

# CLAY TOBACCO PIPES FROM KLAIPĖDA: THE OLDEST FINDS AND ITS ORIGIN, TYPOLOGY, AND CHRONOLOGY, 1620–1680

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## Keywords

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## Abstract

In the course of archaeological excavations in Klaipėda, fragments of almost ten thousand pipes have been found. Their chronology dates back to the 17th–19th centuries, and it is also known that most of these pipes came to the city, most likely by sea, from the Netherlands, Germany and other northwestern European countries, although local production is lacking. As only general research on Klaipėda pipes has been published so far, this article focuses on the specific period 1620–1680, when the first of this kind of product arrived in Klaipėda by sea. The article analyses the chronologically earliest clay pipes found during archaeological research in Klaipėda; based on the typology of the finds and known analogues, the author distinguishes the main types of pipes and identifies possible locations for pipe production.

## Introduction

Tobacco became widespread in Europe in the 16th century as a medicinal plant. At that time, it was grown in the gardens of noble palaces. Its healing properties were studied and it was evaluated primarily through the prism of exoticism. Times have changed and what was coveted because it was exotic or expensive became widely used due to easy accessibility and addiction. Tobacco was a novelty, but at the same time it was just another product on the shelf among new, globally consumed products like sugar, tea, coffee, chocolate, etc. Since the end of the 16th century, over the decades, tobacco has gone from being an exotic plant to being a mass consumer good, part of daily life, throughout Europe.

From London to Istanbul, a new branch of business emerged and was developed — the production and sale of tobacco pipes. These signs of an emerging consumer society are visible in the pipes found during archaeological research in Klaipėda, of which there are nearly ten thousand. Each pipe, whether expensive and unique or a cheap mass-produced item, through its shape, decoration and maker's mark offers a view of undocumented aspects of

the daily life of the past. Therefore, the accurate identification, interpretation, and understanding of geographical, cultural, social, and other contexts of these artefacts can provide us with new information and deepen our knowledge of the past.

In Klaipėda, clay pipes attracted more scholarly attention in the 1980s. At that time, archaeologist Raimondas Sprainaitis was actively interested in this topic. In 1989, he published the article 'Dutch-type pipes of the 17th–19th centuries in the cultural layers of Klaipėda' (1989, pp. 150–157). This small-scale publication was the first work on the subject of clay pipes not only in Klaipėda but also in Lithuania. The author described and outlined the Dutch-type pipes found during archaeological research in Klaipėda and named the main typological differences. Based on the catalogue of Gouda pipe manufacturers published by the Dutch researcher Don H. Duco in 1982, the author compiled the chronological table of Klaipėda pipe marks, which has long been a favourite tool for Klaipėda archaeologists in dating pipes. The book about medieval Klaipėda by archaeologist Vladas Žulkus (2002, p. 118) published in 2002 also contains a separate short chapter on 'Dutch' clay pipes. The author briefly lists the main

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types of kaolin pipes, their chronological boundaries and the possible places of origin of pipes found in Klaipėda. The third, even shorter, episode in the history of Klaipėda pipe research was a 60-page work published in Germany in 2004 about pipes in the southern Baltic region and Silesia. Its authors, Ralf Kluttig-Altman and Martin Kügler (2004, p. 35, Figs. 42 and 64), mention Klaipėda in a general context and present illustrations of several pipes from the 19th century found there. And that's all the available research. It can be mentioned, going slightly off topic, that while pipe researchers have not paid much attention to the city, Klaipėda has given much more to pipe research. Šarūnas Peckus, well-known porcelain pipe researcher born in Pagėgiai in 1931, co-author of the world-famous and widely read book *The European Porcelain Tobacco Pipe* (Peckus and Rapaport, 2014) and currently living in the United States, grew up here.

The aim of this article is to determine, based on archaeological data, when pipe smoking started in Klaipėda and what pipes were smoked by townspeople in the period of 1620–1680, and to briefly describe the situation in Klaipėda in the context of the eastern and southern Baltic region. In order to achieve this goal, 8,099 pipes from the holdings of the Museum of the History of Lithuania Minor found during archaeological research in the cultural layers of Klaipėda city were analysed. Based on the typological differences of pipes and the well-known makers' marks, the earliest artefacts and their origins were identified. Since all 17th-century pipes found in Klaipėda are of non-local origin, they were studied using the typological method, based on typological systems, mark catalogues, and other precisely dated research material compiled by foreign researchers such as Don H. Duco (2003), J. van der Meulen (2003), Adrian Oswald (1975).

The earliest chronological boundary of the research object is based on the earliest findings in Klaipėda. More questions may arise about the choice of 1680 as the final boundary. This point was chosen for two reasons. First of all, most of the 17th-century pipes found in Klaipėda were made in the Netherlands, where around 1610–1690 biconical pipes, originally called *dubellconishe*, dominated. Around 1675, these were gradually replaced by a new model, the funnel-shaped (*trechter*) pipes (Duco 1987, p. 26). Thus, around 1675–1690, the fashion of the predominant form changed. This trend is also clearly visible in the pipes of Klaipėda. From 1680, single English pipes appeared in Klaipėda. This chronological limit is indicated by several authors in works dedicated to the chronology and typology of English pipes (Atkinson and Oswald 1969, pp. 10–11; Oswald 1975, pp. 37–39). The date of 1680 was also chosen because it coincided roughly with these changes in shapes (pipes manufactured later than 1680 were not included in the study). And it also correlates with the development of Klaipėda's material culture,

for which Vladas Žulkus and Mindaugas Brazauskas singled out important chronological reference points — constants. These researchers singled out the year 1678 due to the fire that ravaged Klaipėda, which, in their opinion, divides the studied structures and finds into periods before and after the fire (Brazauskas 2011, p. 82; Žulkus 1982, p. 26). In the case of this study, the date of 1678 was also an important point for setting chronological boundaries of the earliest tobacco pipes in Klaipėda.

## 1. History of smoking and tobacco pipes in Klaipėda, 1620–1680

Looking at the overall European and Baltic context, it is clear that tobacco and pipes could have entered Klaipėda by sea at the end of the 16th century, or at the latest in the first quarter of the 17th century. This is indirectly confirmed by finds of English and Dutch pipes and tobacco seeds in other countries of the Baltic Sea region (Åkerhagen 2012, p. 25; Reinfelde 2005, pp. 51–52; Zajac and Zimmermann 2011, p. 85–86). Nevertheless, no historical data confirming this has been published for Klaipėda yet.

The first data mentioning tobacco and pipes in Klaipėda appear in the second half of the 17th century. In 1664, the first pipes were mentioned: two barrels came from Gdansk and one from Vlieland, in the Netherlands. In the period 1664–1667, the pipes mentioned in the lists of imported goods were mostly imported from Gdansk and Lübeck, and from 1668 the trade in pipes from Amsterdam increased (Fig. 1). The quantities of imported pipes and tobacco suggest that most of the imported tobacco was re-exported and that the pipes may have been destined for the local market. This can be deduced from the quantities of goods arriving and their descriptions. For example, during the period 1667–1670, 12 barrels of pipes and more than 60,000 pounds of tobacco were imported (Groth 1995, pp. 17–301).

