbet before the battle at the August diplomatic discussions between the commander-in-chief of the Turkish forces camped in front of Vienna and his arriving ally, Prince Mihály Apaffi of Transylvania (Sachslehner 2004). It should be pointed out, merely as a matter of interest that Mavrokordatos, the main interpreter of the Turkish commander-in-chief, was of Greek origin.

Only few early simple meerschaum pipes are known from Hungarian collections. Levárdy was able to mention only one, which was unearthed in the course of excavations in Pécs (Levárdy 1994; 2000, 116). Unfortunately, at present this pipe cannot be identified. Szabolcs Kondorosy recorded two meerschaum pipes from the excavated material in Buda. One is a fragment of a cylindrical pipe neck, the other is also a cylindrical pipe neck with a small part of the bowl (Kondorosy 2005, 45, 247-248). Emese Varga published four very fragmented early meerschaum pipes (second part of the seventeenth, turn of the eighteenth century) from Eger Castle in her dissertation (Varga 2011, 204-205). Two stem socket fragments have rich incised decoration. One of the pipe socket fragments has a point and circle decoration at the junction of the socket and bowl and on the outside of the socket, the rim of which is rouletted (Fig. 4, No. 1). The other slightly flared socket fragment, pale, coffee-coloured fabric has unusual incised motifs around the end of the socket and a point and circle above its rim; there is a narrow collar in the middle of the socket with rouletted ring decoration just above it (Fig. 4, No. 2). The third piece has an undecorated socket and base of bowl. It is a cream-coloured fabric with flat, compound, disc-shaped neck ring (Fig. 4, No. 3). The fourth pipe socket fragment is a pale coffee-coloured fabric. It has

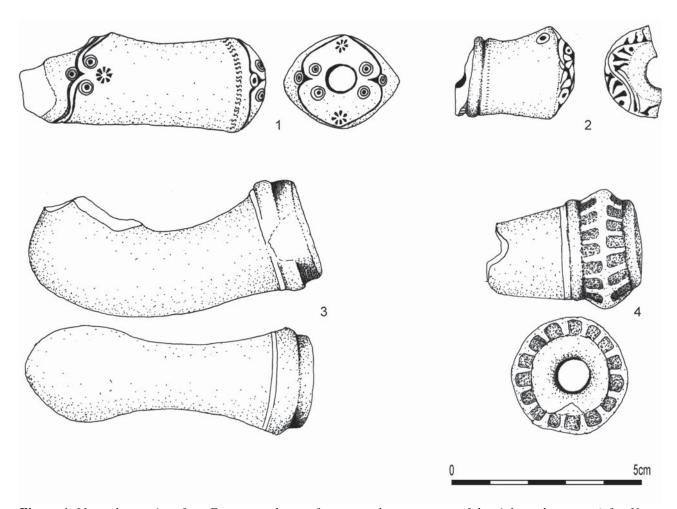


Figure 4: Meerschaum pipes from Eger, second part of seventeenth century turn of the eighteenth century (after Varga 2011) [1: Inv. n. V.2010.73.10. L: 6.2cm. H: 2cm; 2: Inv. n. V.2010.80.1. L: 3cm. H: 2cm; 3: Inv. n. V.2010.80.2. L: 7.7cm. H: 2.8cm; 4: Inv. n. V.2010.80.3. L: 3.8cm. H: 2.9cm.]

expanded neck ring with incuse petal-shaped grooves on the side and the outside (Fig. 4, No. 4). Another pipe turned up when the Castle of Szeged was demolished between 1881 and 1883. The undecorated pipe head is shaped similarly to a tulip cup and has a volume of 6.4 ml (Tomka 2000; Szeged, Castle, eighteenth century? 50/2 121-122.; Kondorosy 2008, 331-364, 331, 346, 363 Sz 157) (Fig. 5). There is a small hole, not pierced through, on the right side. It is certain that this form was known in the Turkish period, and blossomed in the eighteenth century.



Figure 5: Meerschaum pipe from Szeged, eighteenth century [MFM 5.19.2. L: 3.7cm H: 4.69cm] (after Tomka 2000).

There are also some pipes from foreign collections. Some early meerschaum pieces were discovered at different parts of the excavation of Belgrade Fortress (Figs. 6-7). These pieces have yet to be published; all information and stratigraphic data has been provided through the kind offices of the archaeologist Vesna Bikić. The burnt meerschaum pipe fragment with a small rounded bowl and vertically scored decoration was found in the cellar of the medieval metropolitan palace in the layer above the floor, which can be dated between the end of the sixteenth to the second half of the seventeenth century (Fig. 6). More meerschaum pipe fragments were excavated at



Figure 6: Meerschaum pipe from Bikić's excavations of Belgrade Fortress, from the cellar of the medieval metropolitan palace, the end of sixteenth to the second half of the seventeenth century

the southeastern wall of the fortress, in the underground chamber beneath of the blockhouse from the infill layer dated in the early eighteenth century, between the end of the seventeenth century to 1725. The pipe with a tulip form bowl is decorated with an incised rosette motif. A smaller pipe with also a tulip form bowl was found at the same place.(Fig. 7)

Svitlana Biliaieva has published an interesting piece in this volume from the Ochakiv collection:

In form it is similar to clay pipes in the form of a pot. The rounded bowl was framed from the rim by two lines from the lower and upper part and one notch-rouletting strip in between. Under the upper line was a decoration like 'three full moons' (Biliaieva 2011, Fig. 13).

The surface of the bowl was divided by a composition resembling trees, each of which ended with the sign of 'the eye against evil' with an incrustation of blue glass in the centre of each eye. The stem ended with a bulbous wreath and stepped-ring termination.



Figure 7: Meerschaum pipe from Bikić's excavations of Belgrade Fortress, the end of the seventeenth century to 1739.

Pipe smoking and trading in the second part of the seventeenth and the beginning of the eighteenth century in Hungary

Hungary came into contact with pipe-smoking via the Turks and western mercenaries fighting within the country's border during the late sixteenth and early seventeenth centuries. The first local production of Turkish-style pipes may have begun in the third quarter of the seventeenth century. In Hungary by the end of the seventeenth century and beginning of the eighteenth century the elite circles were able not only to smoke from simple clay pipes but

from more decoratively formed luxury pipes made from other materials. The 1683 inventory of the Rákóczis in Makovica includes a tobacco pouch, two pipes, silver pipe accessories and pipe stems. The prince must have had in his possession a number of remarkable pipes, for among their activities the silversmiths at his mint in Kassa (today's Košice, Slovakia) made him silver pipe stems and silvered his pipes between 1709 and 1710 (Thaly 1887, 163; Haider 2000, 20). What his pipes were made of wood, bone or possibly meerschaum - is unfortunately unknown. But it is quite sure that they were not claypipes. At that time in Hungary it was not only the local potters who made pipes in their workshops. That more elaborately-made pipes were ordered to be made from other materials is borne out by the letter sent by János Széles, the chief artillery inspector to Bercsényi Miklós (1665-1725), one of the military leaders in the Rákóczi struggle for freedom:

I send you the pipe which Your Excellency commanded to be made from horn by the local turner; if it pleases you, another shall be made of the same shape, silvered cum majori industria et arte (Thaly 1882, 574).

This pipe was in all probability made from stag horn. This text demonstrates that, at the beginning of the eighteenth century, in addition to the pipe-making technology of the potters other technologies, like turning were also known and used. The silvering of pipes was also pursued to a high technical and artistic standard: *cum maiori industria et arte*.

Sources show that the meerschaum pipe was already being used in Hungary, thanks to the bulk imports into the country by Greek merchants whose role must be considered at greater length (Petri 1975, 17-76; Bánkuti 1975, 79-100). Trade with the Balkans was already flourishing in the sixteenth century, mainly comprising oriental carpets and silk transported along the Levant trade routes, partly through royal Hungary and the Principality of Transylvania into Europe. At the very beginning of the seventeenth century it became necessary to regulate Balkan trade. In 1615 Sultan Mohamed Mustafa signed an agreement with King Matthias II which guaranteed free trade by land and water. In December of 1665 a new trading contract was signed by the imperial court and the Turks as part of the Vasvár peace treaty. By this time Greeks, arriving mostly from the Balkan areas of the Ottoman Empire were settling in great numbers in and around the Hungarian towns of Debrecen, Miskolc, Tokaj and elsewhere.

Greeks and 'Cincars' or Aromanians lived in the southern areas of Western Macedonia. Their main occupation was trade, they adopted the culture of the Greeks with whom they lived and spoke Greek themselves as this was the international language of Balkan trading. The Greek merchants gathered in caravans (between 1650 and 1850 some million-and-a-half people were involved in trade over these territories). Among the caravans' points of

departure were Janina, Kozani, Moss-hopolye and Siatista. By 1662 many traders had come to Hungary from Kozani, several of them settling there.

Reception of the settlers was reserved, and more than once they were accused of espionage. They frequently travelled between the two hostile territories, bringing and taking goods and information with them. In 1660 the Greeks fled Kassa, in 1663 they were banned, and from 1665 Greek trade was regulated by the National Inspectorate. Despite potential danger, the court nevertheless placed them under their patronage as they meant a significant material profit for the imperial purse. In the seventeenth century Greek merchants were given the rights to trade in a number of Hungarian centres. According to the 1699 Peace at Karlóca (now Sremski Karlovci, Serbia) the massive profit emanating from duty belonged to Austria. In 1701 Leopold I issued privileges in which the Greeks settling in Transylvania were placed under royal protection. In 1704 efforts were made to form a mutual trading agreement, but fighting with the Porte was soon to resume. In 1716 Austria formed an alliance with Venice against the Turks. In 1718 the peace treaty of Pozsrevác was signed in Požarevac (Serbian Cyrillic: Пожаревац, German: Passarowitz, Turkish: Pasarofça), a town in the Ottoman Empire (today Serbia) 80 kms from Belgrade, between the Ottoman Empire on one side and the Habsburg Monarchy of Austria and the Republic of Venice on the other. This saw the birth of the Austrian-Turkish mercantile and shipping agreement, which gave preferential duties to Turkish traders. Many of these Turkish (Greek) merchants were already permanently domiciled in Hungary by this time (Petri 1975). From the second half of the seventeenth century tobacco played a significant part in eastern trade affecting Hungary. Alongside skins, textiles, fruit and spices, merchants brought Turkish tobacco, pipes and pipe stems into the country (Bánkuti 1975, 93-97). However, by that time tobacco was being grown in Transylvania and the tobacco gardens of the territories of the Occupation, and there was much domestic production of pipes (Haider 2000, 21; Bogdán 1973, 298).

Surviving documentation from the 1700s shows that meerschaum pipes entered the Hungarian market via the Greek traders. One of the important trade centres was Kecskemét, which had flourished even during Turkish occupation. Settlement began in around 1690, and outlets were being opened in the town by 1698. In 1708 there were twenty-six Greek merchants living in the town, forming a separate association. There was much traffic on the road between Szeged and Kecskemét, and at Szeged a variety of duties was charged on the merchants' goods. Between 21 June and 7 October, 1710, that is, within the space of three-and-a-half months, the names of 124 merchants were recorded (Bánkúti 1975, 84). Four of the shipments mention pipes. Two of these, probably belonging to the same family, arrived from Belgrade, the third was that of a Greek trader from Kozani and the fourth that of an Armenian merchant. The pipes came under two names: communes pipas or common pipes, that is, clay pipes, and Pipas marinas or Pipas albas marinas. These items

known as 'sea pipes' or 'white sea pipes' may well have been meerschaum pipes. They were few in number and much more expensive than the ordinary pieces:

September

(...)

David Aermen pro 40 f. Marinas Pipas, item Longas Arundines vulgo Pipaszár, pro 12 f. taxatas Dimitro Arnouth ex Bellgrad ... per 6. f. Tabaccae communis, 3.f. Pipas

October

Jorgath Graecus ex Kozany, pro 72. f. Communem Tabaccam... et pro 30. f. Marinas albas Pipas

Antonj Arnouth ex Bellgrad... 2. f. Communes Pipas (Bánkuti 1975, 95- 96).

The second data is later. In 1736, in Kecskemét, the shop of a Greek trader named Kandes was closed and an inventory made of the goods found there (Petri 1975, 17-18). Among other items were two meerschaum pipes, 30 pipe stems, 260 common clay pipes and 230 packs of ordinary tobacco (According to the specifications of goods in Kandes's first shop on Sept. 6, 1737 /Pm. Lt. Misc. Pol. Ant. 1737-1./). That is, alongside 260 ordinary pipes there were altogether two made from meerschaum, which is a good indicator of the difference in quality and price even within a narrow consumer community. At all events, at this time some 26 Greek traders kept a shop, and frequently more than one shop, in Kecskemét.

Unfortunately a significant part of the archive material was destroyed in the Second World War, but in 1930 the eighteenth-century municipal records still existed in Kecskemét (Petri 1975, 17-18).

Master Pipe-Makers in Pest-Buda

Subsequent to the liberation from Turkish occupation (after 1686) more and more people settled in Pest-Buda. The 1689 census of Pest citizens indicates that more than one was engaged in pipe-making, for it includes the names Lukács Pfeifenmacher and Ferenc Pipatsináló (Both the German and the Hungarian surname mean 'Pipe Maker', Haider 2000, 65). The Serbian (Rác) pipe-maker Lukács, or Lukas Pfeifenmacher, obtained the rank of citizen in 1689. In Pest, besides those of the local master craftsmen, pipes were made by Jews and Rác - that is Orthodox Southern Slav Serbians and Greeks (Illyefalvy n.d., Levárdy 2000, 122). There is no data as to what basic materials they used. But sources distinguish between the pipe-makers (Pfeifenmacher), and the pipe-carvers and pipe-cutters (Pfeifenschnitzer), from which conclusions can be drawn (Levárdy 1994; 2000, 122). At first, the makers of clay pipes pursued their craft within the potters' guilds. The pipe-carvers mostly worked with wood, bone and so on, while the pipe-cutters made pipes made out of meerschaum. The pipe-cutters worked outside the guild structure, and throughout this branch of the craft preserved its independent nature. A level of artistic ability

was required in the making of these valuable, carefully shaped meerschaum pipes.

There are several legends linking the birth of the meerschaum pipe to Hungary. According to one of these, it was a cobbler lad from Veszprém by the name of Bíró who in the eighteenth century paid a visit on a family matter to the Kuruc insurrectionists in hiding and who, returning from Turkey with the first block of meerschaum, carved the first pipe head for his relative, Márton Padányi Bíró (1693-1762), Bishop of Veszprém (Eötvös n.d., 193-195; Csorba 1995, 42). Another story, well-known in the international literature of pipe history, claims that Károly Kovács (woodcarver, inventor of the meerschaum pipe, born in Hungary) lived in or around the middle of the eighteenth century (1750) in Pest, and made the first meerschaum pipe from a piece taken from Turkey by one of the ancestors of Count Andrássy (Gyula Andrássy 1823-1890), minister of foreign affairs for Austria in 1874, thus becoming the inventor of an industry that later spread on a very large scale. According to this story the first meerschaum pipe made by Kovács was kept in the Hungarian National Museum (Wurzbach 1874, 396; Levárdy 2000, 121; Ridovics 2000, 75). For more information, new findings and literature see Ridovics 'True or false' in the wake of a legend. The so Called 'Pipe of the first Meerschaum Carver', Károly Kovács, in the Hungarian National Museum?' (Ridovics 2011, next volume). This much is true: that the Hungarian Museum of Applied Art preserves two beautifully carved Baroque meerschaum pipes which can be connected with the 1718 Peace Treaty of Pozsarevác. These in all probability were made in the first third of the eighteenth century. The two pipes were carved in honour of the Holy Roman Emperor Charles VI, or in Hungarian terms King Charles III (1711-



Figure 8: Peace Treaty-pipe, first third of eighteenth century, Museum of Decorative Art (photograph by András Dabasi) [Inv. n. 10.418. H: 10.5cm. L: 10.5cm]

1740) (Fig. 8). By this time meerschaum pipes could already be acquired in Hungary; Greek settlers lived there who must have known the special techniques involved making meerschaum pipes. Blocks of meerschaum may have entered the country now and then or possibly as specific orders.

As to when meerschaum for carving was regularly imported to the territories of the country there is no precise data: the meerschaum trade became profitable after the Seven Years War (1753-1763) which spread across the continent. The quarried meerschaum was selected in Bursa and transported in chests by Greek and Jewish merchants across Moldova, Wallachia, Transylvania, Poland and Russia to the markets in Vienna, Leipzig and Wroclaw, to Frankfurt (Oder), to Ruhla and later to North America. Sea cargoes were destined for Trieste, whence they were carted overland via Zemlinen to Vienna (Beckman 1781; Levárdy 1994; 2000, 116; Haider 2000, 63). In the second half of the eighteenth century there

was a boom in meerschaum carving in Nuremberg, Ruhla and Lemgo, in Vienna and Pest-Buda (Beckmann 1781, Morgenroth 1999, 40-44). In Pest-Buda and Vienna the making of meerschaum pipes was raised into an art form. In the second half of the eighteenth century the valuable meerschaums were much sought after among the nobility, who were in the thrall of the pleasure of tobacco smoke as is indicated by the ornamental silverwork and artistically made lids. Sometimes the name of the owner can be read on the silverwork. Antoine Grassalkovich smoked the famous pipe upon which a flat engraving, beautifully shaped, late Baroque scene comes to life (Hungarian National Museum Inv. No. D. 1974. 192). Lord of the Underworld, is in the throes of abducting Persephone (Ridovics 2000, 181; 2008, 52-53) (Fig. 9). The relief of the mouth and stem opening is gilded in silver, a reticulated lid resembling an onion being attached to it with a chain. The owner was Hungarian, but there is no information regarding the place of manufacture. There was a succession of three Antals in the Grassalkovich



Figure 9: Abducting of Persephone-pipe, eighteenth century, Hungarian National Museum (photograph by András Dabasi) [Inv. n. D. 1974.392. L: 12cm. H: 12cm]

family. Antal Grassalkovich I (1694-1771) was the king's privy counsellor, Lord Chancellor, and the trusted servant of Maria Theresa. In 1736 he was given baronial rank, soon to be raised to that of count. His son, Antal (1734-1794), Lord Lieutenant of Bodrog and Zólyom, won the title of Imperial Duke. He served in the imperial army during the Prussian War. The third Antal Grassalkovich (1771-1841), imperial duke and royal chamberlain, was the last of the Grassalkoviches, with whose death the male line of the family became extinct. On the basis of the style of the carving the pipe can be dated to the second half of the eighteenth century.

Although somewhat worn through use, the meerschaum pipe with its figure of Diana raising her bow is a masterpiece of the period's rococo style (Hungarian National Museum Inv. No. D. 1974. 201; Fig. 10). An artistic depiction of a sitting dog (Fig. 11) can be seen on the mounting of the pipe lid of the bridged, rimmed pipe bearing the Pest hallmark guaranteeing a silver standard of 13 (around 83%), the year D and the master's stamp IS (Brestyánszky 1977, 340; Fig. 12). From the hallmark stamped into the mounting the silversmith, the time and probable place of manufacture can be identified. It is one of the earliest known masters' marks, that of the



Figure 10: Diana-pipe, 1760s, Hungarian National Museum (photograph by András Dabasi) [Inv. n. 1974. 201. L: 10cm. H: 12cm]



Figure 11: Sitting dog on the Diana-pipe (photograph by András Dabasi).





Figures 12: Silver marks on the Diana-pipe, Pest assay hallmark, year letter D 765-67, IS master's mark of Josephus Schätzl (photograph by András Dabasi).



Figure 13: Pipe with the Hungarian crest, 1780s, Blaskovich Museum [Inv. n. 67.231. L: 11cm. H: 9.5cm] Insert shows Pest hallmark, H year letter 1783, master's mark GR Georgius Raisch (photograph by Gócsa Mihály).

Pest craftsman Josephus Shätzl, from the period 1765-1767 (Ridovics 2000, 181; 2008, 52). According to the Pest hallmark and the H year stamp with the beautiful silverwork by Georgius Raisch (GR), the tubby, pitchershaped meerschaum pipe bearing the Hungarian coat of arms (Blaskovich Museum Inv. No. 67. 231) preserved in the Blaskovich Collection in Tápiószele (Fig. 13) was carved in around 1783 or even earlier (Ridovics 2005, 14, 77). The heraldic symbols of the Esterházy family emblazon the pipe (Blaskovich Museum Inv. No. 67.288.1) the silverwork of which was made in Pest by Matthias Kuhn in around 1785-1786 (Ridovics 2005, 14, 80). Brestyánszky's book on silvermakers in Pest-Buda also mentions master craftsmen who made mountings for meerschaum pipes: Xavér Ferenc Huber became a master craftsman in Pozsony (now Bratislava, Slovakia) in 1775, and then moved to Buda in 1784. The volume lists a late eighteenth century-mount. Lipót Fischer's pipe mount was made in 1803. He had been granted Pest citizens'

rights in 1795. But pipe lids were made in other towns too; such as the one from the 1790s in the Blaskovich Collection, which also bears the Hungarian coat-of-arms (Blaskovich Museum Inv. No. 67.243), the lid of which is the work of the Gyöngyös master craftsman Carolus Goldberger (Ridovics 2005, 77). The formation of the early pornographic product type featuring a female figure astride a phallus (Blaskovich Museum Inv. No. 67. 251) can be placed in the late eighteenth century, judging from the date 1797 stamped into the silver and the Temesvár (today's Timişoara, Romania) hallmark (Ridovics 2005, 53). A pipe-cutter's name cannot be attached to the abovementioned eighteenth-century pipes. Master craftsmen's names are known from the turn of the eighteenthnineteenth centuries: in 1799 Carolus Czerha, the pipecutter (Faicarum scissor) from Mannheim, received Pest citizenship, as did the meerschaum pipe-cutter (Faicarum spumacéarum scissor) Joannes Popovits in 1808 and the pipe-carver from Unterammergau Josephus Teissenberg in 1809 (Haider 2000, 65). But these master craftsmen's names or work are not encountered later on. Based on the research of Edit Haider, there are ten pipe-cutters (Pfeifenschneider) listed in the 1815 Pest Adressbuch, among whom are found those of Spiró and Weiss, who are also encountered later. Six masters are listed under the heading Pfeifenschneider in the Pest address book dated 1822; however, none of these can be identified with those named in 1815, and another member of the Spiró pipecutting family, Anton, appears. The Spiró family, after it's name of Greek origin, pursued the pipe-carving craft for more than one hundred years, their most famed member being Emil Spiró, who was active toward the end of the nineteenth century. A number of his high quality, signed pipes are preserved in the Hungarian National Museum. Pipes are known from the first third of the nineteenthcentury pipes where the meerschaum master craftsman also stamped his completed work with his own mark and name: DEMETER JOAN (Blaskovich Museum Inv. No. 67.252; Fig. 14), worked together with TAS GÁL (Hungarian National Museum Inv. No. D. 1974. 450) probably in Pest, JACOB FELL presumably in Óbuda (Blaskovich Museum Inv. No. 67.326.1; Hungarian National Museum Inv. No. D.1974.484; Haider 2000, 65; Fig. 15). Imre Ákosi worked in Buda (SCIDIT EMERICUS AKOSI BUDAE; Hungarian National Museum. Inv. No. D. 1974. 157; Ridovics 2001, 107-114; Fig. 16).

The tobacco trader József Medetz received Pest citizenship in 1838. There are many pipes bearing his name. Research suggests that he not only traded in pipes, but worked as a

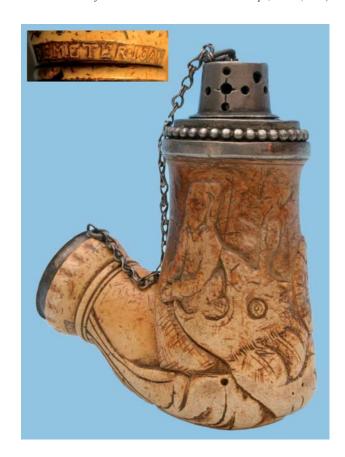


Figure 14: Demeter Ioan: Jonah and the whale pipe, first half of nineteenth century, Blaskovich Museum (photograph by Gócsa Mihály) [Inv. n. 67.252. L: 8.5cm. H: 9.8cm]



Figure 15: Jacob Fell-pipe, Hungarian National Museum (photograph by András Dabasi) [Inv. n. D. 1974.484. H: 8.5 L: 9cm]



Figure 16: Emericus Ákosi: Family on journey pipe, Hungarian National Museum (photograph by András Dabasi) [Inv. n. D. 1974. 157. H: 9.5cm. L: 8.5cm]. Stamps on the pipe: A. 'SCIDIT', B. 'EMERICUS', C. 'AKOSI', D. 'BUDAE'.

pipe-cutter himself (Haider 2000, 66). In January 1848 the register of the 'society for the Hungarianization of Pest Israelites' appeared, the statements of which list the Jewish artisans in Pest, giving 25 pipe-cutters among the 13 goldsmiths, two cabinet makers, 12 button-makers, 17 cap-makers, 204 tailors with 410 apprentices, one soap maker, 42 painters, 7 glaziers and 13 stockingers (Supka 1985, 141). At the time of the Hungarian millennium there were nearly fifty pipe-cutters in the capital, the most outstanding of which throughout the entire century was the Adler Workshop. Only 13 pipe-cutters were known in 1921 and 6 in 1931 but, according to the 1931 issue of $\acute{U}j$ Nemzedék not even these made pipes any longer (Haider 2000, 33).

