

the population of the city. The Riverside Exchange assemblage includes many stamped and marked pieces, but it appears that Staffordshire was not a significant source of pottery until the mid- to late 19th century. Prior to this it seems that local potteries played a major part in fulfilling the demands of the population. This includes both small-scale local potteries and the larger pottery factories. The evidence from a site in Upper Allen Street showed that the local factories, including the Don Pottery, continued to supply Sheffield with pottery well into the late 19th century, alongside the Staffordshire potteries.

The Riverside Exchange assemblage

The pottery assemblage from Riverside Exchange is diverse in nature and includes examples of many of the types of pottery mentioned above. This summary is based on the data currently available.

The earliest pottery from the site is of medieval and early post-medieval date and this almost certainly relates to the use of the area before it was extensively built on. We know from documentary evidence that the medieval Town Mill was located on the site, in the area of trench 11. Furthermore, Riverside Exchange lay close to the northern edge of the medieval and post-medieval town and in sight of the Castle and Assembly Green (now The Wicker) so some activity during the medieval period is unsurprising, although the course of the river and the state of the banks and flood plain might have limited this to some extent. In general the establishment of the steelworks seem to have almost obliterated the evidence for pre-18th-century activity, and the small quantity of medieval pottery that was recovered appears to be the only tangible evidence of medieval activity to have survived the subsequent industrial development. Examples include the base of a Cistercian ware cup and a sherd of late medieval Gritty ware.

The data available from Riverside Exchange suggests that the assemblages from the various trenches and areas of excavation can be divided into groups based upon the representation of different types of pottery. These groups are:

- *Group 1:* Assemblages consisting primarily of pottery dating to the 18th and early 19th centuries (trenches 1, 2 and 5).
- *Group 2:* Assemblages consisting of mixed groups of 18th- to early 19th-century and mid- to late 19th-century pottery (trenches 6a and 8 – both very small assemblages, and trench 10).
- *Group 3:* Assemblages consisting primarily of mid- to late 19th-century pottery (trenches 6b, 9 and 14 – all very small assemblages, and trenches 4, 11, 11a and 11b).

- *Group 4:* An assemblage consisting of mid- to later 19th-century ware with a small early 20th-century component, from the goit and one of very few wheel pits excavated in Sheffield (trench 11).
- *Group 5:* Insufficient data (trench 7).

This variable pattern of deposition is not unique to Riverside Exchange and has been noted on sites elsewhere in Sheffield, notably at Suffolk Road and London Road (unpublished) where the patterns of deposition were even more marked than at Riverside Exchange. In part they seem to relate to the patterns of waste disposal and reuse discussed above. With the exception of unusual contexts such as the wheel pit (trench 11) the different groups seem to represent distinct horizons of deposition, but the significance of the horizons is difficult to interpret. It is possible that they indicate phases of activity on the site which involved the deliberate dumping of pottery, but if the pottery was being brought onto the site from elsewhere on anything but an *ad hoc* basis it may also be possible that they represent different phases of activity on the sites (probably the 'depots' or dung yards referred to in the documents) from which the material was taken. Thus the Group 1 and Group 2 assemblages would represent older deposits with, in the case of the Group 2 assemblages, later material mixed in during the extraction and movement of the material. In contrast the Group 3 assemblages seem to represent more chronologically homogenous groups perhaps exploited soon after their deposition. This is not, however, the full story and a combination of formation processes is involved with the wheel pit and the goits perhaps receiving material from different sources. The preliminary conclusion must be that the varying character of the pottery assemblages represents different types of formation process acting on different parts of the site.

Clay Tobacco Pipes

by S.D. White

The excavations produced a total of 1,498 clay tobacco pipe fragments consisting of 162 bowls, 1,294 stems and 42 mouthpieces, from seven different areas of the site. Two detailed reports were prepared by the author in 2002 (Areas 240D–H) and in 2007 (Areas 240L and N) and are available as part of the site archive. This report comprises a synthesis of the pipes from all seven areas.