In the second half of the 17th century, the trade in tobacco and possibly pipes in Klaipėda was controlled by the privileged Dutch Ashkenazi Jew Moses Jacobsen de Jonge, who settled in Klaipėda in 1664 and engaged in international trade (Zembrickis 2002, p. 128). According to the historian Jonathan I. Israel (1989, p. 149), the attraction of de Jonge and other Jews to Klaipėda was a typical mercantile project of the 17th century — the merging of economic and political goals into one place. With this project, the Great Elector Friedrich Wilhelm sought to strengthen Klaipėda as a commercial port in order to create a counterweight to Königsberg, where city authorities strongly opposed various plans of the elector and opposed the idea of settling Jews.

Moses Jacobsen de Jonge, based in Klaipėda, was actively involved in the import of various goods from the Neth-

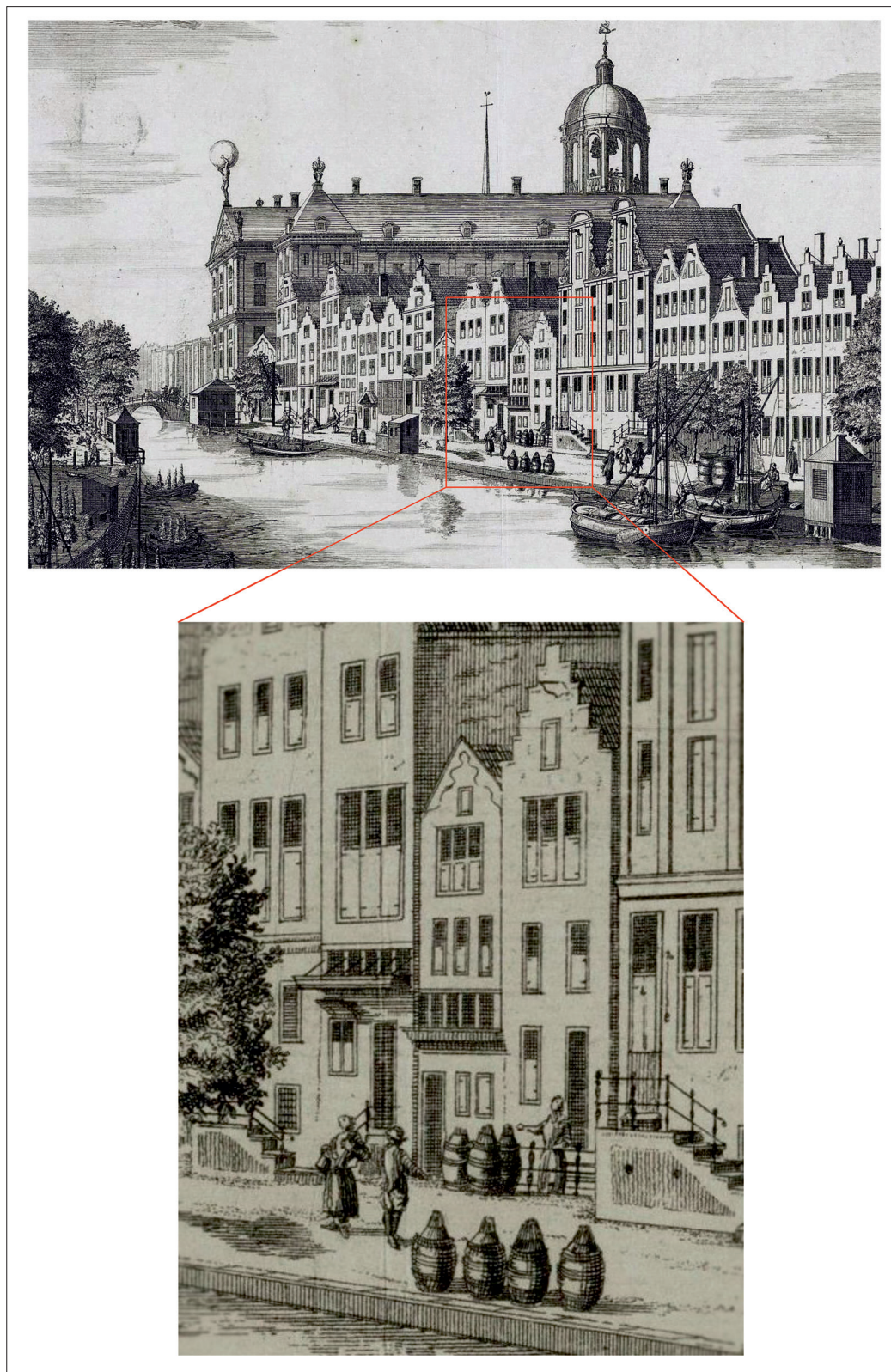


Figure 1. Pipe market in Amsterdam, seven barrels of pipes (Gezicht op de Bloemmarkt en Pijpemarkt te Amsterdam, Jan Smit (II), 1741–1748) (Lingen 2016, 72).

erlands. He acted as broker (German: *lieger*) for the large Amsterdam merchant Jacob Robin. Among the goods imported by him, and later by his son Jacob, were various stimulants popular in 17th-century Europe, also known as drug foods: tobacco (and pipes), sugar, coffee, as well

as other exotic products. Looking at the figures for the tobacco market, it can be seen that between 1668 and 1677 the de Jonge family company brought 75%–84% of all imported tobacco to Memel, thus practically occupying the dominant position. The family also had close ties with

merchants in Vilnius and Grodno, so there is no doubt that much of the goods and tobacco between them travelled further to the lands of the Grand Duchy of Lithuania (Groth 1997, pp. 47–49, 62–69; Israel 1989, p. 149).

## 2. One-piece pipes in Klaipėda in 1620–1680, their typology and chronology

Unlike in Gdansk and Riga, however, as in Vilnius, the earliest English and Dutch pipes from the end of the 16th century to the beginning of the 17th century have not been found in Klaipėda. There is no doubt that such pipes would have reached the city, as confirmed by both archaeological and historical sources in Latvia, Poland and Russia (Reinfelde 2005, pp. 51–52; Romaniello 2009, p. 9;

Zajac and Zimmermann 2011, p. 85–86). However, cases of pipe smoking in Klaipėda were apparently isolated and there was no consistent trade.

Most 17th-century pipes discovered in Klaipėda were made in the Netherlands, and the oldest of them are from no later than the 1620s. At that time, so-called biconical pipe bowls were popular in the Netherlands. Production of this type of pipe began around 1610 and, with minor shape changes, they remained popular until 1675–1690. The funnel-type (*trechter*) pipes which appeared in the second half of the 17th century finally displaced older models at the very end of the century (Duco 1987, pp. 26–27; Oostveen and Stam 2011, p. 20).

