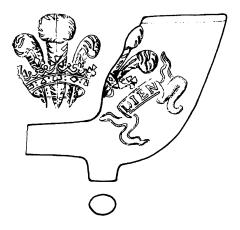
Clay Tobacco Pipes from the Tower of London Moat



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Appendix 2: The Clay Tobacco Pipes

by David Higgins

This appendix describes the clay tobacco pipes recovered during the moat excavations between 1995 and 1997. A selection have been illustrated and catalogued (Figs A2.1–5). Illustrated pipes are referred to by catalogue number in this report. The marked and decorated pipes are listed in Table A2.3.

THE BOWL FORMS AND MARKED PIPES

The Tower of London excavations included in this report have produced a total of 996 fragments of pipe, comprising 441 bowl, 537 stem and 18 mouthpiece fragments. These pipes are described and discussed collectively in the various sections below. These are followed by a section dealing with the relevance of the pipes to the archaeology of the site as a whole.

Bowl forms

None of the earliest styles of pipe, dating to c1580– 1610, were encountered during the excavations. A small number of pipes of c1610-60 were recovered but the majority of the excavated pipes date from between the late 17th and mid-19th centuries. Almost all the bowls recovered are of typical London styles and would have been produced locally. Excavations in and around the City since the Second World War have produced many good groups of 17th- and 18th-century pipes, allowing a reliable typology of the standard forms to be produced (Atkinson and Oswald, 1969). In contrast, good deposits dating from around 1770 or later have proved to be surprisingly elusive in the archaeological record. The widespread use of hard surfaces, the collection of waste for disposal out of the urban area, the more fragile nature of post-1770 pipe styles and the destruction of later deposits through cellaring all appear to be contributory factors in this respect. The pipes from the Tower excavations are particularly important since they go some way towards filling this gap in the archaeological record. The soft silts of the moat provided ideal conditions for the preservation of the delicate pipe bowls and stems, while the filling of the moat in 1843-5 provides a valuable terminus ante quem for many of the pipe groups. Given that the earlier pipes from London are comparatively well documented, it is the late 18th- and early 19th-century material which has primarily been studied for this report.

In the following sections the pipes are described thematically according to the marks and decoration present on them. The accompanying illustrations clearly show the range of bowl forms which was being used from c1770 to 1845 (Nos 7–12; 18–38).

In the 1969 London typology there is a problem with the evolution of the heel form between *c*1770, when the Type 25 ends, and *c*1840, when the Type 29 starts. This gap is only partially filled by the Type 27, which has been dated to *c*1780–1820. This still leaves two gaps, 1770–1780 and 1820–1840, during which periods no heel types are recognised in the 1969 typology. The Tower of London finds provide good evidence for this period and clearly show that, as would be expected, a continuous range of heel forms was in use. These are based around the Type 27 form but with subtle variations as it evolved over time.

There are some large, thin-walled forms which usually have a trimmed base to the heel and which form a logical successor to the Type 25 form, for example, No. 48 (complete IB pipe). This example seems likely to date to c1770-1800 and so bridges the gap between the Type 25 and 27 forms in the London typology. From c1780 to 1820 the slightly shorter Type 27 form, as defined in 1969, becomes the most common type of pipe encountered although taller forms, such as No. 27, still occur. It is during this period that the trimming of the heel base as a finishing technique is discontinued. During the early 19th century heel bowls tend to become more compact and shorter, often with a less substantial and narrower heel (eg, No. 21). The later types are frequently decorated with flutes or other decorative schemes but the basic profile remains the same. Although the Type 27 bowl form occurs in a range of sub-types there is such an even gradation between the extremes as to make meaningful typological divisions based on profile alone impossible. This basic form continued to be produced right through the 1820s and 1830s, as can be seen from its general occurrence in the pre-1845 moat deposits and from the identifiable marked pieces. Although there were clearly a range of variants, the basic Type 27 form remains a valid distinction. The main revision that is necessary is to extend its overall date-range so that it now becomes c1770-1845. This bridges the gaps in the 1969 typology and accords with the evidence of marked pipes and sealed groups from the Tower moat excavations.

Alongside the Type 27 heel bowls a range of spur types was also produced (London Type 28). These are much less common and more restricted in range than the heel types. They are usually plain and are most common around 1820–40, although some examples may have been made later. Examples from the moat excavations are Nos 9–12. This form clearly continued in use later (see Context 7109 below) and the low numbers represented in this sample may be partly due to the 1840s cut off date for the majority of the excavated deposits.

The 1843–5 filling of the Tower moat sealed the earlier silt deposits and marks an abrupt change in the pattern of artefact deposition in the excavated areas. Despite this, a few later deposits did contain pipes and these show a different range from those in the moat silts. The rather funnel-shaped Type 27 bowl with its large heel was replaced by a new form, Type 29. This is characterised by a somewhat egg-shaped bowl with a much smaller heel. Context 7109 produced a good group of such bowls (Nos 41–43). This group is particularly important since it appears to be associated with the demolition of buildings around the Lion Tower in the early to mid-1850s. This not only provides a good date for the introduction of this new form but also shows how rapid and complete was the change in styles from the previous decade. Alongside the Type 29 bowls, and contemporary with them, a new spur form appears. This is essentially a shortened version of the Type 28 form with a slightly chunkier spur. Examples from the 7109 group are illustrated (Nos 39-40). This appears to have been a standard London form of c1840–80 and needs to be added to the London typology.

The only other forms of note are three pieces that are certainly imports to the capital. One of these is a John Hunt pipe of c1660–90 from the Bath or Bristol area (No. 3) and another is a Birchall pipe from Chatham of c1780–1820 (No. 18). Both are discussed more fully below. The other example is an unstratified find from trench 47 (No. 45). This dates from the 19th century and is an unusual piece made of white clay with a surface coating of red clay. The bowl has zones of decoration including fronds or feathers and a series of lion's head masks. This is likely to be an import from mainland Europe, possibly France or Italy. These three pieces represent just 0.68 per cent of the 441 bowl fragments recovered and show that imports never formed a significant proportion of the pipes in everyday use at the Tower.

Discussion of the stamped pipes

Eighteen of the 441 bowl fragments had stamped marks on them (4 per cent), details of which are provided in Table A2.1. Only a small proportion of London pipes were ever stamped and the numbers recovered are typical of the proportions that would be expected from the capital. The majority of the stamped marks date from c1680 to1845, reflecting the period of silting between the last major refurbishment of the wet moat and its final filling.

Most of the stamped pipes are of typical London styles and would have been produced locally. There are two possible exceptions. The first is a WW mark on a bowl of *c*1660–80 (No. 2). Although this bowl form could have been produced in London, it is rather more chunky and barrel-shaped than is normal. Furthermore, the bowl is finely burnished, a technique not often employed on London pipes but typical of other areas. Finally, the neat lettering within a beaded border and flanked by dots and pierced sexfoils is very similar to the mark used by William Pemerton of Guildford in Surrey (Higgins 1981, fig 6). Pemerton is an interesting maker who produced unusually fine pipes, often beautifully burnished, and who appears to have come from Eton in Buckinghamshire. The form, finish and mark of the WW pipe suggest links between the two makers and it may be that the WW pipe was produced in the Eton area and traded to London.

The other imported piece is the John Hunt pipe from the Lion Tower (TOL 80 context 4, No. 3). The Hunt family were prominent West Country pipemakers during the 17th and 18th centuries. They appear to have started pipemaking in Norton St Philip, to the south of Bath (Lewcun 1985). John Hunt I was born there in 1628 and purchased his freedom in Bristol in 1651. He was a founder member of the Bristol Pipemakers Guild in 1652 and took an apprentice in 1653 but there is no further record of him in Bristol after this date (Lewcun 1985, 17–18). Despite this he seems likely to have worked in the town for a while since quite a wide range of mid-17th-century pipes bearing his name are known from Bristol (Jackson and Price 1974). The archaeological evidence provided by his later products suggests that he subsequently moved to the Bath area. An example of one of the Bath pipes is illustrated by Lewcun (1985, fig 16) but it differs from the London example in that the name is stamped in two lines as opposed to three.

The attribution of the John Hunt pipes is complicated by the fact that there were at least two later members of the family with the same name. These two makers took their freedoms in Bristol in 1689 and 1694 (Jackson and Price 1974, 47) and at least one of them was producing pipes at that centre until well into the 18th century. There is also a record of a John Hunt in London who took the Oath of Allegiance in 1696 as a journeyman pipemaker (Oswald 1975, 138). It is possible that this was one of the Bristol makers who had moved to seek work in the capital.

Many different variations of the John Hunt mark are known and they have a wide distribution. Examples have been recorded from various places on the English coast from the Wirral (Meols) to London as well as in Ireland at Dublin Castle and in Scotland at Edinburgh Castle (Oswald, unpublished research notes; Gallagher and Sharp 1986). This is an unusually wide distribution pattern and suggests that the maker or makers producing these pipes operated on quite a large scale. Some of the material clearly belongs to the mid-17th-century Bristol workshops but it is hard to find good parallels for the combination of mark and bowl form represented by the Lion Tower find.

The example from the Lion Tower is not the first John Hunt pipe to be recorded from London but it adds to the large and complex distribution pattern of known examples. It was probably made in the Bristol or Bath area around 1660–90 but how it

Appendix 2

Context	SF	Form	mm	Stamp	Date	No.	Comments
17C 96 2632		10v		'sun'	1630–1660	1	Heel stamped with an incuse 'sun' mark.
17D 97 8079		-		WW	1660-1680	2	Heel stamped with a relief WW mark.
80 99 4		17v		IONH	1660–1690	3	West Country style bowl with incuse heel
				HVNT			stamp reading IOHN/HVNT. John Hunt probably worked in the Bristol/Bath area.
17E 96 3193		20		IB	1680–1710	4	Bowl with the same heart-shaped relief stamp reading IB on both the bowl
							and heel.
17E 96 3133		21v		WB	1680–1710	5	Relief WB stamp on the bowl. Same pipe mould and die stamp as an example from 3193.
17E 96 3193		21v		WB	1680–1710		Relief WB stamp on the bowl. Same pipe
							mould and die stamp as an example from 3133.
17E 96 3193		25	ER	ER	1730–1770	6	Moulded initials ER on heel, incuse
							stamped mark ER on bowl.
17E 96 3166		27	IH	HEDGES	1780–1820		Heel with moulded mark IH, bowl stamped HEDGES. John Hedges recorded
175.07/-		07	TT		1500 1000	_	at North St, Pentonville, 1817–1819.
17E 97 u/s		27	IJ	JONES	1780–1820	7	Heel with moulded initials IJ, bowl with incuse stamp reading JONES.
17E 96 3066		27	IW	London	1780–1820		Two fitting fragments with IW moulded on
				Arms			heel and the London Arms stamped on the bowl.
17D 97 2859		27	IF	FORD	1800–1830	8	Heel with moulded initials IF; bowl with
		•		D. 4 T. 4 C			incuse stamp reading FORD
17F* 97 7403		28v		BALME MILE END	1820–1840	12	Bowl with incuse stamped, shield-shaped mark reading BALME/MILE/END. Various Balmes worked at Mile End
17E 97 3130		28	IF	FORD	1820-1840	9	in the C19th. Initials IF moulded on spur with
				STEPNEY			FORD/STEPNEY stamped on bowl.
17E 97 u/s	215	28	TS	London Arms	1820–1840	10	Moulded initials TS on spur with
17E 96 3005		28	JS	SMITHG	1820–1840		London Arms stamped on the bowl. Moulded spur mark JS with stamped
150 04 0050		07 (00					bowl mark [S]MITH/G.
17D 96 2859		27/28	**	WILLIAMS LONDON	1820–1850		Moulded star on either side of heel, incuse stamp reading WILLIAMS
							LONDON on bowl, leaf seam away
17F* 97 7310		28	BL	B.LEACH	1830-1850		from smoker only. Spur with moulded mark BL, bowl stamped
							B.LEACH. Benjamin Leach recorded at Whitechapel Road 1840–47.
17 95 619		28	RO	OSBORNE & Co LONDON	1830–1850	11	Spur with moulded mark RO; bowl with stamped mark OSBORNE & Co, LONDON

Table A2.1 Stamped marks with details of context, small find number (SF), bowl form, moulded mark (mm), stamped mark (Stamp), date and illustration catalogue number (No.) for each piece

came to be in London is still not clear. Isolated examples of an individual pipemaker's work are occasionally found some distance from their source but this example appears to form part of a more consistent distribution pattern. It could simply be that these pipes were readily available in Bristol and that they were used and lost by sailors during the course of their travels. Alternatively, it could be that the distinctive form and finish of these pipes made them marketable in other areas and that the pipes reflect more organised trading patterns. It is interesting to note that examples have been found in at least three fortified sites—Dublin and Edinburgh Castles and at the Tower of London. Until there has been more study of the trade and marketing of pipes it is hard to say whether this is fortuitous or whether it is the result of some other mechanism, for example, the movement of troops, the provision of supplies or the demand for specific styles of pipe at a high-status site.

