

## THE ARCHAEOLOGY OF THE CLAY PIPE IN THE NEAR EAST

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“Large sums are lavished by Turks of all ranks upon pipes; they attach as much importance to the possession of a fine assortment, as Europeans to that of choice pictures or plate” (White 1845: vol. II, 129)

Despite the huge revival of interest in the socio-economic affairs of the Ottoman empire, most analyses have focused on the macro-economy, urban industries and long-distance trade, whereas relatively little attention has been paid to local or specialised crafts and craftsmen (McGowan 1981; Faroqhi 1984; 1995; 2005; Faroqhi, and Deguilhem 2005). Anatolia, the Balkans and parts of Syro-Palestine have also received the brunt of academic attention, but very little research has been published on other parts of the empire such as northern Syria or Iraq. Furthermore, interest has tended to dwell on the 15th–17th centuries with little attention paid to the situation during the later centuries. Although detailed studies have been published on the provisioning of meat and bread in Jerusalem (Cohen 1989), the silk industry of Bursa and Lebanon (cf. Faroqhi 1984), and on certain classes of object detailed in palace or private inheritance inventories (Samanci 2003; Estabiet, and Pascual 2003), analyses of individual classes of object are much scarcer. Comparative analyses of textual and archaeological data-sets are rarer still (Baram, and Carroll, eds 2000). Nevertheless, a number of focused studies have started to appear in recent years within Turkey, for instance on the copper industry of Tokat (Belli, and Kayaoğlu 2002) and the revival of the glass industry in Istanbul (Küçükerman 1999). It is within this context of object-based interpretations of Ottoman material culture that this essay is set, and one which attempts to combine archaeological and written perspectives.

Until the 1970s, clay pipes were either ignored as modern artefacts or were attributed to the Mamluk period and as this pre-dated the introduction of tobacco from the New World, they were viewed as proof that cannabis was smoked in the medieval Near East. In 1971 Rosenthal effectively debunked any notion that cannabis or opium were ingested in any form other than as edible pellets, ingredients in food or through burning on open braziers, and it is now accepted that no pipes are earlier than the late 16th century and most date from the second half of the 17th century and later. Although relatively little research has been published on the Ottoman written sources, the history of the introduction of smoking tobacco, its ensuing popularity, and the responses this drew from political and religious authorities, have been the subject of a number of papers (*e.g.* Birnbaum 1956; Simpson 1995; 2000*a*; van der Lingen 2003). These suggest that smoking was known in the Ottoman Court as early as 1576, Yemen by 1590/91 if not earlier, and Egypt by 1600/03, after which it spread like wildfire despite strong official and religious disapproval. European and Turkish sailors are a common denominator to its early popularity, endemic smoking in the army is recorded from the reign of Murad IV (1623–1640), and urban coffee-houses were popular social smoking venues by the same period. The exact means and route by which smoking came to be introduced into the Ottoman empire is more complex however. Doubtless there were multiple introductions, as the written sources suggest, but the concept of using long-stemmed pipes with a separate bowl and mouthpiece was distinct from the short-stemmed single-piece white clay pipes favoured in England and Holland. It may have been Portuguese rather than English or Dutch traders who were therefore responsible for introducing this type from North America, not only into the Ottoman empire but also into Morocco

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and West Africa (Shaw 1960; Keall 1992*a*; 1992*b*; 1993).

However, it was not until Rebecca Robinson's detailed analyses of pipes from Athens and Corinth, illustrated with the rich comparative sources of paintings, engravings and European travellers' accounts of the 17th, 18th and 19th centuries, that it became clear that the archaeological finds must date from a considerably later period than previously recognised (Robinson 1983; 1985). Together with a preliminary study of pipes from excavations at Saraçhane in Istanbul (Hayes 1980; 1992), these established the first outline typology for Ottoman pipes and the basis for most subsequent archaeological studies. Nevertheless, the longevity of particular "types" of pipe is more difficult to assess and doubtless some continued for longer than others. As with any artefact analysis, the definition of a particular "type" also requires close scrutiny and the potential pitfalls of circular argument over dating should be reiterated. It is no longer adequate to simply compare general colour or shape, and with the publication of more detailed analyses over a wider region it will be necessary to begin constructing more refined typologies. Pipes have now been presented in archaeological reports from almost all regions of the Ottoman empire: in addition to the groups mentioned above from Istanbul and Greece, assemblages have been published from Mytilene (Humphrey 1990), Iraq (Gargies 1987) and Egypt (French 2001), but the largest number come from the southern Levant, particularly salvage excavations in Beirut (Bartl 2003; van der Lingen 2003), and a large number of sites in Israel/Palestine (*e.g.* Avissár 1996; Boas 2000; Simpson 1990*b*; 2000*b*; 2002; *in press*). Independently, researchers in eastern Europe have added important new data on the typological development of local pipe-making industries, particularly in Bulgaria, and the heavy influence these Turkish pipes had on the fashions of neighbouring Hungary and Croatia (Stançeva 1972; *cf.* Tomka 2000; Brusić 1986/87; Haider, Orgona, and Ridovics, eds 2000: 25–32). On the basis of these finds, several trends are evident.