Clay tobacco pipes are probably the most useful dating tool for archaeological deposits of post-medieval date. They are found almost everywhere, were short-lived and were subject to rapid change in both size and shape. They can usually be tied to a

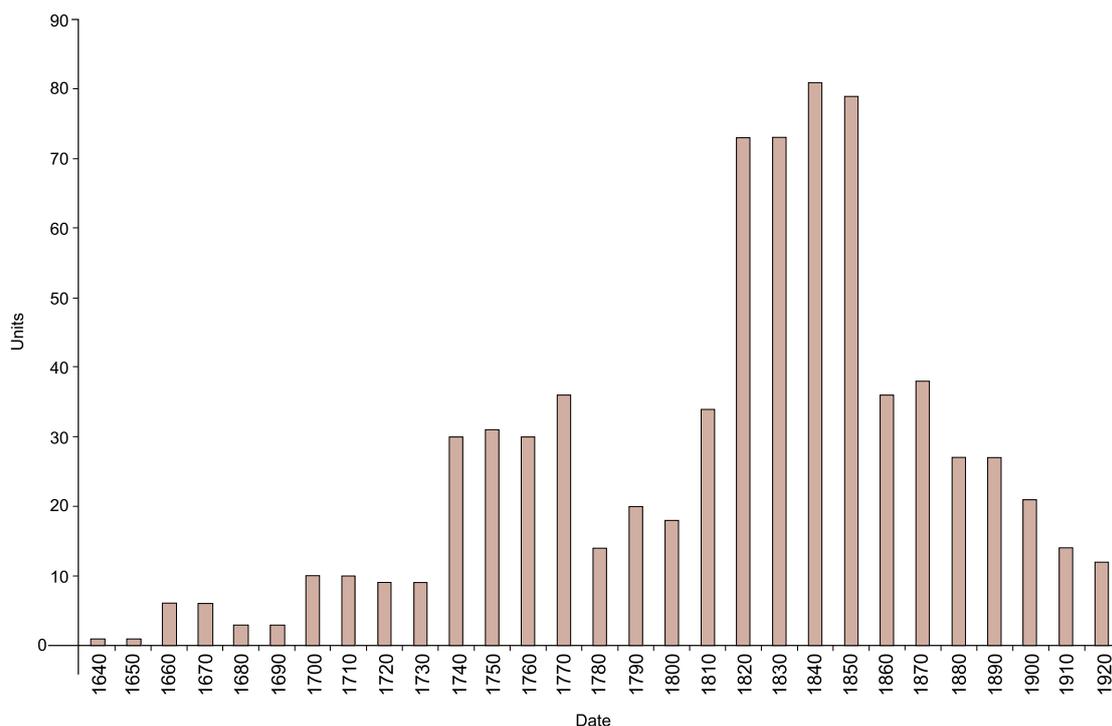


Figure 11 Chronological distribution of datable pipe bowls and marked fragments

specific production site or, at the very least, to a regional centre. Subtle differences in style and quality enable them to be used as indicators of social status as well as a means by which trade patterns can be studied. Not only does the assemblage from Riverside Exchange address all of the issues listed above, but they also provide Sheffield with a ‘first’ – evidence for industrial doodling.

Chronological distribution of the pipes

The initial reports looked at the chronological distribution of the pipes across the site. In order to do this the number of occurrences, per decade, of the datable pipe bowls and marked stem fragments, were plotted onto a bar chart (Fig. 11). Each pipe fragment was examined and one unit entered for each decade of its likely date range, for example, if a fragment was dated from 1740–1760 the decades 1740 and 1750 would each be marked once. This method has the effect of smoothing out the curve created by the graph since it spreads the information over each decade rather than creating marked steps and plateaux, as is the case when broad typological date ranges are used, for example 1610 to 1640, 1640 to 1660 etc. The result is a more realistic picture of the main periods of activity on the site. It is clear from the data plotted that although there were a small number of pipes deposited on the site from the mid-17th right through to the early 20th century, the main period of deposition was from *c.* 1740 onwards, with two ‘peaks’ of pipe activity on the site. The first peak was *c.* 1740–1770 and the second *c.* 1820–1850.