Joseph Schweger

By all accounts one of the most important pipe-cutters of the first half of the nineteenth century was the master craftsman Schweger (Haider 2000, 67; Ridovics 2003, 186-190). His exact name, Joseph Schweger 1837, was discovered on a bridged pipe in the private collection of Frederico Bayleander, who lives in America (Ridovics 2003, 186-190) (Fig. 17). American research held it to be high quality Austrian work (Rapaport 1999, 35). Hungarian collections preserve several signed works by

this excellent pipe-cutter; however, none of them bears his entire name. The signature can be read as Schwäger, Schwager, J. Schweger, SI, S, or it is possible to identify his works on the grounds of stylistic analysis. While there is no mark on the meerschaum, these pieces can be attached to one workshop, and in most cases SI or IS can be seen on the silver. A similar mark can sometimes be found on the meerschaum. Based on the solution of the silver mark with which Johann Nepomuk Schweger, silversmith in Pozsony (today Bratislava, Slovakia) between 1830-1840, marked his work (at present only known from pipe lids; Kőszeghy 1936; Mihalik 1911, 145), it appeared logical that the person of J. Schweger the pipe-cutter was identical with that of the silversmith (Haider 2000, 67; Ridovics 2000, 206-208). However, the pipe in the Bayleander collection caused this position to be modified (Ridovics 2003, 186-190) (Fig. 18). There appear to have been two individuals, evidently members of one family, either father and son or two brothers. In all probability they worked in the same workshop. This is borne out by one of the characteristics of the Schweger pipes; the lids crowning the pipes are not always of pure silver, but often of finely carved meerschaum set in a silver frame. There is only one pipe with the Schweger mark, the meerschaum lid of which is by a different silversmith



Figure 17 (above): Joseph Schweger: Neptune-pipe, 1837.
Figure 18 (below): Joseph Schweger's signature on the Neptune-pipe, Bayleander Collection.





Figure 19: Joseph Schweger: Palatin Joseph, 1837, Hungarian National Museum (photograph by András Dabasi) [Inv. n. D. 1974. 390. H: 12cm. L: 11cm]



Figure 21: Joseph Schweger: Coronation-pipe, around 1830, Hungarian National Museum (photograph by András Dabasi) [Inv. n. D. 1974. 397. H: 13cm. L: 11cm]



Figure 20: Detail showing the name of J. Schweger on Palatin Joseph pipe.



Figure 22: Detail from the Coronation-pipe showing the name Joseph Schweger (photograph by András Dabasi).

(Budapest Historical Museum Inv. No. 20.401). A number of marks can be found on the silverwork (Haider 2000, 211, Pl LIX). The filigreed date of 1816 can be read on its lid. The maker's hallmark of the renowned nineteenth-century master craftsman József Szentpéteri, together with the Pest authentication mark of 1832, can be seen in the silver. However, the silver hallmark JG and another unidentifiable mark can be found on the rim. The style of meerschaum carving differs from the rest of the known work. The carving is flatter and depicts animal shapes instead of figures. The form of the pipe is different and the distinctive acanthus leaf motif is absent. Could this be an early piece in the Schweger oeuvre? The date 1816 would allow this to be the case.

The majority of his work consists of bridged pipes. More than ten pieces are preserved in the Hungarian National Museum collection: the figure of a man resting on his elbow (S sign) (Hungarian National Museum. Inv. No. D. 1974.365), a portrait of the Palatine Joseph (J. Schweger. 1837). (Hungarian National Museum. Inv. No. D. 1974.390) (Figs. 19-20), the story of Hero and Leander (IS) (Hungarian National Museum. Inv. No. D. 1974.156), an ornamentally decorated pipe (IS) (Hungarian National Museum. D. 1974.426) and a coronation procession (J. Schweger) (Hungarian National Museum. Inv. No. D. 1974.397) (Figs. 21-22). Both of the pieces known so far to have been dated and signed in the meerschaum were made in 1837. The meerschaum of the exceptionally beautiful piece in the Blaskovich Museum (Blaskovich Museum. Inv. No. 67.323) (Fig. 23) is not marked, but the IS mark appears on the silver rim. The body of the pipe forms a Renaissance tempietto; in front of the arcade arch is a naked male figure seated on a lion's skin footstool





Figure 24: Joseph Schweger: Hercules-pipe, first half of nineteenth century, Blaskovich Museum (photograph by Gócsa Mihály) [Inv. n. 67.323. L: 12.5cm. H: 14cm]

leaning on a cudgel. Given its attributes, this can be identified with the person of the mythological Hercules. The body is miniature, and the sensitive surface carving, playing with light and shade, can relate it to the pipe in the Hungarian National Museum depicting Hero and Leander and especially with the pipe with the Neptune figure in the Bayleander collection; the agreement in composition is also conspicuous (Fig. 24). With both pipes a leafy motif curves backward from the neck section to the pipe head, forming a bridge. From the artistic execution in forming the figure it can be said that the Hercules pipe is from the hand of Joseph Schweger, from the 1830s. According to the IS mark, the silverwork was done by Johann Nepomuk Schweger. The lid is reticulated, multi-jointed with a foot and lid, reminiscent of flattened rotund silverwork. What is unusual about this pipe is in part the leafy motif that forms the bridge and the foot. Here the Baroque, twisting, rocaille acanthus leaf is not found. The foot, neck and bridge of the pipe form a single unfolding leafy plant with long, thin, deep brown leaves with light edges. The brown colouring of the meerschaum is exciting and unusual as it separates from the white columns and the statue-like figure of Hercules.

In the pipe exhibition of 2000 it was possible to exhibit twelve pieces that can be listed as belonging to the oeuvre of the master craftsman Schweger. Ten of these were from the National Museum's Collection, one the possession of the Budapest Historical Museum and one



Figure 24: Joseph Schweger: Hercules -pipe, first half of nineteenth century, Blaskovich Museum (photograph by Gócsa Mihály) [Inv. n. 67.323. L: 12.5cm. H: 14cm]



Figure 26: Joseph Schweger: Napoleon-pipe, with detail of IS mark inset. Hungarian National Museum (photograph by András Dabasi) [Inv. n. D. 1974. 517. H: 11.5cm. L: 12cm]

from the Blaskovich Museum. Since then, alongside the lovely pipe of Neptune and Amphitrite in the Bayleander collection, yet another of his splendid pipes can be added to the list, thanks to Heike Helbig's communication at the 2009 pipe conference. The musical genius of the nineteenth century, Franz Liszt (1811-1886), who was partial to a smoke, received this well-carved Napoleon pipe as a gift from Count Kázmér Esterházy (1815 - 1876). At present it is preserved in the Liszt Museum in Weimar (Inv. No. Kg-2007/439). A pipe with an identical motif can be found in the collection of the Hungarian National Museum (Hungarian National Museum. D. 1974. 517; Haider 2000, 67; Ridovics 2000, 206-207; Figs. 26-27).

Tobacco-growing, the tobacco trade and tobacco monopoly in eighteenth- and nineteenth-century Hungary

Last, but not least, something must be said about the economic and sociological background to Hungary's unique pipe culture, of tobacco-growing and the tobacco trade in Hungary. Due to a favourable climate tobacco-growing began early on in Transylvania, to be followed by tobacco horticulture in the territories occupied by Turks. In 1701 the annual trade figures for Transylvania show 53½ quintals of tobacco export (Takács 1961, 258; Vajkay 1975-1977, 119-120). The tobacco trade proved an exceptionally profitable form of income. In 1702 the Viennese Court wished to extend to Hungary the operative tobacco monopoly that had been in place in Austria since 1670. However, the insurrectionist Kuruc uprising led

by Ferenc Rákóczi II succeeded, at least for a while, in preventing Vienna's absolutist economic policy, and with it the introduction of the tobacco monopoly (Haider 2000, 21; Bogdán 1973, 298). In 1783 the tobacco monopoly was placed under state control, but it was impossible to maintain inspection in Hungary, which was Central Europe's largest market for the production and consumption of tobacco. The boom in home production can be placed at the time of the American War of Independence (1775-1783). At this time the whole of Europe became familiar with Hungarian tobacco. Napoleon's continental blockade brought fresh economic opportunities for the Hungarian producers.

The greater part of the seventeenth- and eighteenthcentury domestic tobacco trade was in the hands of Greek merchants. Based on the study by László Csorba (1995) it is known, that with the exception of the Greek banker Baron Sina, who was in a special position, by the beginning of the nineteenth century the largest tobacco traders were from among the circle of businessmen of Jewish origin (even if they had been Christianised in the meantime). The 1783 decree of Emperor Joseph II made it possible for Jews to settle in the free royal boroughs; it is from this time that the majority of Jews settled in Pest. The census-takers of 1787 reported altogether 14 families 'of the Moses faith'; by 1820 that number had risen to 549, among whom the head of the family was involved in trade (Csorba 1995, 41-45). There was a tobacco factory in one of the areas settled by Jews, the street leading to which was given the name Tabakgasse (Schmall 1906, Tobacco for smoking was distributed by the

merchants, who maintained a tight economic connection with the large production estates and who at that time made up some three-quarters of the Jewish population. It was here in Dohány utca (Tobacco Street) that this social group, which was growing dynamically in numbers and wealth, discovered a site for its most important religious institution (Csorba 1995, 41-45). Construction began in 1854 and 1859 saw the completion of the world's secondlargest and to this day Europe's largest synagogue, the cost of which could only have been covered by a community of considerable wealth. The extent of the domestic tobacco trade is demonstrated in the construction of a tobacco warehouse valued at 80,000 forints on the Danube waterfront in the first half of the nineteenth century by one of Pest's most important merchants, Mór Ullmann of Szitány. In 1844 Mór Wodianer and Baron Georg Sina of Vienna signed a five-year contract for tobacco freight over the whole of the Plains area beyond the Tisza. Between 1843 and 1847, Wodianer alone had a turnover through Szeged of 91,000 quintals (Bácskai 1989, 148, 160; Csorba 1995, 42). Seen in this perspective it is easier to understand how in Hungary, with its massive consumer circle, a unique Hungarian pipe-smoking culture and pipemaking manufacture of artistic proportions should evolve.

Until 1850 the production and sale of tobacco over the Hungarian territories was free. It was no coincidence that the danger of the introduction of a tobacco monopoly during the Age of Reform was handled as a symbol of intensified economic exploitation, and so it was only after quashing the struggle for independence, in the November of 1850, that the Emperor's express order could be executed (Delbrück 1857, Remethey 1937, Minárovics From March 1, 1851, the treasury tobacco 1962). monopoly already in place in Austria was introduced under the patent of Emperor Francis Joseph. The order affected a total of 40, 500 producers working 35,000 holds (0.57 hectares, 1.42 acres), attached tobacco production to permits and laid down the conditions for submission of and payment for the crop at the imperial royal offices, only allowing minimal free production for personal use over a few négyszögöl (3.57 sq. m., 38.32 sq. ft.).

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The collection of Ottoman pipes from archaeological investigations in the north black sea area of the Ukraine

by Svitlana Biliaieva

The development of historical archaeology has placed new goals before those who examine the material culture of the societies of the recent past. The use of artefacts as indicators of social life has become an important part of archaeological investigation. Reconstruction of the life of the biggest Empires of Eurasia, and its parts, which are now represented by the modern states of the continent, would be impossible without new approaches to artefacts as the historical 'evidence of daily life - especially of the non-elite, rural life' (Baram and Carrol 2000, 3).

One of the most valuable kinds of artefact for the early modern period are smoking pipes, which allow the reconstruction of an important aspect of the life of the Eurasian Empires, and especially that of the Ottoman Empire (Simpson 2002, 159). Together with other regions of Eurasia, different parts of the Ukrainian lands also became subject to the expansion of the Ottoman Empire. First of all, from the end of the fifteenth until the end of the eighteenth century there was the North Black Sea area (Fig. 1) and also some lands of the different regions of Ukraine. The military actions of the Ottomans led to confrontation with the Ukrainian Cossacks - a wide social stratum of society, defenders of Ukrainian interests

against Poland and the Ottoman Empire. But in the course of the Ottoman period the Ukrainian Cossack leaders (Hetmans) had a range of relationships with Ottomans: from military attacks to political and trade contacts, and even the vassalage of part of the territory by agreement. The parallel coexistence of two different societies led to the situation, when the material culture of a vast territory saw the interaction and influences of Ottoman culture and the various cultural models that had been adopted by the populations of the great lands of Eastern Europe. The transition from medieval to modern times was connected with changes in mentality, activity of life, liberation from moral dogmatism and freedom of communication. Two signs of such a process were the adoption by society of the habits of drinking (coffee) and smoking (tobacco) stimulants (Baram and Carrol 2000, 147). In terms of material culture these quickly brought into play new forms of artefacts - smoking pipes and coffee cups.

The frontier of Ottoman possessions was marked by a system of fortresses, which were used for protection from Cossacks raiders and later from those of the Russian Empire. These outposts and the city sites situated near them, occupied an important place in the sphere of political and economical interests of the Ottomans. But each one had specific features within its development and some differentiation in the details of its material culture, which is also reflected in the composition and nature of artefacts such as pipes.

The Institute of Archaeology of the Ukraine National Academy of Sciences's expedition saw the excavation of two such Ottoman outposts: in Ochakiv, Mikolayiv region (from 1990 to 2004 and 2008 to 2009) and in the fortress

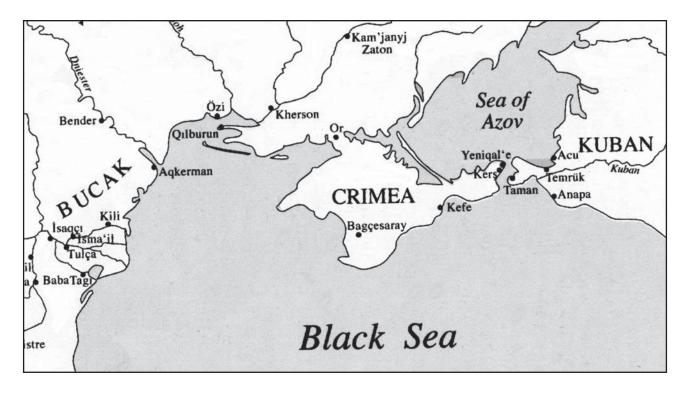


Figure 1: The location of the Ottoman outposts Özi (Ochakiv) and Akkerman in the Black Sea region.

of Akkerman in Bilhorod-Dnistrovs'kyi, Odessa region (from 1999 to 2009). In the course of the archaeological investigations a collection of almost 2000 pipes was obtained dating from the seventeenth to the eighteenth centuries. Most of them are Turkish in origin, but some of them represent Cossack pipes.

Ochakiv was under Ottoman control from 1525 but, especially from the beginning of the seventeenth century, it became an important outpost of Ottoman political and economic interests on the North Black Sea. The fortress included three castles and urban structures, surrounded by ramparts that developed on the banks of the Bog estuary and on the Black Sea shore. But even in the middle of the seventeenth century Ochakiv's Pasha didn't live in the city permanently for two reasons: Cossacks and the bad climate. Evliya Çeleby, who was in Ochakiv in 1657, described the fortress in detail (Celeby 1961, 113). He noted the precarious situation of its existence, because of Cossack attacks. Only during the last decade of the seventeenth century and the first decade of the eighteenth did the Ottoman power try to modernized the fortress and build primitive bastions, which in fact were not effective before the new main enemy of the eighteenth century- the military forces of the Russian Empire, and the victory went to Russia (Finkel and Ostapchuk 2005, 174-178). These specific circumstances of the development of Ochakiv's infrastructure offered the possibility of studying the penetration and spread of different kind of pipes in Ochakiv, during the period when the Turkish garrison dominated the area.

In the course of the excavations in Ochakiv, 585 pipes (complete bowls and fragments) were found on the site of the former Ottoman fortress, known in the records as 'Özi' and in the territory of the former medieval city, which was surrounded by ramparts. Part of this latter, situated on the high shore of the sea, preserves the historic name 'Turkish ramparts'. In summary, taking the assemblage as a whole, all of the pipes, with two exceptions, are made of clay. One is made from meerschaum, and the other from nephrite. Only one pipe is of a western type; the others are eastern 'chibouks'.

The majority of the pipes are made from red clay (up to 90% in the different parts of the castle and city), the remainder are from grey and white clay.

The pipes are made in one or two part moulds. The surfaces of the pipes are modified in a variety of different ways: covered by slip, polished and painted, sometimes like marble with various colours from lilac-brown to grey. Such kinds of surface treatment were specific features of the Ochakiv series of pipes.

Decorating the pipes involved the use of different kinds of techniques: imprints from the mould, stamps, incisions and inlays with gold and white paste. One group of pipes has from one to three seals and the other is without seals. As is well known, some technological indicators are also chronological ones. For the first, it is the clay

colour and its quality, the quality of the preparation of the raw material and the place of its origin, the form, measurements and proportions of parts of the body, the processing of the surface decoration, the presence of seals and the type of seals. These indicators have been the subject of numerous investigations devoted to the typological and chronological classification of Ottoman pipes in the territory of the Ottoman Empire, in which the works of J. Hayes, R. Robinson, J. Simpson, M. Stancheva and others have played an important role.

Nearby 10% of the collection is represented by pipes from the end of the seventeenth and the beginning of the eighteenth century. All items in this group are white, grey to black burnished in colour, and some of them of light-red. In the early part of the collection are some types of pipe which are close to those of the second part of the seventeenth century and the beginning of eighteenth century, which were spreading in the territory of the different regions included in the Ottoman Empire.

Thus, in the collection there is a fragment of pipe from grey clay with a black surface; the stem is broken, the rim resembles the form of a pot rim, the bowl is bi-conical, with some plate-shaped features; the bottom of it joining steeply with the stem. It is 4.2cm high. The diameter of the girth line of the bowl is 3.9cm (Fig. 2). Typologically the origin of this pipe was perhaps connected with pipes, close to Type 5a/8 from Szeged Castle in Hungary of the first half of the seventeenth century (Tomka 2000, 125), but is later than them. At the turn of the seventeenth and beginning of the eighteenth century this variant further develops as disk-based pipes. A pipe from the fortress of Azak in Azov is a late seventeenth or early eighteenth-century variant of it (Gusach 2006, 138, fig. 10, 4).



Figure 2: A seventeenth-century pipe fragment from Ochakiv.

The small grey clay pipes in the form of an ink-pot are probably early. They are known in Kerameikos and other monuments (Robinson 1983, 274, L. 52, N5) as dating from the end of the seventeenth and the beginning of the eighteenth century. A mould-made specimen, decorated around the bowl with a 'dot and bracket' design (Robinson 1985, 154) resembling stylized anthropomorphic images (Fig. 3.1), was found in Ochakiv.

At the end of the seventeenth and the beginning of the eighteenth century another group is represented by a variety of small round-bowled pipes with short stems, which correspond to the main features and measurements of Istanbul clay pipes (Sarachane finds) in Hayes' Type IV (Hayes 1980, 5), but with some differences. The details of form and decoration have analogies in Group A1-A2 from the Athenian Agora according to the Robinson classification (Robinson 1985 Pl. 61). The length of the pipes is between 4.3 and 5.1cm; the diameter of the socket opening is between 0.6 and 0.7cm. The bowl is scored vertically, in the mould, and the socket has a stepped-ring termination. In some cases a band of wave-like lines is stamped around the socket. The decoration of the bowl and stepped-ring can be with a variety of different stamps:

rhombic, ovals, pomegranate granules and others (Fig. 3, Nos. 2-4).

Some white clay pipes which date from the transitional period from the seventeenth to the eighteenth century belong to Type IX in the Hayes classification, with very deep bowls, consisting of round and cylindrical parts. The curved part of the pipes is scored vertically. The height of the pipe is 4.1cm, the length is 4.6cm and the diameter of socket is 0.8cm. These pipes were made in one mould and were without any visible burnishing stripes that suggests local manufacture (Fig. 3, Nos. 5 & 6).

The other variant of pipes with a round bowl from the transitional period from the seventeenth to eighteenth century and the first half of the eighteenth century is the small pipe with a bag-shaped bowl. The surface was covered by glaze (Fig. 3. Nos. 7). This pipe is black, perhaps as the result of fire. Similar pipes belonging to Types C-7- 9 from the Athenian Agora and Kerameikos, and from the Turkish fortress Azak in the city of Azov in Russia (Gusach 2006, 138, fig. 9, 2) were also covered by glaze, but yellow or green in colour (Robinson 1985 173, Pl. 47). This form of pipe continued to exist in the

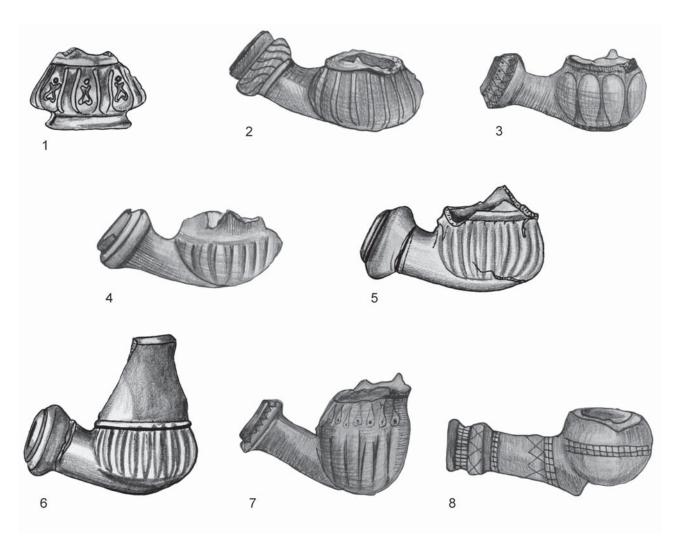


Figure 3: Ottoman pipes from Ochakiv dating from the seventeenth to eighteenth century transition; nos 1-8.

eighteenth century, as can be seen in the collection from the Belmont Castle excavation in the Levant (Simpson 2000, 148, fig.13.1, nos.18-17).

The dark grey clay pipe with black surface covering, a round bowl and long stem ending with a decorated bulge (Fig. 3, No. 8) is closely analogous to Type 5g/9 from Buda, St. George's Square from the first part of eighteenth century (Tomka 2000, 131). This type of pipe with a round bowl and cylindrical rim developed further in subsequent periods, increasing in size.

The eighteenth century element in the Ochakiv collection is amazing in the high quality of its production, the numbers of forms and the luxury of its decoration with geometric and vegetable motifs and gold paint. Different styles and compositions are present from images in European baroque styles to numerous ornaments of Turkish art: stalactites, peacock plumes, pomegranates, fish scales and zoomorphic images. The pipes demonstrate various surface treatment processes, even marbling, which was accepted in different kind of ceramics. Different kind of seals with inscriptions, and images of fish, birds, rosettes, and tulips appear on the pipes. Most of the pipes are made from red clay. Among the bulk material from the time of the late Ottoman presence in Ochakiv it is necessary to define some other typological groups, and to pay attention to more representative specimens of pipes as a part of applied art.

As to typological classification, many types known over the territory of the Ottoman Empire are represented in the collection such as those from Anatolia, the Aegean area, Greece and Bulgaria. Some Hungarian types may derive from adjacent regions. Quantitatively, the combination of the various types is different.



Figure 4: Fragment of eighteenth-century pipe of Bulgarian origin from Ochakiv.

Thus, among the Ochakiv collection so far only one white clay pipe, with a collar edged socket has been found (Fig. 4). It has analogies among pipes of Bulgarian origin. Such kinds of pipes are wide spread in Bulgaria in the eighteenth century (Stancheva 1972, 87-88, fig.11).

Among the other types there are different variants of low bulging bowls with long rims above (Fig. 5). The surface of the pipes is slip covered and polished. Decoration is on a flattened shoulder: rhombic or lozenge in composition. The pipes are between 3.9cm and 4.4cm high and the diameter of the socket opening is between 0.8cm and 0.95cm. Some similar specimens are described by Hayes as Type XXIV, a form similar to Type VI (Hayes, 1980, 8) and some forms similar to Type XXII (Hayes 1980, 5) with bag-like bowl and almost cylindrical rim. The bowl is divided from the rim with one row of narrow notchedrouletting, and is decorated with stylized floral stamps. The pipe, in the form of a jug, has the most luxurious decoration in that the bowl, rim and wreath are covered in ornament.