Mould-marked pipes

In addition to the stamped marks a total of 179 of the 441 bowl fragments (40.6 per cent) had moulded marks on them, examples of which are illustrated (Nos 6–44). The use of moulded initials was adopted by the London makers during the late 17th century and remained the standard method of marking pipes thereafter. These marks are often difficult to identify with any certainty because of the duplication of the same initials amongst the numerous London pipemakers. The description, illustration and cataloguing of marked pipes from London is gradually making this easier, especially as distribution patterns of particular marks become apparent. The recovery of this sizeable group from the Tower makes an important contribution to this process. During the early 19th century the maker's full name and address was often moulded on the stem of the pipe, making positive identification much easier. All the marked pipes, whether stamped or moulded, are listed alphabetically together with the decorated pipes in Table A2.3.

The recovery of a good range of pipes spanning the period c1680-1860 from the Tower has allowed the relative frequency of bowl forms, marks and decoration to be compared. A summary of this information is provided in Table A2.2. This breakdown reveals a considerable amount about the changing fashions in pipes during this period.

There were four principal styles of pipes (Types 19–22) being produced by the London makers from about 1680 to 1710. The proportions of these were, however, markedly different. Of the 121 attributable examples 61 per cent were Type 22 pipes, 27 per cent Type 20, 11 per cent Type 21 and there was only one Type 19 pipe. The Type 22 pipe was clearly more than twice as popular during this period than its nearest rival. None of these types were decorated but 16 examples (13 per cent) were marked. The distribution of these marks was not even, ranging from 23 per cent of the Type 21 pipes down to just 3

per cent of the Type 20 pipes. This suggests that, during this period, the style of the bowl was a significant factor in determining whether or not a particular pipe should be marked. This has profound implications for any debate on why marks were used. It can be demonstrated that manufacturers produced a range of different styles to meet the requirements of the market. This being the case, any simplistic model of makers either choosing or being required to mark their products falls down. The contemporary perception of the pipe was clearly bound up with its form and style, so any consideration of the use and meaning of marks takes on another level of complexity.

Similar patterns can be observed amongst the 18th-century pipes, when two forms (Types 25 and 26) dominated the London market. Of the 110 examples of these forms, 96 per cent were of Type 25 and just 4 per cent of Type 26. Just over half of the Type 25 pipes were marked and yet only 1 per cent were decorated. In contrast, 75 per cent of the Type 26 pipes were marked and 50 per cent of them decorated (though of course the actual numbers involved are very small). This shows that Type 26 pipes were much rarer but that, when they did occur, they were much more likely to be marked and decorated. Once again, there appears to be a relationship between the bowl fcrm and the style of marking and decoration that was used. From the late 18th century the number of marked pipes rises to well over 90 per cent for all types of bowl while the number of decorated pipes rises from c50 per cent around the turn of the century to over 80 per cent by the second half of the 19th century.

Analysing the percentages of marked and decorated pipes by bowl form and looking at these changes over time provides a much more dynamic and complex picture of the London pipemaking industry than has been apparent from previous studies. Not only can the relative frequency of different bowl styles be seen but also the different

		, , ,		11 0	01 5			
Form	Date	No mark (plain)	No Mark (dec)	Marked (plain)	Marked (dec)	Total	% marked	% dec
20	1680–1710	32	0	1	0	33	3	0
21	1680-1710	10	0	3	0	13	23	0
20/22	1680–1710	1	0	0	0	1	0	0
22	1680-1710	62	0	12	0	74	16	0
19	1690–1710	1	0	0	0	1	0	0
25	1700-1770	47	4	54	1	106	52	1
26	1740-1800	1	0	1	2	4	75	50
25/27	1770-1820	1	0	11	0	12	92	0
27	1770-1850	0	2	26	25	53	96	51
27/28	1820-1850	0	0	3	5	8	100	63
28	1820-1850	0	1	11	15	27	96	59
28/29	1830-1860	0	0	0	2	2	100	100
29	1840-1860	0	0	1	6	7	100	86
Total		155	7	123	56	341		

Table A2.2 Numbers of plain, marked and decorated pipes by bowl type for the period c1680–1860

attributes of marking and decoration that they possessed. In broad terms the percentage of marked pipes shows a gradual increase from around 13 per cent in the late 17th century to around 90 per cent in the late 19th century. Similarly, the percentage of decorated pipes rises from 0 per cent to around 100 per cent over the same period. Within this broad evolution, however, specific forms clearly had particular attributes that may well have reflected the cost and social context within which they were used. Once these attributes are more fully comprehended and, in particular, when comparative intersite date is available, a more detailed interpretation should be possible.

MOULD-DECORATED PIPES

Although there are isolated examples of decorated 17th-century pipes it was only during the 18th century that moulded decoration became a regular feature of the pipemaker's production range. The London makers were amongst the earliest to experiment with moulded decoration in this country and small numbers of such pipes were in circulation by the second quarter of the 18th century. The popularity of decorated pipes increased steadily during the third quarter of the century so that, by the last quarter, they formed a significant part of the overall production range. For most of the 19th century the majority of London pipes were decorated in some way. The Tower excavations have produced a good range of decorated pipes covering the styles being used between the early 18th century and c1845. The principal types of decorative motif are discussed thematically below.

Armorial pipes

Pipes depicting the Royal Arms or the Prince of Wales Feathers were amongst the earliest of the mould-decorated designs and, although they were never particularly common, they are the most frequently encountered of the early designs. These motifs continued to be used right through the 19th and into the 20th century but the later versions were far outnumbered by other decorative varieties. The Tower excavations have produced one of the best assemblages of armorial pipes to have been recovered from a controlled excavation in this country. A total of 11 armorial bowls were recovered, eight of them dating to c1730–90 and the remaining three to c1820–45. These pipes provide a rare opportunity to consider a diverse group of armorial pipes within a larger excavated assemblage.

The only substantial body of excavated evidence relating to armorial pipes appears to derive from colonial Williamsburg, in Virginia. At that site 76 examples bearing the Royal Arms have been recovered, all but four from sites with tavern-keeping associations (Noël Hume 1970, 146). Unfortunately, no absolute figures for other classes of pipes are given and so it is not known what percentage of the tavern pipes had armorial decoration or, indeed, what percentage of all pipes were recovered from taverns as opposed to other classes of site. It does seem, however, that in Williamsburg there was an association between this type of pipe and taverns. It is also interesting to note that only two pipes with the Prince of Wales feathers were recovered from Williamsburg. Such a heavy bias in favour of the Royal Arms is certainly not typical of these pipes in England and it serves as a reminder that the supply and use of pipes in the colonies differed from that in the domestic market.

The armorial pipes from the Tower excavations were recovered from trenches 1, 6, 7, 25, 27, 30 and 31. The Stone Kitchen tavern stood just inside the southwest entrance to the Tower (ie, near trenches 30 and 31) but the distribution pattern of the armorial bowls suggests that these pipes were in general use rather than being particularly associated with the tavern. Furthermore, only two of the pipes were produced in the same mould and a variety of different designs and makers' marks occurs on the others. This shows that the pipes were coming from a range of sources and that they are not the product of one particular commission or order to supply the Tower with pipes. There are three pipes with the Royal Arms, six with the Prince of Wales Feathers and one depicting both designs, although the Royal Arms is the principal motif. This suggests that, at the Tower, there was no particular preference between these two motifs.

In terms of the frequency with which this type of pipe occurs, it is useful to consider the two different groups. The earlier group of eight bowls, manufactured around 1730–90, date from a period when other forms of decorated pipe were rarely produced. There are four pipes with the Hanoverian Arms as the principal motif, the two complete examples of which are illustrated (Nos 13-14). There is also a damaged bowl very similar to No. 14 but with a different scheme of decoration on the mould seam (not illustrated). This appears to be almost identical to, if not the same as, an example illustrated by Atkinson and Oswald (1980, pl 3.12), described as a gauntlet holding a rose and thistle. They date this to 1760–80 with examples recorded from Tower Bridge, Southwark and Putney. The fourth Hanoverian Arms pipe is even more fragmentary, but similar to No. 14 except that it has an undecorated seam facing away from the smoker. The base of the bowl is completely missing but the surviving profile suggests it would have been a Type 26 pipe. There are also four examples with the Prince of Wales Feathers as the principal motif. Two are from the same mould (No. 15), the other two being Nos 16 and 17.

The bowl forms represented by these eight pipes are London Types 25 and 26, or variants of them, which are heel and spur forms respectively. These two forms were current from about 1700 and 1740 and were used almost exclusively by the London makers for the majority of the 18th century. They do not, however, occur in equal proportions. Of some 123 identifiable examples from the Tower excavations 118 were of Type 25 (96 per cent) but only five of

Type 26 (4 per cent). This strong bias in favour of the Type 25 form seems to be typical of pipe assemblages from London although no inter-site comparisons have been carried out to see how consistent this figure is. The eight armorial bowls from this earlier group make up just 6.5 per cent of the Type 25 and 26 pipes but they are not equally distributed between the two bowl forms. Five occur on Type 25 bowl forms, of which they represent just 4.2 per cent, while three are on Type 26 forms, of which they represent 60 per cent. This shows that decorated bowls were still relatively scarce during this period and that, when they did occur, they were particularly associated with the Type 26 bowl form. Particular bowl forms have been shown to have been associated with specific stem lengths (Higgins 1987, 432-5) and it may be that the elaborately decorated Type 26 bowls were more expensive items that might also be expected to have longer than average stems. Until complete examples have been recovered it will be impossible to test this hypothesis.

