

# Clay pipes in Bavaria and Bohemia: common ground in the cultural and political history of smoking<sup>1)</sup>

Keramické dýmky v Bavorsku a v Čechách: společné kořeny v kulturních a politických dějinách kouření

Tonpfeifen in Bayern und Böhmen: kultur- und politikgeschichtliche Gemeinsamkeiten des Rauchens

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*Der folgende Beitrag präsentiert die Ergebnisse einer umfassenden Materialanalyse von etwa 9427 Tonpfeifenfragmenten des 17. und frühen 18. Jahrhunderts, die auf dem Gebiet des Bundeslandes Bayern bei archäologischen Ausgrabungen oder Feldbegehungen entdeckt wurden. Im Mittelpunkt der Untersuchungen standen die Erarbeitung einer Typographie und einer Chronologie der Fersenpfeifen, der Nachweis einer lokalen Tonpfeifenproduktion in Bayern und die Entschlüsselung der Modelmarken. Es zeigte sich, dass diese Modelmarken ein politisch motiviertes Markierungssystem darstellen, das während des Bayerischen Tabak- und Pfeifenmonopols (1675-1745) die Einhaltung der strengen Vorschriften gewährleisten sollte. Mit diesen Marken bieten die Tonpfeifen Bayerns neben der sehr guten absoluten Datierung auch wertvolle Interpretationsmöglichkeiten hinsichtlich des Handels und Schmuggels mit Rauchutensilien sowie der Durchsetzung dieses merkantilistischen Monopols innerhalb des Kurfürstentum Bayern. Ein weiterer Schwerpunkt des Beitrags liegt in der Herausstellung der Gemeinsamkeiten zwischen Bayern und Böhmen hinsichtlich der Tabakgeschichte, der Kulturgeschichte des Rauchens und dem Fundmaterial, was besonders bei der Oberpfalz sichtbar wurde, dem unmittelbaren Nachbarn zu Böhmen.*

Bavarian post-medieval archaeology is an emerging discipline that recently saw its first large scale study of clay tobacco pipes. Over the last five years, 9427 clay pipe fragments found in present-day Bavaria and adjacent Austrian territories, formerly closely connected geographically and politically to Bavaria, underwent a detailed archaeological analysis. The study concentrated on heel pipe fragments dating to the period from approximately 1600 to 1750. The main research aims included the classification of the pipes, the establishment of a chronological order and evidence of a local clay pipe industry in Bavaria during the 17<sup>th</sup> and 18<sup>th</sup> centuries. The pipes were also placed in their cultural-historical context and as a result help us understand how one of the major monopolies during the age of mercantilism in Bavaria was conducted. As the analysis and its results are currently in print (*Mehler 2009a; Mehler 2009b*), the following paper focuses on the cultural and political connections between Bavaria and Bohemia.

## **Note 1:**

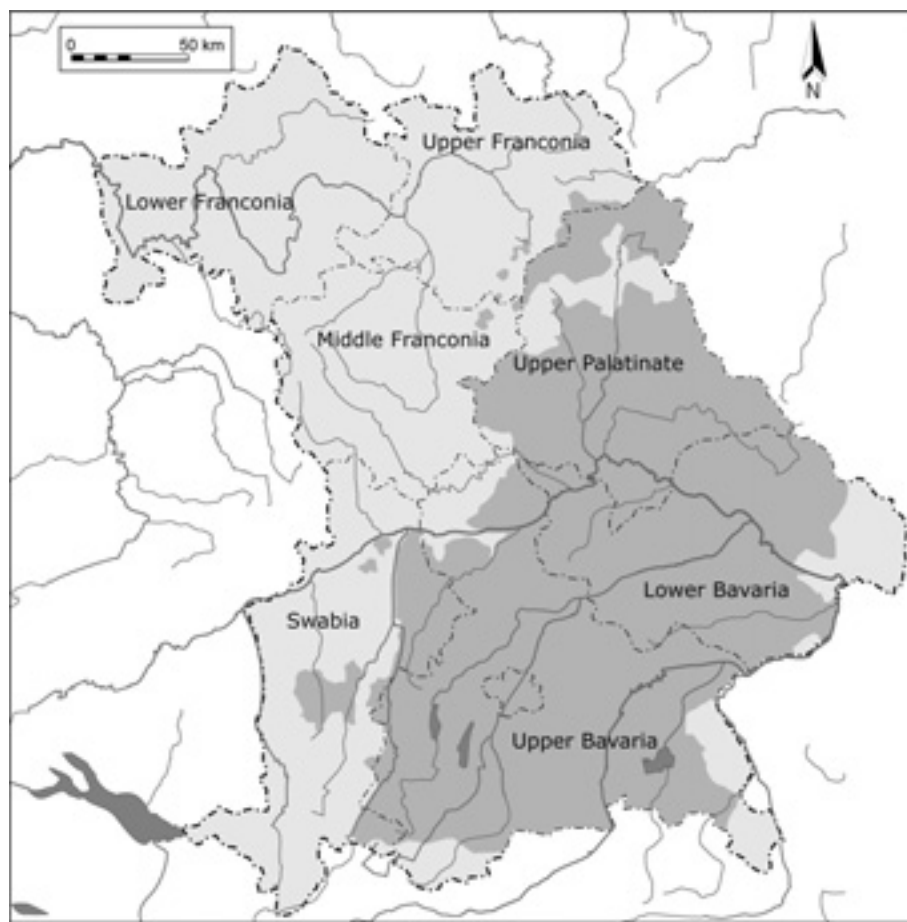
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## **Historical background**

In order to understand Bavarian clay pipes and their industry in all of their aspects, it is important to take a close look at the cultural history of tobacco-smoking in the area of present-day Bavaria and the absolutistic

Fig. 1. Map of present-day Bavaria and its territorial situation during the 17<sup>th</sup> century. Dark grey – the Electorate of Bavaria; light grey – present-day Bavaria. Drawing by Kristine Ruppel, Thomas Pertlwieser.

Obr. 1. Mapa dnešního Bavorska a jeho územní uspořádání v 17. století. Tmavě šedá – Bavorské kurfiřtství; světle šedá – dnešní Bavorsko. Kresba Kristine Ruppel, Thomas Pertlwieser.



tobacco policy of the Electorate of Bavaria (1623-1806) in the 17<sup>th</sup> and early 18<sup>th</sup> centuries.

Present-day Bavaria consists of the seven administrative regions of Upper, Middle and Lower Franconia, Swabia, the Upper Palatinate and Upper and Lower Bavaria (fig. 1). Of these, Franconia and Swabia only became part of Bavaria in the early 19<sup>th</sup> century. Upper and Lower Bavaria and the Upper Palatinate were the core areas of the Electorate granted to Maximilian I for his victory at the Battle of White Mountain during the Thirty Years' War. Excluded from this territory were a number of small enclaves like Kempten and Passau, both Catholic archdioceses, and free imperial cities like Regensburg and Augsburg (Albrecht 1998, 63-67, 577). Thus, present-day Bavaria unites an area of about 70 000 square kilometres which formerly consisted of several territories with different political and ecclesiastic powers and systems. The history of smoking and the tobacco policy is thus as manifold and complex as Bavaria's territorial situation in this period.

Smoking was introduced into Bavaria at the beginning of the 17<sup>th</sup> century. The first written evidence of the consumption of tobacco in Bavaria dates to the year 1601. Bernhard Doldius, a physician from Nuremberg, noted in a letter to a friend that a group of Englishmen had asked for tobacco as soon as they entered his town and were delighted to find a great deal of it. He also complained that people could be seen smoking on the streets of Nuremberg almost every day (Mehler 2009a, Appendix 1). During the following decades the new custom of smoking tobacco spread rapidly throughout Bavaria. It is often said that it was the Thirty Years' War and the many foreign soldiers involved that spread the habit. By the middle

of the 17<sup>th</sup> century, at the latest, many documents testify to the widespread use of tobacco in every corner and social class of the country. Following the attitude of other European rulers, Bavarian clergymen and aristocrats also officially condemned this bad habit. In 1652 regent Maria Anna saw no other choice than to introduce the first general ban on smoking (*Nadler 2008*, 32 f.). This was the beginning of a series of such bans: a similar one, limited to smoking in public places, was introduced on 1 January 2008.