Several variants of highly burnished red clay pipes, with low round bowls and cylindrical rims or with long bowls, (height 3.4 to 3.7cm) are similar to eighteenth to twentieth century specimens in the Robinson classification (Robinson 1985, 175, Pl 49). Another group of Ochakiv pipes, with closely defined formal variations and measurements that are characterised by the bulbous form of the end of the socket, belong to this series. All these pipes are made of red clay, and are decorated on the middle part of bowl. The rim is separated from the bowl by a narrow band, sometimes with notched-rouletting (Figs. 6 & 7). One high quality red clay pipe, with a polished surface and long almost cylindrical bowl, flat bottom and hexagonal socket, ending in a decorated band at the opening of socket (0,85cm), has a seal with the image of a tulip.

Various items in the Ochakiv collection with round, deeply gadrooned bowls, cylindrical, short or longer rims, high quality slip, with seals are similar to specimens C35-C38 of Robinson's typological classification of pipes from Corinth and the Athenian Agora (Robinson 1985, 178-179, Pl.51) and also from Kerameikos (Robinson 1983, 276-7, Nr. 20,23). The surface of one deep pipe bowl resembles carved scallops or fish scales, every scallop of which is covered by gold paint (Fig. 8). This decoration has analogies in items C79, C80, from Roman Bath (Robinson 1985, 184, Pl 75).

Another specimen with a short lattice-decorated rim, deeply gadrooned bowl, bulbous wreath, framed on both sides by a row of notched-rouletting, lies on a flat rest resembling a cup. On the bottom of the rest the stamp is in the form of a palmette (Fig. 9, No. 1). The next item is in the form of a pot (4.3cm high), with a flat bottom, on which there is a zoomorphic image, probably the snout of a bird of prey. There is a seal on the socket of the pipe. The bulbous socket end is also decorated. The surface of the bowl resembles marble with waves of dark and light brown colour (Fig. 9, No. 2). A close analogy to the 'pot' form with a flat bottom is found among pipes dating from the second part of the eighteenth century from the Sadana Island Shipwreck in the Red Sea (Ward 2000, 195).

Good quality red clay pipes, polished and covered with

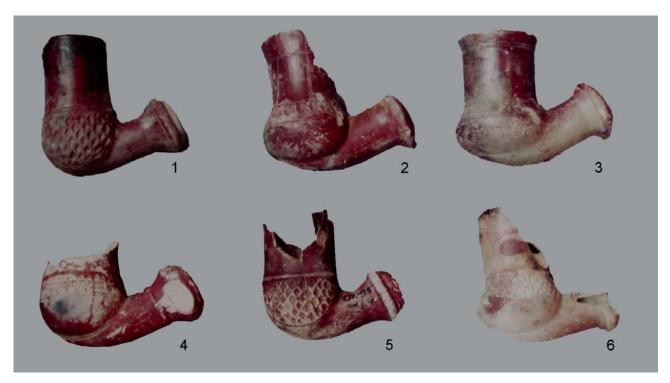


Figure 5: Eighteenth-century pipes from Ochakiv.

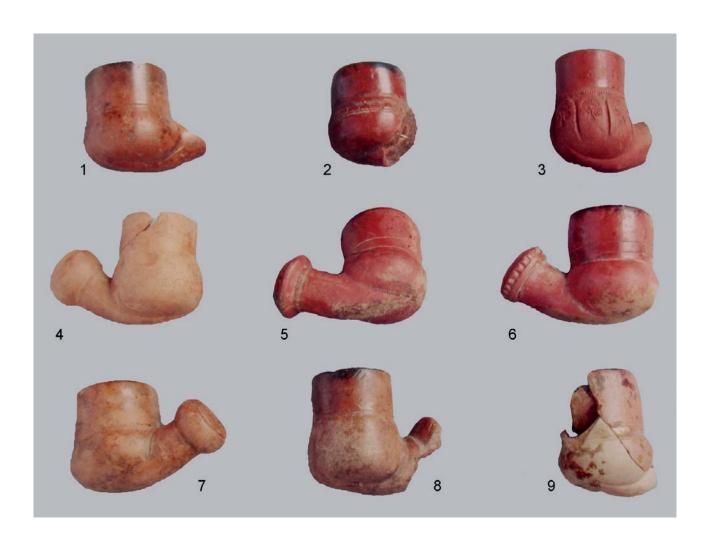


Figure 6: Eighteenth-century pipes from Ochakiv.

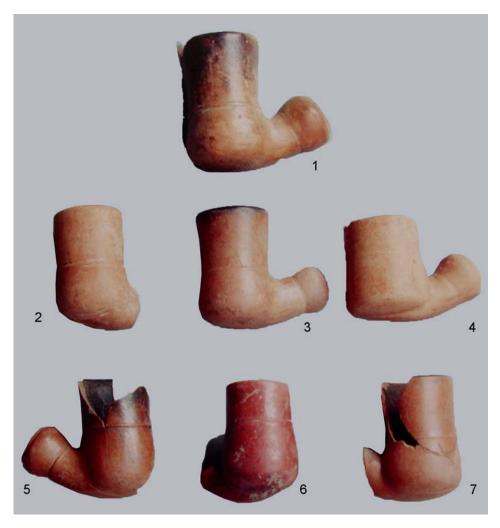


Figure 7: Eighteenth-century pipes from Ochakiv.

slip, with cylindrical rims and bowls reduced to small flattened disks represent one of the group, the formation of which began at the end of the seventeenth and turn of the eighteenth but circulated more widely in the eighteenth and nineteenth centuries. Some specimens correspond almost perfectly with Robinson's Types C71-73 (Robinson 1985, 183, Pl.54). One pipe from this group is lavishly decorated in the baroque style; in the middle of the cylindrical rim are bunches of flowers, framed by narrow bands of double rouletting, and notchedroulettings. The end of the socket resembles a socket-pipe and is decorated by a narrow strip of wavy lines (Fig. 10).

There are several outstanding pipes with bi-conical bowls and long, rather narrow rims with an overall height between 5 and 5.5cm and rim height of between 3.4 and 3.5cm. The bi-conical stem has a stepped-ring termination, is polished and covered with slip, resembling a marble surface and distinguished by colourful designs: white and brown, white and lilac, white and claret. It is known that Ottoman potters imitated the marbling produced in earlier Italian ceramics during the seventeenth to nineteenth centuries (Vroom 2005, 165). This provides a broad basis for the dating of pipes with such surface treatment; more specific dates will depend on formal indicators.

Finally the most numerous group of clay pipes, from the second half of the eighteenth century belongs to Type X in the Hayes classification (Hayes 1980, 7), dated sometime after 1850. They correspond to specimens C93-98 in Robinson's catalogue (Robinson 1985, 186, Pl. 56). Almost all of the pipes have from one to three seals with Arabic inscriptions (Fig. 11).

Apart from complete pipes and items the form of which can be restored, there are numerous interesting fragments, with various decorations and seals: rosettes, birds, fish and also inscriptions (Fig. 12). The main types of decoration reflect the traditions of Turkish art, involving ornamental figures that are widespread in ceramics, metalwork and other materials.

As was mentioned earlier, there is only one meerschaum pipe in the Ochakiv collection. In form it is similar to the pot-shaped clay pipes. The rounded bowl is divided from the rim by two lines with a single notched-rouletting strip between them. Above the upper line is a decoration like the 'three fool moon'. The surface of the bowl is divided by tree-like compositions, each one of which ends with the sign of 'eyes against evil' with a blue glass incrustation in the centre of each eye. The stem ends with a bulbous



Figure 8: Fragment of eighteenth-century pipe with fishscale decoration from Ochakiv.



Figure 9: Eighteenth-century pipes from Ochakiv.



Figure 10: Eighteenth-century baroque-style pipe with white paste and gold paint, from Ochakiv.

wreath and stepped-ring termination (Fig. 13).

Another unique pipe is made from dark-green nephrite. The pipe bowl is round with a flat shoulder; the upper part of the rim is broken. The rim and stem are hexagonal; the wreath is framed by facetted strips (Fig. 14). This pipe was probably imported from China or Mongolia, where nephrite pipes were produced.

Study of the Ochakiv collection shows that the development of smoking traditions and the use of the major types of pipe, known in Istanbul, the provinces of the Ottoman Empire as well in Asia Minor as in the Balkans, was also current on the Empire's frontier. But the proportion of pipes in the distinct groups differed. Most of the pipes imported into Ochakiv were from Anatolia. An increasing number of pipes were available in the eighteenth century, especially in the second part of it. Of course, there is an absence of the luxury pipes, with silver and gold details, which were in the mode of life of the upper echelons of Ottoman society. There were probably pipe makers in the artisan part of the city where the production of some simple types from white clay can be inferred through the presence of unfired pipes. In addition, after the ending of Ottoman power in Ochakiv, it became one of the military outposts of the Russian Empire. In this connection, the latest date of pipe importation from Ottoman territory, or the date of the existence of the latest types is not clear.

The history of Akkerman, another outpost on the frontier of the Ottoman Empire on the western part of the Black Sea region, has some important differences from Ochakiv, which are reflected in material culture, one category of which are pipes. After the Ottoman invasion in 1484 by the troops of Bayezid II, it continued to exist as one of the strongholds of the frontier and as an important centre of naval and transit trade between different parts of the Ottoman Empire, for the provision of food to the capital (Ostapchuk and Biliaieva 2009, 139-142). In the fortress was a garrison of soldiers, and the military headquarters. The structure of the fortress includes a Citadel, Civil Yard, Garrison Yard and Low Yard, and was surrounded by a ditch and rampart. The excavations were located in Low Yard, which was defended by fortifications (walls and a barbican) from the side of the river Dniester. The site of the next excavation was in one part of the ditch. As a result nearly 1400 pipes (both complete and fragments) were found.

More than 80% of the pipes were found in the Barbican and in the area of the central part of the Low Yard. Almost 18% of the pipes were derived from the excavation of the Ottoman bath-house, which was built at the end of the fifteenth and the beginning of the sixteenth century. Evliya Çeleby had seen this bath in 1657. He described its location and construction. So, the pipes accumulated here from the seventeenth century at least.

Almost all the Low Yard collection of pipes are made from clay (grey, white and red), some examples are in slate. Among the clay pipes are fragments of pipe in faience and

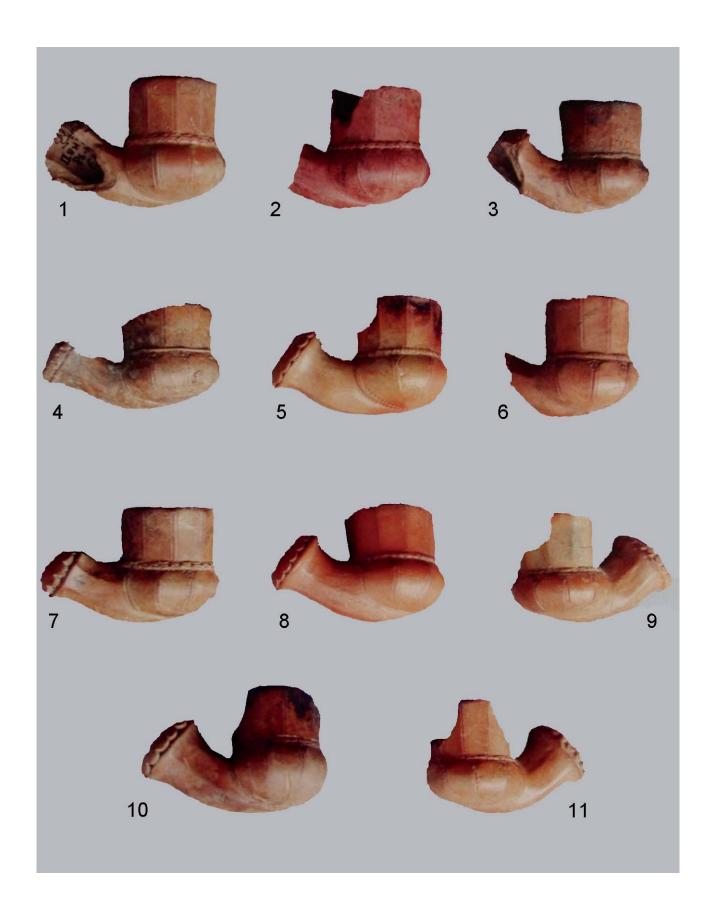


Figure 11: Eighteenth-century pipes from Ochakiv.

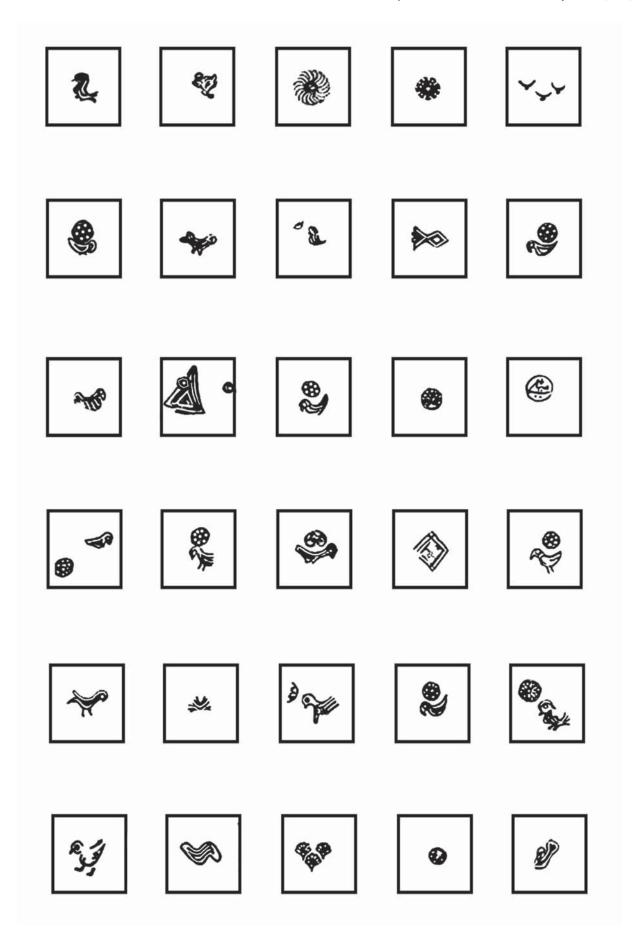


Figure 12: Examples of seals on pipes from Ochakiv.

some made from china. The majority of the pipes (almost 85%) are made from red clay.

Seventeenth century pipes average nearly 5% of the collections; if all the late seventeenth and early eighteenth century types are included this rises to 20% of the total. The Akkerman collection includes some groups of pipes from the second part of the seventeenth century, which are absent, or rare, in the finds from Ochakiv.

The earliest specimens are made from grey, white, and sometimes yellow-red clay. Seventeenth-century pipes are represented by several forms.

Typologically a number of groups can be defined on the basis of a close study of their forms. These groups can be further sub-divided on formal and decorative grounds in subsequent periods. The main principles of such a classification were elaborated in the typological and chronological classification of Tomka, who defined three main forms at the beginning of the seventeenth century and traced their further development from 1600 to 1800 (Tomka 2000, 30-31).

The first type of pipe is made from grey clay, with a long stem and a small bowl. The stem is hexagonal or polygonal and ends with a small bulge (Fig. 15). Many of these pipes have inscriptions around the stem. This group is identical to Type I in Hayes's classification (Hayes 1980, 5-6) and dated to the seventeenth century.

The slate pipes have similar facetted stems (Fig. 16). They can also be found in Bulgarian collections (Stancheva 1972, 97).

One of the variants of the group with inscriptions around the stems is represented by pipes which are weakly facetted or almost not facetted at all.

The next variant group of pipes from grey clay includes specimens with facetted bowls and stems and with a simple angular form without inscriptions. This group is similar to Type XXIII in the Hayes classification and dated to the seventeenth century (Hayes 1980, 5-6). The facetting of the rims and bowls developed further in the eighteenth and nineteenth century, but with a greater variety of forms. Almost all of these pipes would be made from polished red clay and covered by slip.

The second type represented in the collection is a small white, grey and light yellow clay pipe, some 2.5 to 3.0cm high with a small cylindrical rim and the bowl in the form of a many-petalled flower. The socket opening is 0.7cm wide. The pipes lack a keel (Fig. 17, No. 1), as in Type C2 in the Robinson classification (Robinson 1985, 171, Pl. 47). Another variant of the 'flower pipe', as it was called by Stancheva (1972, 91) is 3.0cm high, has more extended proportions, with a larger number of petals over the junction between the bowl and the stem, with some elements of a future keel (Fig.17, No. 2).



Figure 13: The meerschaum pipe from Ochakiv.



Figure 14: The nephrite pipe from Ochakiv..



Figure 15: Facetted pipe with inscription from Akkerman.



Figure 16: Fragment of slate pipe from Akkerman.

The third early type without a keel is the grey clay pipe, sometimes covered by a black covering, with a shorter stem with a wreath and a small almost bi-conical bowl (Fig. 17, No. 3). This tendency for the bowl to be reduced and the pipe overall to be increased in size would probably find its further development in the disk-based pipes.

The fourth type of pipe, with a small round bowl and cylindrical rim can be dated to the seventeenth century. In the second part of the century it had numerous variants which increased in size over time. Some of the vertically scored bowls correspond to Type A1 in Robinson's catalogue and date to the late seventeenth century

(Robinson 1985, 194, Pl 61), others represent variants of round bowls with different ornamentation, derived from the contemporary applied art tradition of the Ottoman Empire. A pipe of this type with a date in a seal was found at Akkerman (Fig. 18). This is very important for the chronological and typological classification of the whole collection. This pipe is made from grey clay, the height of the surviving part is 2.7cm; the round bowl has a diameter of 3.2cm. It is ornamented on the shoulders. The keel is visible and separated by a line of notches and a narrow crenellated strip. The same ornamentation continues on the middle line of the keel. The rim is cylindrical, the upper part is broken. The stem is also broken. There is a decorative zone of floral motifs around the upper part of the bowl. The ornamental elements are branches and leaves. On the bottom of the bowl of one of the pipes are two identical seals on both sides of the keel. One seal is partly broken and the other is stamped with the date 1080 (AD 1673/4). The finding of this pipe provides evidence for the exact time of pipe distribution in the North Black Sea area. As can be seen it is earlier than the legalizing of smoking in the Ottoman Empire, the regulation of which only came about in 1680, with full approval coming at the beginning of 1720 (Lingen 2003, 131).

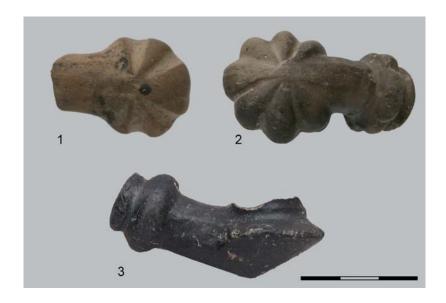


Figure 17: Seventeenth-century pipes from Akkerman

This type of pipe with a round bowl and cylindrical rim developed further with an increasing size and different decorative elements. The same tendency can be seen in the majority of the round bowled pipes from Ochakiv. The numerous variants of small pipes with round bowls and straight rims and a variety of stamped decorations on the shoulders (Fig. 12), have features that are similar to Robinson's Type A5 (Robinson 1985, 194, Pl.61), which are the transitional types from the late seventeenth to early eighteenth century. Some examples also have features that are similar to other contemporary forms, such as N8-9 in the Kerameikos pipe Catalogue (Robinson 1983, 274, Pl. 52).

The eighteenth-century part of the Akkerman collection, as in Ochakiv, is represented by pipes of very good quality. The majority are made from red, and sometimes from grey and white clay and covered with slip. Some pipes from grey clay are covered by a claret slip. Among the bulk material of later times the development of typological groups and their variants continue, with several bowl configurations: round, like a bag, a flower bud, possibly a tulip, and kegshaped (Fig. 19). The pipe rims evolve from cylindrical to an expanded outer end; lily shaped specimens are absent. There are also the numerous forms and ornaments, luxury decoration with geometric and vegetable motives, such as rosettes, that spread with Ottoman applied art (Kuban



Figure 18: Pipe with a date from Akkerman. Seals with the date 1080 (A.D. 1673/4).

1986; Akar 1988). The ends of the stem come in three main forms - swelling or bulbous with stepped-ring termination, socket and keg - which are decorated with a variety of ornament. The most widespread ornamental elements are: carving, rouletting and scalloped lines, sometime swelling in the form of a flower with numerous petals, and others. But gold painted decoration is less common than in the Ochakiv specimens. It can be a band or strip of gold paint around the shoulder, sometimes on the bowl or wreath of the pipe. Quite possibly it is connected with the place of excavation, being far from the Citadel and Civil Yard. But in the Belgorod-Dnistrovsky Museum there are also specimens of a more simple kind of pipe, than have been seen in Ochakiv. At the same time faience and porcelain pipes were found in Akkerman (Fig. 20), comparators for which are in the Topkapi Sarayi Museum and in the Museum of Muslim Art in Istanbul. There are numerous specimens of pipes stamped with between one and three seals on the left or right side of the socket, on the bottom of the bowl. The seals can be divided into the following groups: letters and inscriptions, zoomorphic (images of



Figure 19: Eighteenth century pipes from Akkerman.

fish, two kinds of birds), rosettes, and tulips (Fig. 21). Some inscriptions in the seals establish the name of the pipe maker, or the place of production.

Some variants are similar to specimens described by Hayes, as Type XXIV, a form similar to Type VI (Hayes 1980, 8) and some forms similar to Type XXII (Hayes 1980, 5) or modifications of specimens similar to eighteenth to twentieth century items in Robinson's classification (Robinson 1985, 175, Pl 49).

In the Akkerman collection there are some yellow and green glazed pipes that may be Bulgarian, Greek or Ukrainian in origin which may have been lost there by Cossacks during the time of their military activity or when they were prisoners.

Compared with Ochakiv, pipes with a collar on the edge of the socket are more numerous in Akkerman. As has been noted, these pipes have analogies among eighteenth century Bulgarian products (Stancheva 1972, 87-88, fig.11).

The eighteenth-century Akkerman collection includes a wide range of pipes with disc bases, with different decoration and various modifications of formal indicators. They have analogies among the materials from Kerameikos, N31-38 of the end of eighteenth and the beginning of nineteenth century (Robinson 1983, 278-9, Pl. 54).



Figure 20: Porcelain pipe from Akkerman.

In Akkerman, like Ochakiv, numerous groups of red clay pipes are present, belonging to Type X in the Hayes classification (Hayes 1980, 7), dated sometime after 1850. They also correspondent to specimens C93-98 in the Robinson catalogue (Robinson 1985, 186, Pl. 56). Almost all the pipes have seals with Arabic inscriptions.

Some pipes demonstrate design elements which appear to be influenced by the European baroque style involving, in a realistic manner, the images of old men, resembling some features of Zeus.

One fragment of the rim of a fine, thin-walled red clay pipe, covered by slip was found in Akkerman. Such pipes were used by the elite of Ottoman society, and were known from rich houses in the nineteenth century. A series of prestige pipes with the same kind of rim is known from the displays of the Topkapi Sarayi Museum in Istanbul.

A distinctive feature of both collections is that they contain only single items of lily shaped forms, which are considered to represent a late stage of pipe development in the nineteenth century. At the same time among the material from Akkerman and Ochakiv were many pipes, which correspond to nineteenth century types, known from the typological and chronological classifications of Hayes, Robinson, Simpson and others, as belonging to the last decades of the century. As for the territory of the Ottoman Empire it is absolutely clear. But, for the fortresses, which were included in the Russian Empire at the end of the eighteenth and the beginning of the nineteenth century a large scale of pipe importation from the Ottoman Empire would be problematic. The full cataloguing of such large collections (Ochakiv and Akkerman) is impossible in the context of a single article, but in the near future its completion will allow a deeper analysis of the typology and composition of this unique collection.