The two peaks of activity correspond broadly with what is known about the site from documentary sources. There is no problem with the second peak, in the first half of the 19th century, which ties in with the activity around the Cutlers’ Wheel pit and the Town Mill. The first peak (*c.* 1740–1770), however, is a little early for the founding of Marshall’s steelworks in the 1770s, when an increase in pipe deposition would be expected.

Since the initial reports on the pipes were compiled, however, further research by the author (White 2011) suggests the roll-stamped stems, which are the cause of the first ‘peak’ in the graph, should be dated a little later in the 18th century, to *c.* 1750–1790. The documentary evidence would certainly support this re-dating of the marked stems and would push the first ‘peak’ to a position that would coincide with the founding of Marshall’s steelworks in the 1770s.

Sources of the Riverside Exchange pipes

Previous studies have established that most pipes did not travel very far from their place of manufacture, on average approximately 20 miles. Clay pipes display strong regional variation, particularly from the mid-17th century through to the early 19th century. This feature, combined with the occurrence of makers’ marks, means that it is often possible to identify the exact origin of excavated pipes. Not only does this tell us where the pipes were being sourced but it is also a good indicator of where other goods and services might have been obtained.

There is very little evidence for the production of clay tobacco pipes in Sheffield itself during the 17th and 18th centuries and there are certainly no known marks. It is possible that Sheffield makers chose not to mark their products and that some of the earlier plain pipes recovered from the city were produced locally (Fig. 12.1–4). However, given that many of the contemporary pipemakers in the region were marking their pipes, one would have expected to have seen some marked Sheffield products had they existed.

What the excavations did yield were fragments from pipemakers operating in the neighbouring towns, such as the 17th-century bowl with its heel stamped MP (Fig. 12.5). This particular mark can be attributed to Matthew Powell of Wakefield, who is known to have been working from at least 1690 when he appeared in the Quarter Sessions Rolls accused of ‘neglecting to teach his apprentices the art of pipemaking at Potovens’. He appeared again in 1698 when he was bound by an indenture to ‘teach Hester Beckett’s ... children the trade of making tobacco pipes at Potovens’. It is assumed that he would have continued pipemaking until his death in 1701 (White 2004, 177). This is the only marked 17th-century pipe from the site, although a range of plain forms also appear (Fig. 12.1–4 and 6). It is quite possible that this single marked example is a casual loss rather than evidence of an organised trade in pipes.

Very few 18th-century bowls survive, but this may partly be due to the fact that the bowls of the period had much larger, thinner walled bowls than previously, and they do not survive well in the archaeological record (Fig. 12.7–8). What the site did produce, however, are the associated stems with elaborate roll-stamped marks (Figs 12 and 13.9–17). Enough of these survive to indicate trading patterns rather than individual casual losses.

The excavations produced 27 18th-century stems with roll-stamped marks. All of the stamped marks from the site have been impressed and recorded for the National Clay Tobacco Pipe Stamp Catalogue, which is being compiled by Dr David Higgins. When a new mark is identified it is allocated a unique die number (Higgins Die) and a twice-life size drawing is made for future reference. Table 2 provides details of the roll-stamped marks from the site.

From this table it is clear that by the 18th century a large proportion of the pipes that were being utilised were coming from Rotherham, with a small number from Leeds/Birstall. At least one of the Rotherham makers – Jonathan Crosland – had connections with Sheffield that went beyond the pipe trade. Jonathan’s son was apprenticed to John Salt, cutler of Sheffield, in 1764 for eight years and then to George Pearson, cutler of Sheffield, for one year in 1772.