With regard to the nature of the decoration, in four examples the Royal Arms was the primary motif while in the other four it was the Prince of Wales Feathers. Despite the distinctive nature of these designs there does not seem to have been any particular desire by the makers to identify their work. Of the five Type 25 bowls only one (No. 13) has a maker's mark. This consists of the crowned initials WM, which can be attributed to William Manby of Limehouse, recorded working from 1719 to 1763 (Oswald 1975, 142). The Manbys were a prominent pipemaking family with a substantial export trade. A similar WM armorial pipe has been recovered from Williamsburg, Virginia (Noel Hume 1970, pl VI A), but differences in detail show that the American example was produced in a different mould. The fact that Manby needed at least two virtually identical armorial moulds hints at the scale of his production. A WM armorial pipe has also been recorded from Chiswick (Atkinson and Oswald 1980, 368).

Only two of the Type 26 spurs survived, both of them marked. One was damaged but possibly read WB while the other was marked NA (No. 14). Armorial pipes marked WB have been recorded from Southampton, Winchester and London, while examples marked NA come from Williamsburg in Virginia, Bankside Power Station in London and Steyning in Sussex. (Atkinson and Oswald 1980, 364-7). Atkinson and Oswald suggest local makers in Southampton and Chichester for these two marks although, given the paucity of other imported pipes from London, it would seem more likely that the Tower finds were produced by two as yet unidentified London manufacturers. Overall, only three of the seven surviving armorial heels or spurs were marked (43 per cent). This is rather less than the 57 per cent of all Type 25 or 26 bowls which had makers' marks on them and shows that, despite their striking design, there was no particular effort made to identify the makers of these pipes. Further work is

clearly needed to explore the contemporary perception of these pipes and the circumstances under which they were used. Given that the Tower was a Royal site it would also be interesting to compare the percentage of armorial pipes found here with other classes of site in London.

The later group of armorial pipes dates from c1820 to 1845 (Nos 19–21). By this date styles had changed and the majority of the pipes were both marked and decorated. The three bowls combine the use of the Prince of Wales Feathers with a range of masonic emblems and are remarkable for their similarity, particularly Nos 20 and 21, where the details of the design and execution are so close as to suggest that the same hand designed both moulds. The moulded initials and partial stem mark on No. 20 clearly show that this pipe was made by James Russell, who is recorded working at Wapping from 1822 to 1834. This date fits perfectly with both the style of the bowl and the nature of the decorative motifs employed. The JS pipe (No. 21) can likewise be attributed to a John Smith of Wapping, recorded working from 1844 to1862. The recorded dates appear to be too late for this style of pipe and it seems likely that Smith was, in fact, working from the 1820s or 1830s. The similarity of these three examples, all produced by different makers, makes it clear that this particular pattern was popular in London around 1820-45. It does not appear to have been recorded before and makes an important addition to the previously identified range of pipes bearing the Prince of Wales Feathers (Le Cheminant 1981).

Masonic pipes

Four pipes bearing masonic designs were recovered from the excavations. Three of these were also decorated with the Prince of Wales Feathers and have been described above. The fourth is an unusual bowl since it combines the maker's initials, GB, with the moulded lettering BIRCHALL/CHA-THAM around the bowl rim (No. 18). Rim lettering was most frequently employed in the Lincolnshire area although it was occasionally adopted by makers in other parts of the country as well (Walker and Wells 1979, fig 9). Oswald and Le Cheminant (1989, 6) give a date of approximately 1803-40 for George Birchall of Chatham but the style of this bowl would seem to suggest a date in the late 18th century rather than the early 19th for this piece. Having said that, it may have been that a particular bowl form became associated with this type of masonic pipe and that it remained in use long after other fashions had changed. A French pattern book produced by the firm of Fiolet in 1846 shows a very similar bowl, described as an Anglaise maçonique. The Tower example is also of interest since it represents a rare import to London from the surrounding counties. The style of the masonic decoration is closely matched by that on a heel bowl, also marked GB, from Ewell in Surrey (Higgins 1981, fig 31.10).

Leaf-decorated seams

Perhaps the most common and widely employed form of decoration on pipes consists of leaf-decorated seams. The origin of this motif appears to lie in the elaborate foliage designs found on the armorial pipes described above. By the late 18th century this had been reduced to a more uniform but still relatively long and widely spaced line of leaves, such as those seen on the Birchall armorial pipe (No. 18). It also became quite common to alternate the leaf motif with a plain line or spike. Around 1810–30 the leaves tended to become more compact and serrated, often with a sharply curved line between each pair of leaves. This motif can be clearly seen on some of the early 19th-century fluted bowls (Nos 27-29). During the period c1820–60 this line usually became a short. straight spike, after which it was often omitted altogether. Another variant, popular from c1840 to 1880, showed alternating oak leaves and acorns, which were often used on one seam in conjunction with a plain line of leaves on the other (eg, Nos 41–42). Leaves were also used to decorate the seams or sides of the stem, as can be seen in Nos 31–34. Although most of the illustrated examples have other motifs on the bowl sides there were many otherwise plain bowls with just leaf-decorated seams. Overall, 50 of the Type 27-29 bowls had leaf-decorated seams. This averages 52 per cent of all these types, although the proportion of just the later forms with leaf-decorated seams (Types 28 and 29) rises to 73 per cent, showing that leaf decorated seams became increasingly common during the course of the century.

Fox and grapes pipes

Pipes decorated with a fox and grapes design were popular around the second quarter of the 19th century and four examples were recovered from the Tower excavations. The three complete bowls are Nos 22–24. These are of variable quality, with one example (No. 23) having particularly poorly moulded decoration. The fourth bowl (damaged) shows a seated fox, similar to No. 22 but with a line representing the ground beneath it. It has the moulded initials IF on the heel. The fox and grapes design appears to have been particularly associated with London although this pattern also occurs in surrounding counties, such as Surrey (Higgins 1981). It was also produced in France with several versions, including both the standing and the seated fox varieties, occurring in a pattern book produced by the firm of Fiolet in 1846. The Fiolet catalogue places this design amongst a number of other English styles, suggesting both that this pattern was probably English in origin and that their production of it may have been intended primarily for the export market.

Fluted decoration

Fluted decoration was introduced during the second half of the 18th century and became the first

relatively common and widespread decorative design to be used on pipes. During the 18th century the flutes tended to be broader and more curved, often with a line above and other decorative motifs, such as foliage or dots. A good example of this type can be seen in No. 26. Alternating thick and thin flutes were especially popular during the late 18th or early 19th century, often occurring on pipes with leaf-decorated seams as well. During the 19th century flutes tended to become increasingly narrow and uniform in width. A typical range of these pipes, many of them associated with heel and stem marks, are Nos 27–35.

THE COMPLETE PIPES

Stems and mouthpieces were surprisingly rare given that the soft moat silts appear to have provided ideal conditions for the preservation of substantially complete pipe fragments. Some 441 pipe bowls were recovered from the excavations but only 18 mouthpieces. Despite this, it was still possible to reconstruct three complete pipes. There are only around 100 complete pipes dating from before 1850 known from the whole of the British Isles and so these three make an important contribution to this corpus.

The earliest complete pipe has a London Type 18 bowl and dates to c1660-80 (Nos 47 and 50). The stem is only broken in one place and the pipe was probably discarded intact. Unbroken pipes are occasionally recovered from silty deposits or rubbish pits, suggesting that they were of so little value as to be regarded as disposable on occasions. This style of pipe was particularly common in Restoration London and the Tower example is of typical form and finish. The stem is 275mm long and is basically straight, save for a slight warping to one side. The mouthpiece is simply cut without any visibly surviving evidence for a tip coating. Six contemporary complete pipes from England were recorded during a survey in 1987 (Higgins 1987, 64) and another six have come to light since. These range from around 260mm to 320mm in length and show that the Tower example was towards the shorter end of the average range for the pipes of this period.

The other two complete pipes both have typical London bowl forms of late 18th- or early 19thcentury date and seem likely to represent examples of the everyday pipes of this period. The earlier of the two has a large, thin-walled bowl marked IB and probably dates to c1770-1800 (Nos 48 and 51). It has a gently curved stem with a length of 357mm, a simple cut mouthpiece without any surviving evidence of a tip coating and a trimmed heel. The second pipe is marked WS and probably dates to c1780-1820 (Nos 49 and 52). It has a gently curved stem with a length of 364mm and a simple cut mouthpiece without any surviving evidence of a tip coating. The heel has not been trimmed. The similarity of stem length between these two examples may indicate that this form was associated with

a specific stem length, as has been observed amongst earlier pipes (Higgins 1987, 423–44). It was certainly the case that pipes were produced in a variety of lengths (*see* Manufacturing and finishing techniques, below) and it seems probable that these two examples represented the same type or length of pipe.

These pipes are exceptional because no complete examples bridging the gap between the 18th-century London Type 25 and early 19th-century forms had been recovered previously. The 18th-century forms had much thicker, straight stems that normally seem to have ranged from around 300mm to 390mm in length. The Tower finds have stem lengths towards the upper end of this range but are markedly different in form. Their bowls and stems are much thinner and, in particular, the stems of both examples are curved. This provides the earliest firm evidence for pipes with curved stems and suggests that this feature was adopted as part of a package, together with the new bowl form and thinner stem. Only five complete early 19th-century pipes are recorded nationally and these have stems with lengths of around 350mm to 450mm. The Tower examples clearly fit into a pattern of pipe development for everyday pipes being used in this country. They are towards the upper stem length range for the earlier pipes but towards the lower end of the range for later pipes. As such, they form part of a steady trend towards increasing average stem length that can be traced back to the late 16th century. Perhaps more importantly, they appear to mark the point at which the traditional straight stem, which had been current for two centuries, was replaced by the curved stem that became the standard form for all later long-stemmed pipes.

MANUFACTURING AND FINISHING TECHNIQUES

There are a few points to note with regard to the manufacturing and finishing of these pipes, the most significant of which concerns the form of the complete pipes and their handling in the workshop when freshly moulded. The complete pipe of c1660– 80 is a heel form and many of the early papers on pipes, suggest that the spur or heel was used to stand the pipe so as to prevent the hot bowl from burning furniture. This suggestion, however, is not borne out by early paintings, which invariably show pipes either being held while smoked or lying on one side when not in use. Furthermore, the complete pipe from the Tower, despite having a low, flat heel, will not stand upright unsupported. This characteristic has been noted amongst other complete early pipes and clearly demonstrates that these objects were never intended to be stood in this way.

The other point of note regarding the 1660–80 pipe is that the stem is slightly uneven, curving slightly to the right when held as smoked. Such warping can arise either during the drying of the pipe or as it is fired. As already noted, this pipe will not stand

upright unsupported and, if it is held this way, the stem makes contact with a flat surface only at the very tip. The same applies if the pipe is laid on its right-hand side (as smoked). On its left-hand side the pipe lies fairly comfortably, with most of the stem, but not the tip, in contact with a flat surface. The best contact, however, is made with the bowl hanging upside down over the edge of a flat surface. In this position the pipe sits slightly to one side but with nearly the full length of the stem in contact with the surface. This suggests that, after moulding, the pipe was most probably laid inverted on a flat surface with its bowl hanging over the edge. There is a small nick in the clay at the top of the bowl/stem junction which may have been caused by laying the soft pipe over such an edge. In the same way, the two complete pipes of c1770-1820 will not lie 'comfortably' on either side and must have been laid upright or inverted on some type of former to produce the stem curve after moulding. One of these also has a small indentation at the bowl/stem junction.