The further study of pipes as a part of the material culture of the transitional period from the Middle Ages to the New Time is of great importance for modern investigations of this period in the history of the Ukraine. The penetration of smoking traditions into the Ukrainian lands can be seen as deriving from the west (the right-bank region of the river Dnepr was in the structure of Lithuanian and Polish Commonwealth) or from the territory of the Ottoman Empire, which included a vast area of Eurasia. In spite of the contradiction in ethnics, religion and mentality, Ukrainians acquired the eastern manner of smoking, the name of tobacco 'Tutun', the name of Turkish pipes-'lule', which was rendered in Ukrainian as 'lulka'. The penetration and appearance of the tradition of smoking was fixed in the seventeenth century. The Cossack military campaigns against the Ottomans played an active role in this process, the result of which was also several trophies, ones of which were pipes, used by Turks in the Ottoman frontier outposts. From the end of the seventeenth century almost all of the Ukraine became an area of dispersal for Turkish types of pipe. The tradition of smoking was established in the Cossack outposts and in the settlements (Titova 1999, h12-14; Telegin and Titova 2003, 67-68).

Pipe makers in the Ukraine imitated the fashions of pipes elsewhere, and employed seals with letters. But they did not have the use of such a suitable sort of red clay source, which was near Lake Van in Turkey, which made it possible to produce high quality pipes and the associated art of surface treatment. Different regions of the Ukraine produced local types characterised by differing combinations of features, forms and decorations.

A proportion of the pipes were imitations of meerschaum originals. These items were made from white clay with incrustations of coloured glass. Such production has been discovered in Kiev (Chekanovsky 2004, 99-101).

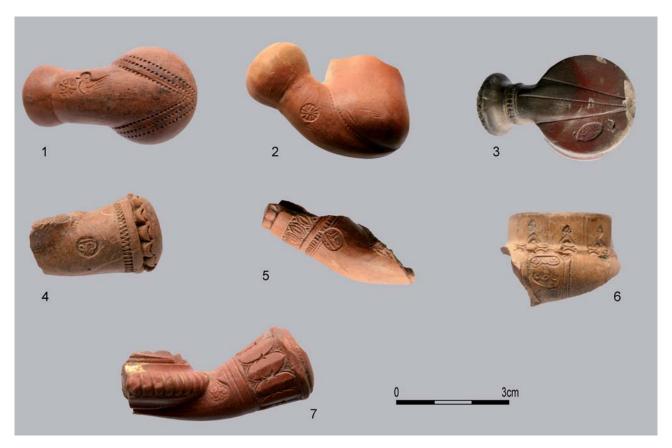


Figure 21: Pipes and pipe fragments with seals, from Akkerman.

During the first part of the seventeenth century the Ukrainian lands, and especially the left bank area of the river Dnepr, became a significant region for the sale, and then the cultivation of tobacco. Among the other trades people mentioned in the 1666 Chernigov Census are tobacco merchants (Shvidko 1985, 55). The tax on tobacco sales was established in 1686 by the decree of hetman Ivan Samoylovich (Kovalenko 2008, 21). The cultivation of tobacco very quickly spread over the vast land of Ukraine, first of all on the left bank of the river Dnepr due to favourable natural conditions and the greatly increased demand for tobacco in the Ukrainian territory and Muscovy. Widespread tobacco plantations also existed near Cherkasy, Poltava region, near the Azov Sea and on the east shore of the Black Sea (Volkov 1999, 227). The beginning of this process was at the time of the prohibition on smoking within Muscovy and the Ottoman Empire. At the beginning of the eighteenth century the cultivation of tobacco was approved by the state and became an export commodity. The historical and archaeological analysis of the development of the penetration and spread of smoking is the sign of a new mentality and socialization of society not only in the context of the Ottoman Empire, but also in societies with different ethnic structure, religion and economical activity. Pipes are a clear example of crosscultural integration processes and a sign of mass culture affecting elite as well as non-elite groups of the past populations of different countries - a sign of some degree of world globalization.

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A brief introduction to clay pipe finds in Croatia with special attention to local pipes found at Fort Čanjevo in the Kalnik Hills

by Luka Bekić

Introduction

In the last two decades, archaeologists in Croatia have become increasingly aware of the clay tobacco pipe as an interesting archaeological find. Croatia has been border country between 'East and West' during the spread of smoking in the seventeenth century, so that various types of imported pipes can be found. Nevertheless, local production was also significant, although there are only two confirmed workshops at present. This paper will try to clarify the finds from Čanjevo fort and similar finds in Croatia, their techniques and styles, and sources of local pipe-making in the hope of discovering more workshops in future.

Clay pipes in Croatia

Clay pipes have been found in various archaeological excavations in Croatia, most of them during urban excavations, some in fortress excavations and some in underwater archaeology projects. In Figure 1 typical clay pipes that can be found across the country are presented.

In the west and the south of the country, especially on the coastline, most of the pipes are of Italian types. The centres of production were sites in Venice bay, the city of Chioggia and the Venice hinterland where most of the 'potters' type pipes were produced (Boscolo 2000). The sea was a very effective medium for the trade, so Italian products reached the eastern coast of the Adriatic daily. Along the coastline Turkish pipes sometimes occur; these were also traded by merchant ships which were common guests in various Croatian ports at the time (Bekić 1999, 257). In the coastal cities western-type pipes are found, mostly made by the 'mysterious' WM maker, allegedly from Venice or London. But occasionally other western types and producers can also be found, such as the TD maker and various older Dutch and newer French westerntype pipes.

Austro-Hungarian type pipes including the common, famous, black Schemnitz and white 'coffeehouse' types are found across the country, on the coast, but in the hinterland too.

In the hinterland the majority of finds are of Austro-Hungarian types, but in the north, especially in the northeast of the country, Hungarian (Debrecen types) and Turkish pipes can also be found.

Not much is known about the local, Croatian-made pipes. So far, it is established that various makers made clay pipes in the village of Zelovo near Sinj. It was a family business that lasted at least 200 years, up to the First World War (Širola 1934, Bekić 1999; 2000). Besides this known makers' centre there existed another similar group of pipemakers in the village of Zagvozd, near Imotski (Tonkovič 2009, 4). It seems they used to make similar pipes to Zelovo types, but with minor differences in decoration.

Some of the clay moulds from Zelovo and Zagvozd have been preserved (Bekić 2000, Tonković 2009) so that at least the most recent production types, from the nineteenth and the beginning of twentieth century are familiar. There are though, some pipes found in archaeological excavations, which reveal an even older production in these villages from at least the eighteenth century (Bekić 1999, T.6.5-14, and others not published yet).

Besides these two identified local Croatian types, there are others which for the time being remain unidentified. They are found mostly in the Croatian hinterland, in the mountainous regions surrounding Bosnia. As usual, these finds are still not published by archaeologists, so a full overview of them is not possible. Hereafter, some of the finds that belong to these groups will be introduced.

Clay pipes from Fort Čanjevo (Figs. 2 and 3)

During the excavations of the late medieval and postmedieval Fort Čanjevo, twelve damaged clay pipes were found. The pipes are very different from each other so they were probably made in different workshops.

The basic shapes are reminiscent of Turkish pipes. In the case of numbers 9, 12 or 15 it can be assumed that they were produced in some of the workshops in Turkey itself.

Otherwise, there is no pipe which has a certain claim to have been made in one of the workshops from the area of what is now Greece or Turkey (compare for example Brusić 1987, Robinson 1983; 1985). Comparisons could only be made with the wider area of south-eastern Europe, or more precisely with the area under the influence of the Ottoman Empire. However, it is certain that these pipes are better or worse copies of Turkish originals.

Regarding the fact that such pipes are rather unknown, it is difficult to state the period of manufacture with certainty. Having in mind the general dating of the pipes and the fort, they were probably all made during the second part of the seventeenth century or at the beginning of the eighteenth. However, several pipes could be dated more precisely because they were found in a waste dump or pit, a closed context dated by silver money of Leopold I, minted in 1697. This information is invaluable for the study of such pipes. Moreover, this group of pipes is also important because pipes did not appear in the Croatian area before the seventeenth century, which makes this

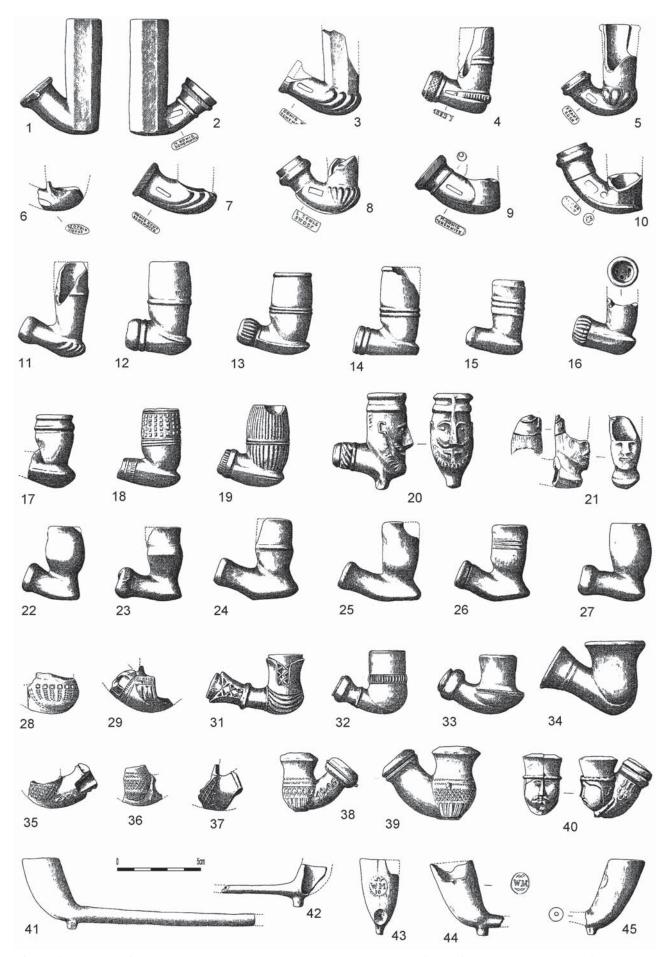


Figure 1: Common clay pipe types in Croatia. 1-10 Austrian types; 11-21 Italian 'Chioggia' types; 22-27 Italian 'potters' types; 28-34 Turkish types; 35-40 Croatian 'Zelovo' types; 41-45 Western types (drawn by K. Rončević).

group the oldest published group of pipes in Croatia, apart from the Turkish ones from the shipwreck near Bisag.

Catalogue (Figs. 2 to 3)

BD = bowl diameter; SID = socket interior diameter; BWT = bowl wall thickness; BH = bowl height. Measurements in millimetres.

1 - Sector A, Layer 2 (cave-in) of structure 1.

BD:16, SID:7, BWT:3. Light brown fired clay. Handmade? Carved, rouletted and stamped decoration. One linking hole through the bowl's wall (Bekić, Sekula 2005, T1.8, 79, 80; Bekić 2005b, 80).

The dating is uncertain. It was found in the cave-in of structure 1, which is an example of one of the last periods of life on the fort. However, if it was made by the same craftsman who made number 7 (Fig. 3, No. 7), which can be presumed by the clay structure and decoration, its dimensions suggest that it probably dates from the period around 1700 or before.

2 - Sector H, Layer 1.

BD:14, SID:10. Orange fired clay, with green glazing on the outside. Mould-made, the traces of the trimming visible. Moulded decoration. There is one linking hole through the bowl's wall.

Found in a stratigraphically irrelevant layer, in the fill down the slope (Bekić 2008, 192, T1-2).

3 - Sector I, Layer 1.

BD:15, SID:9. Dark grey, well refined, fired clay. Mould-made. Rouletted decoration. There is one linking hole through the bowl's wall (Bekić 2008, 192, T1-3).

Probably a Turkish import. Found in a stratigraphically irrelevant layer, in the fill down the slope.

4 - Sector C, Layer 3, west of the wall W7. SF 39. BD:15, SID:9, BWT:3. Light brown fired clay. Mouldmade. Carved, rouletted and stamped decoration. There is one linking hole through the bowl's wall (Bekić 2008, 192, T1-4).



Figure 2: Clay pipes from Čanjevo fort, Catalogue Nos. 1 to 6 (photographs by L. Bekić).

Found above the layer which is dated by silver money of Leopold I, minted in 1697. Probably dates from the first half of the eighteenth century.

5 - Sector C, Layer 3, North of the wall W8. SF 43. BD:14, BWT:2, BH:37. Light brown on the outside and inside, grey at the break, well refined clay; moulded decoration? There is one linking hole through the bowl's wall (Bekić 2008, 192, T1-5).

Found above the layer which is dated by silver money of Leopold I, minted in 1697. Probably dates from the first half of the eighteenth century.

6 - Layer 1, South of the wall W 14. SF 55.

SID:10. Dark brown fired clay, with the river sand temper. It is hand-made, rough in texture. The traces of attaching up the parts are visible; impressed decoration (Bekić 2008, 192, T1-6).

7 - Sector C, Layer 4 - pit, north of the wall W8. SF 86. SID:11. Light brown fired clay. Hand-made (?). Carved and rouletted decoration (Bekić 2008, 192, T1-7).

Similar to number 1, possibly from the same workshop. Dated by silver money of Leopold I, minted in 1697.

8 - Sector C, Layer 4 - pit, west of the wall W7. SF 97. BD:17, SID:9, BWT:3. Light brown, fired of refined clay. Mould-made; moulded decoration? The traces of painting in red (?) are visible. There is one linking hole through the bowl's wall (Bekić 2008, 192, T1-8).

Dated by silver money of Leopold I, minted in 1697.

9 - Sector C, Layer 4 - pit, north of the wall W8. SF 101. SID:9. Light brown, fired of refined clay. Mould-made. Rouletted decoration. Polished surface. There is one linking hole through the bowl's wall (Bekić 2008, 192, 193, T1-9).

Dated by silver money of Leopold I, minted in 1697.

10 - Sector C, Layer 4 - pit, between the walls W7 and W5. SF?

BD:16, BWT:4, BH:34. Light brown colour, orange at the break, poorly refined clay. Hand-made (?) The surface poorly finished. There is one linking hole through the bowl's wall (Bekić 2008, 193, T1-10).

Dated by silver money of Leopold I, minted in 1697.

11 - Sector I, Layer 2, west of the wall W6b.

SID:8. Black colour on the outside and reddish at the break. Poorly refined clay. Hand-made. Rouletted decoration. Ornament holes are filled with a white residue for the contrast in colour (unpublished).

Probable Turkish import. Found in a stratigraphically irrelevant layer, in the fill down the slope.

12 - Sector C, Layer 4 - pit, west of the wall W27, SF 149. BD:16, SID:9, BWT:4. Light brown, fired of very refined clay. Mould-made. Smooth surface finish. Traces of red colour on the socket. Wheel-decorated. There is one linking hole through the bowl's wall (unpublished).

Dated by silver money of Leopold I, minted in 1697.

Čanjevo was a small feudal *burg* first built in the fifteenth century, later refortified as a border military fort, which contained the permanent garrison needed to defend the area from Ottoman incursions (Sekula 2008). Military occupation of the site lasted from the middle of the sixteenth to well into the seventeenth century. The most recent archaeological and historical sources witness a complete abandonment of the site before the middle of the eighteenth century. This is the time-frame for all of the pipe finds from this fort.

Similar clay pipes from other Croatian sites (Fig. 4)

There are more pipes of similar types, which were found by chance at various sites, mostly in northern Croatia.

13 - Makar, Makarska. Chance find.

BD: 17, SID:11, BWT:3. Grey coloured on the outside and red at the break. Made of purified clay. Mould-made (?) Ornament is simple facetting of the surface (unpublished).

14 - River Kupa, Sisak? Chance find.

BD:15, SID:9, BWT:2. Black fired clay. Mould-made. Rouletted and stamped decoration (unpublished).

Sisak is an old and important city with a military fort on the border of the Ottoman empire. It had a significant military presence even in the eighteenth century, especially on the right bank of the river where the so called 'Vojni Sisak' or 'Military Sisak' developed, as a city under military rule, which was later unified with a civilian counterpart on the other side of the river.

15 - River Kupa, Sisak? Chance find.

BD:18, SID:11, BWT:3. Grey on the outside and reddish at the break. Made of purified clay. Mould-made. Rouletted and stamped decoration (unpublished).

Probably of Turkish origin.

16 - Grabrovnica, Pitomača. Chance find. BD:15, SID:7, BWT:4. Black fired clay. Mould made. Rouletted and stamped decoration (unpublished).

It is worth mentioning that in Grabrovnica there is still standing a 'military outpost' built in the eighteenth century and used in the times when this was a military border area, so called 'Krajina'. A military administration of this area started in 1758 and lasted until 1871. The use of this pipe, most probably by some soldier serving in Grabrovnica, should belong to this time-frame. This building is also famous because of the fact that great Croatian poet Petar Preradović was born there in the year 1818.

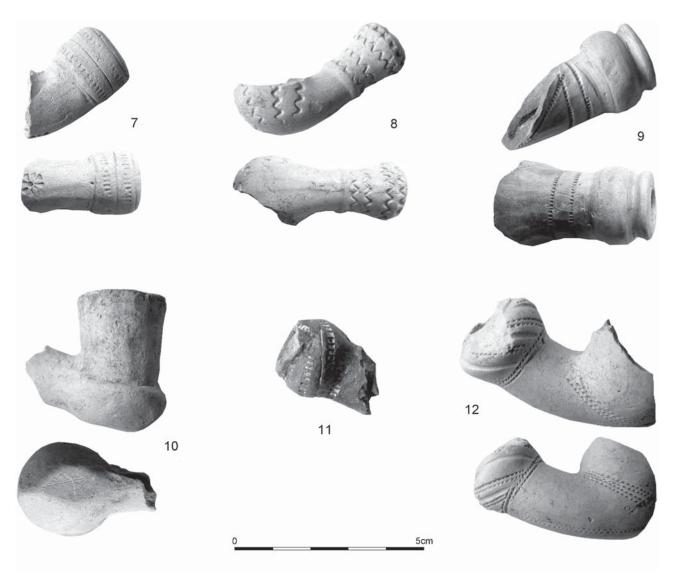


Figure 3: Clay pipes from Čanjevo fort, Catalogue Nos. 7 to 12 (photographs by L. Bekić).

17 - Brezje VI, Varaždin. Chance find.

SID:9. Light brown fired clay with light green glaze on the outside. Mould-made. Parts of a quoit on the upper part of the socket. The additional decoration is wheel-made (unpublished).

It is presumed that Brezje was a vast forest area south of the city of Varaždin in the seventeenth and eighteenth century, when this pipe might have been lost.

18 - Dvorac, Sv.Helena. Chance find.

BD:15, SID:8, BWT:4. Black fired clay. Hand-made (?) The additional decoration is carved and makes use of a wheel and a stamp. One linking hole through the bowl's wall (unpublished).

Most probably from the same workshop as numbers 1 and 7 from Čanjevo fort (Figs. 2, No. 1 and 3, No. 7 respectively). St. Helena was a fortified village on a military border of the Ottoman Empire. Its church tower served as a fortification during the sixteenth century. A manor house was built nearby after the Ottoman defeat. The pipe was lost here probably around the year 1700.

Conclusion

As has already been said, most of the pipes from this group belong to so far unexplored types, which can be mostly found in north Croatia. It is obvious that these pipes were made in different workshops, inspired by Turkish pipes, but with their own decoration and shapes.

As opposed to the Turkish ones, in this group there are no pipes with the separated keels, disc based, lily shaped, with makers' marks, etc. However, the turban shaped socket-ends, the small flower or sun motifs and decoration made with various stamps, wheels and carving are similar to Turkish types. There is no relief decoration, except some turban shaped socket-ends which are, in fact, made by rouletting with a wheel. Generally speaking, they are similar in terms of shape and additional decorating after pulling out of a mould.

The decoration consisting of oppositely placed little triangles (Čanjevo, number 5 - Fig. 2, No. 5) is typical of Turkish pipes from the second half of the seventeenth century (Bisag: Bekić 2000, t.5.3). Pipes with green

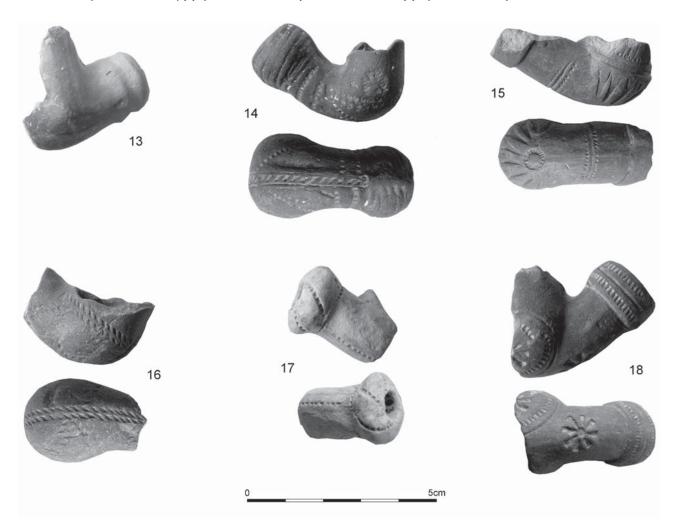


Figure 4: Clay pipes from other Croatian sites, Catalogue Nos. 13 to 18 (photographs by: L. Bekić.)

glazing, turbans and rouletted decoration are also found also at Ružica fort in Slavonia. However, despite the basic similarity with some examples from Čanjevo, these pipes are also products of original Turkish workshops (Radić and Bojčić 2004, 218, 219).

The impressed, simple floral or rosette decoration on the bowl and at the bottom (Čanjevo nos. 1, 5 and 7, also Sisak no. 15 and Sv.Helena no. 18) is visible on some pipes found in Nagykanizsa, which are attributed to the Turkish type and dated in the second half of the seventeenth century (Kovács 2004, 3. kep.15,16). Kovács thinks that such pipes might have been produced in *vilayet* itself or were brought somewhere from the Balkans (Kovács 2004, 127). Impressed, stamped flowers are found on 'Turkish proper' pipes from the seventeenth to nineteenth century (Robinson 1985, C5, 17/18th ct.; C113, 114, A29, 19th ct.), and they are probably the inspiration for the decoration on the Croatian products.

The similarity of some elements of Čanjevo pipe decoration with those from Zelovo, which probably originate from the seventeenth or eighteenth century is also interesting. The decoration of impressed, opposing rows of triangles as well as the conical terminals of the bowl (number 5 - Fig. 2, No. 5) is very often found on pipes from Zelovo

(Bekić 2000 t.6-6,8,10; 2001 fig. 20-4).

The same pipes are very rarely found in some scientific publications. However, several pipes found on the Schlossberg fort in Freiburg are very similar to the examples from Čanjevo. On these pipes there are examples with turban like socket-ends and some additional rouletted decoration, as well as decoration at the junction of the socket and bowl, also made with a wheel, as on pipe number 3 from Čanjevo (Freiburg-Schlossberg: Schmaedecke 1989, abb. 4-1, 3).

The final conclusion about the origin of the workshops of this interesting group of pipes cannot be drawn for now. Nevertheless, it is evident they were produced in the area of *Vojna krajina or Militärgrenze*, the area under military rule, bordering the Ottoman Empire. This region, which extended across the Adriatic up to the Carpathian mountains, served as a military buffer zone to the Ottoman empire. After the end of the Ottoman threat to Croatia and the Austro-Hungarian Empire as a whole, the Habsburg house used this strict military governance to rule easily with the region.

It is also evident that the use of this kind of pipe can be connected with Haramiyas and other permanent military border troops. They are mostly found around forts and smaller military outposts, or towns with a strong military presence.

Some of the types are mould-made which implies a proper workshop with a master capable of making a larger series of pipes. These types were probably made in the villages or towns which supplied military troops stationed nearby. Other examples were handmade, and may have been made by the smokers themselves, in the times they could not obtain proper pipes.

For the time being, it is correct to call this group Borderland-type pipes, because of the fact that they are found mostly in the border areas of Croatia which were under military governance from the sixteenth to nineteenth century. It is to be hoped that new scientific publications will prove these assumptions.

Acknowledgements

I thank Marinko Tomasović, Mladen Pereković and Robert Čimin for offering me the finds from other Croatian sites (Fig. 4, Nos. 13-18). I am familiar with some more unpublished examples from Posavina, Banija, Dalmatinska Zagora, Slavonia and western Bosnia but they are in the hands of their finders and unavailable for study.

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Pipes from Petrovaradin Fortress, Serbia, in the collection of Novi Sad City Museum

by Divna Gačić

Petrovaradin Fortress is located on the right bank of the Danube, above the river, on the serpentine rock of the hillside of Fruška Gora (Fig. 1). This dominant position, fertile soil, proximity to the river and the forest full of quarry suitable for hunting and fishing, made the area possible for people to survive for thousands of years.

There are excavated archaeological finds which testify to human presence from the early stone-age (Mihailović 2009). Stone artefacts, bone tools, pottery and the remains of habitation also testify to the first presence of Neolithic culture (the Vinča culture). The first stronghold settlement dates from the Early Bronze Age. The evidence consisted of part of an earthen wall, which had been renewed several times, and survived even into Roman times. Ancient sources state that once there was the fortification *Cussum* on the Limes, which was later verified by archaeological discoveries. Historical sources have proved the existence of a Byzantine Petrikon Fort while it has not been archaeologically testified as yet (Bunardžić 2004, 81-83).