It was not until the 19th century that Sheffield began to have its own pipemakers. By this period

pipes had started to become much more elaborately mould-decorated and the strongly regional forms that were typical of the 17th and 18th centuries made way for bowl forms that occur over much larger areas of the country. The coming of the railways from the 1830s onwards improved transport networks, allowing goods to be moved over greater distances than ever before, and impacted trade and marketing in a way that the canal system never did. This new-found freedom to move goods saw the emergence of bigger pipe manufacturing firms and allowed a much wider distribution of their products and designs, which were often then copied or adapted elsewhere.

In addition to a number of plain bowls, pipes with moulded decoration ranging from simple leaf seams through to bowls covered with floral motifs, flutes, vines, Masonic motifs and even symbols of organisations such as the Ancient Order of Foresters, all appear in the excavated assemblage (Figs 13–14, 15.18–46). Although some of these pipes have moulded makers’ marks, the vast majority of fragments recovered are plain (c. 70%).

At least three Sheffield makers have been identified amongst these 19th-century pipes, such as products of the Erratt family, who were working in the Sheffield area from at least the 1850s to 1870s (Fig. 14.28). Frederick Cartwright was working in Sheffield c. 1854–1860 (Oswald 1975, 199) and is represented by a spur fragment with the moulded initials F C (Fig. 15.44). Finally, T. Pinder, probably Thomas, who appeared in the Sheffield Trade Directories for 1825–1829 (*ibid.*, 201), is represented by a pipe with heavy scrolls and floral motifs, a form of decoration that was very fashionable during the late 1820s and 1830s on other forms of ceramic object and, in particular, porcelain (Fig. 13.24).

The assemblage also includes material that had been imported to the city from manufacturers elsewhere, including examples made by the Tunstalls of Leeds (Fig. 15.40), John Pollock of Manchester (Fig. 15.38) and William Southorn of Broseley, Shropshire (Fig. 14.32).

Internal bowl marks

Internal bowl crosses or marks are formed by a design cut on the end of the stopper that was used to form the bowl cavity during the manufacturing process. Jarzembowski (1985, 394) suggested that one of the purposes of these internal bowl marks was to prevent the stopper from sticking when pressed into the bowl. The internal bowl crosses in the pipes from Riverside Exchange are quite distinctive as they have two cross bars ‘‡’, which are shown as a detail in Figure 14.25. Although there has been no systematic survey of internal bowl crosses from Yorkshire, these do appear to be of a form that is peculiar to Sheffield. This very distinctive feature suggests that the bowls were either