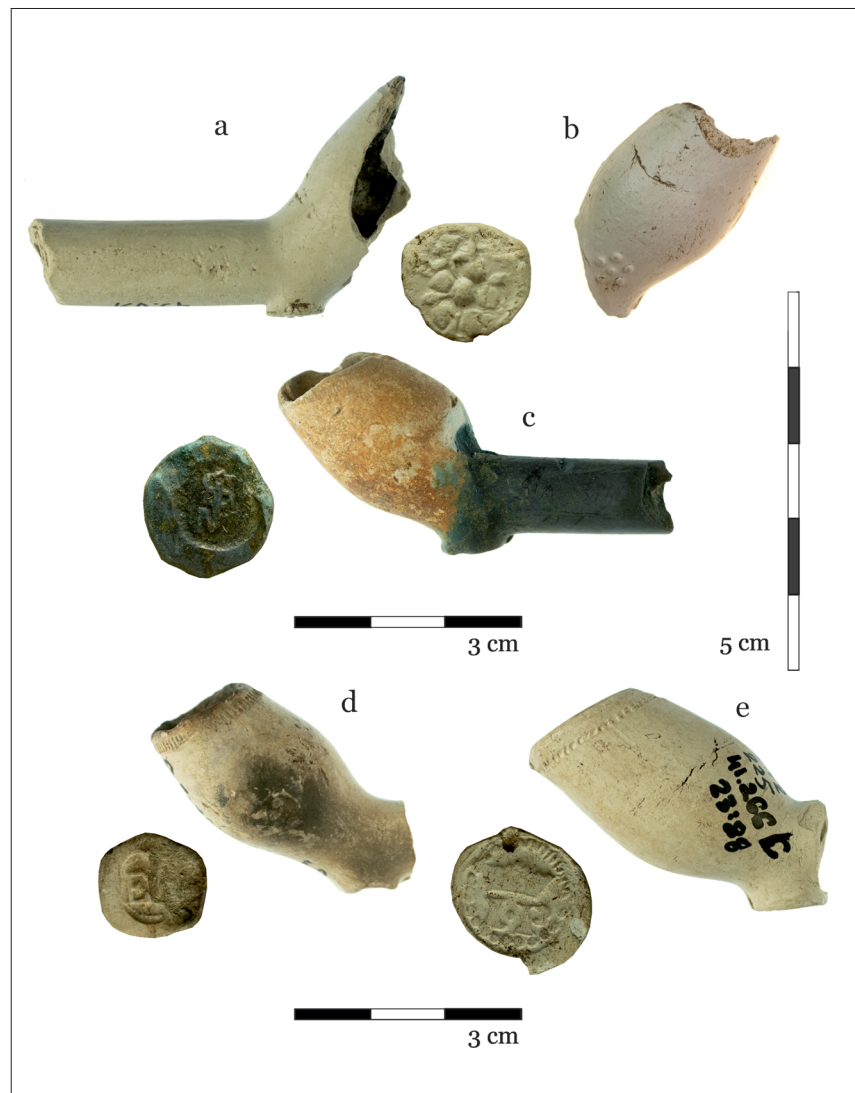


Figure 2. Fragments of tobacco pipes: (a) Biconical bowl, heel mark Tudor rose, 1620–1650. Found in the quarter around Didžiosios Vandens to Tomo Streets.; (b) Biconical bowl, stylised rose with five dots, ca. 1630–1650. Found at Skerdėjų Street 2, 6, 8; (c) Biconical bowl, heel mark 'SIM', 1620–1650. Found at Žvejų Street 12; (d) Biconical bowl, heel mark 'EB', 1640–1665. Found at Turgaus Street 20; (e) Biconical bowl, heel mark crowned 'I.P.', 1640–1660. Found in the quarter around Didžiosios Vandens to Tomo Streets; Makers marks are shown at twice the actual size (Photograph by A. Žvirblys).

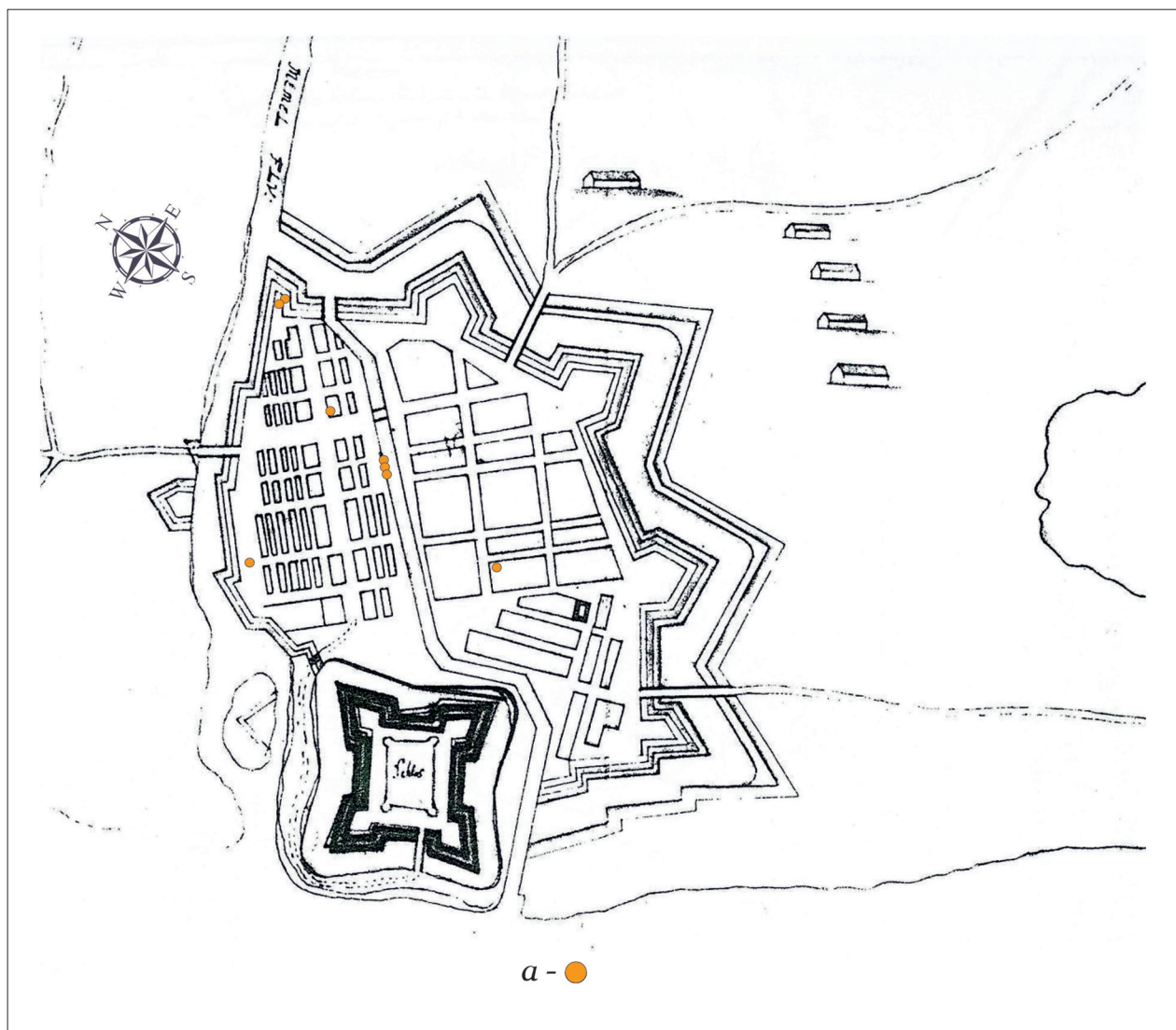


Figure 3. Plan of Klaipėda, 1658: (a) Dutch pipes, ca. 1620–1650 (Kultūros vertybių registras) (Drawing by A. Žvirblys).