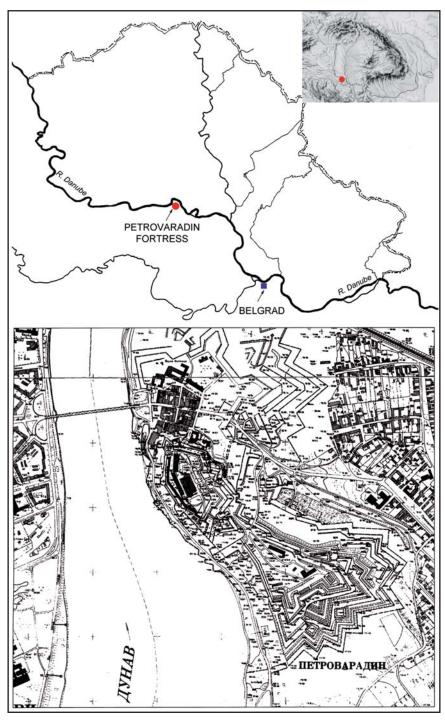


Figure 1: The geographic position of Petrovaradin Fortress.



Figure 2: Petrovaradin Fortress today, the view from the North.

Petrovaradin Fortress was changed a lot in the thirteenth century when the Hungarian King Bela IV brought Cistercian monks who established an abbey with a church dedicated to the Blessed Virgin Mary (Takács 1989, 11). From that period on, the Fortress became an important geographic and strategic point.

The long period of Turkish reign over Petrovaradin Fortress started in 1526 and ended with the battle of Slankamen, in 1691. It was a turning point for Petrovaradin Fortress. In 1692, building of a new modern fortress was begun after the manner of Marquis Sébastien Vaubon, the French military leader and architect. In an attempt to conquer Petrovaradin Fortress during the Austrian - Turkish war, the small army of Eugen of Savoja defeated the Turkish army near Petrovaradin in 1716 (Schams 2008, 48; Érdújhelyi 1894, 106-110; Lukić 1992, 30-42). After that, Petrovaradin Fortress lost its significance and falls into the shadow of more the important Belgrade fortress. The final phase of building was complete in 1780 (Fig. 2).

The City Museum of Novi Sad stands in the Arsenal building, on the upper plateau of Petrovaradin fortress. In its rich collection it keeps many pipes made of clay, meerschaum and porcelain. The most common are clay pipes. In the archaeological collections these pipes originate from Petrovaradin Fortress itself. They have been collected as single finds; until today 235 pieces have been assembled. Whilst undertaking archaeological excavations between 2002 and 2004 370 pieces, mainly of fragmented clay pipes, were discovered. They mostly originated from an Austrian rubbish pit which was full of pottery, glass, animal bones and three coins- one of which dates from 1781.

A methodical division of clay pipes from Petrovaradin Fortress has been carried out using the typology made by Hungarian archaeologists Kovács (Kovács 1963, 237-254) and Tomka (Tomka 2000, 25-32). The pipes are divided into three groups: Turkish, early Hungarian and pipes bearing the stamps of other north and west Hungarian and

Austrian workshops. They belong to the eastern 'Turkish' or so called 'Mediterranean' pipes (Bekić 1999/2000, 250). They have two parts: the first is a receptacle for holding the tobacco and the second is a stem which was used to inhale the smoke. The receptacle was made in a two-part mould of purified clay that had a great amount of plastic quality. After being decorated, the pipes were dried and baked in special pipe-ovens (Širola 1934, 27-37; Brusić 1986/87, 478-479). The stem is missing because it was made of frail material - different kinds of wood, for example jasmine (Fotić 2005, 298; Robinson 1985, 161).

The Turkish pipes are the oldest ones and are divided into three types: the decorated, the plain and pipes with rosette decoration and they have a lot of different types and variations. The plain pipes are the most common kind of pipes from the Fortress (Fig. 3 Nos. 1-2). They were made in clay moulds (with the exception of two examples that were hand-made); because of low cost they were fabricated in large numbers, designed for the poor. The pipes with rosettes were decorated with a rosette on both sides of the receptacle and they were usually made from white clay and coated with enamel (Fig. 3 Nos. 3-4).

The decorated pipes were made in moulds, and they were well fired and differently managed (Fig. 3 Nos. 5-15). The decoration was made in the mould but what was common for Turkish pipes was that there was some additional engraving and stamping using a small tube, die or small rollers. Geometrical and floral motives were usually used (Stančeva 1975/76, 132-134). Some pipes were varnished in brown, green-yellow or white. There were some traces of red colour and some of them were highly polished.

By analogy with finds from many other Ottoman period fortresses such as Athens, Sofia, Belgrade, Szeged and Eger the group of Turkish pipes from Petrovaradin Fortress were dated to the seventeenth to the nineteenth century.

At the end of the seventeenth and beginning of eighteenth century, the production of clay pipes started at areas near

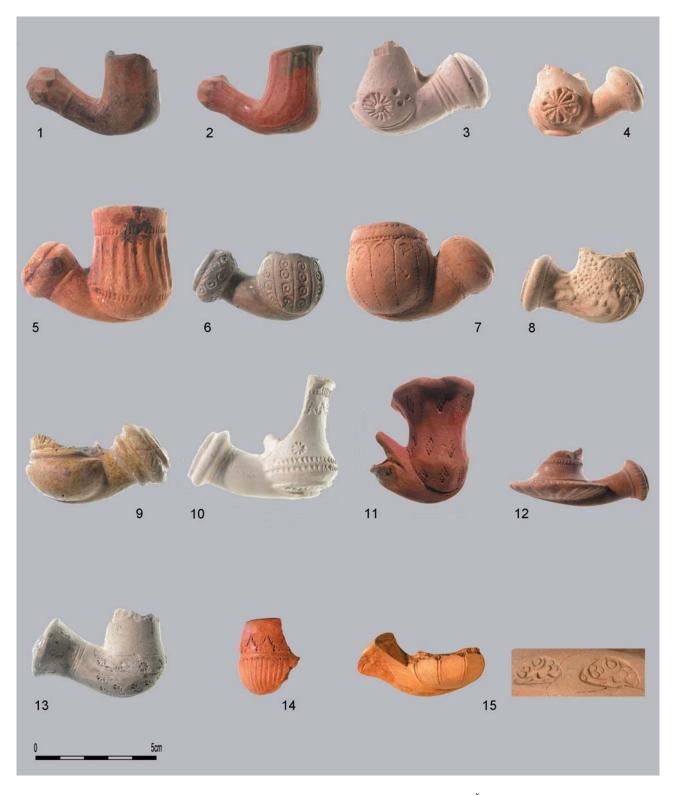


Figure 3: The Turkish pipes from Petrovaradin Fortress (Photographs 1-13 by V. Červenka, 14-15 by F. Kiselički).

the Hungarian border. It imitated the shape of the eastern 'Turkish' pipes, but they were roughly cast. Kovács Béla separated these kinds of pipes as Turkish - Hungarian group (Kovács 1963, 237). At Petrovaradin Fortress this kind of 'early' Hungarian pipe was very common (Fig. 4, Nos. 1-4). Analogies for these pipes can be found at Eger, Budapest, Jeni Palánk and Nagykanizsa.

The Hungarian type of pipe developed from the end of

seventeenth century, during the eighteenth century (Fig. 4, Nos. 5-16). The characteristic of this pipe is a high, lightly cylindrical or conical receptacle. It was decorated in floral patterns and geometric ornaments which were engraved or stamped with small tubes. The short stem was plain or decorated with lines and dashes. Some of them were coated with metal strips which were often decorated by hammering (Fig. 4, Nos. 6, 10 and 15). Hungarian pipes were in great numbers at Petrovaradin Fortress, but they

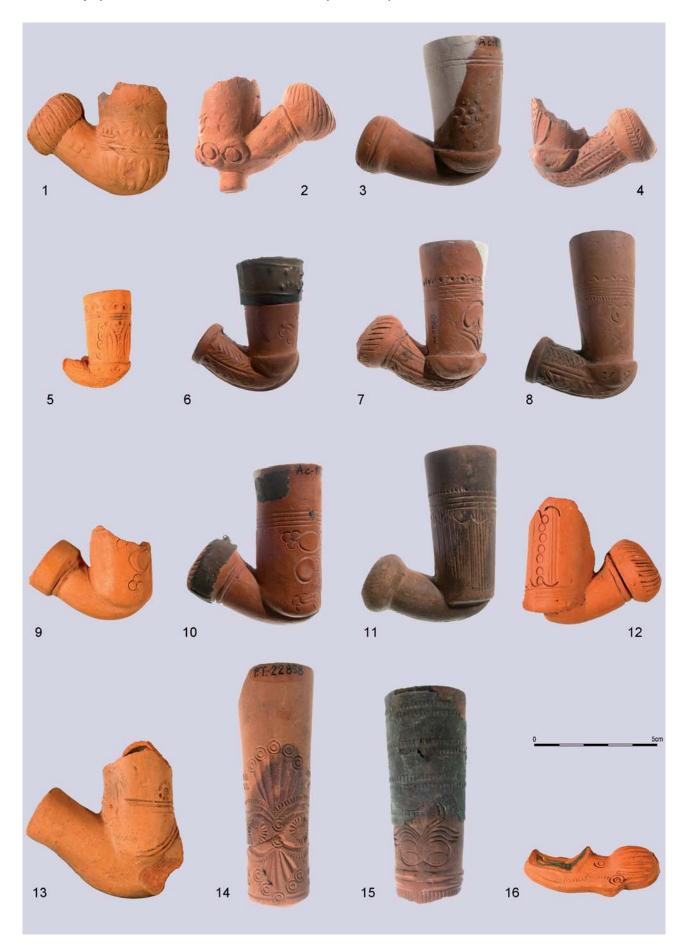


Figure 4: The Hungarian pipes from Petrovaradin Fortress (Photographs by V. Červenka).

couldn't be found at Belgrade Fortress (Bikić 2003). A direct analogy was not found in the available literature (Szalay 2000, 33-38) but the assumption is that some of them were produced in workshops at Debrecen.

The pipes with stamps of other, north and west Hungarian and Austrian workshops represent the youngest group which were manufactured by the end of the eighteenth and in the nineteenth century (Figs. 5 & 6). In this group of pipes from Petrovaradin Fortress the most common were examples with stamps either from the Schemnitz workshops (today Banská Štiavnica, Slovakia) or from the circle of Transdanubian workshops in Körmend, Bonyhád, Vasvár and Pápa.

The pipes produced at the Schemnitz workshops were made of good quality clay in moulds. The colour of the final product was red, black and terracotta-brown and black (so called marbled). The characteristic of this pipe was its cylindrical receptacle, with shell-like, semicircular or flat bottom part. The short, cylindrical stem has a ring-like top. The decoration was mainly mould imparted. Among the Schemnitz pipes at Petrovaradin Fortress the most common were the ones from the workshop of the Hőnig family (with the legends: M.HŐNIG.WW./SCHMNITZ, M.HŐNIG/SCHEMNITZ, M.HÖNIGSOHN / SCHEMNITZ, M.HÖNIG and M.HONIGWWE / SCHEMNITZ) (Fig. 5, Nos. 4-13).

The pipes from Transdanubian workshops have similar forms as the pipes from Schemnitz (Nagy 2000, 45-54). The stamps are also similar, because there are the same names on all of them, such as: SELMEC or SCHEMNITZ, BODNAR/SCHEMNITZ, IOS.SCHMIDT / SCHEMNITZ, G.REINITZ / SCHMNITZ, FLORIAN.T / SCHEMNITZ and SAMBISCH/SCHEMNITZ.

At Petrovaradin Fortress pipes were found with legends such as: EMANUEL/GRÜNFELD, ANTON PARTSCH or *Partsch* (Fig. 5 no. 16), KISS/AZAR, _H(R)ESEN/FELD, F.BRUNNER; FRANZ/BRUNNER (Fig. 5 no. 14), LEOPOLD/GROSS (Fig. 6 no. 7), PODRECS or *Podrecs* (Fig. 6, Nos. 1 & 2), *Pest* (Fig. 6, No. 5), CAFE COLLI (Fig. 6, No. 8) and TOCH JOS. PAPA (Fig. 5, No. 15).

There are pipes with the stamps A.RESS (Fig. 6, Nos. 3 & 4) and AMSTÄTER on them. There is a small circle beside the stamp with a two-headed eagle on it, which is the sign that the workshop had imperial privileges.

Among well-preserved examples from Petrovaradin Fortress, there is a pipe with a stamp of *Tamassy*, as well as one with a stamp *Iglo.IU*, probably from Igló (today Spisská Nová Ves, Slovakia), in the northern part of historical Hungary (Fig. 6, No. 6).

Most of the clay pipes from Petrovaradin Fortress were imported i.e. brought in by soldiers. There is evidence showing the large presence of soldiers from the Turkish and the Austro-Hungarian armies at the fortress. At that

period, there would have been workers and craftsman that had come from all over the world to build the monumental fortress. The pipes were mostly imported by trading which was done by the Danube.

It can assumed that there was a pipe workshop near Petrovaradin Fortress, like the one in Újvidék (today Novi Sad, Serbia) which appeared in an 1828 Hungarian tax register (Nagy 2000, 45), but archaeological findings have not confirmed this. Among the pipes from Petrovaradin Fortress there are some with a stamp *Perko Boskovitc* (Fig. 6, No. 9), which indicates that there used to be a local workshop.

Apart from clay pipes, three porcelain pipe fragments decorated with images (portraits of men) were found during archaeological excavations at Petrovaradin Fortress (Fig. 7, Nos. 1 & 3).

In an artistic collection in the Museum, there is one whole pipe made of porcelain (Fig. 7, No. 2) and seven nicely decorated pipes made of meerschaum (Fig. 7, Nos. 4-6), which were made in Austria and Hungary in the nineteenth century. Among them is a falsely dated pipe, on which is carved the year 1710 (Fig. 7, No. 7). In the artistic collection, there are other smoking accessories such as narghile, cigarette cases and cigarette holders.

Although pipes are usually found on multi-period sites they have not been given a lot attention so far. Information about pipes found in the Serbian literature mostly refers to finds from a narrow Serbian area which was a part of the Ottoman Empire (Ivanović 1953, 361-371; Ristović 1995, 351-369; Bikić 2005; Dušković 2006; Križanac 2007). Apart from scarce information about clay pipes from Vojvodina (Nad 1963, 7-10), which was included in the Austro-Hungarian Empire, there is no more information about pipes in the Serbian literature. There is only one article (Gačić 2009, 7-18) about pipes from Petrovaradin Fortress and apart from that there is no other work about them in either Serbian or foreign literature.

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Figure 7: The pipes from the artistic collection of the City Museum of Novi Sad.

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Ottoman tobacco pipes from The National Museum of History in Sofia

by Vladislav Todorov and Nikolay Markov

With a few exceptions, we can say that tobacco smoking is common among the Ottomans and they have developed this practice beyond all measures. Wedded to this habit since childhood, there is almost no Muslim who does not smoke six, ten and even twenty pipes of tobacco in a day. Combining luxury and pleasure, they strive for the beauty of the pipes and the quality of tobacco. The stems of the pipes are usually made from jasmine, rose- and hazelbush, cherry branches etc. Their entire length is decorated in gold and silver and they always terminate in mouthpieces of white or yellow amber or coral, very beautifully worked out. Those used by distinguished ladies are additionally encrusted with precious stones. Some of the high-ranking persons use a kind of Persian pipe called a hookah. The ordinary people avail themselves of the simplest clay pipes, which can be either longer or shorter. Not a single class of the society makes use of the white clay pipes so much popular among sailors and in most of the European countries. The bowl-shaped heads of the pipes where the tobacco burns are called "lüle" by the Turks. They are made of the finest clay with extraordinary dexterity; some are even gilt.

With the Turks, offering a pipe as a gift to every guest of the house is considered a sign of respect - one can see twenty, thirty, forty of these long pipes, arranged vertically in small nests scooped in supports, specially made for the purpose and placed in the antechamber of the house or even in the salons of the distinguished rich families. Guests sit on the sofa that runs along the walls of the room, each smoking a pipe which he places on the carpet or the mat covering the floor. Still, a small round copper or bronze plate is set under the pipe head intended to gather the ash that remains from smoking. When pipe smoking is exercised in a small room, the pipes cross in such a way that smokers should be extremely careful in order to avoid receiving a hit in the teeth. Even if only two smokers share one room which happens fairly often in winter, the smoke spreads and hangs like thick fog. Upper clothes, leather garments, all kinds of apparel, furniture, in a word, everything in the house, reek of stale tobacco smoke.

Smoking is so spread and so frequent as a habit that the most inveterate smokers never walk out of the house without taking with them a pipe and tobacco. They stuff up a silk or satin pouch with tobacco; the pipe they disassemble in two or three parts that can easily be put together again with the help of silver screws and tuck the pieces away in a cloth case attached to the belt under overcoat. These objects of pleasure have become such a necessity, that no one ever goes for a walk in a public place or in the town neighbourhood particularly in summer, without securing a pipe and tobacco for himself. Servants ordered to carry about their master's pipes humbly follow behind him. Having relaxed contentedly under the tree or on the grass, the Muslim smokes his pipe, drinks his coffee and pronouncing the Almighty's name with respect, delivers his destiny to the heavenly benevolence, truly convinced that at this moment he is the happiest man among the mortals (d'Ohsson 1791, 88-91).

At the time Mouradgea d'Ohsson, the acknowledged authority on the Ottoman Empire wrote his narrative, tobacco smoking was practised in such a great extent mostly by Muslims all over the empire (including the present day Bulgarian lands), that it had practically become part of the local culture - as is seen from the above vivid description. It is not, however, quite clear when this tradition began. According to Mouradgea d'Ohsson, the practice of tobacco smoking had developed since 1605, when western merchants imported the first tobacco in Constantinople. However, a clay pipe, unearthed during the excavations in the old Moldavian capital Suceava and chronologically attributed by the engraved date '1571' (Romstorfer 1913, 76), seems to suggests an earlier penetration of tobacco smoking at least in the Balkans. Without further entering into this disputable matter, we target this work only as representing some more interesting examples of Ottoman pipes that have survived to this day and built the collection of the National Museum of History in Sofia.

The Ottoman tobacco pipes collection of the National Museum of History in Sofia numbers 127 items, in their greater part with missing larger or smaller fragments. They were purchased by the museum and recorded as a collection in the inventories. Attribution was made for each object individually according to the archaeological context and the chronological attribution of similar exemplars found both in Bulgaria and out of the country. They generally originate between the seventeenth and nineteenth century. Although the entire collection of tobacco pipes has not been published till now we choose to introduce only nine comparatively well preserved objects from the collection. We also consider it necessary to give some theory on the matter in order that the identification of the represented tobacco pipes can be better supported and their description better understood and most helpful.

Typology and chronology

In modern archaeology, description and typology of objects tend to be carried out using precisely defined geometric shapes. In Bulgarian historiography an attempt was made to establish a typology of the ceramic pipes from Bulgaria according to their geometric shapes (Fig.

1). The typology is based primarily on a collection of 307 tobacco pipes from the regional museum of history in Silistra (Todorov 2006). For a more precise application of geometric criteria, the body of each pipe is divided in two, three or four segments depending on the particular shape (Fig. 2). The terminology we use in this short study is that of Rebecca Robinson (Robinson 1983, 267; 1985, 154), with a single addition. We group the *rim* and the *bowl* into a combined type-determining feature we call a *cup*. For example, type XIII comprises pipes with lensshaped bowls and hyperboloidal rims (Fig. 4, Type XIII).

The cross-section of the *socket* and the thickened *socket* end combine into a second group of features and establish a subtype in the typology. For example, the subtype V.3 pipes have a shank with circular cross section and a torus-shaped socket end (Fig. 3, Type V.3). The decoration of the pipes creates a variant in the suggested typology.

Fourteen types of clay pipes (Todorov 2006, in press) were initially identified according to their geometric shape (Fig. 1) and the distinct type-determining features (Fig. 2). The proposed typology has been developed further with

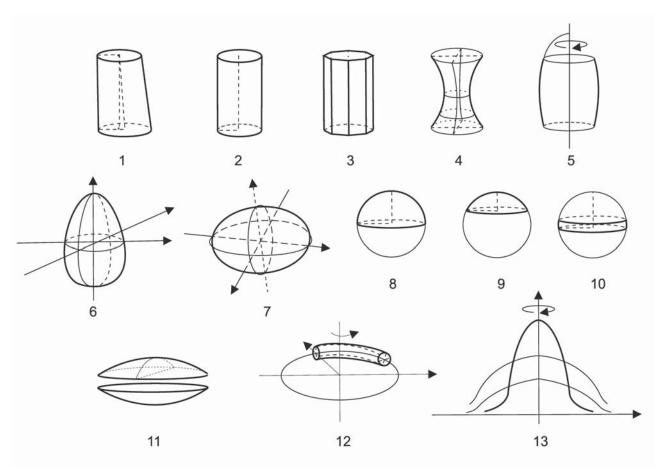


Figure 1: Geometric shapes - 1. right circular truncated cone; 2. cylinder; 3 prism; 4. one-sheet hyperboloid; 5.barel; 6. ovoid; 7. ellipsoid; 8. hemisphere; 9. spherical cap; 10. spherical segment; 11. lens-shape; 12. torus; 13. bell shape (Drawing by Vladislav Todorov).

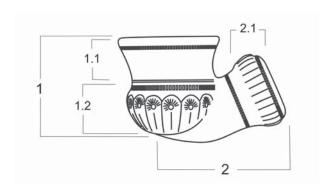


Figure 2: Terminology - 1. cup; 1.1 rim; 1.2; bowl; 2. socket; 2.1 socket end (drawing by Vladislav Todorov).

the study of new collections. For example, the published study on clay pipes from the excavations at the Roman castle Sexsaginta Prista in Ruse introduced a new type VIII A (Todorov 2007, 212) from a layer dated to the second half of the eighteenth and nineteenth century and the new finds from Silistra added types VIII B, VIII C and X A (Todorov 2008, in press). The tobacco pipes from the National Museum of History (NMH) collection either belong to certain familiar types or enhance the existing typology with new types (VIII D), subtypes (I.2; VIII D) and variants (V.1.A; V.1.F, XI.B.2).

Type I

No separate compositional elements are distinguished in

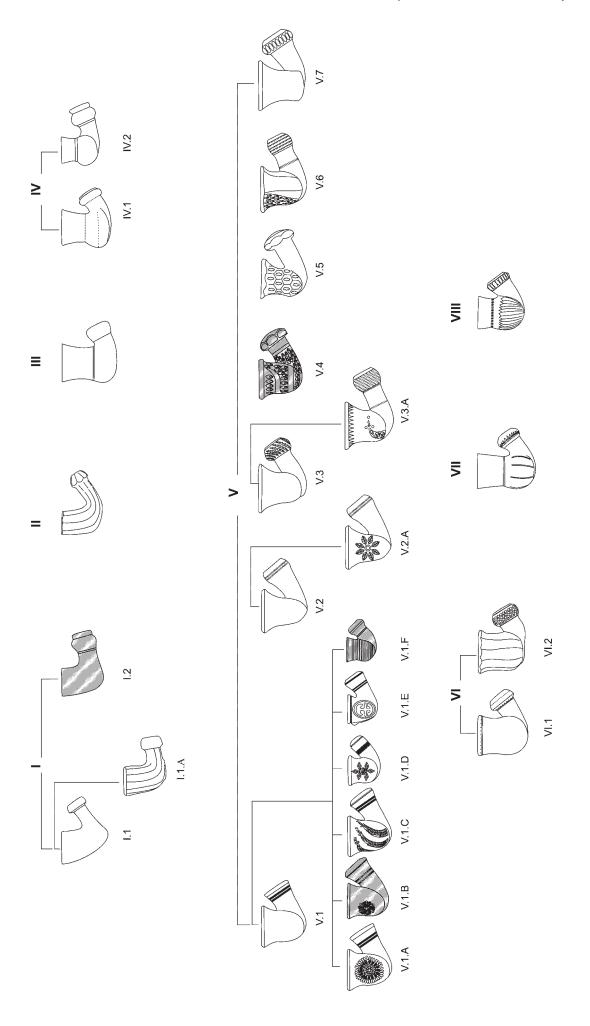


Figure 3: Typology by Vladislav Todorov i-viii (drawing by Vladislav Todorov).

the cup shape of this type. It is a one-piece pipe, its body representing a truncated cone. The socket has circular cross-section. Here, a subtype and a variant are identified. (Fig. 3, Type I). A pipe from the NMH collection adds another subtype (Fig. 3, Type I.2; Fig. 5, No. 1), which differs from the previous by its socket end. While I.1 subtype has a truncated cone shaped end, the socket end of I.2 subtype is a torus. The tobacco pipes of this type were made of white clay and were not decorated. The I.1.A subtype is an exception – it was made of grey-black clay and decorated with vertical flutes. We find pipes of this type represented in miniatures from the seventeenth century (Robinson 1985, Pl. 34 and 35). An exemplar similar in shape to the I.2 subtype is familiar from Belgrade; it is also attributed to the seventeenth century (Bikić 2003, 80, Tip XII/2).