Table 2 Clay tobacco pipes: roll-stamped marks

Illus.	Site	Tr. / Area	Ctxt	SF	Date	Mark	Higgins Die No.	Maker
9	240N	D	15374	–	1740–1770	CROSLAND	1920	Jonathan Crosland, Rotherham <i>fl.</i> 1747–1772
9	240N	D	15374	–	1740–1770	I CROSLAND	1920	Jonathan Crosland, Rotherham <i>fl.</i> 1747–1772
–	240D	2	1187	0256	1740–1780	Midland border	–	Unknown
–	240D	2	1156	0293	1740–1780	Midland border	–	Unknown
–	240F	11	11424	0422	1740–1780	Midland border	–	Unknown
–	240L	–	16018	–	1720–1780	Midland border	–	Unknown
–	240N	D	15419	–	1740–1780	Midland border	–	Unknown
–	240N	D	15420	–	1740–1780	Midland border	–	Unknown
10	240F	11	11402	0368	1750–1790	BENIAMIN MAZDEN	1834	Benjamin Marsden of Rotherham <i>c.</i> 1757
11	240L	–	16013	–	1760–1790	TT	1839	Possibly Thomas Turner of Leeds/Birstall <i>c.</i> 1756–1786
12	240L	–	16013	–	1720–1780	I WILD with Midland border	2181	John Wild of Rotherham <i>c.</i> 1722–1750
13	240D	2	1221	0114	1740–1780	THO WILD with Midland border	1833	Thomas Wild (3) of Rotherham <i>c.</i> 1777
13	240D	1	1176	0151(9)	1740–1780	THO WILD with Midland border	1833	Thomas Wild (3) of Rotherham <i>c.</i> 1777
13	240D	2	1221	0114	1740–1780	THO WILD with Midland border	1833	Thomas Wild (3) of Rotherham <i>c.</i> 1777
13	240D	2	1187	0390	1740–1780	THO WILD with Midland border	1833	Thomas Wild (3) of Rotherham <i>c.</i> 1777
13	240D	1	1154	0402	1740–1780	THO WILD with Midland border	1833	Thomas Wild (3) of Rotherham <i>c.</i> 1777
13	240L	–	16013	–	1740–1780	THO WILD with Midland border	1833	Thomas Wild (3) of Rotherham <i>c.</i> 1777
14	240F	11	11451	–	1740–1780	THO WILD	1832	Thomas Wild (3) of Rotherham <i>c.</i> 1777
15	240L	–	16013	–	1740–1780	THO WILD	2190	Thomas Wild (3) of Rotherham <i>c.</i> 1777
16	240F	11	11424	0417	1750–1790	THO WILD (Part of a roll stamp mark with heart border)	2089	Thomas Wild (3) of Rotherham <i>c.</i> 1777
16	240N	D	15392	–	1750–1790	THO WILD	2089	Thomas Wild (3) of Rotherham <i>c.</i> 1777
17	240D	1	1032	0023	1760–1780	WILL WILD	1925	William Wild, Rotherham <i>fl.</i> 1764–1774
17	240D	1	1154	0201	1760–1780	WILL WILD	1925	William Wild, Rotherham <i>fl.</i> 1764–1774
17	240D	1	1154	0201	1760–1780	WILL WILD	1925	William Wild, Rotherham <i>fl.</i> 1764–1774
17	240L	–	16036	–	1760–1780	WILL WILD	1925	William Wild, Rotherham <i>fl.</i> 1764–1774
–	240D	1	1011	0031	18th century	Part of a roll stamp mark; traces of large scrolls visible	–	Unknown
–	240L	–	16013	–	1720–1780	Fragment of abraded mark – illegible	–	Unknown

produced by a number of manufacturers using stoppers supplied by the same mould maker or that these bowls were produced in a single workshop where this particular motif was added to the stoppers.

Industrial doodling and other modified stems

The modification of stems can take a number of forms, but usually occurs for one of two main reasons. Firstly, the grinding or scraping of the stem for reuse after the original mouthpiece has broken off. This type of modification is characterised by even grinding round the end of the stem and, occasionally, by the appearance of tooth wear as well. Two examples of stems with this kind of treatment have been recovered from the excavations (Fig. 15.50–51).

The second type of modification is when the stem has been used as a medium with which to draw or

write graffiti, resulting in the formation of distinct facets at one, or both, ends of the stem.

However, some of the modified stems that have been recovered from Riverside Exchange fall into a third category as they appear to have been cut or ground down by mechanical means (Fig. 15.47–49), resulting in perfectly smooth and sharply defined cut facets. All of the stems in this category were found in the bottom of the wheel pit of the Cutlers' Wheel.

Discussion

The Riverside Exchange excavations have produced a rare example of a late 18th- and early 19th-century clay pipe assemblage from Yorkshire, and the first of this date from Sheffield, and provide an important snapshot of pipe production and consumption within the city.