### *The Bavarian tobacco and pipe monopoly*

Maria Anna's attempt to stop people from smoking was not successful. Soon her son, Elector Ferdinand Maria, changed the stance towards the suspicious plant and in 1669 decided to profit from smoking by introducing a tax on tobacco (*Nadler 2008*, 34). Collecting this tax proved to be extremely difficult due to extensive tobacco smuggling. Therefore, Ferdinand Maria established the Bavarian tobacco monopoly in 1675. Historians usually call it the Bavarian tobacco monopoly (*Nadler 2008*, 48-153), but in fact it is more correct to call it the tobacco and pipe monopoly, because it was not restricted to tobacco alone but included – quite understandably – the necessary smoking implements as well. A tobacco monopoly was imposed only in Bavaria and Prussia. The other parts of present-day Germany were a free trade area for tobacco (*Goodman 1994*, 214). This monopoly was part of the Elector's mercantilist plan to recapitalize state finances and reconstruct the realm with the help of economic reforms. Such reforms included support for agricultural production and the establishment of various monopolies such as the tobacco monopoly and the wheat beer monopoly (*Weissbiermonopol – Albrecht 1998*, 199-200, 939-948, 1095, 1098-1099).

Called Appalto,<sup>2)</sup> the Bavarian tobacco and pipe monopoly lasted from 1675 to 1745 and contributed to Ferdinand Maria's economic policy. It was born out of mercantilist ideas that influenced virtually all the rulers of the main European trading nations in the 17<sup>th</sup> century. The local cultivation of tobacco played an important role in many of these countries. In introducing the Appalto, Ferdinand Maria's intention was to make a profit and increase industrial production by supporting the local economy. This was to be supplemented by restricted imports of foreign tobacco and by imposing high protective duties on the few foreign items that were allowed to be imported. Foreign tobacco was to be replaced by local production as much as possible (*Nadler 2008*, 15). Ferdinand Maria's tobacco policy and that of his successors is very well documented in written sources, but we hear almost nothing about the implements that were necessary for smoking tobacco. Only a few of the documents mention (clay) pipes, but it became evident in these that pipes were always part of the monopoly. Consequently, foreign clay pipes were either prohibited or saddled with extremely high taxes to sustain local pipe production.

The monopoly was not carried out by Bavarian politicians, but by private businessmen, so-called Appaltators, who rented it for a high annual charge. These businessmen were the only people in the Electorate of Bavaria allowed to organize clay pipe production or import smoking utensils from abroad in order to supply local pipe demand. It is important to mention that the monopoly was only valid in the realm of the Electorate. That means that

#### **Note 2:**

The Italian term "Appalto" means monopoly or contract of lease and probably derives from the Latin "ad-pactum". During the period of the electorate of Bavaria, the term was used to describe the state-run tobacco monopoly. See *Nadler 2008*, 296.

all free imperial cities, archduchies and other enclaves within the realm were excluded from the monopoly and free in their tobacco and pipe provisioning. This territorial patchwork situation made it extremely difficult to enforce and control the monopoly.

The most remarkable of the Appaltators was Johann Senser, a clever and diplomatic businessman who served in this office from 1678 to 1699 and then again from 1706 to 1712. Senser was the first to succeed with the tobacco and pipe monopoly and he earned a fortune (*Nadler 2008, 56-72*). He established a series of main stores (*Hauptniederlagen*) and tobacco factories (*von Zwehl 1983*), which probably also employed pipe makers.

The monopoly was interrupted for a period of ten years between 1717 and 1727. In 1717, it was replaced by the so-called hearth tax (*Herdstättengeld*), a tobacco tax which had to be paid not by the smoker, but by each individual who owned a house (i.e. a hearth) whether he smoked or not. This tax was due twice a year and was raised repeatedly during the course of its existence (*Nadler 2008, 96-106*). A new Appalto was introduced in 1727 when Elector Karl I Albrecht (1697-1745), who later became the Holy Roman Emperor Karl VII, came to power. It was granted to the Austrian Carl Roman Mayern, who organised his monopoly privilege along the lines of the tobacco monopoly of the Habsburg Empire. Despite the new Appalto, the *Herdstättengeld* was retained, which meant a double tax burden for Bavarians. Thereafter, the Bavarian tobacco and pipe monopoly was carried out by five more Appaltators, either individuals or companies, until it was finally abolished in 1745.<sup>3)</sup>

**Note 3:**

*Nadler 2008, 106-153.*  
The monopoly ended in 1745, but was revived for a short period between 1769 and 1772 (*Nadler 2008, 171-183*).

### Clay pipe studies as part of historical ceramic studies

The archaeological study of clay tobacco pipes as practiced in Germany and beyond belongs to the field of post-medieval ceramic studies in general, and to the field of historical ceramic studies in particular. However, clay pipe studies have always played a special role. Since clay pipes are mostly studied in isolation, they are unfortunately almost never incorporated in larger interpretative schemes, methodological discussions or overviews in the field of ceramic studies.<sup>4)</sup> This paper aims to highlight clay pipes' great interpretive potential and to encourage a better incorporation of these artefacts into the field of ceramic studies.

**Note 4:**

See, for example, the recent overview of ceramic studies in historical archaeology by *Barker – Majewski (2006)*, which does not include clay pipes.

### Methodology

Two of the principal objectives of the present study were to find a method of classifying the clay pipe material and to establish a Bavarian clay pipe chronology.

Searching for an effective classifying method quickly resulted in an attempt to classify the pipes with the help of pipe price lists that had survived from the 17<sup>th</sup> and early 18<sup>th</sup> centuries (*Mehler 2009a, Taf. 11*). The idea was to employ historical clay pipe terms used in these lists for present-day artefacts. This method was inspired by the work of *George L. Miller (1980, 1)*, who argued that synthesising archaeological and historical information is best achieved by applying historical terms used by the craftsmen who

produced these artefacts. In other words, the aim of this method was to accomplish a cognitive typological order or folk taxonomy based on the ideology of the period to be studied.<sup>5)</sup> Unfortunately, it soon became clear that this method could not be applied to Bavarian clay pipes due to semantic problems (see also *Beaudry 1993*, 48). The surviving documentary material lists and sorts pipes almost without exception by either material (clay, wood or metal) or the length of their stems. The only exception and descriptive term to be found was the addition “Madame”, but it remains unsolved what kind of pipe type was meant by this term. Thus, the order suggested by the price indexes proved impractical for an archaeologist working with artefacts. As a result, the clay pipe collection was classified entirely by a decoration and shaping technique.

**Note 5:**

On the concept of cognitive classification see e.g. *Eggert 2001*, 143-145.

### Typography

The few German archaeological papers mentioning clay pipes mostly try to classify the artefacts with the help of the well-established typology of Gouda pipes compiled by Don H. Duco (e.g. *Duco 1987*, 27). This is mainly due to the fact that the Gouda pipe industry played an important role for Germany – in the export of Dutch pipes and in the transfer of both craftsmen and manufacturing techniques. However, recent research has made clear that despite the many overlaps and similarities between German and Dutch clay pipes, the German clay pipe industry had its own peculiarities and techniques and is distinct from the Dutch industry in many different ways (e.g. *Kluttig-Altman – Mehler 2007*).

The main distinctive feature of the Gouda clay pipe typology is doubtlessly the exceedingly chronologically linear sequence of its types. In analysing Bavarian clay pipes, it quickly became clear that the chronological development of their shapes and decorations lacked this kind of stringent linearity. In his 1967 paper on the methods of prehistoric sciences, German archaeologist E. Sangmeister called attention to the exceptions from “unilineal evolutionism”. He also pointed out the ambiguity of the term “typology” meaning both a typological order in its purest descriptive sense and the chronological order of the types within (*Sangmeister 1967*, 211; *Eggert 2001*, 142). Sangmeister therefore suggested using the term “typography” for typological orders with non-linear type sequences or typological sequences free of chronological aspects. Although this term was originally used by typesetters,<sup>6)</sup> it seemed the most suitable for the sequence of Bavarian clay pipe types.

**Note 6:** This was emphasized by *Eggert 2001*, 199.

Consequently, the Bavarian clay pipe typography presented in *fig. 2* is free of chronological interpretation. All determinable fragments of heel pipes were classified in three main groups based on the technical decoration method. Class A unites pipes without any decoration at all. Class B consists of pipes with manually-applied decoration such as heel stamps, rolled-on ornamentation or milling. Class C unites clay pipes with only moulded decoration and is the only class that can be further divided into subordinate types and variants. Thus, six types based on the moulded pattern were designated (types C 1 to C 6). The types and therefore also the pipes were ordered by the denseness and the degree of decoration, starting with the pipes that are least decorated (type C 1) and ending with the pipes that are most richly decorated (type C 5).