Type IV

The bowl of the cup is an ellipsoid, the rim – a hyperboloid. The socket's cross-section is circular. The socket end forms a combination of a torus, on which a truncated cone sits. Pipes of this type were made of beige and greyish clay and were not decorated. A pipe from the NMH collections belongs to the IV.2 subtype (Fig. 3, Type IV; Fig. 5, No. 2). The pipe was made of greyish-black clay, its outer surface was polished and even now it possesses a smooth metallic shine. Tobacco pipes of this type were not mass produced and are comparatively rare items in the museum collections. In addition to the introduced pipe from the NMH collection which was found in Vidin, five other examples are known from Silistra (Todorov 2008, in press). All these pipes were purchased by the museum but there is no contextual database in Bulgaria for their precise chronological attribution. Considering the small cups and the short sockets of the IV type pipes, they date with great probability from the second half of the seventeenth century (Robinson 1985, 153).

Type V

The cup of the pipes is bell-shaped. The socket is of circular cross-section and the end usually lacks a wreath - when it does have a wreath, the latter is a torus (or a torus with ellipsoid cuttings). All finds of this type have polished surfaces or are coated with red or black slip. Most often the decoration was performed with the help of a small cogwheel and applied in one or two strips more frequently on the socket. Ornamental fields of stylized floral patterns are not so frequent (Fig. 3, Type V). Three pipes from the NMH collection representative sample belong to this type. Two items add new variants to V.1 subtype. The pipe represented in Figure 5 (No. 3) acquires a V.1.B serial number in the typology, and the exemplar in Figure 5 (No. 4) - V.1.F. The third exemplar (Fig. 5, No. 5) belongs to the V.4 subtype. The craftsman's stamp is placed on the bottom of the socket – it contains the Persian word [yekta] (Fig. 6, No. 1) meaning 'single', 'unique', 'unmatched'.

The pipes under V.1.B and V.4 were among the most mass produced items. They are present in all published collections in Bulgaria (Fig. 7): Sofia (Stancheva and

Medarova 1968, 5), Varna (Stancheva 1972, 90) Veliko Tarnovo (Ilcheva 1975 Tables I.11 and 12, Tables II. 13, 14 and 24), Provadia (Haralambieva 1986, Tables V.33-36), Ruse (Sirakova 1987, Tables IV.1, 2 and 6), Shumen (Bojilova and Sirakova 1991, Table II.3), Nikopol (Asparuhov 1993, Table 3.29-31) and Lovech (Changova 2007, Fig. 185 and 224). According to the contextual data from Ruse (Todorov 2007, 188-217) and Plovdiv (Todorov and Topalilov 2009, 201-210) they date from the nineteenth century. A more precise attribution is hardly possible in the archaeological context in Bulgaria as the ever increasing city construction works at the end of the nineteenth and the beginning of the twentieth century brought disturbance to a number of earlier structures. As is seen from a publication on clay pipes from Athens, items of similar shape are dated to the second half of the nineteenth and the beginning of the twentieth century (Robinson 1985, 199-200, Pl. 63-64, A 30 and A 37).

The pipe under V.1.F from the NMH collection is rare. At present, the only known parallels to this pipe are two finds from the rescue excavations near the village of Golemo Buchino (Fig. 7) preceding the construction of Liulin highway in 2007. They were unearthed near a small building that was evidently used from the early eighteenth century to the third quarter of the nineteenth century. The materials from the excavations are not yet published. We owe the opportunity to see the finds to Assoc. Prof. Konstantin Rabadzhiev, director of the site investigating team and are extremely grateful for his kind collaboration.

Type VIII A

The pipes of this type are characterized by a hemispherical base of the cup and a hyperboloidal rim. The VIII A type is represented by two subtypes (Fig. 4, Type VIII A). The sockets are circular in cross-section and the socket ends are tori (subtype VIII A.1) and truncated cones (subtype VIII A.2). Both exemplars were made of yellow-brown clay. While the decoration of the first subtype is simple and limited to vertical fluting on the base, the second subtype is embellished with engraved geometric and stylized floral motifs.

Subtype VIII.A.1 should be attributed to the early nineteenth century (Robinson 1985, 182, Pl 53, C 64-65). Contextual support for such dating is found in a comparable tobacco pipe with a surface strongly washed away by the sea that was found in a sunken ship on the bottom of the Kiten cove (Fig. 7). Judging by the artefacts found on board the ship, the shipwreck would have happened at the beginning of the nineteenth century. We are greatly obliged to Assoc. Prof. Kalin Porozhanov, head of the underwater investigations, Hristina Angelova, director of the museum and Dr. Kalin Dimitrov, member of the research team for the opportunity to see the materials.

There is no contextual evidence for the precise dating of the typologically new pipe – subtype VIII A.2 (Fig. 4, subtype VIII A.2; Fig. 5, No. 6). The socket end bears the relief inscription 'No 2' (Fig. 6, No. 2) meaning 'number two', a non-characteristic feature of the Ottoman pipes.

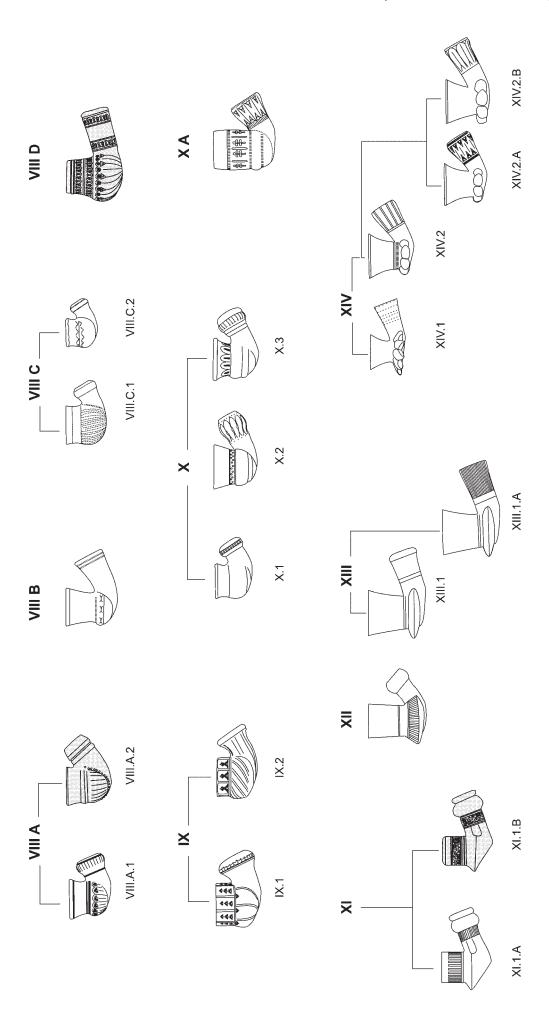


Figure 4: Typology by Vladislav Todorov viii-xiv (drawing by Vladislav Todorov).

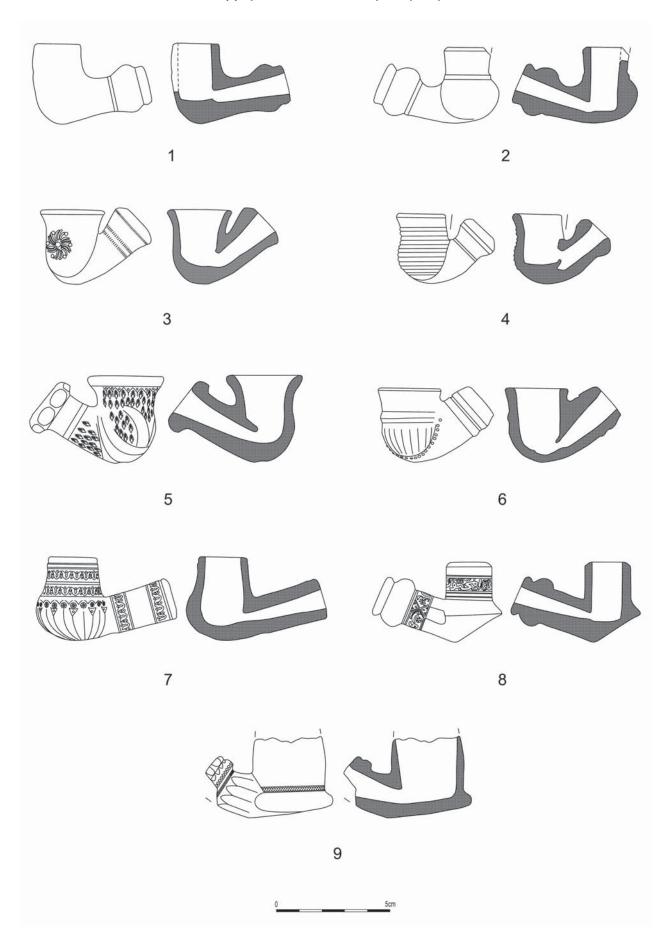


Figure 5: Ottoman tobacco pipes from the National Museum of History (drawing by Vladislav Todorov).

Having this in mind, it must be admitted that such items were produced around or after the liberation of Bulgaria from the Ottoman rule (1878).

Type VIII D

This type is distinguished by a hemispherical base of the cup and by a cylindrical rim. The socket has a circular cross-section and the socket end has no wreath. The pipes are made of red-brown clay and are abundantly decorated with engraved floral ornaments. At this stage of investigation, there is no comparable contextual information for reliably dating pipes of this type.

Type XI

The cup base of the pipes under this type represents a biconical body. The rim is cylindrical. The socket is octagonal in cross-section, the socket end is a combination of a torus and a bi-conical body. Pipes of this type were made of grey-black, white or beige clay. The decoration consists mainly of engraved geometric designs on the cup and the socket (Fig. 4, Type XI). An exception to this decorative pattern is the pipe from the NMH collection (Fig. 5, No. 8) – the pipe bears an inscription on its rim and socket. The

decorative inscription reads المحبوب وب or [lika`u`l-mahbub vab] – 'showing a beloved face', which may be interpreted as "showing the face of God" (Fig. 6, No. 3).

Pipes of this type are found in the collection of the regional museum in Silistra (Todorov 2008, in press). As they were donated to the museum, there is no reliable context to facilitate precise dating. It should be mentioned that the example from the NMH collection also originates from Silistra. Another pipe with a similar shape and inscription is familiar from Belgrade, where it was dated from the second half of the seventeenth century (Bikić. 2003. 81, Tip XII/5).

The pipe represented in (Fig. 5, No. 9) is damaged and it does not enter the typology. Its outer surface is considerably damaged and its colour is non-descript. Nevertheless, it draws attention with its gold plating of which scarcely visible traces have been preserved. There is no contextual evidence to back up the precise dating of this example. A pipe of similar shape from Corinth was dated to the nineteenth century (Robinson 1985, Pl. 54, C 71). A scanty number of pipes with gilt, mostly Type XIV,

CATALOGUE – Figure 5 (opposite)

The tobacco pipes are arranged by the type they belong to. They are represented by the better preserved and undamaged side so that their shape and decoration are better seen. In order to avoid a certain subjectivity in describing the colours, the Munsell Soil Color Charts are used.

- 1. Inventory number 28039/30. Fragmented cup. Height 3.6cm. Length 5.2. Colour, non-descript. Type I. Found in Vidin. Seventeenth century.
- 2. Inventory number 28039/27. Fragmented cup. Height 3.4cm. Length 5.5. Colour GLEY 1, 4/N. Type IV. Found in Vidin. Most likely second half of the seventeenth century.
- 3. Inventory number 28039/45. Intact. Height 3.5cm. Length 4.9. Colour, non-descript. Type VIB. Found in Varna. Nineteenth century.
- 4. Inventory number 28039/39. Fragmented cup. Height 3.1cm. Length 4.3. Colour GLEY 1, 5/N.Type VIF. Found in Sofia. Most likely, nineteenth century.
- 5. Inventory number 28039/63. Intact. Height 3.9cm. Length 5.9. Colour Red (HUE 10R) 4/6. Stamp: [yekta] 'single', 'unique', 'unmatched'. Type V4 Nineteenth century.
- 6. Inventory number 28039/33. Intact. Height 3.4cm. Length 5.1. Colour Reddish yellow (5YR) 7/8. Stamp: № 2. Type VIIIA. Found in Etropole. Most likely, late nineteenth century.
- 7. Inventory number 28039/71. Intact. Height 3.7cm. Length 6.1. Colour Red (HUE 2.5R) 5.8. Type VIIID.Found in Silistra.
- 8. Inventory number 28039/73. Fragmented cup. Height 3.6cm. Length 5.7. Colour GLAY 1, 7/10Y. Decoratively inscribed on the rim and the shank: لقاءالمحبوب وب or [lika`u`l-mahbub vab] 'showing a beloved face'. Type XI. Found in Silistra. Second half of the seventeenth century.
- 9. Inventory number 28039/75. Fragmented cup. Height 3.5cm. Length 5.6. Colour, non-descript. Traces of gilt on the cup. Unclassified. Most likely nineteenth century.

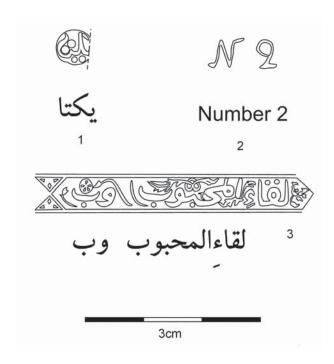


Figure 6: Stamps and inscriptions (drawing by Vladislav Todorov).

have been recorded in the museum collections in Varna and Silistra. They were dated from the nineteenth century.

Some of the tobacco pipes from the NMH collection discussed above allow not only to confirm the indications for a multitude of workshops in Sofia, Nish, Ruse, Odrin (Edirne), Lüle-Burgas where they were produced (Boué 1840, 108), they also suggest specific production apart from the traditional output of those ateliers. From this point of view particularly interesting are the pipes of type V.1.F, which up to now have been discovered in the Sofia region only and type XI, found mostly in the vicinity of Silistra. Other items, however, were obviously made in workshops, scattered all over the Ottoman Empire as exemplars of them have been found all over the territory of Bulgaria (types I and V, except V.1.F) and out of this country.

In conclusion, it should be said that the study of pipe production in the Bulgarian lands is only beginning, primarily because of a certain negligence concerning this kind of artefact. Collections of Ottoman tobacco pipes in Bulgaria have been established and enhanced for a couple of decades. Examining this specific material takes effort



Figure 7: Published clay pipe collections in Bulgaria (drawing by Vladislav Todorov).

and many years' work— the consequent target being a general concept on the production of clay pipes and the spread of this production within the present-day Bulgarian territories.

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The Partsch pipe factory in Theresienfeld, Austria

by Albert Halmos

Introduction

Toward to the end of the eighteenth century pipe-smoking became popular again in Austria and the beginning of industrial clay-pipe manufacture can be dated to the first quarter of the nineteenth century. The factories were situated almost exclusively in the eastern part of the country, in Nieder-Österreich and in Burgenland. Most of them were concentrated about 50 km south of Vienna, in Wiener-Neustadt and its surroundings, like Theresienfeld, a settlement founded in 1763 by Maria Theresa, on the northern edge of Wiener Neustadt.

Documentary sources establish that the Partsch factory, the first pipe factory in Theresienfeld, was founded in around 1813, and was located in house numbers 48 and 49 along the main road from Vienna to the town. The actual address is Grazer strasse, No.9. This is an advantageous location, offering good logistical and distributional connections to the principal markets in Vienna and Hungary. For a brief period the Partsch family also occupied house number 33 about 1km away at the southern end of Theresienfeld.

The sites

The house and grounds, No. 48,

The property is approximately 100×200 meters in area and has the original factory building, around 30 by 15 meters in area on a plot next to the main road. A second original building, dating from the second half of the nineteenth century and around 20 by 10 meters in area, according to the owner, Mr Heinisch, was not used at all as a factory but as a habitation and also possibly as an office. Both structures are in very good condition; the factory building is now in the process of restoration.

When the writer identified the factory site in the 1980s (Fig. 1), it included a system of water channels, essential for clay pipe production, a large mound of clay, two clay settling basins, a very large bed/basin $c35 \times 70$ meters, with two kiln foundations on the sides of it. This location was probably also used as a refuse-pit, as the extremely large quantity of pipes and pipe fragments attest. There was once a fully loaded kiln in the factory building (Fig. 2).

Since 2007, the present owner, Mr. Heinisch, has built a new house at the opposite end of the grounds and transformed the ex refuse-pit into a large garden. The foundations of a single kiln are the only remains to testify to the nature of the original structures (Fig. 3). During numerous visits in the 1980s, and after a break of 20 years, also at recent visits to the site, the large number of pipes, pipe fragments and other waste material recovered indicates a very large production. Working tools, such as pipe moulds or machines and documentary evidence

for the factory will, unfortunately, never be found at the site, because, as Mr. Heinisch has explained, at the end of the second World War the factory was occupied by the Russian Army for a while and they removed metal items such as machines, tools or anything which seemed to have a certain value. An exception to this is the quantity of well made, special double-walled pipes, decorated in relief with winged wheel marks, crowned SR monograms and Vienna coats of arms in relief, in a dark red clay fabric which were found in the attics of House No. 48. In addition, a considerable number of well-carved dogs' heads in groups of two dozen and contained in their original wrappings were also found there (cf this volume pp161-162).

The house, No 49

House No. 49, directly borders No. 48; the Theresienfeld Landregister (NÖ-Landesregierung Landesarchiv, Grundbuch Theresienfeld, 82/2) and the Privilege Register (NÖ-Landesregierung Landesarchiv, Privilegien-Register, Gr.A, HS 10/3, fol. 38) indicate that, since 1813, this was the Partsch's first property and residence. The fact that it came into their hands six years earlier than No. 48, suggests that it should have been the first location for the factory, but so far, material proof of production on the site such as notices or attributions are completely lacking. Local research at the site is needed to explore this question further. In any case the direct physical link between the two properties implies that the Partsch family used them in common as the location for their pipe production (Fig. 4).

House, No 33

This house only appears in the Landregister as Partsch property between 1833 and 1851. Its attribution as a factory site by Sohn in his *Chronicle of Theresienfeld* is probably an error. At the site itself the present owner Mr.Großleitner has only recorded a few finds of very small pipe fragments.

Chronological list of owners

Below (Table 1) is a chronological property owners' list for house numbers 48 and 49 and their grounds, based on data from the Theresienfeld Land Register and Sohm's *Chronicle*. This provides evidence for the development of the Partsch factory there (Figs. 5 & 6).

In addition

Some pipes have been recovered with a mark bearing the name CONRAD. Sohms notes a Philipp Conrad as pipemaker in house No. 59 between 1838 (1825?) and 1854.

Other pipes, in quantity at house No. 48, carry stamps with the name S.SEILER. This was a Viennese company founded in 1895 and trading in clay-pipes, components and smoking utensils until 1935 (Magistrat der Stadt Wien, Wiener Stadt-und Landesarchiv, Handelsregister, HR A 32/229).

A few pipes are marked JOHANN PARTSCH IN PERNITZ, or PARTSCH – PERNITZ which is a small village some 40 kms to the north-west of Theresienfeld.

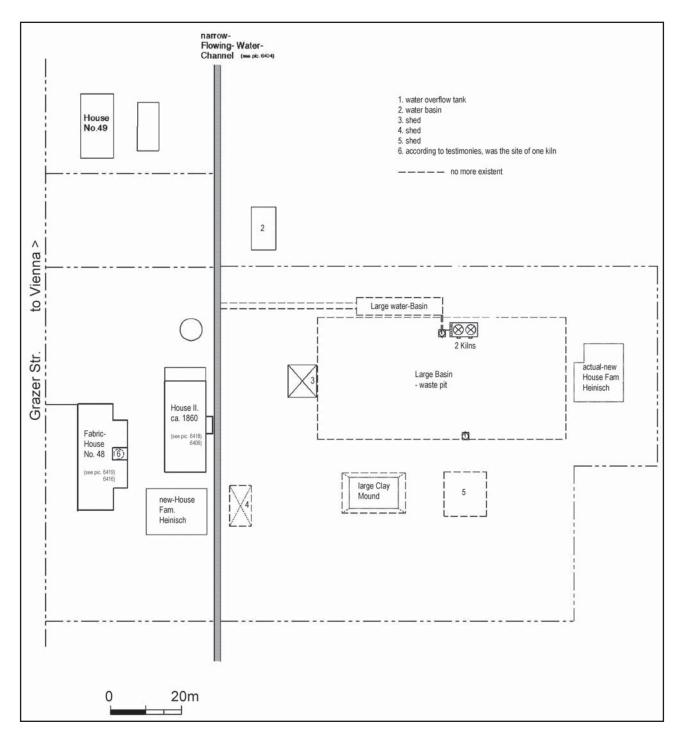


Figure 1: Draft plan of the Partsch factory site: House No. 48 and grounds as the author found them in the 1980s.

It seems probable that the second Johann Partsch worked there for a period, possibly in the middle - second half of the nineteenth century. Recent archival research has not been successful as most of Pernitz's old Land Register is missing. Further research is needed on location in Pernitz itself.

Patents held by Partsch

Below are extracts from the Privilege Registers detailing patents held by Anton Partsch:

1832 First nomination of Anton Partsch, at the address, House No. 49, holds a patent for 'improvement of a special marbling technique for clay pipes'. It is possible that he had already obtained his first patent in 1829 but the 'A-Index' in the Nieder-Österreich archives which could have attested this lacks the necessary information at this point.

This patent was also extended for the province of Lombardia-Veneto in Italy, at that period under Austrian rule.

- 1838 Prolongation of the patent
- 1840 Prolongation of the patent
- 1842 Prolongation of the patent

Year	House 48 - Owners	House 49 - Owners
1813		PARTSCH, Johann I, wife Josepha (1)
1816		PARTSCH, Johann I dated by Sohms (2)
1819	PARTSCH, Anton (2) son of Johann I	
1821		Conrad, Philippe, wife Josepha (1)
1825		PARTSCH, Anton, wife Anna (1)
1832	PARTSCH, Anton, confirmed Privile	
1839		PARTSCH, Anton dated by Sohms (2)
1849		PARTSCH, Anna, widow (1)(2)
1855		(Marquis Karlowitz, Sophie) (2)
1859	PARTSCH, Anna (2)	
1861	PARTSCH, Anna (1)	
1892	PARTSCH, Johann II (1)(2)	
1921	Seiler, Sigmund Company	
1936	Heinisch, Family actual	
	House 33:	
1833	PARTSCH, Johann I (2)	
1842	PARTSCH, Joseph (2)	
1850	PARTSCH, Johann II (2)	

Key:

- NÖ Landesarchiv Grundbuch Theresienfeld/Privilegien-Register.
 Sohm, Edwin: Ortsgeschichte von Theresienfeld, 1854-56.

 $\textbf{\textit{Table 1:} Chronological list of owners for house numbers 48 and 49 and their grounds, based on data from the The resienfeld}$ Land Register and Sohm's Chronicle.



Figure 2: Air view of House No. 48, Grazer str. 9, in the early 1980s (courtesy of Mr. Heinisch).



Figure 3: Air view of House No. 48, Grazer str. 9, c2006 -2007; part of the grounds and House No. 49 are visible on the left-hand side (courtesy of Mr. Heinisch).



Figure 4: Google air view of House No. 48 and its grounds and, above, on the left of the green-park zone, part of House No. 49 and its grounds (courtesy of Marktgemeinde Theresienfeld - Bauamt).

1843 Prolongation of the patent1844 Prolongation of the patent

Further documentation for the activities of the Partsch factory can be found in the catalogues of early industrial exhibitions in which he participated from the beginning.

A chronological list of his participation:

1835	Vienna	The first Industrial exhibition in Vienna - honorary mention; he exhibited 49 types of very high quality, 'yellow, black, marbled, Turkish like' Annual production of 500,000 pipes with 30 workers.
1838	Klagenfurt	The first Industrial exhibition for Lower Austria
1839	Vienna	Bronze Medal; he 'exhibited 44 types of very high quality pipes in many colours with metal or clay caps/main distribution in particular to Hungary'.
1841	Graz	
1845	Vienna	Bronze Medal; 'very high quality/yearly production of 200,000 pipes, with 18 workers; he also exhibited wooden (vistula) stems/ he owns a special vistula plantation'.
1851	London	'Various samples of clay tobacco-pipes' and 'odiferous cherry-sticks for tobacco-pipe tubes'.