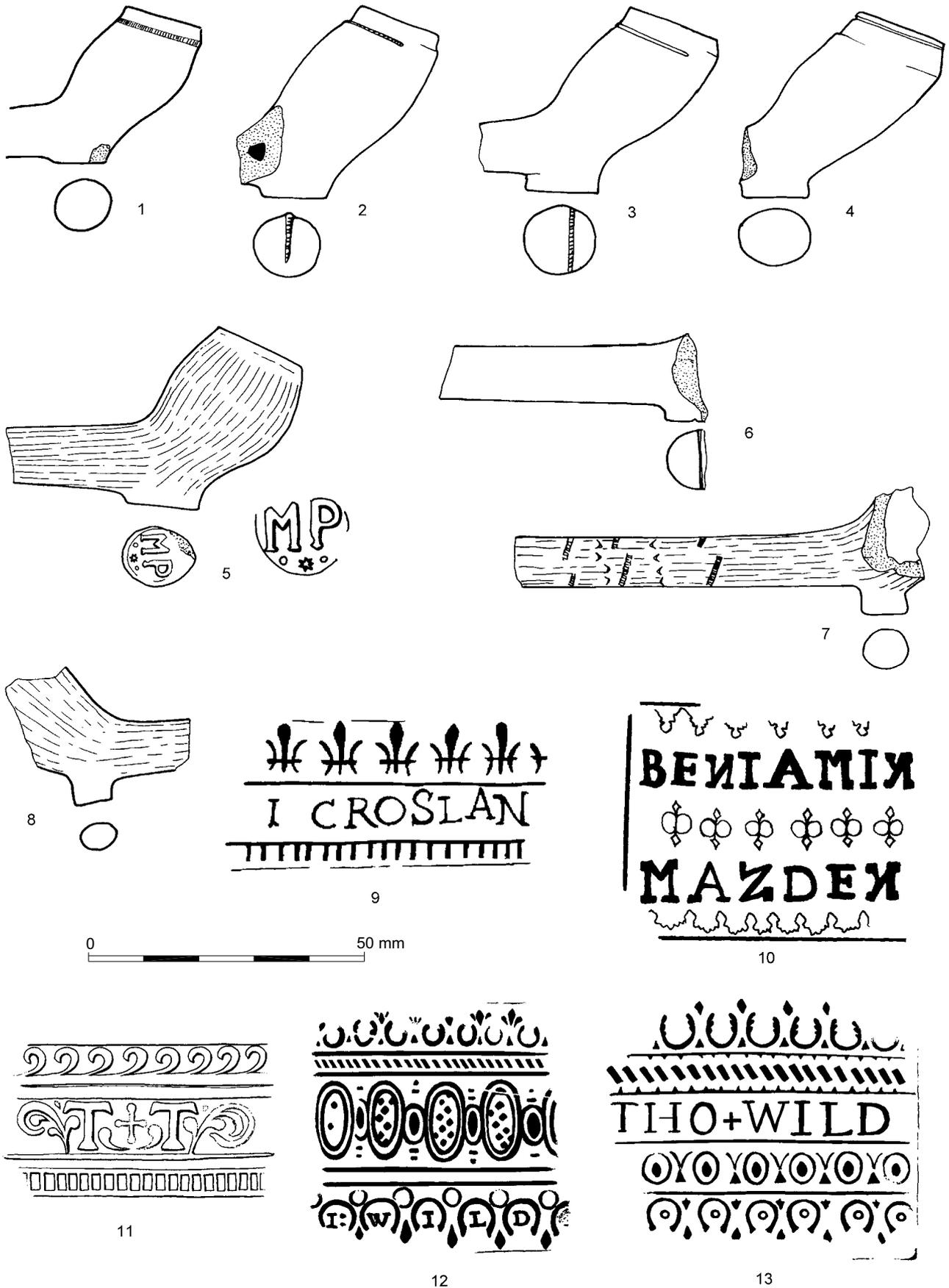


Figure 12 Clay tobacco pipes (Nos 1-13; roll-stamped stem marks at 2:1)