The review of 8,099 pipe fragments revealed that at least half of them could be hypothetically attributed to the 17th century. However, in critical terms, it should be mentioned that in many cases these are just small fragments of bowls or stems with no pronounced features, which may lead to a much wider period of chronology. After selecting the more informative and intact pipe bowls and decorated stems, which according to the available features undoubtedly belong to the period of 1620–1680, it was found that the research field consists of no more than 65 such bowls and 25 stem fragments.

The largest group of finds (93.8%) consists of Dutch production, which can be divided into several different groups according to the shape of the pipes, the marks and the presumed place of manufacture.

Two pipes are marked with the *rose* sign on the back of the heel (Fig. 2a). The pipes were found, respectively, on the site between Tomo and Didžioji Vandens Streets in

1989 (Sprainaitis and Žulkus 1990) and at Turgaus Street 37 in 2013 (Nabažaitė 2016). Both are rather fragmented, so their former full forms are not clear, but from the existing fragments it is apparent that these are 17th-century double-cut cone pipes made in the Netherlands. The sign of the rose is not crowned, and in one case it is quite primitively done — the rose is composed of dots. According to this mark, the pipes can be dated to the years 1620–1650 (Duco 1987, pp. 72–74).

The more precise place of production of such pipes can be varied — that's how makers from Amsterdam, Gouda and Gorinchem marked their pipes — but considering that not all of these centres exported their products abroad, it can be said that the most likely place of production for pipes with the rose mark found in Klaipėda is Amsterdam. There are a number of similar marked pipes in the eastern and southeastern Baltic region. Such pipes were found in Gdansk, Rzucevo, Narva (Stam 2019b, pp. 53, 57, 61, 62), and Riga (Reinfelde 2005, pp. 53–57).

Undoubtedly, the pipe found in 1981 on the site of Žveju Street 12 was made in Amsterdam (Fig. 2c) (Paleckis, Sprainaitis 1981). The found bowl is smaller, rather sleek in shape, and has neither the double truncated cone-expressing edge nor the clear hump that are so characteristic of pipes in the middle and second half of the 17th century. The pipe is 36 mm in height, 19 mm wide at its widest point and 15 mm at the bowl. One of the more interesting parameters is the small internal diameter of the pipe chamber (11 mm), which is a good illustration that you couldn't put a lot of at the time expensive tobacco into the pipe. The heel is wide (10 x 8 mm) but almost not protruding (2 mm), which is also typical of the 17th-century Dutch pipes. The back of the heel is marked with the maker's initials 'SIM', read from the top to bottom, which is sometimes typical of Amsterdam and, in rare cases, Gouda pipe manufacturers. This pipe may have been made around 1620–1650 in Amsterdam, but its maker is unknown, as a person with such initials is not mentioned in the lists of Amsterdam pipe manufacturers (Haan, Krook 1988, p. 31; Oostveen and Stam 2011, pp. 47–54).

Other pipes, this time made by a well-known Amsterdam maker, were found on the sites of Turgaus Street 20 in 1983 (Genys 1983), and Turgaus Street 37 in 2013 (Nabažaitė 2016). These are two pipes marked with the initials 'EB' on the back of the heels (Fig. 2d), made by the well-known and very successful maker and businessman Edward Bird, dating back to about 1640–1665. An Englishman, he became a citizen of Amsterdam in 1638 and thereafter developed the successful pipe-making business. He actively exported pipes to America (New Amsterdam and Chesapeake region) and Sweden. His pipes are also found in Mauritius, Port Royal in Jamaica and Brazil (Stam 2019a, pp. 84, 381). Pipes marked with initials 'EB' are also found in northeastern Europe: they were found in Tallinn (Russow 2005, p. 68) and Warsaw (Meyza 1997, p. 35), and the author has also seen pipes marked in this way in Vilnius (finds from excavations in Vilnius, in the holdings of the Lithuanian National Museum). The closest locations to Klaipėda, where pipes of Edward Bird were found are the church of Kintai, where a pipe marked in this way was found in 1978 (Žulkus 1979), and Neringa, where two marked pipes were found in 1995 (Strazdas 1996).

Another maker who exported many of his products to the Baltic Sea region is Jakob Pietersen, who is thought to have made pipes in Hoorn or Enkhuizen, West Friesland (Fig. 2e.). Products presumed to be made by him were found in Klaipėda in 1989 during investigation of the quarter between Tomo and Didžioji Vandens Streets, where three pipes were found (Sprainaitis and Žulkus 1990). Another was found in 2007 on the site of Skerdėjų Street 2, 6, 8 (Songailaitė 2008). These pipes are identified by the *crowned* combination of the letters 'I.P.'. The heel of one

of them is cracked, so only a fragment of the letters can be seen, which presupposes its manufacturer. The other three pipes have remained more complete, the marks left intact. According to the remaining dimensions, the height of these pipes was about 41 mm, the width at the widest point 11–13 mm, and the short heel width 10 x 8 mm. There are several variants of pipes so marked. One of them was found in Klaipėda. Such pipes are marked with a rather shallow stamp, the letters I and P are separated by the dot, the crown is depicted without fine details. According to analogues found in the Netherlands, these pipes date back to 1640–1660 (Stam 2019a, p. 382; Oostveen 2019, pp. 16–18, 32, 33, 50, 51, 54). Pipes with the same marking are the most common model among labelled pipes in Riga (Reinfelde 2005, p. 53). Similarly marked pipes are found in different parts of the Netherlands, Germany, the Czech Republic, Sweden, and even Japan, North America, and northeastern Brazil (Stam 2019a, p. 382). Such a wide geography distribution that makers such as Edward Bird and Jakob Pietersen were among the first players in the global economy of mass production of non-essential products.

Ten pipe bowls are marked not with individual maker initials but with the primitive rose mark made from dots on the sides of the bowl. This is a clear example of inferior baroque pipes. Apart from this primitively embossed ornament, they usually have no individual marking. The chronology of such pipes usually covers the period 1650–1690, but there are also single such models made in 1640–1650 and 1690–1720. Dutch makers marked cheaper pipes with this symbol, and the origins of its use should be traced back to the popular Tudor rose mark in 1620–1650, which lost its prestige due to frequent use, and its simplified version seems to have started to mark cheaper pipes (Meulen 2003, p. 18). Nine bowls out of the ten in Klaipėda are decorated on the sides with the hexagonal flower composed from one dot, the blossom, in the centre of six dots, leaves around it. They were found on the sites in Daržų Street 9A in 2012 (3 pcs.), Turgaus Street 37 in 2013 (2 pcs.), Tomo-Didžioji Vandens Street in 1989 (2 pcs.), Žveju Street 4, 4a in 1983, and Žveju Street 10 in 2006. The chronology of all of them falls within the range of ca. 1650–1690. Some can be dated to 1650–1675, others are slightly later by form and made around 1660–1690. The tenth pipe in this typological group was found in 2007 at Skerdėjų Street 2, 6, 8 and it is slightly different from the other nine pipes. It is decorated with a pentagonal flower, composed of one dot in the centre and five around it (Fig. 2b). Other differences are also evident: the flower is only on the right side of the bowl, not placed in the middle, but closer to the heel, where it occupies no more than 5 mm. The bowl itself, although badly damaged, still has visible features — it is sleeker than the rest, has no clear edge in the middle, and narrows more at the opening. It is possibly a little earlier — made around 1630–1650. Analogues