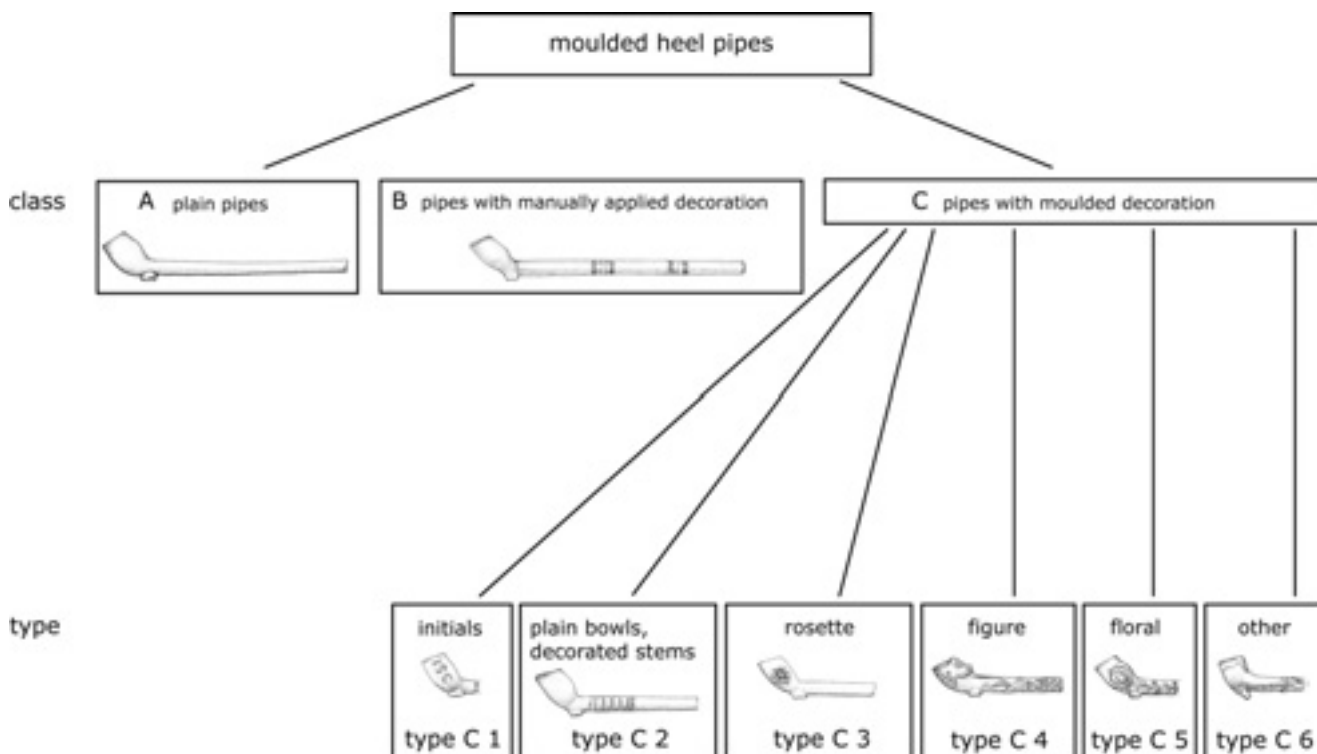


Fig. 2. Typography of Bavarian heel pipes of the period around 1600-1745.

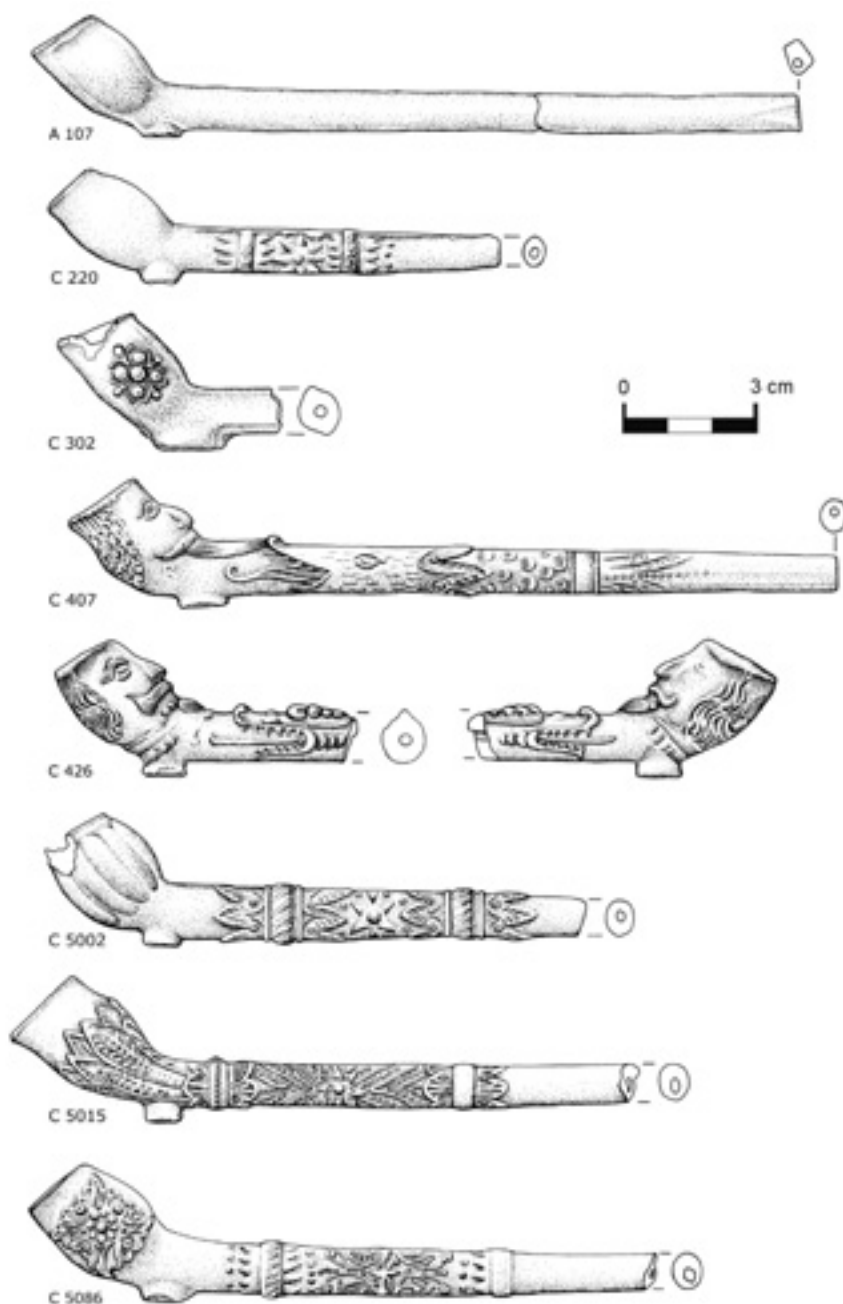
Obr. 2. Typologie bavorských dýmek s patkou z období ca 1600-1745.

### Chronology

The chronological non-linearity of pipe types and bowl shapes turned out to be a significant characteristic feature of the Bavarian clay pipe collection. This became especially evident with the help of the moulded letter marks that can be found on a great number of clay pipes. Those letter marks, another important distinctive attribute could, in most cases, be dated precisely (see below). The Bavarian clay pipe chronology is to a great part built upon those dates.

Other methods were required for dating pipes without any marks. Several pipe models were brought into a relative sequence with the help of stratigraphic information, stylistic comparisons with dated clay pipes from other areas within Germany and the Netherlands or dated more precisely with the help of coins or through their association with documented building dates.

Clay pipe research in England and the Netherlands suggests that in most cases the development of clay pipe bowls is rather linear in nature, generally starting with smaller bowls which grow larger over time (e.g. *Duco 1987, 27; Oswald 1975*). On analysing Bavarian clay pipe bowls, a slightly different pattern of development was observed. Pipes with small bowls conform to the general line of development and are the oldest in the sequence. Pipe bowls progressively become larger and larger, but several different bowl sizes often exist simultaneously, especially in the period from approximately 1660 to 1710. This means small pipe bowls are not necessarily older than larger bowls. For the archaeologist attempting to date clay pipes, this implies that one cannot trust the pipe's bowl shape alone, but must also employ other dating criteria such as marks. It is not the first time that the co-existence of different styles, thought to vary in time, has been noticed in post-medieval ceramic studies (*Barker – Majewski 2006, 226*). Archaeologists need to be aware of this methodological problem.



*Fig. 3.* Selection of Bavarian clay pipes from the period prior to the Bavarian tobacco and pipe monopoly, all dating to the period from around 1640 to 1670. No. A 107 found at Salzburg, C 220 and C 302 at Erding, C 407 and C 5015 at Passau, C 426 at Regensburg, C 5002 and C 5086 at Amberg. *Obr. 3.* Výběr bavorských dýmek z doby před zavedením bavorského tabákového monopolu (všechny z let ca 1640-1670). Č. A 107 nalezeno v Salzburgu, C 220 a C 302 v Erdingu, C 407 a C 5015 v Pasově, C 426 v Řezně, C 5002 a C 5086 v Ambergu.