Pipes are very rare prior to the second half of the 17th century. Thereafter, the first datable examples are made of smooth pale grey, white or light brown clay, and tend to have small bowl capacities and shank openings which presumably correspond to the relatively high price of the imported tobacco. They also typically have stepped ring shank-ends, restrained rouletted decoration on the shank and the bowls are usually decorated with small elaborate stamps. The typically uniform pale appearance and the lack of cores implies that they were consistently fired in lightly reducing kiln conditions, although a small number of dark grey or black examples are attested. The occurrence of cypress-tree motifs on a group of the early pipes which have as yet only been recognised from sites in Palestine may be noteworthy as the same motif recurs in Palestinian embroidery (Simpson *in press*).

During the 18th century there appears to be a shift towards larger and more rounded bowls which were usually coated with a lightly burnished red slip. The increase in capacity is linked to a reduction in price and wider availability of tobacco, which began to be very widely cultivated across the Ottoman Empire. This pipe tradition continues throughout the 19th century but by the 1840s lily-shaped bowls with highly burnished red slip appear to be the commonest form. There are some curious similarities between 18th and 19th century Ottoman pipe bowls and those found in Mali and other parts of West Africa (*e.g.* Daget, and Ligers 1962): closer analysis of these and their chronology, and the varieties of pipe found along the trans-Saharan trade routes, might throw some light on the degree and direction of influence. In contrast, the scarcity of recognisable 20th century types of pipe in the Middle East probably reflects the popular switch to cigarettes which began as early as the turn of the 19th and 20th centuries in rural areas of Palestine (Wilson 1906: 127).

At Athens, Corinth, Saraçhane and Mytilene it was noted that many of the excavated pipes carried small impressed maker's marks, although they appear to be less common in the southern Levant. As many as seventy-five pipe-maker's names are now attested in all, some of which are dated to the year. The names are almost all Turkish but a few others are also recorded, including Borgest,

B. Fuchez, Marruis, Nevres, Peretev, which suggest export pipes. Turkish pipes were widely copied in eastern Europe and southern Russia, and even the Turkish word for a pipe (*lüle*) entered the local vocabulary of these areas (Albanian *llulla*, Bulgarian *lulata* and Serbo-Croat *lula*). In several cases the pipe-makers' names hint at their origin: "Belgradi", "Edirneli Süleyman Usta" and "Hasan Istanbul Hasan" suggest connections with Belgrade, Edirne and Istanbul respectively.