Figure 4. Fragments of tobacco pipes: (a) Biconical bowl, heel mark 'three crowns', 1679–1690. Found in the quarter around Daržų Street to Turgaus Square; (b) Biconical bowl, heel mark 'girl with SH', 1669–1675. Found at Žvejų Street 10; (c) Stem fragment with keel, heel mark 'crowned jumping dog', 1669–1690. Found at Žvejų Street 10; (d) Biconical (?)/funnel bowl, heel mark 'Milkmaid', 1647–1690. Found at Daržų Street 9A; (e) Biconical bowl, heel mark 'IB', 1670–1700. Found at Žvejų Street 10; (f) Bulbous ball with spur, no marks, ca. 1640–1660. Found at Žvejų Street 10; (g, h, i) Stem fragments: Baroque style, ca. 1620–1660. Found at Žvejų Street 12 and Turgaus Street 20; (j) Stem fragment: 'Fleur-de-lis', 1625–1675. Found at Turgaus Street 20 (Photograph by A. Žvirblys).

to the described pipes are abundant in the Netherlands, where such models were produced. However, pipes decorated in this way are also found on the southern and eastern shores of the Baltic Sea, in Riga and Gdansk (Reinfelde 2005, p. 53; Dąbal 2015, p. 286).

Thirteen pipes can be grouped together according to embossed marks indicating that they were made in the workshops of Gouda's makers (Fig. 4). Gouda is the most famous pipe production centre of the mid-17th to 18th

century not only in the Netherlands but also in the whole of Europe. Although the production of pipes in this city famous for its pottery dates back to 1617, Gouda was in the shadow of Amsterdam for some time. Around 1640, at which time several dozen craftsmen were active there, Gouda caught up with Amsterdam in terms of production volume. In 1660, one of the first guilds for pipe makers in the Netherlands was founded and the system of product marking was established. At that time, the number of pipe makers in Gouda already exceeded 100, and Amsterdam

was surpassed in the competitive struggle (Duco 2003, p. 15; Stam, Oostveen 2011, pp. 84–90).

This is clearly reflected in the material from Klaipėda as well — marked pipes made by Amsterdam's producers date back to 1665 at the latest. Analysing the found pipes with the signs of Gouda's makers, the opposite tendency was observed — the number of finds increased. The earliest chronological boundary of one pipe dates back to 1647, the other earliest could have been produced from 1655. The earliest dates of the remaining 11 pipes mark the beginning of production in 1661–1679, thus already after the establishment of the guild in Gouda.

Among the pipes found in Klaipėda that were made in Gouda, most have different marks, so they did not enter the city exclusively from the workshop of one or more manufacturers as was the case with pipes from Amsterdam. All pipes are marked at the base of the heel, no markings have been observed on other pipe parts, this is not typical of Gouda's production till around the 1680s. Makers of some pipes were active for a long time or the same mark was later used by others, so the chronology of found pipes is revised. Two pipes are marked at the base of the heel with 3 crowns (*drie kronen*), which denotes the maker Jacobus Gerritsz Witsius (Fig. 4a). According to the mark and shape, both pipes can be dated to 1679–1690. Two other pipes are marked with the same sign — a girl with SH (*meisje met SH*), which was used for a relatively short period (1667–1675) by the maker Steven Hendriksz. van Steijn (Fig. 4b). The following marks of Gouda's pipe makers are represented once: *fisherman* (*visser*) by Jan Jansz. Rosenboom, 1662–1680; *black thrush with the letter M* (*merel met M*) by David Jansz. Maerloo, 1665–1692; *crowned jumping dog* (*springende hond gekrooned*) by Isack Goosenson (Fig. 4c), 1669–1674 and Cornelis de Lange, 1674–1690; *PCS* by Pieter Cornelisz. Swart, 1665–1691; *crowned B* (*B gekrooned*) by Jan Bastiaensz, 1661–1675 (Duco 2003, pp. 123–198; Meulen 2003, pp. 34–98).

The remaining four pipes, marked with the symbols of Gouda's makers, should be mentioned separately. Although they were made in the Netherlands, and almost certainly in Gouda, there were pipes marked in the same way by other manufacturers. One of them is marked with a *crowned letter H* — the mark belonging to the master of Gouda Akrijn Jancz. Hola, 1661–1696, however, it is known that at the end of the 17th century, pipes were marked in the same way in the village of Alphen aan den Rijn near Gouda.

The same can be said about the pipe with the sign of the *milkmaid* (*melkmeid*) found in Klaipėda (Fig. 4d), which was used by Gouda's makers from 1647, but was also popular in Alphen and Maastricht in the second half to the end of the 17th century (Stam and Oostveen 2011, pp. 43, 116). And in Gouda itself, in the middle and second half

of the 17th century, the said sign was used by several different manufacturers (Meulen 2003, p. 36). The identification of these two pipes is also complicated by the low level of remains, so that their full form is not completely clear. The origin of the pipe marked with the *anchor* symbol can also be varied. In Gouda, such marking of pipes began in 1655 and was used by three different makers in the second half of the 17th century (Meulen 2003, p. 43), however, the symbol in question was very popular among pipe manufacturers at various times and compared to other marks could be easily replicated.

Another fragment of a pipe bowl, dated to about 1670–1700, was found in 2006 on the site at Žvejų Street 10. It has the letters 'IB' on the base of the heel (Fig. 4e) (Bračiulienė 2007). This is a fairly rare mark that is not included in the compiled marks catalogues of Gouda's pipe makers. At least two pipes with the marking have been found in the Netherlands, but they have not yet been published. According to Dutch researchers, this pipe is most likely a product of Gouda's manufacturers (Bert van der Lingen and Jan van Oostveen, personal communication via email 24 March 2021).

Also, 14 pipe bowls without any marking were found, which indicates products of even poorer quality than the already mentioned pipe with the primitive rose of dots. All of these pipes can be dated to 1620–1690 in terms of shape. Another seven pipe marks are worn or cracked, making them illegible, and the remaining eight pipes remained only as fragments, they lack marks or the marked area has not survived.

Among the earliest testimonies to the smoking habit are four pipes found on the site at Žvejų Street 10 investigated in 2006 (Fig. 4f) (Bračiulienė 2007). These are the only non-Dutch pipes in Klaipėda that date back to before 1680. The pipes are quite small, their height is 32–34 mm, the diameter of all pipes at the middle of the bowl is 19 mm, the chamber edge is 18 mm, and the angle of the bowl and the stem is 140°. All pipes are almost identical in shape, with the spur typical to the English style, but they don't have any milling which would be quite unusual for English pipes.