### The marking system of Bavarian clay pipes

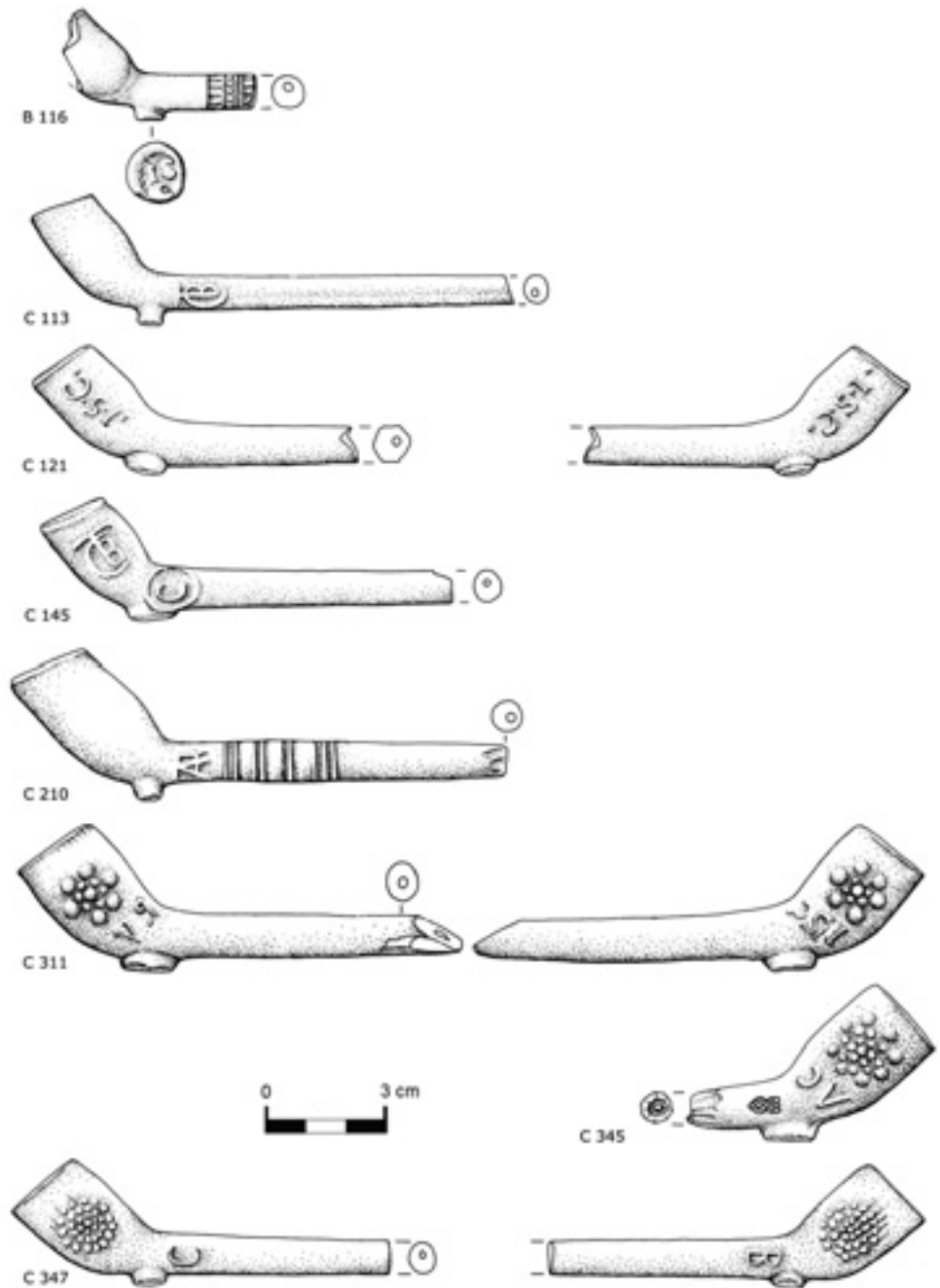
A remarkable and characteristic feature of Bavarian clay pipes from the period prior to the tobacco and pipe monopoly – the years between 1600 and 1675 – is their absence of heel marks or other specific stamps (*fig. 3*). Later this changed, and during the period of the tobacco and pipe monopoly (1675-1745) heel pipes are marked in a rather distinctive way. While pipes are usually marked with initials or names by pipe makers in England or the Netherlands, clay pipes in Bavaria are signed with the marks of the Appaltators and their Consortium members to make clear that the smoking utensil was part of the monopoly. To date not a single pipe maker's mark has been identified. The Bavarian pipe marks are mould marks formed in the pipe mould and, as such, they appear in relief. This is in strong contrast to the usual impressed heel or bowl marks applied with stamp tools

Fig. 4. Selection of Bavarian clay pipes from the period of the Bavarian tobacco and pipe monopoly (1675-1745).

No. C 210 found in Munich, all other fragments in Erding.

Obr. 4. Výběr bavorských dýmek z doby bavorského tabákového monopolu (1675-1745).

Č. C 210 nalezeno v Mnichově, ostatní v Erdingu.



known from the Netherlands or England, for example. Bavarian mould marks consist of two or more letters and can be found on either the pipe bowl, the side of the heel or the stem. Frequently the letters are tied together (*fig. 4*). They were clearly displayed, mostly in large letters, and showed immediately that its owner had obeyed the laws of the monopoly by purchasing heavily-taxed items produced inside the realm. Seen from this perspective, the Bavarian mould marks can be interpreted as tax labels similar to the ones we find on modern cigarette packets.

This system of pipe marking is entirely politically motivated and had an obvious reason. Although not explicitly stated in documents, it is apparent that it was introduced as a control tool to ensure the successful administration of the tobacco and pipe monopoly within the realm. In fact, pipes were the only medium to allow official control. Once tobacco was freed of its wrapping, it was impossible to inspect and there was no longer any way



of judging whether the smoker was consuming tobacco bought legally inside the realm or smuggled from abroad. But mould marks on pipes were permanent and easy to check.

In a few cases, pipes are also marked with the Bavarian coat of arms, either applied with a stamping tool or moulded. This mark is first mentioned in a decree issued on 24 February 1728, but already appears on pipes at the end of the 17<sup>th</sup> century (*fig. 4: C 345*). According to this and other documents, those stamps had been handed out to the Appaltator's concessionary contracting partners outside the realm (e.g. Nuremberg), who then had to mark tobacco and pipes to be imported to Bavaria.

Governmental control of smokers was achieved in the following way: In the year 1677, two years after the start of the monopoly, Ferdinand Maria established a special mounted police squad called the *Überreiter*, who rode through the realm with the main task of controlling smokers, carriages, marketplaces and salesmen of tobacco and pipes. They received no salary, but were rewarded on a provision basis, meaning that they got a share of the confiscated materials and fines (*Nadler 2006, 11*), and were thus eager to hunt for malefactors. Fines and punishments were as drastic as the high tobacco and pipe prices. Not only were smuggled and unmarked tobacco and pipes always confiscated; a high fine of sixty to one hundred times the value of the tobacco was imposed on the culprit too. For multiple offences, offenders were threatened with the pillory, prison, forced labour and even whipping (*Nadler 2006, 8-10*).

Needless to say, the *Überreiter* were treated with neither sympathy nor respect. Several documents give vivid insights into the turmoil which arose in such control situations. Clay pipes triggered the conflicts in all known cases. In the summer of 1729, the town of Aichach (Swabia) reported the following case: four *Überreiter* entered the city tavern called *Froschmayrbräu*, which was full of young men drinking. The *Überreiter* controlled the smokers' pipes and confiscated one of them, obviously because it did not show the necessary monopoly marks. Quickly, a quarrel arose and the publican threw the participants out of the tavern. There, in front of the building, the dispute swelled to involve a group of 80 persons and nearly ended in the lynching of the *Überreiter*, who in the end managed to escape (*Nadler 2008, 120*).

Drastic cases like this vividly demonstrate that the Bavarian tobacco and pipe monopoly had a significant impact on most people's lives.