Detailed probate inventories and other records of pipemakers' tools dating from the 17th century onwards often include 'grates' amongst the equipment. Peacey (1995) has identified these as wooden frames, the later examples of which had angled slats arranged in an arc so as to produce a curved stem. These appear to have been made to take standard lengths of pipe-for example, 10, 12, 15, 18 or 24 inches—and an example survives amongst the Pollock collection of pipemaking equipment in the Museum of Science and Industry in Manchester. The physical evidence from the Tower suggests that, from at least the 1680s, the standard manufacturing process in England involved laying the pipes in an inverted position on drying grates. This contrasts with the Dutch system, where pipes were placed upright in specially shaped wooden trays to dry.

Other evidence of manufacturing processes provided by the Tower finds relates to the polishing or burnishing of the pipe surface while in a leather-hard state. Only six bowls and two stems were burnished, ranging in date from c1610 to 1710. Burnishing virtually died out in London after c1710 and was never particularly common before that. The small numbers of burnished pipe fragments recovered simply reflect the paucity of earlier material from these excavations and they are insufficient to draw any meaningful conclusions. It is worth noting, however, that three of the six bowls also had stamped marks on them (Nos 2-4). The John Hunt pipe has a poor burnish but the other two are finely finished and all three would have been more expensive than ordinary pipes.

Internal bowl marks were confined to the Type 25 bowls, 17 out of 106 of which (16 per cent) exhibited them. These were all in relief and provided the following examples (as viewed from above with the bowl facing away from the smoker): one with a single horizontal bar; two with a single vertical bar; one with an eight-arm star (bowl marked IM); one with a diagonal line with two bars across it (marked ?RR); two with a cross arranged as an '×' (one marked with crowned harps); and ten with a cross arranged as a '+' (one marked ?AG, one marked ER, one marked RW and two with a crowned WM mark). About half of the examples with internal bowl marks (8 out of 17) were also maker-marked. This is the same proportion of marked examples as found amongst all Type 25 bowls and shows that there was no correlation between the use of internal bowl marks and the moulded makers' marks.

No detailed information with regard to heel trimming was collected, although it was noted in passing that the majority of the Type 27 bowls did not have trimmed heels. The use of trimming was almost universal on all heel pipes before the end of the 18th century. The introduction of the new Type 27 bowl from the 1770s may have been associated with this change in finishing technique. At the same time the introduction of mould-decorated seams ended the necessity for trimming this part of the pipe. There is some documented opposition from the pipe-trimmers at about this time, worried about job losses as a result of these less labour-intensive finishing methods.

ACKNOWLEDGEMENT

I am grateful to Peter Hammond of Nottingham for access to his provisional list of post-1750 London pipemakers from his current research (1999).

SUMMARY

The pipes from the 1995–7 Tower Excavations provide a good sample of London pipes, especially for the period from c1670-1845. The combination of soft silts and tightly documented historical events has produced a well preserved and closely datable body of evidence. This has provided much new information about the production and changing styles of pipes in London as well as shedding light on their supply and use at the Tower. The nineteenth century groups are particularly valuable since good excavated deposits of this date are extremely rare in London. The recovery of three complete pipes has filled gaps in the evolution of stem lengths as well as suggesting a date for the introduction of curved stems. Two new bowl forms that should be added to the London typology have been identified, as has a new variant of the Prince of Wales feathers motif. An analysis of the bowl form and mark data has shown the relative frequencies with which these attributes occur and has shown that, during the eighteenth century, some 6.5% of the Tower pipes had armorial decoration. The use of internal bowl marks has been shown to be unconnected with the use of moulded makers' marks but it has been shown that there is a significant correlation between bowl form and the use of marks. In this respect the mark can be seen to be an integral element of a pipe's design and style.

CATALOGUE OF ILLUSTRATED PIPES

The illustrated pipes are described below. Where die types have been identified in the National Clay Tobacco Pipe Stamp Catalogue being compiled by the author the unique die number is quoted (eg, Die No 1786). Makers have been identified with reference to Oswald's 1975 list and the draft list provided by Hammond (1999). Pipes 1–49 are at 1:1 with the stamp details for Nos 1–12 at 2:1. The complete pipes, Nos 50–52, are shown at a reduced scale.

- 1 Bowl of c1630-1660 with an incuse-stamped 'sun' mark on the heel (Die No 1786). Not milled but a plain groove all around the rim. Stem bore 8/64''. TOL 17C 96 2632.
- 2 Bowl of *c*1660–1680 with the relief-stamped mark WW on the heel. Neat bulbous heel form—not closely matched in London typology—with a finely burnished surface. Stem bore 8/64". TOL 17D 97 8079.
- 3 West Country style bowl of *c*1660–1690 with the incuse-stamped mark IOHN HVNT on the heel (Die No 1790). John Hunt probably worked in the Bristol/Bath area. There is a poor burnish on the bowl but the stem does not appear to have been burnished. The rim is bottered and the stem bore is 6/64". TOL 99 4.
- 4 Bowl of c1680–1710 with the relief-stamped mark IB on both the bowl and heel (Die No 1787). The bowl is finely burnished, it has an internally trimmed, bottered and fully milled rim and the stem bore is 6/64''. TOL 17E 96 3193.
- 5 Bowl of c1680–1710 with the relief-stamped mark WB on the bowl facing the smoker (Die No 1788). The rim is bottered but was probably not milled (a small section is chipped away) the stem bore is 6/64''. TOL 17E 96 3133. There is another example made in the same mould and marked with the same die from TOL 17E 96 3193, which also has a stem bore of 6/64''.
- 6 Bowl of c1730-1770 with the moulded initials ER on heel and an incuse-stamped ER mark on the bowl (Die No 1789). The rim is cut and wiped rim; stem bore 4/64''. TOL 17E 96 3193.
- 7 Bowl of *c*1780–1820 with the moulded initials IJ on the heel and an incuse stamp reading 'JONES' on the bowl (Die No 1757). A John James is recorded at Bow in 1794 and Mile End New Town in 1799 and a James Jones is recorded at 11 Whutecross St, St Lukes in 1799 and at 56 Featherstone St, St Lukes from 1802–39. Stem bore 4/64". A James Jones is also recorded at Toppings Wharf, Tooley Street, Borough in 1832. TOL 17E 97 U/S.
- 8 Bowl of *c*1805–1865 with the moulded initials IF on the heel and an incuse stamp reading 'FORD' on the bowl (Die No 1758). Probably John Ford of Stepney, working 1805–65. Stem bore 4/64". TOL 17D 96 2859.
- 9 Bowl of *c*1820–1840 with the initials IF moulded on spur and 'FORD/STEPNEY' as an incuse

stamp on the bowl (Die No 1759). John Ford of Stepney is recorded from 1805–65. See also No. 40. Stem bore 4/64''. TOL 17E 97 3130.

- 10 Bowl of *c*1820–1840 with the relief-moulded initials TS on the spur and the London Arms incuse-stamped on the bowl (similar to Die Number 1269). Most likely Thomas Henry Scourfield, Whitechapel Rd, 1805–39 or, possibly, Thomas Shipway, Bermondsey, 1832–68 (see also No. 39). Stem bore 4/64". TOL 17E 97 U/S (SF 215).
- 11 Bowl of *c*1830–1850 with the relief-moulded initials RO on the spur and the incuse-stamped 'OSBORNE & Co, LONDON' on the bowl (Die No 1756). Robert Osborne is listed in directories at 19 Webb Square, Shoreditch in 1836 and in Bethnal Green Road from 1840–45. A William Thomas Osborne was trading as 'Osborne & Co' as late as 1913. Stem bore 4/64". TOL 17 95 619.
- 12 Bowl of *c*1820–1840 with the incuse–stamped mark 'BALME/MILE/END' on the bowl facing the smoker (Die No 1755). There were various Balmes working at Mile End during the nineteenth-century. Stem bore 3/64". TOL 17F* 97 7403.
- 13 Bowl of *c*1730–1780 with the relief-moulded mark WM (crowned) on the sides of the heel and the Hanovarian Arms on the bowl. Made by William Manby of Limehouse, who is recorded from 1719–1763. Stem bore 4/64". TOL 17C 96 2511.
- 14 Bowl of *c*1740–1780 with the relief-moulded mark NA (or possibly HA) on the sides of the heel with the Hanovarian Arms and Prince of Wales Feathers on the bowl. Christian initial N has a bar cut over it in the mould, possibly intended to change it to an H. There are no currently documented London makers with either the initials HA or NA. Stem bore 4/64". TOL 17D 96 2875.
- 15 Bowl of *c*1740–1780 depicting the Prince of Wales Feathers. This is a composite drawing made from two identical examples recovered from TOL 17C 96 2541 and TOL 17 95 715. The stem bores of both examples are 4/64".
- 16 Bowl of c1740-1770 depicting the Prince of Wales Feathers. The base is badly damaged but appears to have been an unmarked heel form. Stem bore 6/64''. TOL 17C 96 U/S.
- 17 Bowl of *c*1740–1790 depicting the Prince of Wales Feathers and with a pattern of dots on either side of the heel. Stem bore 5/64". TOL 17F* 97 7109.
- 18 Bowl of *c*1800–1840 with the relief-moulded initials GB on the spur and BIRCHALL/CHATHAM moulded around the rim. Stem bore 4/64". TOL 17E 97 3129 (SF 220).
- 19 Bowl of c1780-1820 with the relief-moulded mark WR on the sides of the heel. The surname initial appears to have been altered in mould and it was possibly an H originally. Stem bore 4/64''. TOL 96 23.

- 20 Bowl of *c*1820–1840 with the relief-moulded initials JR on the heel and RUSS[ELL]/ [WA]PPING on the stem. John Russell is recorded at 24 Green Bank, Wapping, from 1822–32. Stem bore 4/64". TOL 17E 96 3008.
- 21 Bowl of *c*1820–1850 with the relief-moulded mark JS on the sides of the heel and SMIT[H]/ [WA]PPING on the stem. A John Smith is recorded at Wapping from 1844–62. Stem bore 4/64". TOL 17E 96 U/S (SF 218).
- 22 Bowl of *c*1810–1840 with the relief-moulded mark TD on the sides of the heel and fox and grapes decoration on the bowl. Probably either Thomas Davis, Westminster 1827/8 or Thomas Duggan, Smithfield, 1805–32. Stem bore 4/64". TOL 17E 96 3007.
- 23 Bowl of *c*1810–1840 with the relief-moulded mark IE on the sides of the heel and fox and grapes decoration on the bowl. Probably John Edwards of Wapping and Aldgate, 1784–1812. Stem bore 4/64". TOL 17F 96 4107.
- 24 Bowl of *c*1810–1840 with the relief-moulded mark HC on the sides of the heel and fox and grapes decoration on the bowl. The initials appear to have been altered in the mould with the original surname perhaps being an E. Possibly either Hannah Clark, 1835–5 or Henry Cox, 1837–50, both of High Holborn. Stem bore 4/64". TOL 17E 97 U/S.
- 25 Stem fragment of *c*1840–1880 with the reliefmoulded mark I.ELLIOTT [L]AMBETH WLK among the stem. A pipemaker called C. J. Elliott was recorded at Tyler St, Lambeth from 1857–71. Stem bore 4/64". TOL 17F* 97 7407.
- 26 Scalloped bowl of c1780-1820 with the reliefmoulded mark IW on the sides of the heel. The surname initial W is unusual in that it has been moulded sideways on heel. There were several makers with these initials during this period. Enclosed flutes and dots on bowl with foliage decoration along the stem. Stem bore 4/64''. TOL 96 20.
- 27 Fluted bowl of *c*1790–1830 with relief-moulded stars on the sides of the heel. Another example made from the same mould as this one was found in the same context but with the stars deleted from mould. Both examples have stem bores of 4/64". TOL 17E 96 3007.
- 28 Fluted bowl of *c*1780–1820 with the reliefmoulded mark WS on the sides of the heel. There were several makers with these initials during this period. Stem bore 4/64". TOL 96 23. See No. 49 for another WS pipe. There is also a bowl from TOL 96 3133 with the same profile and decoration as No. 28 but with the initials IF on the heel (not illustrated). The form and style of decoration of these two examples is so similar that they were probably designed by the same mould-maker.
- 29 Fluted bowl of *c*1820–1840 with the reliefmoulded mark TF on the sides of the spur.