Future research into Ottoman census records (*Nüfus* registers), Shari'a court records, price lists and craft guilds (*Tawa'if*) should provide a wealth of further details on these and other pipe-makers. In most cases, however, these individuals are assumed to be based in Istanbul where the greatest number operated from within the Tophane quarter on Galata, where other crafts recorded from the 17th century and later included carpenters, tanners, tube-makers and candle-makers (Mantran 1962: carte 11). The importance of the pipe-making industry is still evident in the street names of this quarter of the city, including Lüleci Hendek Arasta ["Pipe-makers' Hollow"] which is said to have had as many as 60 workshops. Maker's marks stamped directly onto the pipes themselves also name workshops in Beykoz and Yalova; Hamdi Efendi is known to have worked at Alaça Hammam at 56 Marpuççular Yokusu, a narrow street crammed with tobacconists according to an 1874 account, and the last Istanbuli pipe-maker closed his workshop in 1928. The tools of this individual, Master Ömer, are preserved in the Istanbul Municipal Museum and would merit detailed publication (Bakla 1985; 1993). Although the 19th century workshops in the Tophane district of Istanbul have received some attention by Turkish scholars (Kocabaş 1962; Bakla 1993), at least nine other Turkish towns were also involved in pipe-making, namely Avanos, Diyarbakir, Edirne, Iznik, Kayseri, (the appropriately named) Lüleburgaz, Mardin, Siirt and possibly Sivas (*cf.* Cuinet 1892: vol. II, 439, 463, 506, 552; Bakla 1985; 1993: 28, 35–36; Simpson 1990a: 7). In the case of Diyarbakir, "a hundred and fifty makers of ornamented pipe stems only, besides those who make the clay balls [bowls], amber mouth-pieces" were noted by one traveller in 1816 (Buckingham 1827: vol. I, 380), and the location of this industry is indicated by the survival of street names in the north-west part of the city. In addition, pipe-making is recorded from Jerusalem, Jaffa and Nazareth in the 19th century (Simpson *in press*), as well as Sofia and Rusçuk in the European provinces, Baghdad and Mosul in Iraq, and Asyut and Qena in upper Egypt. From this, it may be deduced that pipe-makers catering for the heavy demand were concentrated in many, if not all, the major urban centres across the Ottoman empire by the 19th century. In other cases potters doubtless helped satisfy local consumption through the manufacture of pipes as a sideline. Coarsely made and hand-modelled pipes found at Mudaybi' and Khirbat al-Nakhl in southern Jordan, may fall into this category and have been suggested as possible evidence for local manufacture to compensate for difficulties in gaining fine clay pipes made in Palestine or Syria (Milwright 2000: 200).

In a small number of cases glaze was used as an alternative to coloured slip. Clay pipes decorated with transparent yellow or green glaze formed 1.5% of the pipes recovered from the Kerameikos at Athens (Robinson 1983: 273, pl. 52, no. 3) and 5% of the pipes excavated at Corinth (Robinson 1985: 172–73, pl. 47, nos 6–9): these were suggested to be the sideline of a pottery workshop, although the original whereabouts of this is not known. Green glazed pipes believed to be of local Haysi manufacture are reported from Zabid in Yemen (Keall 1992*a*). In addition, clay pipes splashed with a transparent glaze fired to a yellowish colour on a light brownish clay body have been reported from a number of sites in Israel/Palestine and southern Lebanon, and doubtless again were produced as a potters' sideline. The fact that one example from Suba was also decorated with cypress-tree stamps strengthens the possibility of these being local products as this stamp motif has thus far only been noted on pipes from the southern Levant. A comparative petrographic analysis with utilitarian glazed wares of the same period might be very instructive, for instance of those glazed wares believed to have been produced at Rashaiya al-Fukhar in the southern Beqa'a valley. However, in the case of most late-19th century pipes, the clay fabrics are very fine and appear to represent the selection

and/or levigation of specific clays for the bodies and slips. The stages of production have been documented most closely in the case of Istanbul where the pipe-makers relied on a local pipe-clay source in the Ökmeydani district but also imported fine clay slip over considerably longer distances, including sources near Van, Aydin and Beirut (White 1845: vol. II, 149; Seetzen 1854: vol. II, 22; Bakla 1993: 45). The clay was moistened, mixed and refined in wooden containers or large jars before being wedged and, if necessary, stained with red ochre. Small balls, each sufficient to make a single pipe bowl, were formed and weighed; these were placed inside separate two-piece moulds, any excess clay being shaved off and re-used, and a narrow boxwood borer inserted to make the necessary aperture for the pipe stem. Pipes were frequently slipped and polished with felt at this stage. After partial drying in the sun, the bowls were decorated and finished by hand, the tell-tale mould seams smoothed over and then burnished.