The production

The factory produced the typical central European, stubstemmed, 'Schemnitz' type pipes, Selmec/Schemnitz/ Banska Stiavnyca was, at the same period, the other centre for clay pipe fabrication in Austria-Hungary. The countless finds of Partsch pipes indicate that his production was very large and varied, including filigree-worked commemorative pipes with fine carved portraits in relief (in quality as good as meerschaum), and a large variety of fine pipes with marble-glazed effects in polychrome, his speciality. Many of the pipes found on the site lack any markings. Others bear an unique stamp on the rim of the pipe sockets - 'ZU THERESIENFELD' (Fig. 7) which is a typical mark used exclusively in Wiener-Neustadt and its surroundings by makers such as MATHIAS AMSTÄTTER, founded c1830-35 and his son-in-law ANTON RESS, from 1837. Amstätter also held a patent for 'pipe-making machines' during that period.

A putative list of owners and marks for the Partsch factory (Table 2)

On the basis of this enormous range of material Partsch should probably be considered as the main clay pipe producer in Austria and Hungary during most of the nineteenth century.

The hypothesis that copies of Partsch pipes were made elsewhere in western Hungary, particularly in Körmend (*cf* this volume pp 53-71), needs further examination.

From	То	Name	Marks
c1813	?	Johann Partsch I	?
1829	1849	Anton Partsch	ANTON PARTSCH + fleur de lys
			PARTSCH + THERESIENFELD on the socket rim
			PARTSCH + EAGLE- SCHUTZMARKE
1850	1895	Johann Partsch II	PARTSCH + EAGLE- SCHUTZMARKE
			JOHANN PARTSCH IN PERNITZ (see Fig. 8)
			PARTSCH + : ECHT STEINGUT;
			SCHUTZMARKE
			Coat of arms with cross
			TRILBY
			Lyre
			K.K.OEST.UNG.PRIVILEGIUM
1895	1921/33	Sigmund Seiler & Co	S.SEILER +: ECHT STEINGUT
			CONSPLE (ie Constantinople)
			SCHUTZMARKE
			Coat of arms with cross
			Lyre
			TAKACS SEILER

Table 2: A putative list of owners and marks for the Partsch factory.



Figure 5: Front view of House No. 48, the factory building, in 2008 (photograph by the author).



Figure 8: JOH. PARTSCH/ IN PERNITZ stamp on the side of the socket [see Table 2 above] (photograph by the author).



Figure 6: Rear view of House No. 48, in 2008 (photograph by the author).

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Acknowledgements

This research has only been possible through the kind cooperation of Mr Heinisch who is still the owner of the site.

A particular debt of gratitude should also go to Prof. Pal Dereky, University of Vienna; Dr. Langer-Ostrawsky, NÖ Landesregierung Archives; Dr. Rössl and Dr. Stundner, NÖ Landesregierung Archives, Bezirksgericht Wiener Neustadt- Archives; Prof. Dr. Felix Czeike and Dr. Geert Kahl, Magistrat der Stadt Wien, Landesarchiv and Hr.Theodor Schilcher - Bürgermeister der Marktgemeinde Theresienfeld.



Figure 7: The ZU THERESIENFELD mark around the socket rim (photograph by the author).

A sample of the clay pipe production at Theresienfeld, Austria

by Peter Davey

Introduction

Since the abandonment of the site a great many pipes have been collected by a variety of individuals in a range of circumstances and distributed far and wide. As none of the material has been derived from scientific excavations or from contexts that had any coherence or independent means of dating, it is impossible to give a definitive statement of the overall range of the factory at Theresienfeld. The following text will provide an account of the pipes made by Partsch and others at the site by means of a sample of 60 or so pipes and kiln material donated by Albert Halmos to the National Pipe Archive in Liverpool in 2008 [Accession Number LIVNP 2010.18]. This collection includes the common types that he collected and for which he had many duplicates; it also has the advantage of now being in the public domain and can be further studied, as needed. Each object has been marked with a unique number which consists of its accession number, followed by a dot and the number allocated in the text below. Thus, for example Number 1, below, is LIVNP 2010.18.1 and so on.

The pipes have been sub-divided into eight broad types and described in order. Where appropriate, maximum heights (H), or lengths (L), are given in millimetres. Once the forms have been described the marks are dealt with separately. All the photographs are by the author.

TYPE 1 - Nos. 1-12 (Figs. 1 & 2)

Straight-sided, vertical and octagonal sectioned funnel with 7-fluted base and collared socket. Stamped marks are normally on the right hand side of the pipe, from the perspective of the smoker, and are generally placed on the side of the socket and base of the funnel. This form is often described as the 'Selmec' or 'Schemnitz' type; very similar examples to those collected on the site at Theresienfeld can be seen in the Pijpenkabinet collection in Amsterdam (Goes 1995, 61). The Dutch collection consists of high quality examples with a range of fine, ornately decorated, metal attachments and lids.

Numbers 1 to 4

These pipes bear a PARTSCH relief stamp in a rectangular frame on the side of the socket and an oval SCHUTZMARKE relief stamp at the base of the funnel in which the legend surrounds the upper part of an eagle with spread wings.

1. Hard, dense, buff-bodied pipe, with no further treatment [H=68]; possibly the remnant from a biscuit firing.

- 2. Hard, dense, red earthenware pipe with burnished outer surfaces [H=76].
- 3. Hard, dense, black earthenware pipe with burnished outer surfaces [H=73]. An area around the socket collar appears to be slightly under fired.
- 4. Hard, dense, red earthenware pipe, with red glazed outer surfaces [H=75]; the glaze has flaked off around the rim and on the left side of the funnel.

Number 5

This is a hard, dense, red earthenware pipe with blue-green glaze over the outer surfaces [H=75]; clear glaze inside. Parts of the collar and base of the bowl are damaged, partially obscuring a stamp on the socket which reads JOH. PARTS..../IN P.... This stamp is probably attributable to Johann Partsch of Pernitz, as the top bar of the E is also clearly visible. There is the same eagle SCHUTZMARKE stamp at the base of funnel as on numbers 1 to 4. An example of the complete stamp

Numbers 6 to 8

These three pipes bear an oval SCHUTZ/MARKE relief stamp in which the word is set in two halves around a smaller oval, the word *marke* being upside down. At the base of the funnel is a stamp in the form of a shield containing a lyre with a crown, or possibly a mitre above it

- 6. Hard, dense, black earthenware pipe with burnished outer surfaces [H=67]; slightly chipped and damaged at the top of the funnel.
- 7. Hard, dense, white bodied pipe, with external clear glaze [H=76]; slightly chipped in places. The top of the outside of the funnel is unglazed; each octagonal facet finishes with an inverted v-shape in the glaze.
- 8. Hard, dense, pink/buff fabric with a cream coloured glaze which has flaked off in places, probably due to frost action [H=55]. The base of the funnel is damaged and partly missing. The glaze is of variable thickness, thinning out towards the top. It is so thick over the stamps that they are barely legible.

Numbers 9 to 11

These pipes, in a hard dense black body with burnished external surfaces bear the same 'lyre' stamp on the funnel as numbers 6 to 8, but with different marks on the socket.

- 9. This rather poorly burnished example has the stamped mark SEILER in a rectangular frame on the right side of the socket [H=76].
- 10. This slightly better finished example has survived only as a vertical half section [H=70]; it bears the same SEILER stamp as number 9.
- 11. This well finished example has an oval stamp on the



Figure 1: Type 1, numbers 1 to 6.



Figure 2: Type 1, numbers 7 to 12.

socket with the legend RUMPLER set over a pair of crossed mallets with a letter E beneath [H=72].

Number 12

This is a tall pipe made in a dense, black body and burnished on the exterior [H=87]. On the right side of the socket it has the legend: T. HONIG WWI/SCHEMNITZ and on left side of the socket is a small oval stamp possibly depicting a human portrait. Given the numbers of Hönig pipes from the site, this may well be a Körmend product from western Hungary (Nagy 2001, Plate LXXIII).

TYPE 2 - Nos. 13-18 (Fig. 3)

These are pipes with tall, parallel-sided funnels, usually stamped, in relief, on the right side of the socket. They are less consistent in detail than Type 1 with a range of forms of collar at the end of the socket and differing bases (Nagy 2001, Plate C, Nos. 23, 26, 27).

Numbers 13 to 14

These two pipes, in a dense, unglazed red earthenware, have seven-fluted bases (similar to numbers 1-12) and ANTON/PARTSCH relief stamps on the socket in a rectilinear frame, together with small circular relief stamps containing a 'lily' design. Though very similar they are not from the same mould. The form is that described as Type 27 by Nagy (2001, Plate C).

- 13. The mould seams are still visible [H=59]; there is slight damage to one of the flutes before firing. There is a very thin raised rib around the base of the funnel just above the flutes.
- 14. Part of the top of the funnel at the back is missing [H=59]; the stamp is a different die from number 13 and the 'rebus' mark has been placed on it the opposite way up. There is a broader raised rib around the base of the funnel just above the flutes.

Numbers 15 to 16

This pair of pipes have plain, tubular funnels, compound socket rims, flat bases and carry the ANTON/PARTSCH stamp and the 'lily' stamp on the side of the socket. These pipes are close to Nagy's Type 26 (2001, Plate C).

- 15. Hard, red earthenware pipe [H=76].
- 16. Hard, buff earthenware pipe [H=74; there is an iron concretion adhering to the left side of the funnel. The Partsch mark is similar to number 15, but the two letters N are retrograde.

Number 17

This is a dense, red earthenware pipe with red external glaze [H=77]; it has a PARTSCH stamp in relief within a rectilinear frame on the right side of the socket. There is a spread eagle SCHUTZMARKE relief stamp in an oval frame at the base of the funnel. A small patch of plaster/mortar adheres to the top of the funnel. This is also Nagy Type 26.

Number 18

This black earthenware pipe has a compound socket rim with a screw thread on the outside [H=60]. It has an incised design either side of the funnel, consisting of a rectangle divided diagonally into four triangles, the upper and lower of which contain three incised parallel lines and the left and right a triangle-shaped patter of circles and dots consisting of 8, 5, 2 and one circle and dots on top of one another. The panels containing the designs are framed with incised lines. The right side of the socket bears the PARTSCH relief stamp and there is a spread eagle SCHUTZMARKE stamp at the base of the funnel, placed so that it obscures and overwrites almost all of the lower set of incised parallel lines. A very similar pipe with the same arrangement of lines and dots and stamped as being made in Kaposvár in south-western Hungary, is illustrated by Nagy (2001, Plate LXIII, No. 7).

TYPE 3 - Nos. 19-28 (Figs. 4 & 5)

This group of pipes, which is even more diffuse than Type 2, is characterised by the possession of a tall funnel which is not parallel-sided but opens out towards the top. Some of the group have stamps, many do not.

Number 19

Pipe in hard, red earthenware with burnished external surfaces and a simple flat-topped socket rim [H=67]. There is a rectangular PARTSCH relief stamp on the right hand side of the socket and a spread eagle SCHUTZMARKE stamp on the lower part of the funnel.

Number 20 and 21

This pair of pipes has a zone of vertical ribbing towards the top of the funnel. They both have a rectangular framed PARTSCH stamp on the right side of the socket and a spread-eagle SCHUTZMARKE stamp on the left.

- 20. Pipe in hard, red earthenware with burnished external surfaces [H=70]; the funnel contains a metallic concretion.
- 21. Pipe in hard, red earthenware with red glazed external surfaces [H=73].

Number 22

This pipe is slightly shorter with a more flared funnel than numbers 20 and 21 [H=58]. It is in hard, dark red earthenware with a dull red external glaze. On the right side of the socket is a rectangular stamp bearing the name TAKACS/SEILER in two rows. Towards the lower part of the right side of the funnel there is an oval mark containing a lyre with a crown above.

Numbers 23 to 25

These three pipes are simple forms without stamps.

- 23. Pipe in hard, red earthenware with slightly bevelled funnel rim [H=52].
- 24. Pipe in hard, red earthenware with a clear (?lead)



Figure 3: Type 2, numbers 13 to 18.



Figure 4: Type 3, numbers 19 to 23.



Figure 5: Type 3, numbers 24 to 28.

glaze covering almost all the external surfaces, leaving a narrow unglazed zone at the top of the funnel [H=50].

25. Pipe in hard, red earthenware with an iridescent glaze over the lower funnel and socket [H=53mm]; the socket rim and the upper part of the funnel are black glazed; there is a narrow unglazed zone at the top of the funnel.

Number 26

Pipe in hard, buff earthenware, with a more curved profile, tapering towards the base of the funnel [H=60]; the base of the bowl is narrow and disc shaped. The socket rim is flat. All of the external surfaces are glazed in a patchy yellow/gold/purple colour which may be the result of faulty firing.

Number 27

Pipe in hard, buff earthenware with an octagonal sectioned funnel and a double tier pedestal base [H=76]; the socket rim is flat. The external surfaces are glazed in brown; the glaze has bubbled towards the base of the pipe and has not completely fired towards the top. There is a narrow unglazed band around the rim of the funnel.

Number 28

Ornate pipe in a hard, grey clay with some areas of pink (?oxydisation) [H=60]; the underneath of the socket has a foliage design and there is a circuit of curved and pointed arcs below the rim of the funnel. The main design which is seen directly by someone meeting the smoker is on the back of the pipe. It depicts a man and a woman sitting closely together with arms entwined; the woman is in a long décolleteé dress and there is a wine flagon at their feet. The pipe appears to have been made in a tripartite mould.

TYPE 4 - Nos 29-32 (Fig. 6)

This group of pipes, in hard buff bodies, have moulded head designs occupying the base of the funnel and socket. On the top of the funnel and on the end of the socket are screw threads for the attachment of a lid or metal decoration. The head is, apparently, of a woman with elaborate hair styling with a bun at the back who is looking away from the smoker. One sub-type (nos. 29 and 30) has a tall funnel, the other (nos. 31 and 32) lacks a funnel and, instead the screw threads are placed on top of the head. Pipes depicting the human head were popular in western Europe in the nineteenth century, but these examples with the screw threads and tall funnels clearly belong to the Vienna/Budapest axis.

- 29. Unevenly glazed example with dark brown staining around the funnel and socket rims, paler brown elsewhere and yellow over the head itself [H=66].
- 30. Very similar example to number 29, probably from the same mould, but any attempt at glazing is confined to the area of the head itself [H=66]; the glaze has not fired either because the glaze firing failed to

- reach the necessary temperature, or in view of the likely glazing of the remainder of the pipe because the pipe had been rejected before glazing had been completed.
- 31. Yellow glazed head with brown glaze over the bun [H=47]; the socket rim is missing.
- 32. Unglazed head, apparently from the same mould as number 31 [H=47]; socket rim missing and funnel rim damaged.

TYPE 5 - Nos. 33-37 (Fig. 7)

This small group of five bowls is in an 'oriental' style reminiscent of earlier Turkish pipes. The funnels are short and flared and the bowls generally bulbous or flat. They are in hard, pink or red unglazed earthenware.

- 33. Pink-bodied, unglazed pipe with a plain socket and funnel (broken and partly missing) with parallel fluting on a bulbous bowl [H=>42]; the socket rim is flat on top and finely rouletted on its straight sides. The right side of the socket bears a rectangular framed ANTON/PARTSCH stamp, in which the letters N are retrograde (cf No. 16). To the right of the mark there is a small circular relief stamp containing the 'lily' design. Similar forms are illustrated by Nagy from Körmend (2001, Plate LII, K10), though in the Theresienfeld examples the fluting is much less pronounced.
- 34. Red earthenware, burnished pipe, similar in general form to number 33, but the funnel (also partly missing) is facetted and the bowl is a simple concave with leaf and dot decoration at the junction with the funnel [H=>36]. The socket rim is flat and plain with a series of raised curves running around its junction with the socket. On the right side of the socket is a circular relief stamp containing the town hallmark of Selmecbánya. Similar shorter pipes with facetted funnels and a range of fluting underneath the bowl are illustrated from a number of centres by Nagy (2001, Plate LXII, P6; Plate CIII, E1a, E4a), but in these examples the fluting is more substantial.
- 35. Red earthenware, burnished pipe [H=44]; plain octagonal facetted funnel with eight and ten pointed incuse star stamps on the front. The bowl is disc-shaped and is held by a complex moulded leaf design underneath as it meets the socket. The rim of the socket is also decorated with moulded leaf designs. The style of this pipe and the next is distinctly oriental; see, for example, similar finds from Pomègues (Gosse 2007, 213-218).
- 36. Red earthenware pipe with a red glaze over external surfaces; the funnel is missing and only a small section of a disc-shaped bowl survives [H=35]. The bowl was fluted with frilled edges; the socket rim is surrounded by raised knobs on the outside and its



Figure 6: Type 4, numbers 29 to 32.

junction with the socket is covered with a moulded drapery-type design. In the centre of the underneath of the socket is an oval relief stamp which reads: S.SEILER/CONSPLE. Just below the stamp there is the incuse number 136.

37. Red earthenware, burnished pipe with two, rather than three elements [H=47]; the bowl and funnel are combined in a single unit attached at an angle to the socket. There are simple bands of ring and dot designs around the middle of the 'bowl' and underneath the rim of the socket. Good examples of this general form are included in the Blaskovitch catalogue (Ridovics 2005, 169, Nos. 182-184. The Theresienfeld pipe has a very simple socket rim. One of a group of pipes in this form from Mohács Museum (Hungary) illustrated by Nagy, has similar

rows of dots and small circles near the rim (Nagy 2001, Plate LXI, Mo1).

TYPE 6 - Nos. 38-43 (Fig. 8)

This group of six pipes, all in dense buff fabrics, are in designs that are common throughout western Europe; they are all stub-stemmed, that is, they require separate stems.

Numbers 38-41

These four pipes consist of an upright bowl being held by a hand or claw; they have deep socket rims. At the base of the bowl is a shallow zone of fluting. None bear stamps. Hand and claw designs are ubiquitous in western Europe from the mid-nineteenth to well into the twentieth century. For example in France around 1900, Job Clerc at Saint-Quentin-La-Poterie produced a wide range of claw designs (Leclaire 1999, 126-155, Fig. 7, No. 35; Fig. 14,



Figure 7: Type 5, numbers 33 to 37.



Figure 8: Type 6, numbers 38 to 43.

Nos. 91, 109; Fig. 18, Nos. 150, 160; Fig. 20, Nos. 259, 259b; Fig. 21, Nos, 410, 417, 418). In London Charles Crop registered both a claw and hand design on 11th May 1898 (Hammond1988, 58-59, Fig. 14, Nos. 52, 53) and in Glasgow Davidsons already included three claw designs in their catalogue dated to around 1880 (123, Fig. 7, Nos. 27, 38; 136, Fig. 20, No. 237). A claw design is included in Paul Hein of Hilgert's latest catalogue of c. 1975. Both claw and hand designs are included in 1917. Frankau, in their 1912 catalogue included both claw and hand designs in meerschaum (Schrier 2009, 247-248, Nos. 939, 940).

- 38. Slightly damaged, unglazed hand design [H=46].
- 39. Slightly damaged hand design [H=46]; the hand and base of the bowl are glazed yellow and the mouth of the bowl (including the fingernails of the hand) and socket rim are glazed in black. Close examination shows that the whole bowl had first been yellow glazed and then black glazed, or possibly lacquered, afterwards.
- 40. Unglazed claw design, apparently cracked and damaged in firing [H=49].
- 41. Slightly chipped claw design; identical mould to number 40 [H=51], the difference in height is because the funnel of number 40 has been cut off at a lower point on the rim. Gold coloured glaze over the bowl and claw; black glaze on the rim of socket and bowl. As with number 40 the black colour has been added latest.

Numbers 42 and 43

These two pipes are close to western European plain forms, but with short wide-bore sockets.

- 42. Pipe with no spur [H=42]; socket rim slightly damaged. This a so-called 'export' model, probably influenced by briar forms and possibly intended for the American market (eg Davidson's catalogue; Gallagher and Price 1987, 134, Fig. 18, 234, 249, 251).
- 43. Upright spurred pipe with a short stem [H=50]; the socket rim has been tapered by filing down. This rather upright and crude form was called the 'Dublin' by briar makers in both France and England and does seem to derive from clay pipes made in that country. For example Hanley's of Waterford's catalogue of the 1930s or 1940s includes a number of examples (Norton 2009, 80, Fig. 12, Nos. 58, 68).

TYPE 7 - Nos. 44-49 (Fig. 9)

This group of six bulbous pipes appear to represent skeuomorphs of the bent billiard briar form, in particular the 'bent chubby' (Davey 2009, 164, Nos. 25, 259). None bear stamps.

- 44. Hard, red earthenware, unglazed pipe, slightly chipped around the rim [H=38].
- 45. Hard, red earthenware pipe [H=38]; red glazed externally and overlapping into 2mm on the inside of the bowl rim; the glaze has flaked off a little in places.
- 46. Hard, red earthenware pipe [H=38]; black glazed in the same manner overlapping the bowl rim as number 45. Near the top and in the centre of the socket, on the left side of the pipe is a single very small moulded circle and dot.
- 47. Hard, buff-bodied earthenware pipe with yellow/gold glaze all over the external surfaces [H=42]; traces of dark brown glaze or staining around the bowl and socket rims which are both damaged.
- 48. Hard, red earthenware pipe with expanded socket rim [H=42]; glossy black glaze all over the outside surfaces. The socket rim has been chipped on the right side and the bowl is almost filled by a plug of fired red earthenware, making this pipe a certain waster.
- 49. Hard, buff earthenware, unglazed pipe with slightly chamfered socket rim and a screw thread for lid attachment around the bowl rim [H=43].

TYPE 8 - Nos. 50-56 (Figs. 10 & 11)

This group of seven red earthenware burnished pipes all contain a separate tobacco burning chamber within the bowl which is designed so that the tobacco smoke is drawn off in the larger bowl whilst the residues are collected in the inner chamber. A pipe with a technically similar internal design was patented in 1864 by the Strasburg makers Hochapfel frères (Raphaël 1991, 272-273). They all carry a winged bird stamp on the right side of the socket. These pipes were recovered from the attic of House No. 48.

- 50. Bowl with the vertical airway from socket to the upper part of the bowl showing as a raised rib on the front [H=49]; the upper part of the bowl is also expanded in order to accommodate this feature. The socket rim has a narrow zone of reduced width, presumably to take a metal mouthpiece or other fitting and the bowl has a slightly raised area around the rim for the same purpose. There is a rectilinear PATENT relief stamp on the right hand side of the socket.
- 51. Bowl similar to number 50, but the vertical airway is contained within the circular form of the bowl [H=51]. The socket and bowl rims are similar to number 50; similar PATENT and winged bird stamps.
- 52. Bowl with pointed base with 16 flutes and slightly expanding, flared, walls [H=56]; convex topped socket rim. The insides of the bowl and socket are covered with a white material, possibly unfired clear



Figure 9: Type 7, numbers 44 to 49.

glaze. The surface of the bowl is covered with 26 evenly spaced incuse stamped five-point stars. Three of the stars have been stamped over the trimmed front mould seam.

- 53. Bowl, as number 52, apparently from the same mould, and with a white internal covering [H=56]. It also has 26 incuse stars stamped over its surface, but the five stars nearest the rim of the bowl are eightpointed with a raised centre. The remaining 21 stars are five-pointed.
- 54. Bowl, similar to numbers 51 and 52, with pointed base and 16 flutes [H=57]. There is an incuse crowned and ligatured monogram, bearing the initials SR on the front of the bowl. Both winged bird stamp and monogram are filled with yellow/gold glaze. There is a small perforation c1mm in diameter at the top and bottom of the bowl above and below the monogram. At the top and on the inside of the bowl it can be seen that the hole originally penetrated through the whole thickness of the wall, but has been plugged before firing. There is a trace of clear glaze on the interior



Figure 10: Type 8, numbers 50 to 54.



Figure 11: Type 8, numbers 55 to 56.