Probably made by one of the Thomas Fords, working between 1835 and 1890. Stem bore 4/64". TOL 17E 97 3128.

- 30 Bowl of c1780-1830 with the relief-moulded mark IM on the sides of the heel. There are 13 flutes on each side of bowl but none on the mould seams themselves. There were several makers with these initials during this period. Stem bore 5/64''. TOL 17F 96 3801.
- 31 Fluted bowl of *c*1820–1850 with the reliefmoulded stars on either side of heel and 'T.WOOTTEN.No 12/PARK STREET BORO' on the stem. Thomas Wootten was recorded at this address from 1822–48. See also Nos 32–34. Stem bore 4/64". TOL 17F 96 3811.
- 32 Fluted bowl of *c*1790–1840 with the reliefmoulded mark TW on the sides of the heel, possibly for Thomas Wootten (see Nos 31, 33 and 34). Stem bore 4/64". TOL 17E 96 3165.
- 33 Stem fragment of *c*1810–1840 with the reliefmoulded mark /O.12?/ /PAR/ along the stem. This is almost certainly part of a mark reading 'T WOOTTEN No 12 / PARK STREET BORO' (*cf* No. 31). Stem bore 4/64". TOL 17E 96 3109.
- 34 Fluted bowl of c1820–1850 with relief-moulded stars on heel and 'T.WOOTTEN/[PARKS]TREET BORO' on the stem. Thomas Wootten was recorded at this address from 1822–48 (see also Nos 31–33). Stem bore 5/64". TOL 17E 96 3008.
- 35 Fluted bowl of *c*1810–1850 with the reliefmoulded mark JC on the sides of the heel. There were several makers with these initials during this period. Stem bore 4/64". TOL 17E 96 3109.
- 36 Stem fragment *c*1820–1860 decorated with leaves and stars. Stem bore 4/64". TOL 17 95 706.
- 37 Bowl of *c*1800–1840 with the relief-moulded mark TF on heel and 'T.FORD.CANNON/ STREET.LONDON' moulded along stem. Thomas Ford is recorded at 41 Cannon Street Road from 1835–40. Stem bore 4/64". TOL 17E 97 3164 (SF 210) with an identical example from TOL 96 3133.
- 38 Bowl of c1780-1820 with the relief-moulded stars on the sides of the heel. There are faint striations on bowl sides as if mould has been altered to remove flutes. Stem bore 4/64''. TOL 17E 97 3128.
- 39 Two joining bowl of c1820–1860 with the reliefmoulded mark TS on the sides of the spur. See No. 10 for possible makers. Stem bore 4/64". TOL 17F* 97 7109.
- 40 Bowl of *c*1820–1860 with the relief-moulded mark IF on the sides of the spur. Stem bore 4/64". Possibly John Ford of Stepney, who is recorded from 1805–65 (see No. 9), although there were several other makers with these initials during this period. TOL 17F* 97 7109.
- 41 Bowl of *c*1840–1880 with the relief-moulded mark WW on the sides of the heel. There were several makers with these initials during this period. Stem bore 3/64". TOL 17F* 97 7109.

- 42 Bowl of *c*1840–1880 with relief-moulded shields on the sides of the heel. Stem bore 4/64". TOL 17F* 97 7109.
- 43 Decorated bowl of *c*1840–1880 with the reliefmoulded mark WB on the sides of the heel. There were several makers with these initials during this period. Stem bore 4/64". TOL 17F* 97 7109.
- 44 Two fitting fragmants from a small heel bowl of c1840-1880 with an unusual bird mark moulded on either side of the heel. Stem bore 4/64''. TOL 96 8.
- 45 Unusual nineteenth-century pipe bowl made of white clay but with a red surface finish—possibly a southern European import, perhaps southern France or Italy. There are various decorative elements on the bowl, including a raised band with three lion masks on either side of the bowl and a foliage motif on each seam. The pipe has been made in a two piece mould and it has a cut rim. Stem bore 4/64". TOL 17F 96 U/S (SF 52).
- 46 This bowl form occurs regularly in London but is not included in the London Typology (Atkinson & Oswald 1969). The form can be dated to c1660-90 and this example is particularly important since it was recovered from the construction trench for a new revetment wall of c1670-1683, which provides firm support for the suggested date range. The rim is bottered and three-quarters milled. Stem bore 6/64''. TOL 17A 96 2226.
- 47 Bowl of c1660-80 with a joining stem and mouthpiece fragment that make up a complete pipe with a stem length of 275mm (No. 50). Rim bottered and half-milled; mouthpiece simply formed by a cut end. Stem bore 6/64''. TOL 17D 96 2851.
- 48 Bowl of c1770-1800 with the relief-moulded mark IB on the sides of the heel. There were several makers with these initials during this period. Fitting fragments making up a complete pipe with a curved stem of 357mm in length (No. 51). Cut mouthpiece; stem bore 4/64''. TOL 17E 96 3128 (SF 82).
- 49 Bowl of *c*1780–1820 with the relief-moulded mark WS on the sides of the heel. Joining fragments making up a complete pipe with a curved stem of 364mm in length (No. 52). Cut mouthpiece; stem bore 4/64". There were several makers with these initials during this period. TOL 17E 97 3131. See also No. 28.
- 50 Complete pipe of *c*1660–80 with a stem length of 275mm. See No. 47 for detail of bowl. TOL 17D 96 2851.
- 51 Complete pipe of c1770-1800 with the reliefmoulded mark IB on the sides of the heel and a stem length of 357mm. See No. 48 for bowl detail. Stem bore 4/64''. TOL 17E 96 3128 (SF 82).
- 52 Complete pipe of c1780-1820 with the reliefmoulded mark WS on the sides of the heel and a stem length of 364mm. See No. 49 for bowl detail. Stem bore 4/64''. TOL 17E 97 3131.

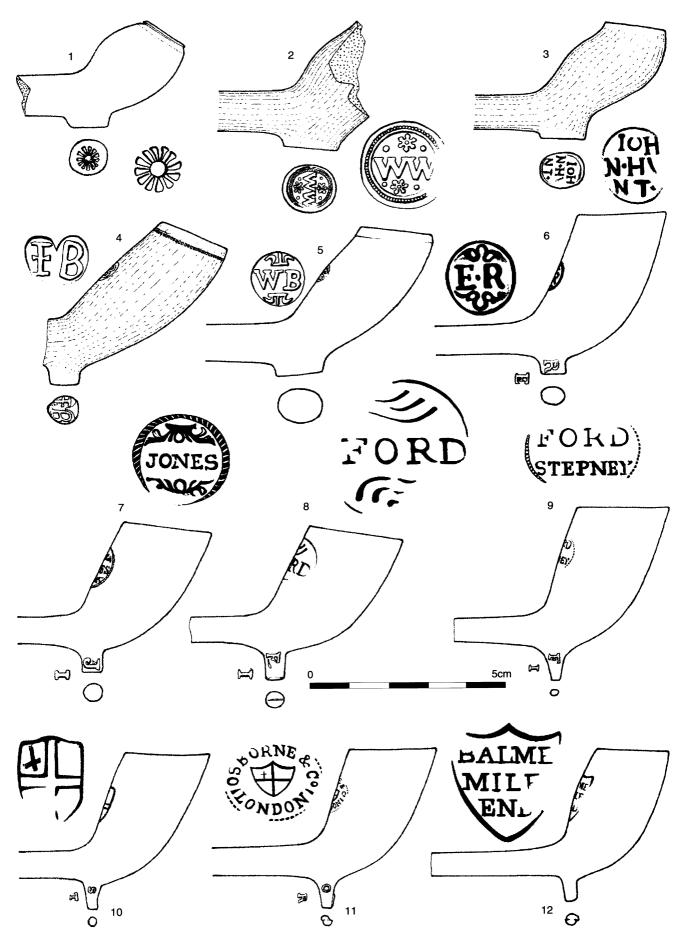


Fig A2.1 Clay pipes Nos 1–12.

Appendix 2

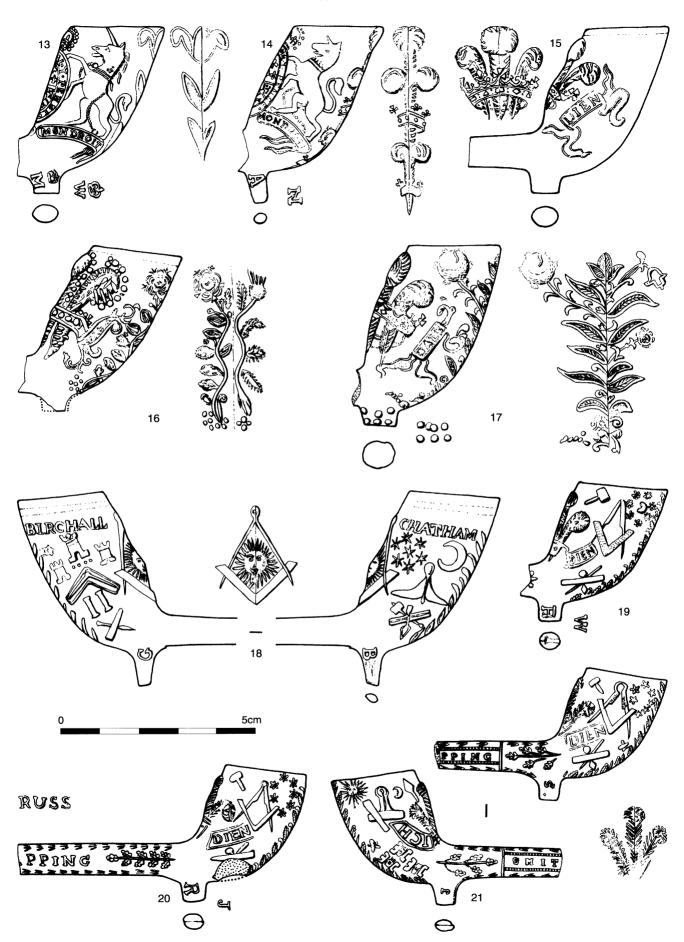


Fig A2.2 Clay pipes Nos 13–21.