### Clay pipe production in Bavaria in the 17<sup>th</sup> and 18<sup>th</sup> centuries

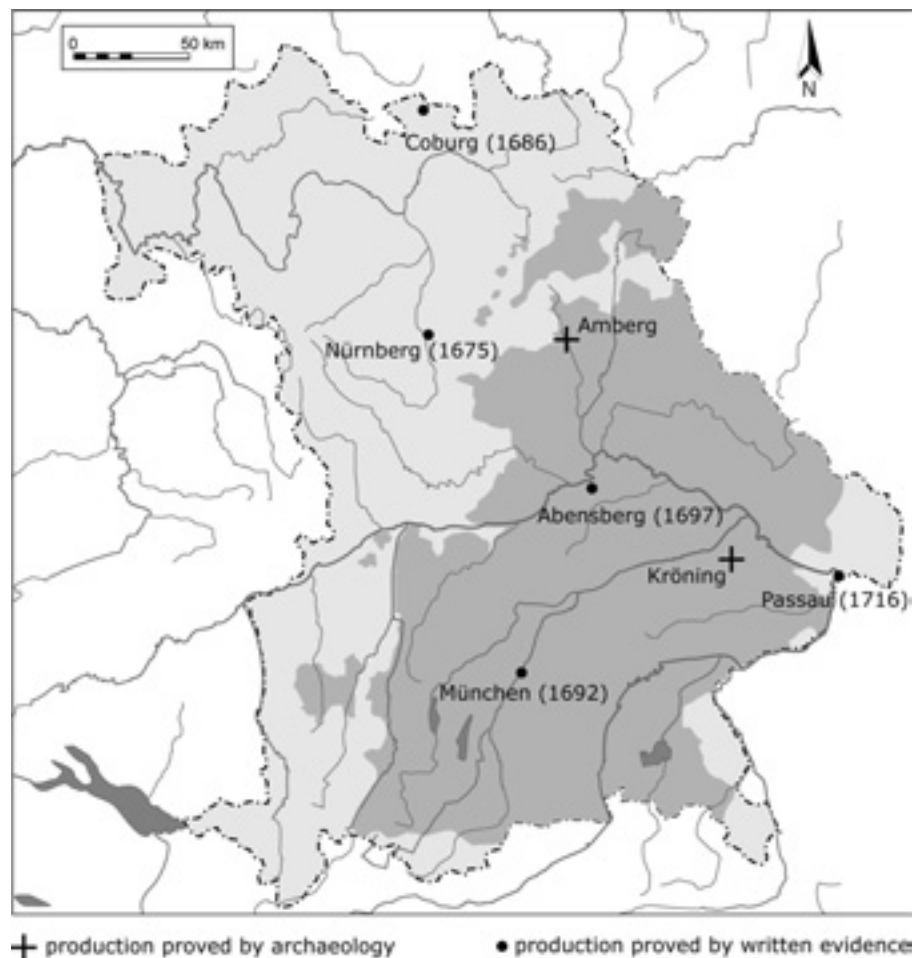
We can distinguish two phases in the local clay pipe industry of Bavaria separated by the introduction of the Bavarian tobacco and pipe monopoly in 1675. Prior to the monopoly, clay pipes were produced by potters in their workshops. Written documents clearly show that smoking utensils were part of an ordinary potter's repertoire rather than products of a distinct, established and specialized profession. Most noteworthy of these is the Nuremberg potters' ordinance issued in 1675. Article 15 states that clay pipes are only allowed to be produced by potters who have acquired the rank of master (*Schultheiss 1956, 32 f.*). Thus, the decree not only shows that clay pipes were produced in Nuremberg as the manufactured goods

Fig. 5. Map of present-day Bavaria with identified clay pipe production sites. Dark grey – the Electorate of Bavaria; light grey – present-day Bavaria. First time references in brackets.

Drawing by Kristine Ruppel, Thomas Pertlwieser.

Obr. 5. Mapa dnešního Bavorska s doloženými dílnami na výrobu dýmek. Tmavě šedá – Bavorské kurfiřtství; světle šedá – dnešní Bavorsko. Křížek – výroba doložená archeologicky; kolečko – výroba doložená písemnými prameny. V závorkách rok první zmínky o existenci.

Kresba Kristine Ruppel, Thomas Pertlwieser.



of ordinary potters' workshops, but also implies clay pipe production prior to 1675. Including Nuremberg, the study has resulted in the discovery of seven clay pipe production sites in present-day Bavaria (fig. 5). The sites stretch across eastern Bavaria, while the western part remains without a production site for the time being. Bavarian potters and pipe makers could use local clay sources. The country offers several deposits of so-called pipe clay, a white-firing clay type poor in iron and rich in aluminium oxide, which could be used without further preparation. Ordinary yellowish or reddish firing pottery clay has also been used to produce clay pipes, a number of them even resulting in stoneware material (Mehler 2009a, Taf. 7).

It is not clear whether clay pipe production in pottery workshops stopped with the beginning of the monopoly, but we can assume that it did to a great extent. In order to conduct the monopoly and prevent clay pipe smuggling, it was necessary to have direct access to the people who produced clay pipes and to control proper labelling. This was most efficient in the monopoly's tobacco factories, which emerged during the latter half of the 17<sup>th</sup> century and also employed pipe makers. However, we can assume illegal pipe production that continued during the monopoly in local pottery workshops.



Fig. 6. Course of the Golden Route (Zlatá cesta) from Nuremberg to Prague with sites mentioned in the text.

Drawing by Kristine Ruppel, Thomas Pertlwieser.

Obr. 6. Trasa Zlaté stezky z Norimberku do Prahy s místy zmiňovanými v textu. Kresba Kristine Ruppel, Thomas Pertlwieser.

### Bavaria and Bohemia: common ground from a smoking history point of view

Bavaria and Bohemia have a long common history. Aspects of this are also reflected in the cultural history of smoking and the history of smoking and snuff taking also have a great deal in common.

As in Bavaria, tobacco was grown in Bohemia by the second half of the 17<sup>th</sup> century (Hintz – Huber 1975, 14; Vyšohlíd 2007, 278). If local production could not satisfy consumer demand, additional tobacco was imported from Nuremberg (Schrötter 1924, 82), one of the largest trading cities in Germany during the later Middle Ages and the Early Modern period. The city was located on key trading routes and served as a trading centre from which tobacco, amongst other items, was distributed onwards. One of these important trade routes was the so-called “Golden Route” (Zlatá cesta) running from Nuremberg to Prague and passing through Hersbruck, Sulzbach, Waidhaus, Stříbro, Plzeň and Beroun (fig. 6; Dreyer-Eimbcke 1989, 137-151). A great deal of tobacco was transported to Prague in this way. The Golden Route became important during the 14<sup>th</sup> century and for the reign of Charles IV (1355-1378), who in this way strengthened the connection between the Upper Palatinate and Bohemia. Already in this period, a detour via Weiden, Bärnau and Tachov was established to avoid the original route through Waidhaus (Dreyer-Eimbcke 1989, 147 f.).

### Tobacco monopolies in Bavaria and Bohemia

Like Bavaria, Bohemia was confronted with regulations concerning the widespread use of tobacco and a tobacco monopoly during the late 17<sup>th</sup> century and the early decades of the 18<sup>th</sup> century (Goodman 1993, 214). The tobacco and pipe monopoly of Bavaria was closely connected and influenced by the tobacco monopoly of the Habsburg Empire (1701-1784) (Hinz – Huber 1975, 13 f.; Goodman 1993, 214; Nadler 2008, 171). The Habsburg tobacco monopoly naturally also applied to Bohemia and Moravia (Hinz – Huber 1975, 14) and, as in Bavaria, it also included pipes. On 15 June 1701, a three year Appalto for Moravia was granted to Ignaz Franz von Steinsperg and “Tabackspfeifen” were specifically included. This Appalto was extended to Silesia a year later in 1702. (von Retzer 1784, 28, 114).

The Upper Palatinate (Oberpfalz), the eastern area of Bavaria adjoining Bohemia, played a special role in the Bavarian tobacco and pipe monopoly. A reason for this was the common border between the two countries. The topographical location of the Upper Palatinate made it very difficult to carry out and control the monopoly (Nadler 2008, 57). Several documents point to serious problems concerning the illicit trade and smuggling of tobacco between the two countries. Because the tobacco tax was lower in the Electorate of Bavaria (Nadler 2008, 20, 171, 274), we can assume that most of the smuggling went from the Upper Palatinate to Bohemia. Illicit tobacco trade was the reason why during the last decades of the 17<sup>th</sup> century the Bavarian tobacco and pipe monopoly was divided and split into a monopoly for the core areas of the Electorate (Upper and Lower Bavaria) and a separate monopoly for the Upper Palatinate. The monopoly for the Upper Palatinate was not incorporated into the Electorate's tobacco and pipe monopoly during the years 1678-1699. However, remarkably and confusingly, both Appaltos were in the hands of the same person, Johann Senser (Nadler 2008, 20, 57, 171, 274).

Johann Senser was a man with strong links to Bohemia. He was originally from Benešov, where he was born to Thomas Senser, merchant and town councillor, and his wife Helena. As a young man, he took over his father's business, but in 1661 moved to Schrobenhausen in Upper Bavaria. It took seven years until the 18 December 1668 before he was granted citizenship in Schrobenhausen and the right to trade after presenting his birth certificate from his home town.<sup>7)</sup>

Another citizen of Bohemia also played a role in Bavarian tobacco history. Between 1732 and 1736, a tobacco factory established in Munich was run by a certain Andreas Winkler, who had been recruited from Prague and was known as a specialist for the production of snuff tobacco (Nadler 2008, 136).