14



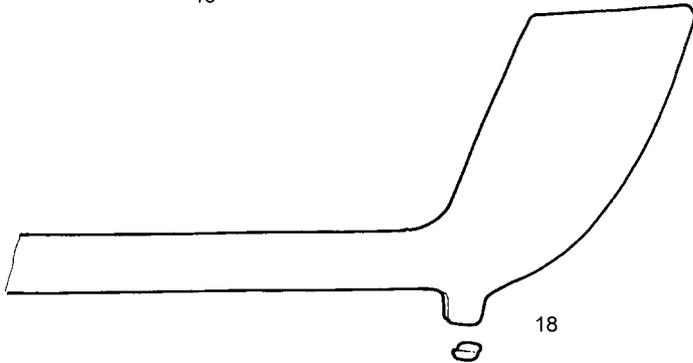
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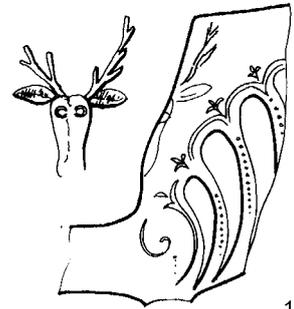
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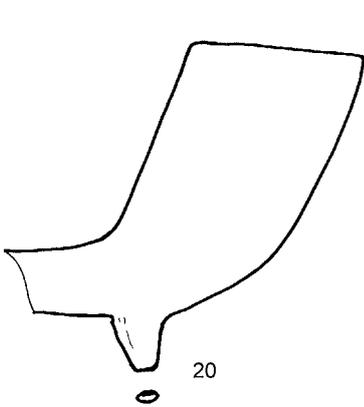
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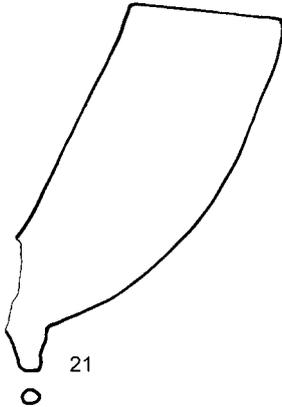
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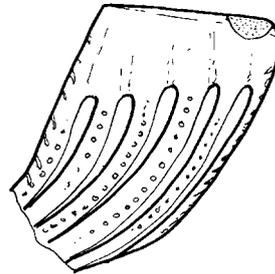
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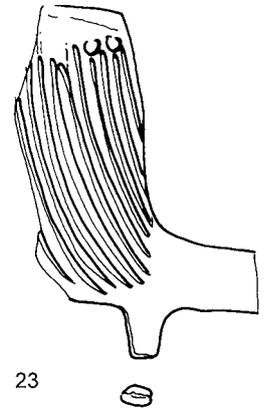
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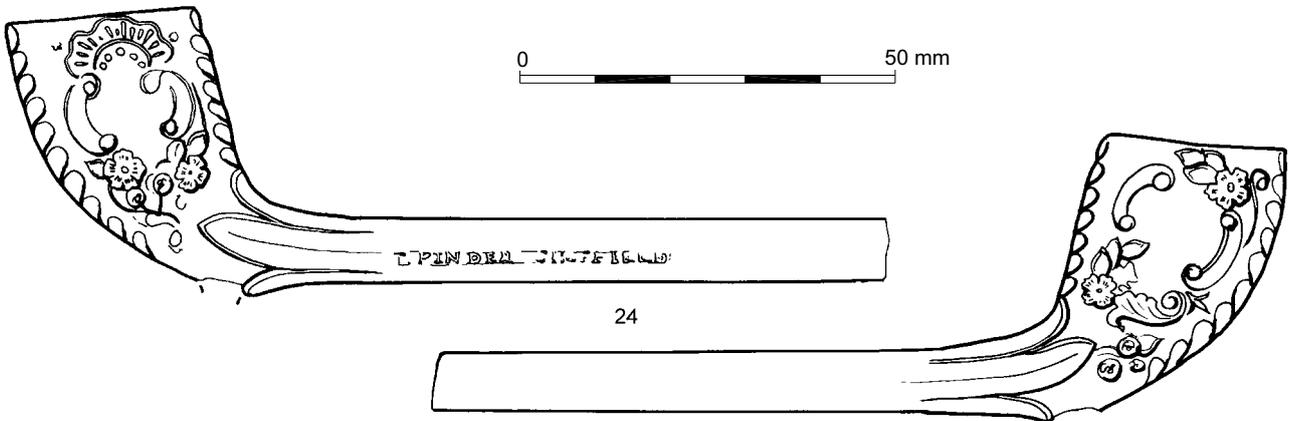
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23