The Tower of London Moat

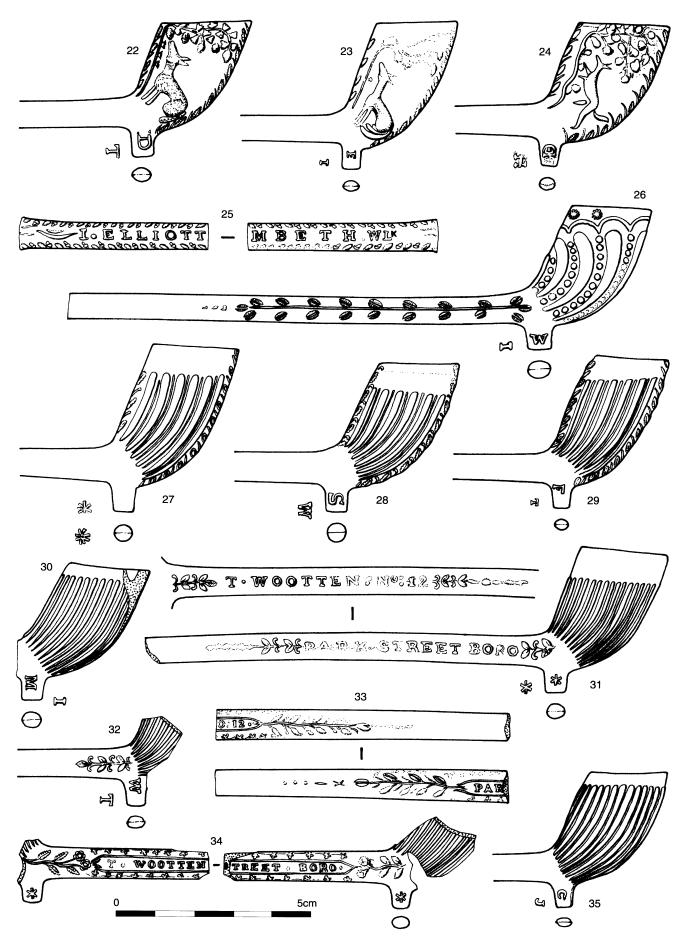


Fig A2.3 Clay pipes Nos 22–35.

Appendix 2

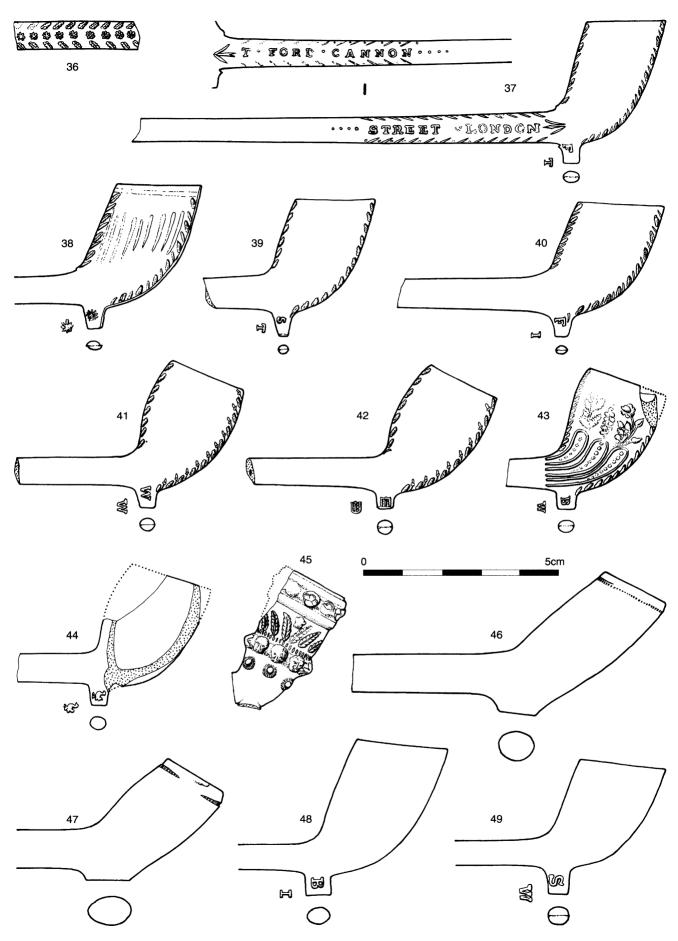


Fig A2.4 Clay pipes Nos 36–49.

The Tower of London Moat

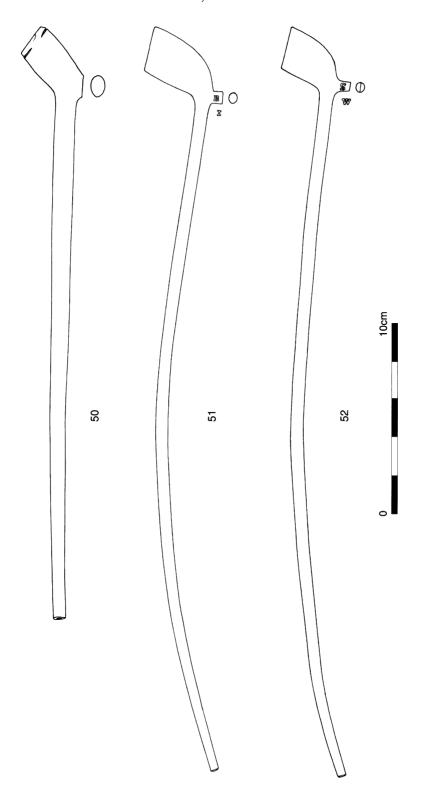


Fig A2.5 Clay pipes, three complete pipes, Nos 50–52.

MARKED AND DECORATED PIPES

Table A2.3 provides an alphabetical list of the pipes with moulded marks, followed by details of any decorated pipes without marks. These pipes have varying combinations of moulded initials on the heel or spur, moulded marks along the stem and stamped marks. To simplify the entries, the information from these three types of mark has been amalgamated in the description. The columns provide the following information: details of the context for each fragment; the number of joining bowl (B), stem (S) and mouthpiece (M) fragments making up each piece; Christian name information (CN); surname information (Surname) and any other details (including a note of crowned initials); the position of the mark(s) (HS = heel sides, SS = spur sides, BF = bowl facing the smoker, BS = bowl sides, SL = mark along the stem sides); the type of mark (T) where I = incuse and R = relief; the method used to make the mark (M) where M = moulded and S = stamped; the main decorative motifs, if any (LDS = Leaf Decorated Seams, POWF = Prince of Wales Feathers); the date of the fragment; and any figure number and comments.

rea	Tr	Yr	Cxt	SF	В	s	Μ	Form	CN	Surname	Other	Р	Т	М	Decoration	Date	Cat No	Comments
7	4	95	419		1			25	A	А	(crowned)	HS	R	М		1700–1750		
′B	14	96	1423		1			25	A?	А		HS	R	Μ		1700–1770		Christian initial
																		damaged, could be an A.
D	27	96	2875		1			26	N/H	A		HS	R	Μ	Royal Arms, POWF, etc	1740–1780	14	Christian initial N had a bar over it, possibly intended to change it to an H.
Έ	30	96	3005		1			27v	W	A		HS	R	Μ	LDS, flutes	1800–1840		Damaged bowl Very fine flutes and poorly formed leaves.
Έ	31	96	3133		1			22	М	A/H?		HS	R	М		1680–1710		Very faint initials, especially the surname which is very unclear.
7F*	73	97	7323		1			-	Н	В		HS	R	М		1760–1800		Probably Henry Blundell, recorded at Borough 1745–64.
Έ	31	96	3128	82	1	3	1	27v	Ι	В		HS	R	М		1770–1800	48/51	Fitting fragments making up a complete, straight-stemmed pipe.
7E	31	96	3193		1			20	Ι	В		H/BF	R	S		1680–1710	4	Bowl with an identical IB stamp on both the bowl and heel.
7E	30	96	3007		1			27v	S	В		HS	R	М	LDS	1800–1840		
7E		97	u/s		1			27v	S	В		HS	R	Μ	LDS	1780–1820		
E	31	96	3133		1			21v	W	В		BF	R	S		1680–1710	5	
7E	31	96	3193		1			21v	W	В		BF	R	S		1680–1710		
F*	71	97	7109		1			29v	W	B		HS	R		LDS, flutes, foliage, etc	1840–1880	43	
7C	25	96	2534		1			25	I?	B?		HS	R	Μ		1700–1740		
7	6	95	619		1			26	W?	B?		SS	R	М	Royal Arms	1740–1780		Damaged bowl with very faint and damaged initials, possibly WB.
7F*	74	97	7403		1			28v		Balme	Mile End	BF	Ι	S		1820–1840	12	Bowl with incuse stamped, shield-shaped mark reading BALME/ MILE/END. Various Balmes' at Mile End in C19th.

17E	31	97	3129	220	1	28v	G	Birchall	Chatham	SS/BS	R	М	LDS, masonic	1800–1840	18	Initials GB moulded on spur with BIRCHALL/ CHATHAM moulded around the rim. Previously unrecorded
17E		97	u/s		1	27	н	С		HS	R	М	Fox and grapes	1810–1840	24	maker. Initials appear to have been altered in the mould. The original surname was perhaps an E.
	3	96	20		1	28	J	С		SS	R	М	LDS	1810-1840		1 1
17E	31	96	3109		1	27v	J	С		HS	R	Μ	Flutes	1810-1850	35	
17F*	71	97	7102		1	28/29	J	С		SS	R	М	LDS	1830–1890		
17F*	71	97	7109		1	28/29	J	С		HS	R	Μ	LDS	1820–1880		
	78	98	8517		1	28v	J	С		SS	R	М		1820-1840		
17F*	74	97	7401		1	28	Т	С		SS	R	Μ	LDS	1820–1840		
17E	30	96	3005		1	28v	Н	D		SS	R	М	LDS (front seam only)	1810–1850		
17F	37	96	3703		1	25	Ι	D		HS	R	М		1700–1770		The Christian name initial is formed as a capital I but it also has a dot above it.
17E	31	97	3130		1	27	L	D		HS	R	М		1780-1820		
17E	30	96	3007		1	27v	Т	D		HS	R	М	LDS, fox and grapes	1810–1840	22	
17F	41	96	4107		1	27v	I	Е		HS	R	М	Fox and grapes	1810-1820	23	
17E	31	97	3109		1	27/28	W	E?		HS	R	М		1800–1840		Surname initial unclear-possibly E but could also be D, B or F.
17F*	74	97	7407			1 -	Ι	Elliott	[L]ambeth	SL	R	Μ	LDS	1840–1880	25	Stem fragment with moulded lettering reading I.ELLIOTT/[L]AMBETH.WLK? C J Elliott recorded at Tyler St, Lambeth, 1857–71.
17E	30	96	3073		1	27v	Ι	F		HS	R	М	Fox and grapes	1800–1840		
17E	31	96	3133		1	27v	Ι	F		HS	R	Μ	LDS	1780-1830		
17E	31	96	3133		1	27v	I	F		HS	R	М	LDS, flutes	1780-1830		
17F*	71	97	7109		1	28v	Ι	F		SS	R	М	LDS	1820–1860	40	
17F*	71	97	7109		1	29v	Ι	F		HS	R	М	LDS	1840-1880		
17E	31	97	u/s		1	28	Ι	F		SS	R	М	LDS	1820-1860		
17E		97	u/s		1	27v	Ι	F		HS	R	М	LDS	1800-1840		