The Habsburg tobacco monopoly of Bohemia was in the hands of several people, some of them Jews from high-ranking families. However, information about these people and their specific involvement in the monopoly is scarce and widely spread in archives and needs to be researched from a historian's point of view. Amongst the monopolists was Baron Diego Pereira d'Aguilar, a Jew born in 1699 in Portugal, who later moved to Vienna. From 1725 to 1747 (or 1748), he held the Hapsburg tobacco monopoly, including Bohemia (Singer 1965, 273; Stern 1950, 160). In 1748, the monopoly was taken over by Joseph Pingizer, who held it until 1758. A couple of years later, he was followed by another Jewish man, Israel Hönig (Edler von Hönigsberg). Hönig was born in 1724 in Chodová Planá (Kuttenplan) and moved to Prague at the age of 13. Between 1765 and 1774, he and his company were responsible for the Bohemian tobacco monopoly (von Wurzbach 1863; Hitz – Huber 1975, 15).

We can assume that the tobacco monopoly in Bohemia was to some extent operated in a similar way as in Bavaria. Locally grown tobacco had to be delivered to the tobacco factories that also emerged in Bohemia during the 18<sup>th</sup> century (Hitz – Huber 1975, 14 f.). There it was processed and distributed throughout the country. Foreign tobacco imports were regulated and burdened with heavy taxes. However, since historical research on this subject focuses entirely on tobacco – more common ground between Bavaria and Bohemia –, it remains open what the tobacco monopoly of Bohemia meant for the local clay pipe production. A major question for further studies would be whether Bohemian clay pipes were marked with the monopolists' marks as was the case in Bavaria.

#### Note 7:

The biographical notes concerning Johann Senser's origin are quoted from two sources that provide no further references and must therefore be treated carefully. One is an unpublished and handwritten manuscript in the archive at Schrobenhausen (Reischl 1949). The other source is a newspaper article by an unknown author titled "Der Krösus von Schrobenhausen. Aufstieg und Fall des Hofkammerrats Johannes Senser" (Schrobenhausener Zeitung, 19./20. 3. 1977, p. 18). Senser's citizenship document can be found in the archive at Schrobenhausen: Bestand Stadt Schrobenhausen B 48 (Ratsprotokoll 1668). His date of birth is unknown.

### Archaeological correlations

The common ground between Bavarian and Bohemian tobacco history is also reflected in archaeological sources. While direct connections are few, they could increase in the future with further studies. These connections include three types of clay pipes found during excavations in both Bavaria and Bohemia.

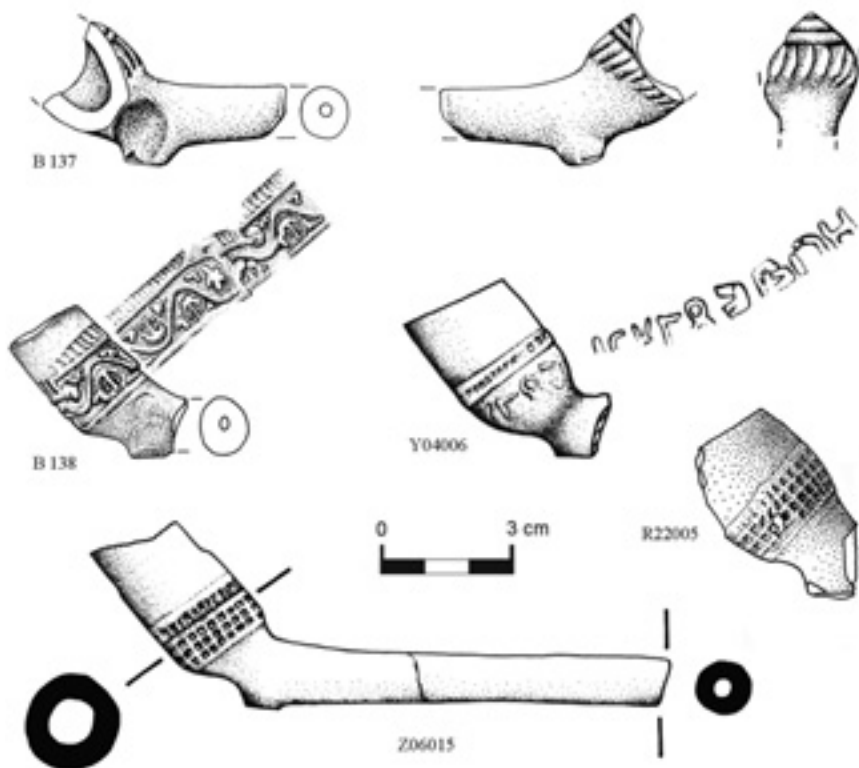


Fig. 7. Wirfel-style pipes found in Bavaria (cat. no. B 137 and B 138) and Prague (according to *Vyšohlíd* 2007).  
Obr. 7. Dýmky typu Wirfel nalezené v Bavorsku (kat. č. B 137, B 138) a v Praze (podle *Vyšohlíd* 2007).

### Wirfel-style pipes of the late 17<sup>th</sup> century

The most distinctive of these finds is a group of clay pipes which has repeatedly attracted attention in recent years. Their production method, first pointed out by *Kluttig-Altman* and *Kügler* (2003), is rather exceptional. Both the bowls and stems were made manually without a mould and then, after their separate forming, put together and joined at the point of the heel so that the pipe maker's fingerprints from this connecting process are clearly visible in many cases. The pipes are either plain or decorated with a wheel-pressed geometrical pattern, plant motifs or small human faces that were formed separately and then applied to the pipe bowl. In a few cases, green or yellow lead glaze was applied to the bowls and parts of the stems. We can distinguish at least three different variants of this type based on decoration, and for further studies a typology is very much required (fig. 7; *Witkowska* 1998; *Kluttig-Altman – Kügler* 2003, 93 f.; *Kluttig-Altman – Mehler* 2007; *Vyšohlíd* 2007, 282-284). Amongst the first finds of this type was an example found in Wrocław, with the inscription "1672CWIRFE(L)" (*Witkowska* 1998, 287 and fig. 4a),<sup>8)</sup> most likely referring to the pipe maker. To allow and encourage a common terminology for this pipe type, the term Wirfel-style pipes is suggested here; of course, there were most likely other pipe makers producing examples of this type.

**Note 8:** *Witkowska's* drawing clearly shows the inscription 1672CWIRFE (*Witkowska* 1998, 287 and fig. 4a). However, *Kügler* misinterprets the inscription as indicating F. Wirfel (instead of C. Wirfel) and refers to *Witkowska's* drawing. This error has been continued in following articles.

Fig. 8. Distribution of Wirfel-style pipes in Central Europe (see also *tab. 1*).

Obr. 8. Výskyt dýmek typu Wirfel ve střední Evropě (viz rovněž *tab. 1*).



A number of new finds of Wirfel-style pipes has turned up during recent years. The sites are located in Saxony, Silesia, Bohemia and Bavaria and we can make out a clear focal distribution point in eastern Saxony and Bohemia (*fig. 8; tab. 1*). Kluttig-Altman suggests that Wirfel-style pipes were produced in the Saxon city of Zittau, pointing out that an assemblage of 50 pipe fragments discovered there included a number of unsourced examples (Kluttig-Altman – Mehler 2007, 77). However, the widespread distribution of Wirfel-style pipes suggests production not only by a single pipe maker in Zittau, but rather the existence of a distinctive and independent pipe industry in this part of Central Europe. It is hard to imagine that only one workshop is responsible for all of these pipe finds distributed throughout the Czech Republic, Poland and Germany. Production in other cities is more likely, including Wrocław or Prague, where a number of Wirfel-style and related pipes have been found. The known ones are included in *fig. 8*, but many more fragments are likely to be amongst the finds material from older archaeological excavations not yet systematically studied (Martin Vyšohlíd, pers. comm.).

The majority of Wirfel-style pipes found so far is archaeologically dated to the final decades of the 17<sup>th</sup> century. However, their dating could broaden with possible earlier samples (Frolík – Žegklitz 1988) as well as later ones from the first years of the 18<sup>th</sup> century. Until further studies are carried out, the state of knowledge means their production falls into a period prior to the Habsburg tobacco monopoly beginning in 1701.

To date, two examples of Wirfel-style pipes are known from Bavaria, a relatively small number compared to Saxony. Remarkably, both of them were found in the Upper Palatinate on sites with strong links to Bohemia.