There is very little evidence for post-firing treatments. The decoration instead relied on a varying combination of moulding, stamping, rouletting, incising and occasionally gilding. The use of gilt appears to be a characteristic of the Tophane pipes: although it is regarded today among collectors as a sign of relatively high value, one European contemporary commented that “The price depends upon the purity of the clay, and upon the carving and gilding. The lower orders use the cheapest, of which immense quantities are exported into the provinces. Higher personages use a better kind, but never those which are gilt” (White 1845: II, 150). The use of gilding does not appear to have been recognised on any pipes recovered from archaeological contexts in the southern Levant, implying that it was not used (or used very sparingly) by the pipe-makers in this region, and that Tophane pipes did not circulate widely (or at least outside the cities) in this region. Some pipes were traded, and the manufacture of export pipes for the Persian market is attested (Bakla 1993: 37). The discovery of a late 17th century shipwreck off the Dalmatian coast near the island of Bisaga confirms the Mediterranean export of Ottoman pipes as the cargo is estimated as including several thousand pipe bowls (Brusić 1986/87). However, it appears that greater attention was generally paid to the trade of tobacco, wooden pipe-stems and the costly mouth-pieces rather than the pipe bowls themselves, as these were increasingly manufactured within regional centres. The limited geographical distribution of certain forms of pipe and particular types of decoration supports this hypothesis. For instance, groups published from Istanbul and Greece contain pipes with pronounced disc bases that are scarce in other regions (*cf.* Robinson 1985), so-called “poppy head pipes” appear to be particularly common in northern Iraq and eastern Turkey (Matney 1997), and polychrome glazed pipes are characteristically Iranian (Armero 1989: 71). Within Israel/Palestine itself, as noted above, there are a number of recurrent types that have not yet been recognised from other regions of the Ottoman Empire. It is therefore likely that some, if not all, of these belong to local pipe workshops.

In addition to those pipe bowls made of clay, contemporary sources refer to individuals consuming tobacco through pipes carved from wood or, as in extreme cases in southern Iraq (as in parts of east Africa or Central Asia) as “earth pipes” along channels in the ground, but in neither case can these uses be detected archaeologically. The archaeological disappearance of wooden pipes may be particularly significant in understanding the scarcity of late 16th or early 17th century pipes, as one of the earliest references to Turkish pipes states that they were made of “reeds that have joyned unto them great heads of wood to contayne” the tobacco (Sandys 1615: 66), and Robinson (1985: 160, 175, pls 48–49, nos C17–19) has noted that the highly burnished mahogany-like finish of three 18th century pipes from Corinth is strongly reminiscent of polished wood. In addition, during the 19th century, if not before, several bedouin tribes are recorded as carving pipe bowls from soft local stone and small numbers of such bowls, usually described as chalk, limestone or softstone, have now been recorded from sites in Israel/Palestine, southern Jordan, eastern Syria and Iraq. The distribution of these carved stone pipes along the desert fringes suggests that they may represent north Arabian imports although a similar tradition is also recorded from Sinai and Egypt (Simpson



forthcoming).

Although there are a growing number of reports on pipes from archaeological assemblages, many were not systematically recovered and it would be wrong to draw conclusions over the relative frequency of certain types on the basis of publications alone. In some cases the low level of recovery and/or high degree of sorting is evident from the disproportionately high number of decorated and/or semi-complete pieces. Wightman (1989: 74) hints at this in his publication of the excavations at the Damascus Gate of Jerusalem: the “red-polished chibouks were mass-produced in moulds, so their forms exhibit little variation” but only a single semi-complete plain example was illustrated in the report, whereas small fragments of such pipes dominate other assemblages. The excavations of the village of Suba, nestled inside the ruined shell of the Crusader castle of Belmont, offered an exception as the pottery processing yielded a large number of additional small fragments. Many of these belonged to the rims of red-slipped burnished pipe bowls, which constituted over 80% of the total of the assemblage. This breakage pattern suggested that the most vulnerable part of the pipes were their rims which were easily chipped if the pipe bowl was knocked on a hard surface when clearing the dottle inside. The same reason probably explains the chipping often noted along the rims of the shank ends, although as they were invariably thicker-walled they are usually semi-intact. Another reason for discard was probably a heavy accumulation of dottle inside the pipe bore at the bowl/stem junction, which was a characteristic of a large number of the pipes (Simpson 2000*b*). Future organic residue analysis of these carbonised remains might eventually give some information on the prevalent strains of tobacco consumed at different sites at different periods. In the meantime a preliminary attempt was made to apply forensic sprays to the excavated pipes in an attempt to detect possible use of cannabis. The results should be pursued under laboratory conditions but the initial study only yielded possible positive results in two cases. As might be expected, tobacco was the main stimulant and illustrates the comment by one 19th century visitor to Palestine that the village houses were “dense with tobacco smoke” (Rogers 1863: 209).