According to Adrian Oswald's 1975 typological system of English pipes, they can be hypothetically classified as O17 type pipes, the chronology of which covers the years 1640–1670. According to the separate London pipe typological system compiled by Atkinson and Oswald in 1969, they resemble the AO8 type in their form (1610–1640), however, in size they are close to the AO9 type (1640–1660). So, it is possible that pipes found in Klaipėda were manufactured around 1640–1660 (Atkinson and Oswald 1969, pp. 7–8; Oswald 1975, pp. 40–41). It is difficult to determine the place and time of their production, as they do not have marks of individual craftsmen. This, by the way,



also points to the fact that such pipes were a cheaper class of product. It is likely that they were made in Scandinavia — in Denmark or Sweden — by copying English pipes and may have been lost by arriving merchants or sailors.

### 3. Pipe stems

It is necessary to single out the decorated pipe stems of the 17th century as a separate group of finds. Twenty-five of them were found in Klaipėda, so less than half as many as the number of bowls. Unfortunately, stems could break into several fragments of different lengths before they were found. This occurred both in the pipes' use/disposal phase and in the archaeological medium, therefore we cannot judge the number of pipes themselves by the number of available decorated pipe stems. It is only clear from the available data that before the stem was found during archaeological excavation, it was already broken into approximately 5–6 parts. This can be seen from their surviving length: most fragments in this group are 23–56 mm long, and the three longest dimensions are 59, 63, and 75 mm, respectively. It is known that in the Netherlands, at the very beginning of the 17th century, pipes were only 150 mm long, and at the end of the century, the best quality pipes had 400–600 mm long stems (Oostveen and Stam 2011, p. 18).

Ten stems are decorated with the botanical ornament. This is the so-called baroque ornament used to decorate pipes made in the Netherlands around 1620–1660 (Fig. 4g, h, j). The ornament was embossed in matrices, so the decorated pipes often had a rose mark on the back of the heel. It is already known from existing analogues in the Netherlands that it was a particularly popular ornament among pipe manufacturers in Amsterdam (Duco 1987, pp. 88–90; Haan and Krook 1988, pp. 34, 35, 37). Pipe stems decorated in this way have also been found in Vilnius, Warsaw and Rzuczewo in Poland, and Tallinn and Narva in Estonia, as well as in already mentioned Riga (Stam 2019b, pp. 53, 57, 58; Reinfelde and Vijups 2002, p. 287; Russow 2005, p. 68; Žvirblys 2018, p. 375).

Six pipe stems are decorated with the ornament of rhombuses of heraldic lilies — a popular motif with Dutch pipe makers (Fig. 4j). Such pipes were also widespread throughout northern Europe and the Baltic region (Stam 2019b, pp. 53–61). Their chronology covers the period from 1625 to 1675, but most of these pipes were made well before 1660. This is best illustrated by the fragments of stems found with surviving bowls. In Riga, the following case occurred: the pipe bowl marked with the crowned 'I.P.' — the mark of Jacob Pietersen, the possible master of Enkhuizen, had a stem decorated with lilies (Reinfelde 2005, p. 53). We know that the products of this maker date back to 1635–1660. In Gdansk, a pipe with the Tudor rose

sign (1630–1650) was found during the exploration of a sunken ship, and the stem was also decorated with lilies (Stam 2019b, p. 61). Pipe stems decorated with this ornament are also found in Vilnius, the author of this article recorded 39 items in Vilnius museums, but this material has not yet been published. With this in mind, the six fragments found in Klaipėda are an unusually small number, which is difficult to explain so far.

Another nine stems are decorated with deep, often not quite parallel, circular lines resembling embossed string. It is also a feature of 17th-century Dutch pipes. The chronology of such pipes covers the years 1650–1690 (Åkerhagen 2012, p. 103).

### 4. Data interpretation: topographic and statistical analysis, and some related social history issues

The quality of pipes dating from 1620–1680 found in Klaipėda does not differ too much from that of those found in other cities of the Eastern Baltic region, even in Vilnius, material from which the author of this article is also familiar. The same cheap products from Amsterdam and some other Dutch cities were highly popular in both these cities and surrounding areas in present-day Lithuania. As a conditional indicator of quality we can try to calculate the percentage of unmarked pipes, as lower quality pipes were not marked. After deducting small fragments that provide too little information, such pipes constitute 37% (21 out of 57) of the Klaipėda pipe assemblage from the period 1620–1680. However, this does not mean that more than half of the remaining pipes were of high quality. It has already been mentioned that pipes marked with 'EB' or the crowned 'I.P.' were also inexpensive and widespread, and the crowned Tudor rose, or simply the rose mark, was used as a collective mark around 1625 in the Netherlands (Duco 2003, p. 253).

Analysing the percentage of smoked pipes, it was observed that in Klaipėda they make up 85%. These numbers indicate that most of the found pipes likely belonged to locals or newcomers, and reveal no signs of production or large-scale trade. There is no confirmation in the previously mentioned historical sources that there was an intensive trade in pipes in Klaipėda.

The location of pipe sites in the topography of the city provides meagre but interesting information. Firstly, the earliest pipes, manufactured before 1650, with a sufficiently precise chronology, are found almost exclusively in the old town (Fig. 3). In the suburbs of Odų Street, they increased in number from the middle of the 17th century (Fig. 5) (Elertas 2005, pp. 148, 150). This can be attributed to population growth in the suburbs and cheaper tobacco, which became more accessible to even the less