The first example came to light during excavations in the guildhall at Amberg, the capital of the Upper Palatinate during the Early Modern period, where Johann Senser's stepbrother Bernhard is known to have been a tobacco accounting clerk in the year 1689 (Reischl 1949). The excavations revealed about 2600 clay pipe fragments, all of which were found in the guildhall cellar. The majority of these finds date to the years between 1630 and 1670, that is prior to the introduction of the tobacco and pipe monopoly in the year 1675. It has been suggested that the pipes were disposed of in a single action. The decree from Bavaria's first Appaltator, Petro Bignami, issued on 2 December 1675, commands that within fourteen days after the official beginning of the monopoly every smoker must hand over his pipe and tobacco provisions to Bignami and his men, who had to pay compensation for these materials. If both parties could not agree on a refund, the pipes and tobacco had to leave the country. Although not handed down in written form, we can assume that this decree was made public in the city's guildhall and that the pipes brought were collected there. Since these smoking utensils were not equipped with the proper and newly introduced Appaltator's marks, they were then disposed of in the cesspits of the guildhall (Mehler 2009a).

The heavily-sooted Wirfel-style pipe from this collection (fig. 7: B 138) is only partly preserved and is unfortunately an unstratified find. The bowl is decorated with a band of incised vertical grooves on the upper part and a scallop with vegetable ornamentation below. The pipe maker's fingerprints are clearly visible on both sides of the heel.

The other example of this pipe type was found during excavations at Altglashütte near Bärnau, a small town about 70 km north of Amberg. The pipe fragment consists of a broken stem, the lower part of the pipe bowl and the heel, again with the pipe maker's fingerprints (fig. 7: B 137). The fragment, of somewhat cruder appearance than the Amberg example, is covered with a green lead glaze. The bowl displays remains of an incised geometrical decoration consisting of diagonal and horizontal grooves.

The site's name Altglashütte implies its former history – Early Modern glassworks (defunct). The glassworks are located directly on the border with the Czech Republic and were excavated during the years 1981, 1982 and 1987; a number of construction elements were revealed. These excavations at Altglashütte can be regarded as one of the earliest post-medieval excavations in Bavaria and led to the Master's degree thesis of Heidrun Becker (1989), which was unfortunately never published.

The glassworks, located in the forest of Flossenbürg, were established in 1614 by Pauluß Schierer. They produced mainly window glass, but also hour glasses, drinking glasses, some blue in colour, small flasks and distillation vessels. The glassworks were destroyed by Bavarian Soldiers in 1621 during the Thirty Years' War and remained walled up until 1664, when they were re-commissioned by Georg Rorer. This second glassworks operated until they were demolished in 1702 by command of the baronial government (Busl 1983, 137, 139, 141-144; Becker 1989, 2-3, 22, 24; Busl 1999, 150-154). The Wirfel-style pipe was found in a context belonging to the second period of the glassworks and thus dates to the period between 1664 and 1702.

Site	Sum
Amberg	1
Bärnau	1
Bernstadt a. d. Eigen	2
Broumy	1
Halle	36
Leipzig	3
Praha	25
Hradschin	3
Republic Square	4
Truhlářská Street no. 16	9
Na Poříčí Street no. 1076	4
Politických vězňů Street no. 12	1
unknown	4
Wittenberg	3
Wrocław	36
Zittau	50

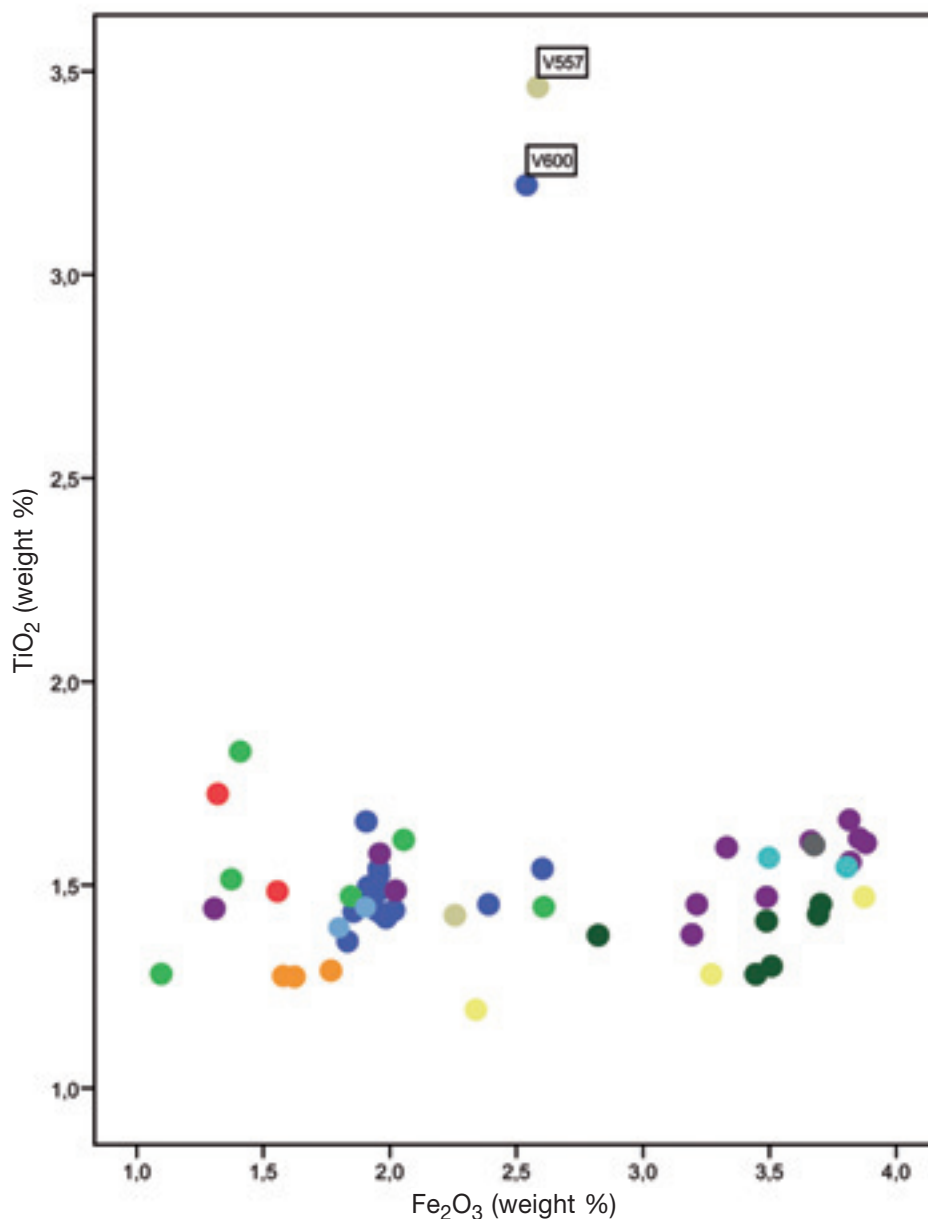
**Tab. 1.** List of known Wirfel-style pipes, their numbers (minimum amount) and distribution (based on Frolík – Žegklitz – Boháčová 1988; Frolík – Žegklitz 1988; Kluttig-Altman 2005; Kluttig-Altman – Mehler 2007, fig. 2; Mehler 2004; Mehler 2009a; Standke 2005, 87-91; Vyšohlíd 2007, 282-284; Witkowska 1998, 287 ff. and personal communication by Martin Vyšohlíd, Ralf Kluttig-Altman, Jaromír Žegklitz and Gabriela Blažková-Dubská).

**Tab. 1.** Seznam známých dýmek typu Wirfel, jejich minimální počty a místa jejich výskytu (podle Frolík – Žegklitz – Boháčová 1988; Frolík – Žegklitz 1988; Kluttig-Altman 2005; Kluttig-Altman – Mehler 2007, fig. 2; Mehler 2004; Mehler 2009a; Standke 2005, 87-91; Vyšohlíd 2007, 282-284; Witkowska 1998, 287 ff. a ústní sdělení Martina Vyšohlída, Ralfa Kluttig-Altmana, Jaromíra Žegklitze a Gabriely Blažkové-Dubské).

The occurrence of a Wirfel-style pipe at Altglashütte is not the only feature linking the site to Bohemia. The founder of the first glassworks, Pauluß Schierer, was originally from Bohemia and moved to Altglashütte to set up glass production there (Busl 1983, 146). It seems possible that Schierer's name is a misspelled version of the name Schürer. In that case, he could be a member of the Schürer family, well known for running a number of glassworks in Saxony and Bohemia during the 16<sup>th</sup> and 17<sup>th</sup> centuries (Žegklitz 2007, 146-150). One of these glassworks, at Broumy in Bohemia, was excavated in the late 1980s. Remarkably, a Wirfel-style pipe was discovered there as well (see fig. 8; tab. 1; Žegklitz 2007, fig. 27: 11).