Area	Tr	Yr	Cxt	SF	В	S	Μ	Form	CN	Surname	Other	Р	Т	М	Decoration	Date	Cat No	Comments
17E	31	96	3108		1			28v	Т	F		SS	R	М	LDS	1810–1850		
17E	31	97	3128		1			28v	Т	F		SS	R	Μ	LDS, flutes	1820–1840	29	
17F*	71	97	7116		1			27/28	T?	F		HS	R	М	LDS, flutes	1780–1830		Alternating thick and thin flutes.
17E	30	96	3005		1			27/28	Ι	F?		HS	R	М	LDS	1810–1850		Surname initial unclear could be H, R, P or F.
17F*	71	97	7116		1			27v	I	F?		HS	R	М		1780–1820		
17D	27	96	2859		1			27	Ι	Ford		HS/BF	R/I	M/S		1805–1865	8	Heel with moulded initials IF; bowl with incuse stamp reading FORD
17E	31	97	3130		1			28	Ι	Ford	Stepney	SS/BF	R/I	M/S		1820–1840	9	Initials IF moulded on spur with FORD/ STEPNEY stamped on bowl.
17E	31	96	3133		1			27/28v	Τ	Ford	Cannon St	HS/SL	R	Μ	LDS	1835–1853		Heel marked TF, stem marked T.FORD.CANNON/STREET.LONDON Thomas Ford recorded at Cannon St Rd 1835–53.
17E	31	97	3164	210	1			27/28	Т	Ford	Cannon St	HS/SL	R	Μ	LDS and stem dec	1800–1840	37	TF moulded on heel and T.FORD. CANNON/STREET. LONDON moulded along stem.
17D	27	96	2766		1			25	A?	G		HS	R	Μ		1700–1770		
17B	14	96	1407		1			22	М	G		HS	R	Μ		1680–1710		Damaged bowl.
17E	31	96	3193		1			22	М	G		HS	R	Μ		1680–1710		-
17E	31	96	3129		1			25/27	W	G		HS	R	М		1760–1800		Different mould to the example from Context 3132.
17E	31	96	3192		1			25/27	W	G	(crowned)	HS	R	М		1760–1800		One of two bowls from the same mould in this context.
17E	31	96	3192		1			25/27	W	G	(crowned)	HS	R	М		1760–1800		One of two bowls from the same mould in this context.

17E	31	97	31147	217	1	22v	W	G	HS	R	М		1680–1710		Probably made by William Goulding of Stepney, recorded in 1712.
	3	96	20		1	27v	I	Н	HS	R	М	LDS	1800–1830		
17C	25	96	2602		1		I	Н	HS	R	Μ	LDS	1810–1850		
17E	31	97	3109		1	27	I	Н	HS	R	M	200	1780–1820		
17E	31	96	3128		1	25/27	I	Н	HS	R	Μ		1760–1800		
17F	36	96	3620		1	28	Ĵ	Н	HS	R	Μ		1820–1840		
17E	31	96	3166		1	27	I	Hedges	HS/BF		M/S		1780–1820		Heel with moulded
	01		0,000		-		-	0	,	, -	, -				mark IH, bowl stamped
															HEDGES. John Hedges
															recorded at North St,
															Pentonville, 1817–1819.
	80	99	4		1	17v	IOHN	HVNT	Н	I	S		1660–1690	3	West Country style bowl
															impressed with a mark
															reading IOHN/HVNT.
															John Hunt probably
															worked in the
															Bristol/Bath area.
17E	31	96	3133		1	27v	Ι	Ι	HS	R	Μ		1780–1810		
17	1	95	u/s		1	27	Ι	I	HS	R	М		1780–1820		Dot moulded to right of
															Christian name initial.
17F*	71	97	7109		1	29v	В	J	HS	R	Μ	LDS	1840-1880		Attributed to Benjamin
															Jacobs, recorded at
															Portman Place, Mile
															End 1862–4 and Clark
															St, Commercial Rd E.,
															1874–85.
17E		97	u/s		1	27	Ι	Jones	HS/BI	F R/I	M/S		1780–1820	7	Heel with moulded
															initials IJ, bowl with
															incuse stamp reading
															JONES.
17E	31	97	3132		1	27	М	K	HS	R	Μ		1780–1820		A Michael Keens is
															recorded at 15 York
															Place, Limehouse Fields,
							-								in 1836.
17C	25	96	2601		2	25	I	K?	HS	R	М		1700–1770		Two fitting fragments-
															surname initial
-															damaged.

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Area	Tr	Yr	Cxt	SF	В	S	М	Form	CN	Surname	Other	Р	Т	М	Decoration	Date	Cat No	Comments
7F*	73	97	7310		1			28	В	Leach		SS/BE	R/I	M/S		1830–1850		Spur with moulded mark BL, bowl stamper B.LEACH. Benjamin Leach recorded at Whitechapel Road
7	7	95	715		1			25	-	Μ		HS	R	Μ		1700–1770		1840–47. Damaged heel so uncertain if initials are crowned or not; Christian initial could possibly be R or M.
7C	25	96	2633		1			22	-	М		HS	R	М		1680–1710		Damaged heel with Christian initial missin
7	6	95	625		1			25	I	М	(crowned)	HS	R	М		1700–1770		
17E	31	96	3193		1			25	I	М	(,	HS	R	М		1700–1750		One of two IM pipes from different moulds in this context.
7E	31	96	3193		1			25	Ι	М		HS	R	М		1700–1750		One of two IM pipes from different moulds in this context.
7F	38	96	3801		1			27	Ι	М		HS	R	М	Flutes	1780–1830	30	13 flutes on each side bowl; none on mould seams.
17E	31	96	3133		1			25	R	Μ		HS	R	М		1700-1770		
7F	69	96	6915		1			25	R	М		HS	R	М		1700–1770		
7	5	95	501		1			22	R?	М	(crowned)	HS	R	М		1680–1710		
17	7	95	708		1			25	W	Μ	(crowned)	HS	R	М		1700–1770		
17	7	95	708		1			25	W	Μ	(crowned)	HS	R	М		1700–1770		
17	7	95	708		1			25	W	Μ	(crowned)	HS	R	М		1700–1770		
17	7	95	715		1			21	W	М	(crowned)	HS	R	М		1680–1710		Christian initial partia missing but almost certainly a W.
17	7	95	715		1			25	W	М	(crowned)	HS	R	М		1700–1770		
17	7	95	719		1			22	W	М		HS	R	М		1680–1710		
17	7	95	719		1			22	W	М		HS	R	М		1680–1710		
17B	14	96	1409		1			22	W	М	(crowned)	HS	R	Μ		1680–1710		
17C	25	96	2511		1			25	W	М	(crowned)	HS	R	М	Royal Arms	1730–1780	13	Complete Armorial bowl.
17C	25	96	2541		1			22	W	М	(crowned)	HS	R	М		1680–1710		
17C	25	96	2631		1			22	W	М	(crowned)	HS	R	Μ		1680–1710		

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17C	25	96	2631	1	22	W	М		HS	R	М	1680–1710		
17C	25	96	2631	1	25	W	М	(crowned)	HS	R	М	1700–1770		
17D	27	96	2849	1	25	W	Μ	(crowned)	HS	R	М	1700–1770		WM mark with device above—possibly intended as a crest or fleur-de-lys rather than a
17D	27	96	2859	1	25/27	W	М		HS	R	М	1760–1800		crown. Very thin bowl and stem.
17E	31	96	3193	1	25	W	М	(crowned)	HS	R	М	1700–1770		
17F	53	96	5314	1	25	W	Μ	(crowned)	HS	R	Μ	1700–1770		Different mould from another crowned WM pipe found in the same context.
17F	53	96	5314	1	25	W	Μ	(crowned)	HS	R	М	1700–1770		Different mould from another crowned WM pipe found in the same context.
17F	56	96	5606	1	27	W	М		HS	R	М	1780-1820		
17	7	95	715	1	25	R	M?		HS	R	М	1700-1770		Thick bowl form.
17E	31	96	3109	1	28	R	0		SS	R	Μ	1810-1840		
17	6	95	619	1	28	R	Osborne	& Co London	SS/BF	R/I	M/S	1830–1850	11	Spur with moulded mark RO; bowl with stamped mark OSBORNE & Co, LONDON
17C	25	96	2511	1	25	Т	Р		HS	R	М	1700-1770		
17D	27	96	2850	1	25	W	P		HS	R	М	1700–1770		
17H	83	97	8366	1	25v	W	P		HS	R	M	1690–1740		
17C	25	96	2603	1	25	E	R		HS	R	M	1700–1770		
17E	31	96	3128	1	26 25	Ē	R		HS	R	M	1700–1770		
17E	31	96	3193	1	25	E	R		HS/BF	R/I	M/S	1730–1770	6	Moulded initials ER on heel, stamped mark ER on bowl.
17F	59	96	5900	1	25	Е	R		HS	R	М	1700-1770		
17F	68	96	6824	1	25	Е	R		HS	R	М	1700-1770		
17H	83	97	8371	1	25	M	R	(crowned)	HS	R	М	1700–1750		Possibly Mary Robins, recorded in 1686.
17B	14	96	1409	1	25	R	R		HS	R	М	1700-1750		
17B	14	96	1409	1	25	R?	R		HS	R	М	1700-1770		
17E	31	96	3128	1	25/27	Т	R		HS	R	М	1760-1800		
17E	31	96	3133	1	25/27	T	R		HS	R	M	1760–1800		One of three examples from the same mould in this context.

Area	Tr	Yr	Cxt	SF	В	S	М	Form	CN	Surname	Other	Р	Т	М	Decoration	Date	Cat No	Comments
17E	31	96	3133		1			25/27	T	R		HS	R	М		1760–1800		One of three examples from the same mould in this context.
17E	31	96	3133		1			25/27	Т	R		HS	R	М		1760–1800		One of three examples from the same mould in this context.
17H	81	97	8120		1			25	Т	R		HS	R	М		1700–1770		
	3	96	23		1			27	W	R		HS	R	Μ	LDS, POWF, masonic	1780–1820	19	Surname initial appears to have been altered in mould, possibly H originally.
17E	31	96	3128		1			27	W	R		HS	R	М		1780-1820		0 ,
17E	31	96	3193		1			27	W	R		HS	R	М		1770-1820		
17E	30	96	3008		1			27v	J	Russ[ell]	[Wa]pping	HS/SL	R	Μ	LDS, POWF, masonic	1820–1840	20	Heel initials JR, moulded stem mark RUSS//PPING for John Russell, recorded at 24 Green Bank, Wapping, 1822–32.
17	7	95	u/s		1			25	А	S	(crowned)	HS	R	М		1700–1770		······································
17F*	73	97	7309		1			27/28	Ι	S	(I over W)	HS	R	Μ		1800–1850		Christian name initial I appears to have been engraved over a deleted W, suggesting mark was originally W
17A	15	96	u/s		1			25	Ι	S		HS	R	М		1700–1770		
17F*	71	97	7109		2			28	Т	S		SS	R	М	LDS	1820–1860	39	Two joining bowl fragments.
17E	31	97	u/s	215	1			28	Т	S	London Arms	SS/BF	R/I	M/S		1820–1840	10	Moulded initials TS on spur with London Arm stamped on the bowl.
	3	96	20		1			27	W	S		HS	R	М		1780–1820		
	3	96	23		1			27	W	S		HS	R	Μ	LDS, flutes	1780–1820	28	
17E	31	96	3107		1			27	W	S		HS	R	М		1780–1820		Large, thin-walled bow with altered initials, the surname having been changed to an S cut upright on the heel.
17E	31	97	3131		1		1	27	W	S		HS	R	М		1780–1820	49/52	Joining fragments making up a complete pipe with a curved ster

of 365mm in length.