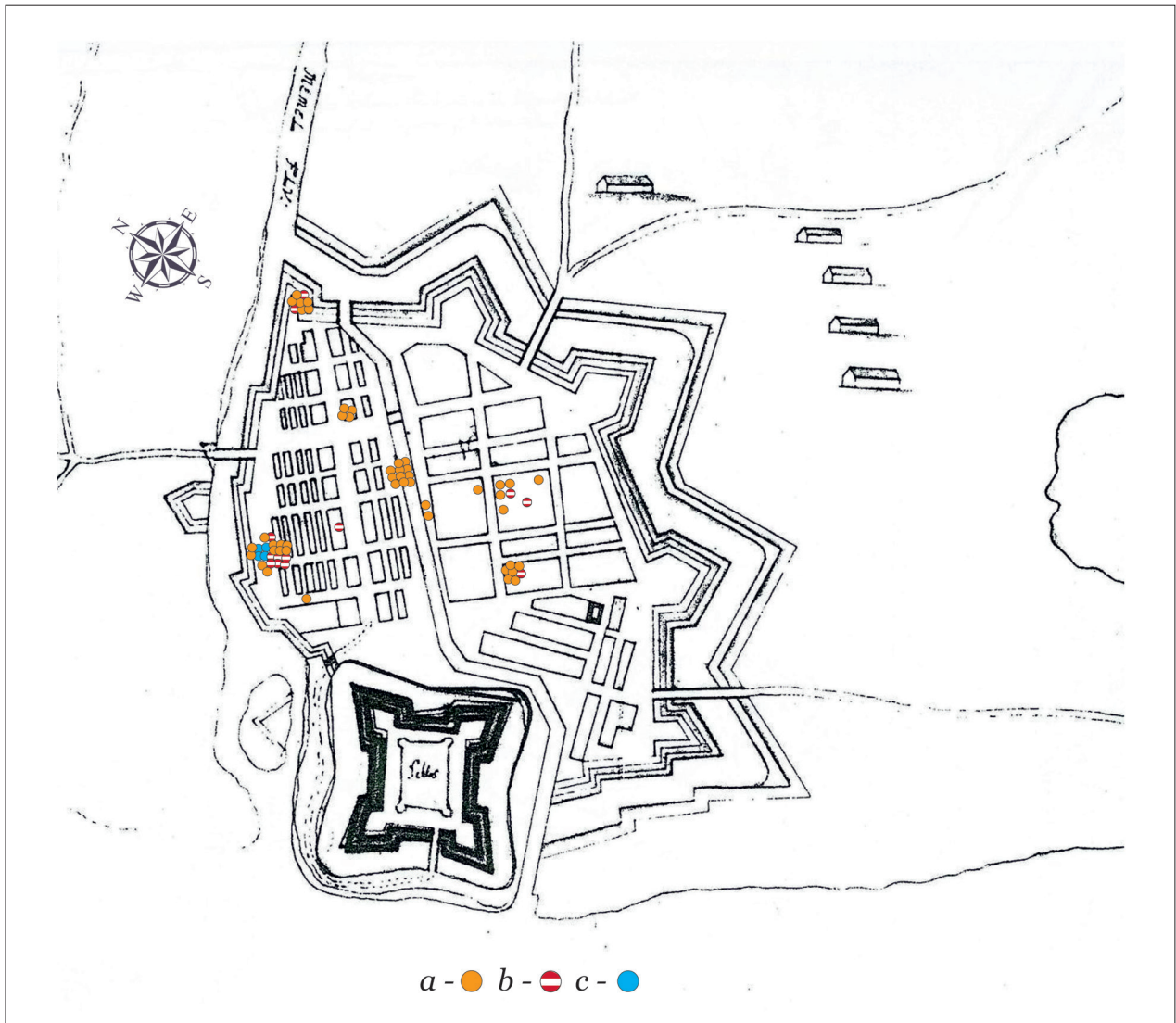


Figure 5. Plan of Klaipėda, 1658: (a) Dutch pipes, 1620–1680; (b) Gouda pipes, ca. 1650–1680; (c) Scandinavian-/English-style pipes, ca. 1640–1660 (Kultūros vertybių registras) (Drawing by A. Žvirblis).

affluent in suburbia. Another interesting observation is that all the Scandinavian-/English-style pipes were found near the Danė River (formerly the Dangė), on the sites at Žvejų Street, i.e. near the port. Since very few of these pipes were found, it can only be assumed that they belonged to foreigners who lost them in the vicinity of the port and the nearby taverns. The third constant: the largest clusters of 17th-century pipes in the old town were found in Žvejų Street, at the end of Turgaus Street near the bastion and around Didžioji Vandens Street near the filled in old Dangė. The townspeople seem to have thrown pipes into certain places where other rubbish was also being dumped. In the suburbs of Odų Street, conversely, quite a number of individual pipes were found here on different sites. All three statements may evolve into other interpretations as new data from archaeological research appear, and should therefore be considered as assumptions leading to hypotheses.

The increase in the number of pipes and at the same time the prevalence of smoking can be seen in the performed statistical analysis, from where the relative amounts of pipes distributed during the study period — indexes — were derived. Their calculation is based on a simple principle: for example, if the dating of one pipe bowl covers a period of 20 years, then it adds 0.05 points to the index for each year, or in other words, 1/20 pipe for one year. Such analysis provides a sufficiently objective overview of the available data.

The information presented in the graph (Fig. 6) shows that from 1620 to 1640, the number of pipes in Klaipėda increased quite consistently, and then the quantitative leap occurs. Around 1660–1664, a temporary fall is observed, possibly due to the ongoing wars involving Brandenburg-Prussia and all its neighbours (the Northern Wars). The comparison of the pipe index and the number of pipes barrels arriving seems telling. The small correlation