During its active years, the glassworks at Altglashütte maintained its connections to Bohemia by importing the necessary potash from there (Busl 1983, 146). This relationship was also due to the industry's good infrastructure evident in its location close to Bohemia and its access to the Golden Route, which was used to bring the glasswork's products to market in Nuremberg (Busl 1999, 150-154).

Fig. 9. Results of the wavelength dispersive X-ray fluorescence analysis, sorted by site. Variation diagram of titanium oxide and iron oxide. The samples marked V557 and V600 are the Wirfel-style pipes found in Amberg and Bärnau. For a detailed list of clay components, see Mehler 2009a. Illustration by Markus Helfert. Obr. 9. Výsledky disperzní rentgenfluorescenční analýzy roztríděné podle míst. Variční diagram kysličníků titanu a železa. Vzorok V557 a V600 náležejí dýmčákům typu Wirfel nalezeným v Ambergu a Bärnau. Detailní složení hlin viz Mehler 2009a. Ilustrace Markus Helfert.





The two Wirfel-style pipes from Amberg and Bärnau, along with 51 other Bavarian clay pipe samples, were analysed with a wavelength dispersive X-ray fluorescence spectrometer (WDXRF) to determine the clay's main and trace elements.<sup>9)</sup> In both cases, the clay proved to be very rich in titanium (Ti) and strontium (Sr). Not only are the two samples quite similar, indicating a similar or identical clay source used for the pipes; they are also clearly different from the other analysed clay pipe samples (*fig. 9*). This proves that the pipes are made of a clay type different than that used for the Bavarian pipes – a fact, that strongly suggests that their production workshop was outside the territory of Bavaria.

**Note 9:**

The analysis was carried out by Gerwulf Schneider, Berlin. For detailed lists on the chemical elements, see *Mehler 2009a*, Taf. 9 and 10.



*Fig. 10.* Clay pipe fragment with a moulded putto decoration found in the guildhall at Amberg.

*Obr. 10.* Zlomek dýmky s reliéfním dekorem puttiho nalezený na parcele radnice v Ambergu.

### Other clay pipes

The clay pipe collection from the Amberg guildhall also included a pipe bowl with the face of a putto, its wings protruding from the bowl onto the heel and decorated stem (*fig. 10*). This pipe fragment, dated to the middle of the 17<sup>th</sup> century, is also a find linked to Bohemia. An extremely similar fragment, possibly from the same mould, was found during excavations at náměstí Republiky (Republic Square) in the city of Prague (*Vyšohlíd 2007*, 281 and *figs. 5: f; 9*). The pipes are manufactured in the usual way, by shaping all parts of the smoking utensil with the help of a mould in a single forming process. In both cases, the face is part of the moulded decoration, as is clearly indicated by the mould line. Due to their manufacturing technique, both pipes belong to the western European clay pipe tradition of the 17<sup>th</sup> century, but their decoration is rather distinct and no other examples are known so far. It is not known where the two pipes were produced, but since the examples were found in Bohemia and the Upper Palatinate, their common workshop could well be in the area.

A group of younger clay pipes found in Prague also corresponds to similar examples found in Bavaria. The group from Prague consists of several examples of Gouda pipes showing the heel mark of a crowned H (*Vyšohlíd 2007*, 284 and *fig. 5*), a mark quite popular in Gouda during the late 17<sup>th</sup>, 18<sup>th</sup> and early 19<sup>th</sup> centuries, but also copied in Andenne, 's-Hertogenbosch and St. Omer (*Duco 1982*, 107; *Duco 2003*, Nr. 382). Pipes with a crowned H were widely distributed and can be found in several parts of Germany, including Bavaria, where 18 examples have been found in total: 1 in Andechs, 1 in Erding, 11 in Munich, 1 in Regensburg and 4 in Amberg (again), the two latter being in the Upper Palatinate (*Mehler 2009a*). Since all of these are dated to the period of the Bavarian tobacco and pipe monopoly, they were either amongst the few and heavily taxed imports from the Netherlands or brought in by travellers.

## Conclusion

By synthesising written sources with material culture, this clay pipe study is more than a simple identification and classification of archaeological objects. The presented paper has also made clear that the production and development of Bavarian clay pipes was influenced and controlled by the state. Thus, when found by archaeologists, clay pipes tell us not only which social groups were consuming tobacco, but also display socio-cultural and even political changes and processes with the help of their politically motivated marking-system. They are symbols of both globalisation and an inward looking nation state, and raise the possibility of using material culture to study the economic structures of Early Modern period society.

During the study, many connecting features linked Bavaria, especially the area of the Upper Palatinate, with Bohemia. With future material culture studies these links could turn out to be even stronger.

*Translation by Natascha Mehler, Paul Mitchell, David J. Gaul, Jaromír Žegklitz*

## Resumé:

Příspěvek přináší výsledky rozsáhlé materiálové analýzy přibližně 9 427 zlomků dýmek získaných z archeologických odkryvů a sběrů na území spolkové země Bavorsko. Vzhledem k faktu, že z území severního Bavorska bylo získáno pouze zanedbatelné množství nálezů, soustředí se příspěvek na analýzu dýmek z Altbayern (Horní Bavorsko, Dolní Bavorsko, Horní Falc). Těžištěm práce je vytvoření typologie a chronologie bavorských dýmek s patkou z období mezi lety 1600 až 1745. Oba sledované aspekty (typologické i chronologické řady) jsou metodicky i obsahově odlišeny od dýmek holandských, které jsou s oblibou prezentovány v pracích zabývajících se výzkumem keramických dýmek. Po důkladné diskusi o rozdílných klasifikačních metodách je v příspěvku předložena a vysvětlena typologická řada sestavená na základě vývoje dekorace a techniky výroby. Tato typologie a chronologie však nepředstavuje jednoduchou přímočarou linii. Vytvořená chronologie bavorských dýmek s patkou jasně ukazuje, že dýmky s malou hlavičkou nejsou bezpodmínečně starší než exempláře s větším objemem hlavičky, jako je tomu např. v Holandsku a jak je také často s oblibou prezentováno na nálezovém materiálu z dalších evropských zemí.

Zásadním problémem pro chronologii bavorských dýmek je rozřešení otázek spojených se značkami na těchto dýmkách. Právě fragmenty dýmek se značkami náleží k těm nejdůležitějším z celého nálezového fondu. Výzkum ukázal, že tyto značky nejsou – jak je obvyklé ve většině ostatních zemí – složeny z iniciál jejich výrobce, ale z iniciál tzv. „Appaltatoren“. Tak byly označovány osoby držící monopol na distribuci a výrobu tabáku a dýmek (1675-1745) a zodpovědné za jeho prosazení a udržení v celém Bavorském kurfiřství. Tyto jasně viditelné reliéfní iniciály poskytovaly výbornou možnost rychlé kontroly jednotlivých dýmek v běžném „provozu“. Rešerše písemných pramenů umožnila identifikaci téměř všech značek (jmen majitelů monopolu) včetně jejich absolutní datace. Křehkost keramických dýmek byla příčinou velmi krátké doby jejich oběhu (od jejich výroby po jejich archeologizaci). Tento fakt spolu se zprávami písemných pramenů poskytuje archeologům velmi cenný datační zdroj, který je mnohdy výrazně přesnější než datování pomocí nálezů mincí. Značky poskytují také širokou škálu interpretačních možností pro problematiku obchodu a pašeráctví kuřáckých potřeb, ale také pro proces prosazování monopolu v zemích Bavorského kurfiřství.

Důležitým aspektem celé práce je také zjištění míst výroby těchto dýmek v Bavorsku. Na základě archeologických, archeometrických (rentgenfluorescenční analýza) a historických zjištění bylo identifikováno přinejmenším sedm míst, kde v byly dýmky v průběhu 17.-18. století vyráběny.

Práce si všímá i vztahů bavorských dýmek k českému prostředí. Z historického hlediska mají Bavorsko a Čechy mnoho společného. To platí samozřejmě také pro historii tabáku, kulturní historii kouření a nálezy dýmek. V Čechách jakožto součásti Habsburské říše rovněž existoval tabákový monopol, nevíme však, zda byl organizován podobně jako v Bavorsku. Společné prvky se týkají především Horní Falce a Čech, které byly spojeny Zlatou stezkou. Bezprostřední sousedství a levné zboží z Bavorska mezi nimi jistě podporovaly nelegální přeshraniční obchod. Také nálezový materiál z obou zemí vykazuje nápadné shody, např. u dýmek tzv. typu Wirfel. Tyto a další shodné body jsou doposud nepřilíš hojné, nicméně rozvoj systematického zpracování nálezového fondu dýmek 17. a 18. století z Čech bezpochyby přinese nové a důležité poznatky, které přispějí k bližšímu poznání vzájemných vztahů v této oblasti.

*Resumé translation by Martin Vyšohlíd*

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