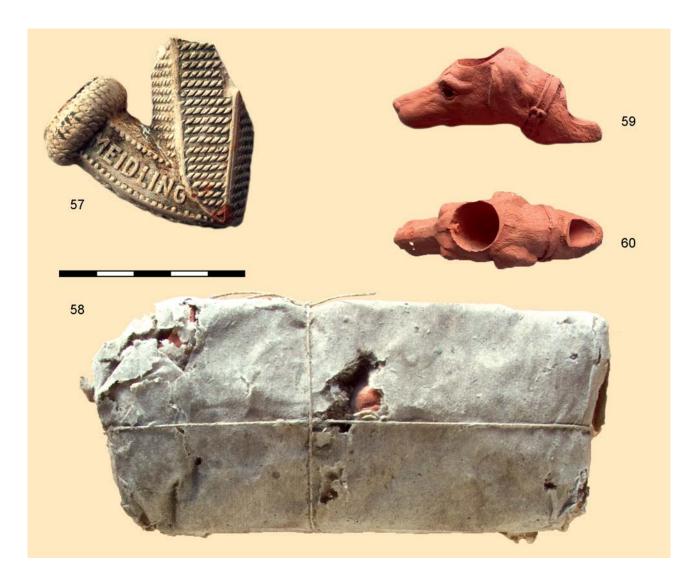


Figure 12: Miscellaneous, numbers 57 to 60.

surfaces. Found in the attic of the factory, along with Nos. 55, 58-60, by Mr. Heinisch.

- 55. Bowl, as number 54 and almost certainly from the same mould [H=57]; stamped in the same way but with no perforations of the bowl wall.
- 56. More elaborately decorated bowl on a narrow pedestal plinth [H=74]. The socket has moulded foliage patterns around it and on the front is a compound design consisting of a winged angel with right hand raised in blessing standing behind a pair of shields, one with a cross and the other with a horizontal bar across it

Miscellaneous items - Nos. 57-60 (Fig. 12)

- 57. Pipe in a soft, buff clay in three pieces [H=72]; hexagonal, slightly flared funnel which is covered with moulded rope designs; the socket rim also has rope moulding and the mould seems on the socket are disguised by leaf moulding. The word MEIDLING is moulded onto the right side of the socket and the letters S.S on the left. Given the combination of unusual clay body and the design this is unlikely to be a Thereisenfeld product.
- 58. Unopened packet of two dozen, red earthenware, unglazed 'dogs' in their original wrapping [L=125]. They are presumed to have functioned as cigarette holders. They were found by Mr. Heinisch in the attic of House No. 48, along with Nos. 59 and 60 below.

59 and 60. Red earthenware unglazed 'dogs' [L=51].

The kiln furniture

The donation included a small quantity of kiln furniture, including rolls, props, plugs, fragments of saggar and possible pyrometers.

Rolls (Nos. 61-68)

There are eight separate pieces of fired rolled clay; six are straight, one is curved, one is compound consisting of four rolls squashed together before firing. Two of the straight sections contain impressions, apparently of the rims of pipe bowls or funnels. These pieces are presumed to have been used as separators and stabilisers within the kiln. Similar rolls can be seen in 1920s photographs of Wilhelm Klauer's factory at Baumbach in the Westerwald (Berkemann 1987, 79, Fig. 86).

- 61. Red earthenware roll, circular in cross-section; rough surfaces [L=70].
- 62. Grey/red earthenware roll; flattened upper and lower surfaces L=47].
- 63. Grey earthenware roll; flattened upper and lower surfaces [L=67].

- 64. Red earthenware roll; flattened upper and lower surfaces and pinched ends [L=110].
- 65. Grey/red earthenware roll; flattened upper and lower surfaces; curved [L=75].
- 66. Section of flattened red/pink earthenware strip with parts of two circular impressions [L=56].
- 67. Section of red/pink earthenware roll, with parts of two circular impressions [L=26].
- 68. Compound fragment consisting of at least four red earthenware rolls squashed together [L=84].

Saggars - Nos. 69-72 (Fig. 13)

Four pieces of thin walled, flat sections of the base of the wall of a vessel, presumed to be a saggar to contain the pipes while firing, mostly in coarse grained off-white clay.

- 69. Section with a scar where a wall/base was attached, partly ?flash glazed [L=83]; the body is 10mm thick, reduced grey on the underneath and slightly pink in places.
- 70. Edge of a base or wall fragment, also showing a scar on the side [L=57]; thicker [12 than number 69 and flash-glazed underneath.
- Fragment of wall and adjoining base [L=92]; heavily over-fired or subject to multiple firings. There is flash glazing all over the piece, including the broken edges.
- 72. Base sherd in a fine pink earthenware with smooth, white upper and lower surfaces [L=51]; there is a scar parallel to the edge which suggest that the side of the vessel has broken away.

Prop/stilt (Fig. 13)

73. A small pale red earthenware conical stilt or prop [H=35]; a section is missing underneath and it is damaged on top.

Clay bung or plug (Fig. 13)

74. A smooth, curved profile fragment of fired red earthenware that gives the appearance of having been used to plug the interior of a pipe bowl [H=27]; pipe number 48 has a plug of clay, of similar size and shape, still contained within it.

Small ceramic vessel (Fig. 13)

75. Small, straight-sided, flat bottomed pot in a reduced grey clay body with a horizontal cut rim; one side is missing and the other is cracked [H=26]. The number 10 has been incised on the underneath. Its function is unclear, possibly a measuring tool.

Possible pyrometers - Nos. 76-82 (Fig. 14)

These artefacts consist of flat sheets of fired clay around



Figure 13: Kiln furniture: rolls, numbers 57 to 60.

7mm thick and 41-44mm wide with carefully finished edges and angled ends. Parallel-sided fired clay rods, 10mm in diameter, have been forced through the sheets in a number of places; most of these have broken off. There are flashes of clear glaze around the holes on the underside of the sheets. Red fired clay caps surmounting the rods may have formed part of the process represented by these items. The sheets and rods are reminiscent of Seger cones used in the pottery industry for testing the temperature of the kiln atmosphere (cf pyrometric cones: Dodd and Murfin 1994) and may have been specifically designed for the pipe industry.

76. Pink bodied sheet with angle-cut end [L=84]; two rods surviving and part of a third visible on the broken edge. One of the rods, which is slightly tapered, survives to a height of 20mm.

- 77. Buff bodied sheet with angle-cut end [L=62]; two remaining buff clay rods surviving within the thickness; the position of a third rod is clear from the broken section.
- 78. Central part of a buff bodied clay sheet [L=59]; one rod is *in situ* within the thickness of the sheet; the position of two others is indicated by voids.
- 79. Small fragment of pink bodied sheet [L=38] with part of a single red clay rod surviving within it.
- 80. Small section of pink bodied clay sheet [L=27] with a single buff bodied rod fragment remaining within it.
- 81. Broken buff earthenware rod, contained at one end by a moulded red earthenware cap [L=34].



Figure 13: Kiln furniture, numbers 69-75.

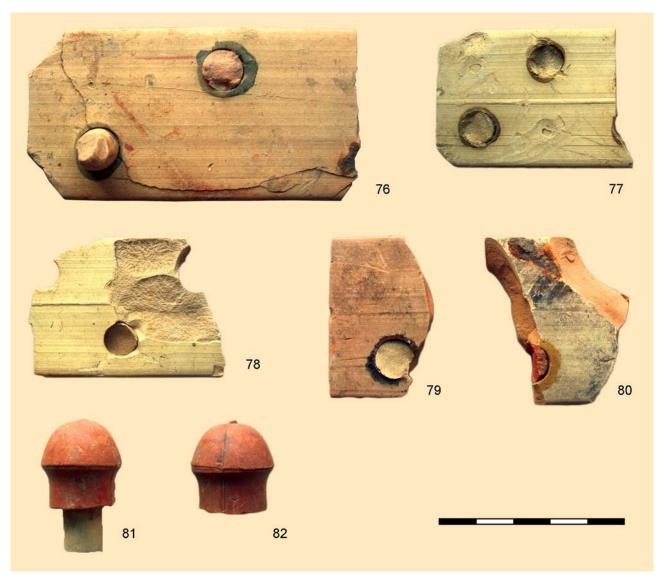


Figure 14: Kiln furniture, numbers 76 to 82.

82. Red earthenware cap identical to number 81 above, but with no rod [H=21].

The stamps (Figs. 15 & 16)

Many of the Theresienfeld pipes bear stamped names and/or symbols. A full study would require all extant examples of them to be recorded in sufficient detail for the individual dies to be identified and the regional literature to be searched comprehensively. This small group is presented photographically. Measurements of maximum width or height have been made using callipers and are given to the nearest tenth of a millimetre.

The dating of these marks has been discussed by Halmos (pp 145 above).

Name stamps

PARTSCH (Fig. 15, No. 1)

A relief stamp [W=12.5] in a simple rectilinear frame is the most common mark in this collection (Nos. 1-4, 17-

21). It corresponds to Nagy's P14 (2001, Plate LXXXVII). It is not possible to distinguish any difference between the dies used for these stamps. With the exception of Nos. 20 and 21, the PARTSCH stamp is always associated with the *Schutzmarke*. In the case of No. 18 this latter is placed over the decoration, partly obscuring it.

ANTON/PARTSCH (Fig. 15, No. 2A-2C)

Five pipes with the name in relief, set in two rows within a rectilinear frame (Nos. 13-16, 33). At least three dies are involved. In one (A), the frame has slightly curved corners and the letter Ns are normal (Nos. 13, 16; W=10.8). This is closest to Nagy's K7 (2001, Plate LXXXVI). In another (B) the letter Ns are normal but set in a sharp cornered frame (No. 14; W=11.6]) and in a third (C) the frame also has curved corners but the Ns are retrograde (Nos. 15, 33; W=12.1). These latter two dies are not represented in Nagy's account of the Partsch material (2001, Plates LXXXVI-LXXXVIII). All five examples have had the lily stamp placed next to them.

JOH.PARTSCH/IN P... (Fig. 15, No. 3)

This damaged relief stamp (No. 5; W=14.0), also associated with the *Schutzmarke*, appears to be the same as one in the Ethnographic Museum in Budapest illustrated by Nagy (2001, Plate LXXXVIII, No. 2). Only the top of the P is visible, but will almost certainly also read PERNITZ. A complete example of the same stamp is in the Halmos collection (Halmos p145, Fig. 8 above). This pipe appears to have been made during Johann Partsch II's period of activity in the town some 40 kilometers to the north-west of Theresienfeld (cf Halmos above).

SEILER (Fig. 15, No. 4)

There are two examples of this relief stamp (Nos. 9, 10; W=10.6) which is set in a rectilinear frame with slightly curved corners. There is no equivalent plain surname Seiler stamp in Nagy's catalogue (2001). Both pipes also bear the lyre stamp. Seiler was a Viennese company founded in 1895 and trading in clay-pipes, components and smoking utensils until 1935 (Halmos p145 above). Their workshop was situated in Banská Hodruša some seven kilometers from Selmecbánya (Harmann and Šteffek 2008, 120).

TAKÁCS/SEILER (Fig. 15, No. 5)

The single example of this relief stamp (No. 22; W=12.5) is also associated with a lyre mark at the base of the funnel. It is not paralleled in Nagy (2001). Takács Károly also has a workshop in Banská Hodruša and, apparently, produced clay pipes there with Seiler (Harmann and Šteffek 2008, 121-122).

S.SEILER/CONSPLE (Fig. 15, No. 6)

This relief stamp (No. 36; W=9.2), in an oval frame is associated with an impressed number 136 and is on the underneath of an oriental style pipe presumed to have been made in Theresienfeld for the Vienna-based company between 1895 and 1935, despite the legend implying that it derives from Constantinople. Although it has not been possible to located published parallels a complete pipe bearing this same stamp was sold on e-bay on 23rd April 2007 (WorthopediaTM). It had the number 117 impressed on the stem. De Haan (forthcoming) has included an example in his discussion of the Morelli pipes.

T.HONIG WWI/SCHEMNITZ (Fig. 15, No. 7)

This rectilinear framed relief stamp (No. 12; W=11.4) with curved ends has not been identified amongst the many illustrated by Nagy (2001, Plate LXXV-LXXVII), all of which are 'M Hönig' or 'M Hönig Sohn', rather than T Hönig. Two of Nagy's stamps do include a 'We' after the name (Nagy 2001, Plate LXXV, P5, Ksz7). The WWI is an abbreviation of *witwe* in German, indicating that the pipe was produced by his widow.

RUMPLER/E (Fig. 15, No. 8)

This relief stamp (No. 11: W=9.0) has the name Rumpler set above a pair of crossed mallets and the letter E underneath, all in an oval frame. Neither the name nor the stamp has been identified in the literature. The pipe also bears the lyre mark.

MEIDLING/SS (Fig. 15, No. 9)

This molded mark is carried in upper case lettering on either side of the socket, with the name itself on the right [W=25.4]. Nagy has the same mark on either side of a different pipe design. He describes these types as 'cafeteria pipes presumably made somewhere else yet associated with Körmend' (Nagy 2001, Plate XCII, No. 3, KB1). As the Theresienfeld pipe itself is in soft, whitish, pink clay, quite different from any of the other pipes in the collection, it is possible that it also derived from another production site. For example, Theo Lamp's factory in Höhr-Grenzhausen was advertising similar styles of 'Wiener Kaffeehaus-Pfeife' in the 1930s and 1940s (Berkemann 1987, 87) and Peter Hein of Hilgert as late as around 1975 (Duco 2004, 149, Nos. 55, 56, 58).

PATENT (Fig. 15, No. 10A & 10B)

This stamp in a rectilinear frame occurs on two (Nos. 50, 51) of the seven double walled bowls (Nos. 50-56). In both cases it is associated with the winged bird stamp. One of the stamps (A) is slightly curved [W=9.6], the other is straight [W=8.4]. The actual patent document has so far not been traced.

SCHUTZ/MARKE (Fig. 15, No. 11)

The two words in this stamp are set within an oval frame (Nos. 6-8); the word *marke* is upside down. One stamp, though otherwise very similar, is larger (No. 6; W=11.0), than the other two (Nos. 7, 8; W=9.6). This form of words in German, meaning 'trademark', is uncommon in pipes from western Hungary and eastern Austria. It is not included in Nagy's catalogue; there is a single example of a more compound stamp in the Osskó collection(Haider, Orgona and Ridovics 2000, 147, 8/41).

SCHUTZ/MARKE and eagle (Fig. 15, No. 12)

This is the most common of all the stamps in the Theresienfeld collection (Nos. 1-5, 17-21; H=11.7). It consists of an eagle, facing to the right with spread wings and the legend SCHUTZ/MARKE as two words above, one on the left and the other on the right, set within an oval frame. All ten examples appear to be from the same die. Nagy illustrates a rather similar mark in his Partsch figures (Nagy 2001, Plate LXXXVII, 13); but his eagle is facing a different way and the legend above seems to read: SCHUEL.MARKE. It seems possible that that he has simply misread the German in this example, otherwise the stamp would be entirely new.

Symbol stamps

CROWNED LYRE (Fig. 16, Nos. 1 & 2)

Seven of the pipes are stamped towards the bottom of the funnel with a stamp that appears to represent a lyre on a shield with a crown over it (Nos. 6-11, 22). Six of the stamps are contained in an elaborate shaped frame that mirrors the profile of the shield and crown (Nos. 6-11; H=10.1). The seventh is in an oval frame (22; W=12.2). The form of all six stamps is very similar to a version of the Hungarian Coat of Arms featuring the holy Hungarian crown (Nagy 2001, Plates LXXI & LXXII).



Figure 15: Name stamps.



Figure 16: Symbol stamps.

In the László Váradi collection there is a copper and wooden die which has PARTSCH/PERNITZ (in reverse) on one end and a crowned lyre stamp on the other (Haider, Orgona and Ridovics 2000, 147, 8/47). Unlike six of the Theresienfeld examples the lyre is contained within a simple oval frame and the crown is far less substantial. The stamp on the seventh pipe is in an oval frame, but the crown is much more substantial than shown on either published drawing of the Váradi example (see also Nagy 2001, Plate LXXXVI, V.L.1).

LILY (Fig. 16, No. 3)

The five pipes bearing the stamp of Anton Partsch (Nos. 13-16, 33) also have a small circular stamp depicting a three-frond plant tied near the base, presumed to be a *fleur-de*-lys [W=5.2]. In the literature the use of a lily stamp as a kind of trademark is clearly associated with Partsch at Theresienfeld (Nagy 2001, Plates LXXXVI, LXXXVIII). Unfortunately, for purposes of identification, it was also used commonly by makers in Vasvár and Dressenfeld (Nagy 2001, Plates LIV, LXXXIX 54, 89), and in Körmend (Nagy 2010, 61-62, Fig. 6. Nos. 1-2).

PORTRAIT(Fig. 16, No. 4)

The T. Hönig pipe bearing a Schemnitz stamp (No. 12) also has a small oval stamp on the opposite side of the socket (left) [H=4.4]. This consists of what seems to be human head, but is very indistinctly delineated. Such

depictions of the human head are common in pipes produced at Körmend, including versions with little or no detail (Nagy 2001, Plate LIII, K15). They also involve the use of the word SCHEMNITZ with the makers' name.

'INDUSTRIAL' (Fig. 16, No. 5)

This single compound stamp in a circular frame 9.1mm across appears to depict the fortified entrance gateway into a town and is framed by lizards or salamanders; there are also symbols of mining including two sledge-hammers (No. 34). This stamp is the coat of arms Selmecbánya. A similar stamp with some of the same components, though less detailed is illustrated by Nagy in association with a TAK/CZI SELME-/ZOLYOM stamp (Nagy 2001, Plate LXXX, top). A more detailed, relief-moulded, design from Zachar is illustrated in The History of the Hungarian pipemaker's craft (Haider, Orgona and Ridovics 2000, 143, 8/2). Similar and larger more compound designs are also known, for example from Pápa (Nagy 2001, Plate LXIV, P10) but in this example the bearers are lions rather than salamanders.

WINGED BIRD (Fig. 16, No. 6)

This incuse stamp is found on all seven examples of the pipes with double-walled bowls (Nos. 50-56; W=9.9). The stamp is quite detailed but is it not clear quite what is represented. There are two spread bird's wings on either side of an ovoid body which is divided vertically and then

with angled ribs on one side. At the top end (from the point of view of the smoker) are three converging arrow like features. The simplest way to 'read' this stamp is as a bird of prey with tri-partite tail feathers; this would mean that every example is upside down. In numbers 54 and 55 the stamp has been filled with a yellow/gold glaze, matching the treatment of the monograms on the front. No close comparison has been identified at other regional workshops.

	S/+ EAGLE	LYRE	LILY	PORTRAIT
PARTSCH	9			
ANTON PARTSCH			5	
JOH. PARTSCH	1			
SEILER		2		
TAKACS/SEILER		1		
RUMPLER/E		1		
T.HONIG WWI/ SCHEMNITZ				1
SCHUTZMARKE (Oval)		3		
TOTAL	10	7	5	1

Table 1: Associational relationship between the marks.

Associational relationship between the marks

Table 1 provides a summary of the associations between stamps placed on the socket (vertical axis) and those towards the base of the funnel (horizontal axis):

This table demonstrates that, within this collection, the Schutzmarke and eagle stamp is the most common and used in direct association with the Partsch name, but that the crowned or mitred lyre stamp is used in the most combinations and with non-Partsch names such as Seiler and Rumpler. The lily stamp is used exclusively by Anton Partsch. Clearly, given a study of all the known products of the factory this pattern might well change dramatically.

Discussion

This small collection from the site at Theresienfeld provides an entry point to the range of styles and technologies in use at the factory, and to its intended markets.

Technologies

The pipes, some of which are clearly wasters, together with the kiln material, show that Partsch was using a range of well purified clays that could be fired red, buff or black that the kiln atmosphere was well controlled and that firing took place at a high temperature for earthenware. The kiln atmosphere seems to have been monitored by the use of ceramic pyrometers. The presence of apparently biscuit fired pieces and failed attempts at glazing on pipes that were otherwise well fired suggest that the production process was in two stages, with a glaze firing taking place separately, possibly in different kilns. With one possible exception, the pipes were made in two-part moulds; the trimmed mould seams are normally still in evidence. A

range of glaze colours were in use, from a clear, self-coloured glaze, in which the colour is mainly derived from the underlying ceramic body, to red, yellow, brown and blue in a range of consistencies.

The presence of a group of pipes with doubled walled bowls indicates a certain degree of innovation.

The existence of Partsch pipes with elaborately made metal fittings and caps, together with the presence of screw threads on a number of the pipes implies that the pipes may have been sent elsewhere to specialist workshops in, say, southern Germany or Hungary for the fittings to be made. This would then indicate quite a sophisticated network of middlemen between the initial production at Theresienfeld and the final selling point.

The styles and markets

The most important form present in the collection is the tall funnelled Selmec or 'Schemnitz' type and its variants, making up almost half of the total (28 out of 60). This style appears to have been important in Austria-Hungary for most of the nineteenth century and well into the twentieth. Specifically the forms present reflect western Hungarian types, rather than those current in, for example, Debrecen at the same period (Szalay 2000). Internal and comparative evidence suggests that these pipes were still being produced in Theresienfeld well into the twentieth century. The four moulded head pipes (Nos. 29-32) also reflect relatively local tastes.

The five pipes in more overtly oriental style (Nos. 33-37) may well have been meant for a wider European market as well as local consumers. Towards the end of the nineteenth century many western pipe-makers, in France and the Low Countries for example, included small numbers of Turkish types amongst their overall offerings. For example in Gambier's 7th catalogue of 1840 there are six pipes described as:*Têtes de Pipes en terre Rouge de Constantinople* (Esveld forthcoming)

There is also a group of pipes in distinctly western forms, such as the briar skeumorphs and the white clay claw and hand pipes, which were probably intended for that market.

The dating

In the absence of stratigraphic evidence the dating of these pipes is difficult as many of the forms appear to have continued in use throughout most of the history of the factory. Internal evidence, such as the presence of later members of the Partsch family and the presence of an S. Seiler pipe belonging almost certainly to the period after 1900, together with pipe styles such as the western briar and clay models suggest a date for the production of much of the collection in the early decades of the twentieth century.

Future research

This very small sample of material from the Theresienfeld site raises a number of issues. First, it is clear that the factory was an important one in European terms with significant production over more than a century. A great deal more research needs to be carried out both to provide a more detailed history from documentary sources, especially for the later periods of production, and also to represent the full range of its output, styles and stamps.

The complexity of the relationship between marks, stamps, styles and apparent production centres represented in this collection provides a useful parallel to the problems of faking identified by Nagy (2011) at Körmend. It would appear that, unless very detailed studies are carried out at each centre the problem of misidentification will continue.

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Reviews

Tabakspijpennijverheid in Schoonhoven. By Jan van Oostveen and Aad Kleijweg. 143 pages, illustrated. Delft: Pijpelogische Kring Nederland, 2009. ISBN 978-90-801138-3-1. EUR 29.50 + postage.

This book is the first complete overview of the production of clay tobacco pipes in Schoonhoven in the Netherlands. Based on archival sources, the book gives an overview of the development of the trade and of the Schoonhoven pipe makers, with all the details of their lives as far as is known. All of the known types of Schoonhoven pipes are illustrated with 925 pictures of pipes from the town. Genealogical schemes and indexes of marks and names complete the book. It is an impressive inventory based on the large databases of Jan van Oostveen and it is a very useful book for the identification of pipes from Schoonhoven.

The first tobacco pipe maker settled in Schoonhoven around 1630. We see that the number of pipe makers in Schoonhoven gradually increases. In the early eighteenth century an attempt was made to unite the pipe makers in a guild. This attempt failed. In 1767 the next attempt succeeded and resulted in the Schoonhoven pipe makers' guild. It existed until 1798. Production stopped at the beginning of the nineteenth century.

Not much is known of seventeenth century production. The eighteenth century production however is well known. The Schoonhoven tobacco pipe makers specialized in cheap tobacco pipes. Typologically these products do not differ from tobacco pipes produced in Gorinchem, Alphen, Aarlanderveen, Utrecht and Gouda. Tobacco pipe production in Schoonhoven was complementary to the Gouda production of quality pipes.

The eighteenth century Schoonhoven tobacco pipes have relief decoration with initials. Well known relief decorations are the crowned M, the crowned N, the crowned IG, the egg basket and the crowned fish (most of the time above three waves).

For the distribution of Schoonhoven tobacco pipes we rely on archaeological finds. They show that the early eighteenth century products were traded to the region of Utrecht and The Hague. Later, when the Utrecht pipe makers had a significant production, many pipes were sold in Rotterdam, Zeeland and the Southern Netherlands. The export of Schoonhoven pipes was rather limited. Most pipes found outside the Netherlands are pipes that were part of the personal belongings of travellers and sailors.

Ruud Stam

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by Dennis Gallagher Principal Editor, Académie Internationale de la Pipe

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Higgins, D. A. 2003 'Tobacco pipes from excavations at Dung Quay, Plymouth' in P. Stead 'Excavations of the Medieval and Later Waterfront at Dung Quay, Plymouth', *Proceedings of the Devon Archaeological Society*, **61**, 63-95 (21-133).

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