Water-pipes are rare in most archaeological assemblages. Only single fragments survive among the finds excavated at Suba, Zir'in, the Damascus Gate refuse tips in Jerusalem or Aqaba Castle, where they numbered between 0.5% and 1.6% of the total number of pipe fragments (Simpson 2000*b*; 2002; in press; forthcoming). Furthermore, no fragments of the distinctive glass, metal, pottery or coconut bases have yet been recognised from archaeological contexts. This scarcity may reflect the relatively higher price of imported Persian *tumbac* over the locally cultivated varieties of tobacco, particularly in the countryside from where most of the site assemblages derive. However, it is instructive to note that water-pipe fragments appear to have been rather commoner in deposits excavated in parts of Beirut as they constituted 11.4% of the total from excavations in the Beirut Souks and as many as half of the fragments published from the Place Debbas excavations (van der Lingen 2003: 135; Bartl 2003). One reasonable conclusion might be that the water-pipes represented by some 19th century European artists were props designed to conjure an Orientalist image rather than being an accurate reflection of the local rural material culture. However, water-pipes - then as now - probably had specific circulation patterns. They offered a long cool smoke for the comfortable seated individual and, like the very long stemmed pipes, they are redolent of comfort and status. As such, both were most appropriate for moments of leisure, receptions and coffee-houses, whereas rigid-stemmed hand-held pipes could be used throughout the day. This distinction may have implications for breakage and discard. Greater concentrations of water-pipe fragments, gilded Tophane pipes and coffee-cups, may be expected in the vicinity of coffee-houses or wealthier residences whereas cheaper clay pipes will have a wider distribution.

At Suba and Beirut Souks it was noted that many of the pipe bowl bases were heavily abraded. This suggests that they had been originally attached to very long stemmed pipes which were rested on the ground while they were smoked (Simpson 2000*b*: 158; van der Lingen 2003: 135). This

inference raises two further implications. Firstly, these pipe stems presumably measured two metres or more in length, and therefore must have resembled the archetypal long-stemmed variety illustrated by European artists. These stems were normally made of cherry (a preferred winter type) or jasmine (a summer type) as these woods were believed to absorb the nicotine as well as flavour the taste, but ebony, maple, myrtle, wild fig, apricot, plum, rose, mastic tree, carob, balsam and cheaper painted and varnished woods joined in sections were also employed. Whereas most stems were manufactured from plants reared in special orchards, cherry stem rough-outs were imported wholesale from Persia and Central Asia, straightened, veneered, polished, and finally bored at the moment of sale. High-quality jasmine stems were produced in Ortaköy on the Bosphorus but cheaper varieties were imported from Bursa and Trabzon. Costlier stems other than cherry-wood were sheathed in silk or muslin, secured at intervals with gold or silver thread and occasionally decorated with pearls or covered in transparent pink gauze; the original intention of this was that the smoker could cool the smoke during the hot part of the day by dampening the cloth-covered stem. Fragmentary reed stems have been reported from Idfa in upper Egypt (White 2004: 17, figs 12–14), and doubtless under the right conditions of preservation more will be recovered in future investigations. The identification of the woods of these archaeological specimens will provide quantifiable evidence for the circulation of different forms of stem.

Secondly, European writers and artists of the 18th and 19th centuries refer to or illustrate long-stemmed pipes being rested on small gold, gilt, brass or enamelled trays (Turkish *tassa*), whereas the wear patterns noted above suggest that these pipes were in regular contact with the ground. The obvious conclusion is that although these trays may have been used to prevent contact of the hot bowl with floor-coverings within the homes of the wealthier-to-do, they were not such a regular sight amongst the villages. As such, these differences offer a small hint at the varying levels of affluence and display across pipe-smoking society.

The present state of research into Ottoman pipes therefore raises many interesting possibilities and future avenues of investigation. Typology is an essential building block of archaeology but it is a means to an end. The basic typological development of Ottoman pipes is established but there is still much to be learnt about regional developments before we can better understand workshop outputs and circulation patterns. The huge potential of written Ottoman sources remains untapped, and future petrographic, neutron activation and chemical residue analyses offer exciting opportunities for fingerprinting clays and testing the uses of pipes. The identification and excavation of workshops would undoubtedly reveal much evidence of the production stages. The excavation of one or more dated military installations or coffee-houses should likewise offer important independent archaeological evidence for the date and scale of pipe smoking amongst the Ottoman army and general populace. The fact that these questions can now be raised shows how far the subject has already come, and how clay pipes have moved on from being regarded either as detritus or as collector's items to sensitive indicators of Ottoman craft, trade and social status (Baram 2000).

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