17E 17 17E	31 3 31	97 95 97	3133 u/s u/s		1 1 1	27v 27 27	W W W	S S S		HS HS HS	R R R	M M M		1780–1820 1780–1820 1780–1820		Another unstratified example marked WS from Trench 31 is from
17E	31	97	u/s		1	27	W	S		HS	R	М		1780–1820		a different mould. Another unstratified example marked WS from Trench 31 is from a different mould.
17E		97	u/s		1	27	W	S		HS	R	М		1780-1820		
17D	27	96	2822		1	26	I/T?	S?		HS	R	М		1740–1790		Unclear initials, first probably I or T, second possibly an S.
17E	30	96	3005		1	28	J	Smith		SS/BF	R/I	M/S		1820–1840		Moulded spur mark JS with stamped bowl mark [S]MITH/G.
17E	31	96	u/s	218	1	27v	J	Smith	Wapping	HS	R	Μ	LDS, POWF, masonic	1820–1850	21	Heel marked JS and stem SMIT[H]/ [WA]PPING. A John Smith is recorded at Wapping from 1844–62.
17F	37	96	u/s			1 –		Smith	Foo[tball pipe]	SL	Ι	М		1880–1920		Stem with moulded mark [S]MITHS/ FOO[TBALL PIPE]. Attributed to Richard Smith.
17E	31	97	3132		1	27v	-	Т		HS	R	М		1780–1820		135mm of curved stem survives, heel damaged.
	3	96	23		1	27	I	Т		HS	R	М		1780-1820		C
17E		97	u/s		1	27/28	Ι	Т		HS	R	М		1780–1830		Pipe mould rim appears to have been raised by c5mm in height at some point.
	3	96	23		1	27	J	Т		HS	R	М		1780-1820		1
17E	30	96	3005		1	28v	W	Т		SS	R	Μ	LDS	1820-1840		
	3	96	20		1	27	I	W		HS	R	Μ	LDS, flutes, foliage	1780–1820	26	Surname W moulded sideways on heel. Enclosed flutes and dots on bowl, complete foliage dec on stem survives.

Appendix 2

Area	Tr	Yr	Cxt	SF	В	S	М	Form	CN	Surname	Other	Р	Т	М	Decoration	Date	Cat No	Comments
.7E	30	96	3066		2			27	I	W	London Arms	HS/BF	R/I	M/S		1780–1820		Two fitting fragments with IW moulded on heel and the London Arms stamped on
-		07	2022		1			25	10	147		HS	R	М		1700–1770		the bowl.
7D	27	96 07	2822		1	1		25	I? D	W		HS	R	M		1770–1770		Bowl and fitting stem
7E	31	96 06	3129		1	1		25/27	P	W		HS	R R	M		1770–1800 1700–1770		bowi and mung sten
7D	27	96	2822		1			25	R	W		HS	R	M		1700–1770 1700–1750		Early Type 25 form.
7	1	95 0 (u/s		1			25	R?	W		HS	R	M		1700–1730 1780–1820		Larry Type 25 torm.
7E	31	96	3166		1			27	S	W			R R	M	Elutes foliogo	1780–1820 1790–1840	32	
7E	31	96	3165		1			27v	Т	W		HS			Flutes, foliage on stem		32	
7E	30	96	3007		1			-	W	W		HS	R	Μ		1810–1850		
7F*	71	97	7109		1			29v	W	W		HS	R	Μ	LDS	1840–1880	41	
7D	27	97	8079		1			-	W	W		Н	R	S		1660–1680	2	Neat bulbous heel form-not closely matched in London typology.
7H	81	97	8133		1			25	W	W	(crowned?)	HS	R	М		1700–1770		Faint initials with so sort of symbol moul above each, possibly crowns.
7D	27	96	2859		1			27/28	*	Williams	London	HS/BF	R/I	M/S	LDS	1820–1850		Moulded star on eith side of heel, incuse stamp reading WILLIAMS LONDC on bowl, leaf seam a from smoker only.
7E	30	96	3008		1			27v	Т	Woott[en]	[Park St]reet Boro	HS/SL	R	Μ	Flutes	1820–1850		Stars on heel, T.WOOTT[EN]/ [PARK ST]REET BORO moulded on stem. Tho Wootten recorded there 1822:
7E	30	96	3008		1			27v	Т	Wootten	[Park S]treet Boro	HS/SL	R	М	Flutes	1820–1850	34	Stars on heel, T.WOOTTEN/ [PARK S]TREET BORO moulded on stem. Tho Wootten

recorded there 1822-48.

17F	38	96	3811	1	2	7	Т	Wootten	No 12 Park Street Boro	HS/SL	R	М	Flutes, foliage on stem	1820–1850	31	Stars on either side of heel and T.WOOTTEN. No 12/PARK STREET BORO on stem. Tho Wootten recorded there
1 7F*	71	97	7109	1	2	8	J	-		SS	R	М	LDS	1820–1850		1822–48. Surname initial damaged.
17	7	95	715	1	2	5	R?	_		HS	R	М		1700–1770		Thick bowl form.
17	7	95	715	3	25	v	R	•		HS	R	М		1750–1790		Three fitting fragments with single dot on RHS of heel.
	80	99	4	1	2	8	*	*		SS	R	М	LDS	1810–1850		Fragmentary bowl with a small star moulded on either side of the spur. Different mould from a similar example in TOL 80 99 12.
	80	99	12	1	28	v	*	*		SS	R	Μ	LDS	1810–1850		Leaf decorated seams and a star moulded on each side of the spur. Different mould from a similar example in TOL 80 99 4.
17E	30	96	3007	1	2	7	*	*		HS	R	М	LDS, flutes	1790–1830	27	Thin heel with stars in deep relief. An example from the same context has had stars deleted from mould.
17E	31	97	3109	1	1 2	7	*	*		HS	R	М	LDS	1780–1820		Two fitting fragments giving 185mm or surviving stem—curved.
17E	31	97	3109	1	2	8	*	*		SS	R	Μ		1820-1840		Ũ
17E	31	97	3128	1	27	v	*	*		HS	R	Μ	LDS and ?flutes	1780–1820	38	Faint striations on bowl sides as if mould altered to remove flutes.
17E	31	96	3133	1	28	v	*	*		SS	R	М	LDS	1820–1850		Poor quality bowl with unclear dot or star on either side of the spur.
17E	31	96	3193	1	2	5	*	*		HS	R	Μ		1700–1750		Moulded spur mark on heel—presumed to have occurred both sides although left hand side chipped away.

Table	A2.3	(CO1	ıtinued)														
Area	Tr	Yr	Cxt	SF	В	S	М	Form	CN	Surname	Other	Р	Т	Μ	Decoration	Date	Cat No	Comments
l7F*	71	97	7106		2			28?	*	*		SS	R	М		1820–1850		Two joining bowl fragments.
17F*	71	97	7109		1			28	*	*		SS	R	Μ	LDS	1820-1840		-
17	5	95	u/s		1			-	*	*		HS	R	Μ	Traces only	1820–1880		Heel with neat star mark—bowl missing but traces of decoration survive.
17	7	95	715		1			25v	•			HS	R	М		1750–1790		Single dot on either sid of heel.
7D	27	96	2823		1			25/27	·			HS	R	М		1760–1800		Moulded dot on each side of heel
	3	96	8		2			29v			birds	HS	R	М		1840–1880	44	Two fitting frags from a small heel bowl with ar unusual bird mark moulded on either side of the heel
7B	14	96	1422		1			25	?	?		HS	R	Μ		1700–1770		Illegible heel mark.
17C	25	96	2541		1			25	?	?		HS	R	Μ		1700–1770		Illegible mark.
17C		96	u/s		1			25v	?	?					POWF, rose and thistle	1740–1770	16	Almost certainly an unmarked heel type (heel badly damaged); crude POWF, etc, dec.
	3	96	20		1			27/28	-	-					LDS	1800-1830		
7E	30	96	3005		1			27/28?	-	_					LDS	1820–1840		Spur or heel missing.
.7F*	71	97	7109			1		-	-	_					Foliage dec on stem	1820–1880		Foliage decoration on both sides of a stem fragment.
7F*	71	97	7109		1			28/29?	-	-					LDS	1820-1880		Bowl fragment only.
.7F	47	96	u/s	52	1			-	_	_					Lion heads, feathers, etc	1800–1900	45	Very unusual bowl. Possibly a southern European import, perhaps southern France or Italy.
7	1	95	u/s		1			26?	-	-					Royal Arms	1730–1780		Damaged bowl with he or spur missing but almost certainly a spur type. Traces of initials (illegible).

The Tower of London Moat

17E	31	96	3109		1	-	/O.12?//PAR/	SL	R	М	Leaves, etc	1810–1840	33	Part of a decorated stem with moulded mark, almost certainly 'T WOOTTEN No 12/ PARK STREET BORO'.
17C	25	96	2631	2		25	crowned flowers	HS	R	М		1700–1770		Joining fragments with crowned flower mark on either side of heel
17D	27	96	2761	1		25	crowned harps	HS	R	М		1720–1780		
17D	27	96	2829	1		_	crowned harps	HS	R	М		1690–1710		
17E	31	96	3193	1		25	crowned harps	HS	R	М		1700–1770		Crowned harps on both
							Å							sides of heel, the first being preceded by a dot.
17	3	95	u/s	1		25	crowned harps	HS	R	Μ		1700-1770		
17C	25	96	2567	1		25	crowned harps?	HS	R	М		1700–1770		Unclear symbol marks, probably crowned harps on either side of heel.
17F	56	96	5607	1		25	crowned sun	HS	R	М		1700–1770		Crowned sun or flower mark on either side of the heel.
17D	27	96	2822	1		25	flowers	HS	R	М		1700–1770		A single flower or sun symbol on either side of heel.
17C	25	96	2567	1		25	harp? and crown	HS	R	М		1700–1770		First symbol mark unclear but probably a harp with single crown on other side.
17F*	71	97	7109	1		29v	rings	HS	R	М	LDS	1840–1880		Serrated ring motif moulded on each side of heel.
17F*	71	97	7109	1		29v	shields	HS	R	М	LDS	1840–1880	42	Shield moulded on each side of heel.
17C	25	96	2632	1		10v	'sun'	н	Ι	S		1630–1660	1	
17E	30	96	3006	1		_					Claw and egg	1860–1920		
17	5	95	u/s	1		_					Claw design	1860–1920		Bowl fragment only.
1 7 F	36	96	3621		1	-					Foliage	1810–1850		Spray of foliage moulded on stem sides.
17	5	95	u/s		1	_					Foliage	1820–1860		
17E	31	97	3128	1		28v					LDS	1820-1840		

Appendix 2

Area	Tr	Yr	Cxt	SF	В	S	М	Form	CN	Surname	Other	Р	Т	М	Decoration	Date	Cat No	Comments
17E	30	96	3007		1			27							LDS, flutes	1790–1830		Same mould as another example from this context but without the star marks on the heel.
17	7	95	706			1		-							LDS, stars	1820-1860	36	
17	7	95	715		3			25v							POWF	1740-1780	15	Three fitting fragments.
																		Same mould as an example from TOL 17C 96 2541.
17C	25	96	2541		1			25v							POWF	1740–1780	15	Same mould as an example from TOL 17 95 715.
17F*	71	97	7109		1			25/26							POWF, foliage, dots	1740–1790	17	Large bowl form with the body of a Type 26 but the heel of a Type 25.