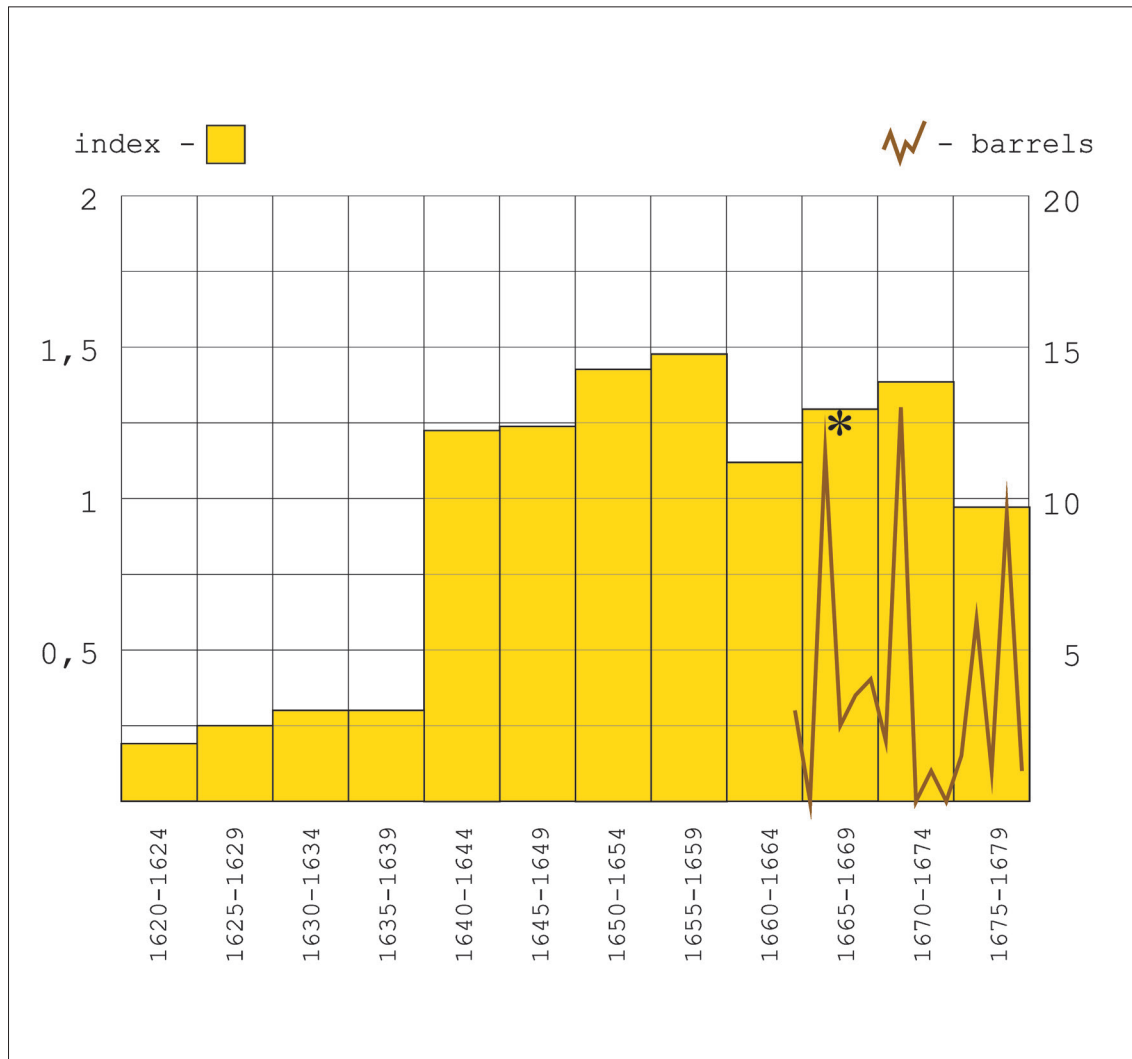


Figure 6. Quantitative index (yellow) of clay tobacco pipes in Klaipėda, 1620–1679; Barrels of imported tobacco pipes (brown) in Klaipėda, 1664–1679; \*In the year 1666, 4.5 barrels, 5 baskets and 2 boxes were mentioned. (Drawing by A. Žvirblys).

between the data of 1664–1679 can be seen. The pipe index and historical data shows the reduction in quantity of imported pipes during the period of 1675–1680. There are a few possible explanations for this: wars which involved Brandenburg-Prussia — the Scanian War (1675–1679), the Franco-Dutch War (1672–1678) (Frost 2000, p. 208; Israel 1995, p. 794) — and the fire of 1678 in the city. Similar causes were observed by Groth (2001, pp. 10–11), whose study has shown the reduction in imported colonial goods around 1667–1680.

From this graph it can also be understood that if such data of arriving goods had been collected in the customs books from the beginning of the century, we would have seen similar quantities of imported pipes already in ca. 1640.

## Conclusions

17th-century clay pipes found in Klaipėda during archaeological research offered a lot of new information about

the characteristics of the smoking culture prevailing here at that time. The study allows the presentation of some specific conclusions as well as some thoughts for reflection.

The research helped to establish that pipe smoking in Klaipėda started no later than 1620–1630. It is probable that this happened earlier, but so far no older finds proving this have been made.

Almost all the pipes dating from 1620 to 1680 were made in the Netherlands. Until ca. 1660, Klaipėda citizens mostly smoked pipes made by Amsterdam makers, as well as pipes from other production centres. Around 1660, products from Amsterdam were pushed out of the market by the pipes of Gouda's makers. This was not just a phenomenon typical to Klaipėda; in the Netherlands itself, in the second half of the 17th century, the dominance of Gouda as the centre for pipe production and the diminishing of Amsterdam from a large to a local centre became apparent.

Pipes found in Klaipėda, at least until 1660, are almost no different to the pipes found in Vilnius, where the largest group is also comprised of the products of Dutch manufacturers. Analogues of almost all of the pipes found in Klaipėda can be found in the research published by archaeologists in Riga and Gdansk. Therefore, 17th-century pipes in Klaipėda correlate well with the whole eastern and southern Baltic region. The research showed that from 1620 to 1680, the number of pipes found in Klaipėda increased fairly consistently. Historical, statistical and topographical data suggest that such processes took place as a result of the growing popularity of tobacco smoking and the favourable approach of the Duchy of Prussia to the tobacco trade, as well as urban development and population growth.

Finally, it can be said that the research not only complements the existing historical information about tobacco trade and consumption in the city but also provides new essential knowledge about the everyday history and material culture of the citizens. Deeper understanding of the society of those times, I believe, also leads us to deeper understanding of the present, as history tends to repeat itself. I say this because the history of tobacco and pipes is an integral part of the history of global consumption and the spread of stimulants — so-called drug foods — in urban societies of the 17th and 18th centuries. And such stimulants, in the form of food or social technology, affect our lives today.

### Acknowledgements

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Text translated by Valda Žilionė. Photographs were taken by the author.

### Abbreviations

LII f. 1, b. – cipher of unpublished archaeological excavations reports stored in Lithuanian Institute of History, Vilnius

MLIM – Mažosios Lietuvos istorijos muziejus (History Museum of Lithuania Minor)

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## SENIAUSIOS MOLINĖS PYPKĖS KLAIPĖDOJE, JŲ KILMĖ, TIPOLOGIJA IR CHRONOLOGIJA 1620–1680 M.

### Atas Žvirblys

#### Santrauka

Remiantis Baltijos regiono kontekstu žinoma, kad tabakas ir pypkės į Klaipėdą galėjo patekti jūros keliu XVI a. pabaigoje, vėliausiai XVII a. pirmajame ketvirtyje, tačiau tai patvirtinančių istorinių šaltinių kol kas nėra. Pirmi tabaką ir pypkes Klaipėdoje minintys duomenys fiksuojami tik XVII a. antrojoje pusėje. Istorinių duomenų ir archeologinių publikacijų šia tema trūkumas paskatino darbo autorių imtis šių tyrimų. Straipsnyje, remiantis archeologiniais duomenimis, analizuojama, kada pradėtos rūkyti pypkės Klaipėdos mieste. Dėl pypkių tipologinių skirtumų ir identifikavus jas gaminusių meistrų ženklus buvo nustatyti chronologiškai ankstyviausi dirbiniai ir jų kilmė.

Klaipėdoje vykusių archeologinių tyrimų metu aptikta iki dešimties tūkstančių pypkių fragmentų, kurių chronologija apima XVII–XIX a. Išanalizavus pypkių formas ir ženklus, buvo atrinkti 65 galvučių ir 25 vamzdelių fragmentai, kurie gali būti datuojami 1620–1690 m. laikotarpiu.

Atliktas tyrimas padėjo nustatyti, kad pypkės Klaipėdoje pradėtos rūkyti ne vėliau kaip 1620–1630 m. Tikėtina, pypkės rūkytos ir anksčiau, bet kol kas senesnių tai įrodančių dirbinių nerasta. Beveik visos 1620–1680 m. datuojamos pypkės buvo pagamintos Nyderlanduose. Ankstyviausios jų pagamintos Amsterdame, tačiau rasta ir mažesnių centrų, tokių kaip Enkhuizen (Enkhuizen),

produkcijos. XVII a. trečiajame ketvirtyje Klaipėdoje pradeda ryškėti Gaudos produkcijos augimas.

Klaipėdos XVII a. pypkės gerai koreliuoja su visame Rytų ir Pietų Baltijos regione randamomis pypkėmis. Panaši produkcija vyrauja tokiuose miestuose kaip Gdanskas ir Ryga. Be to, iki XVII a. vidurio Klaipėdoje rūkytos pypkės beveik niekuo nesiskiria nuo rūkytų Vilniuje.

Atliktas tyrimas suteikė naujų, esminių žinių apie Klaipėdos miestiečių kasdienybės istoriją, materialinę kultūrą. Kaip ir visą Europą, Klaipėdą nuo XVII a. vis labiau veikė naujos pasaulinio vartojimo tendencijos. Naujų ne pirmo būtinumo prekių ir stimulantų, tokių kaip tabakas, atsiradimas rinkoje keitė vartojimo kultūrą, o kartu ir pačią visuomenę.