24

Figure 13 Clay tobacco pipes (Nos 14–24; roll-stamped stem marks at 2:1)

One of the most important elements of this assemblage is that its social context is known, in that it is from an industrial site. Although the range of pipes is typical of the area, the presence of burnished pipes, and of pipes with 'classy' designs, indicates that the workers were not only aware of quality goods and styles that were highly fashionable, but were actively participating in the use of such products. The site also produced evidence for what would appear to be the first documented case of 'industrial doodling', in the form of the ground stems, suggesting that some grinders in the most arduous working conditions of the Cutlers' Wheel still had occasional idle moments to fill.

Another part of the picture that is slowly emerging is that Sheffield does not seem to have had its own pipemakers during the 17th and 18th centuries, but relied instead on supplies from neighbouring centres such as Wakefield, Rotherham and Leeds. It would appear that it is not until the 19th century that a pipemaking industry of any size developed in Sheffield itself.

List of illustrated clay tobacco pipes

All illustrations are at 1:1 with the exception of the roll-stamped stem marks, which have been drawn at 2:1. Site information is given at the end of each entry, in the form of: (area [trench] context, small find number if applicable).

Figure 12

1. Heel bowl (c. 1640–1660); not burnished; rim bottered and milled; no internal bowl cross; stem bore 6/64" (240H [14] 14125).
2. Heel bowl (c. 1660–1680); not burnished; rim bottered and three-quarters milled; no internal bowl cross; stem bore 6/64"; milled band across the heel of the pipe. This is not a typical Yorkshire form and this piece may well have been brought in from either Lincolnshire or Derbyshire (240N [D] 15141).
3. Heel bowl (c. 1660–1680); not burnished; rim bottered and three-quarters milled; stem bore 6/64"; milled band across the heel of the pipe (240N [D] 15206).
4. Heel bowl (c. 1660–1680); not burnished; rim bottered but not milled; stem bore 6/64". There appears to be a groove round the rim rather than milling (240F [11] 11512, SF: 0397).
5. 'Yorkshire Bulbous' heel bowl (c. 1660–1680); good burnish; rim bottered but not milled; no internal bowl cross; stem bore 6/64"; marked with the initials MP on the heel. Almost certainly a product of Matthew Powell of Potovens who is known to have been working from at least c. 1690 until his death in 1701 (240N [D] 15141).
6. Heel bowl fragment (c. 1660–1690); not burnished; no rim surviving; stem bore 6/64"; cut mark across the heel (240D [5] 5003, SF: 0013).

7. Heel bowl fragment (c. 1690–1740); no internal bowl cross; good burnish; no rim surviving; stem bore 5/64". Appears to be a B or a P moulded on to the left side of the heel. Stem decorated with bands of milling (240F [11] 11179, SF: 030).
8. Heel bowl fragment dating from c. 1690–1740; no internal bowl cross; good burnish; no rim surviving; stem bore 5/64" (240H [14] 14005).
9. Composite drawing of a roll-stamped mark (c. 1740–1770) reading I CROSLAND (Higgins Die 1920). Almost certainly Jonathan Crosland of Rotherham, known to have been working from at least 1747–1772. Two stem fragments with this mark recovered from the site (240N [D] 15374).
10. Stem fragment (c. 1750–1790) stamped with the lettering BENIAMIN MAZDEN (Higgins Die 1834); stem bore 4/64". A Benjamin Marsden of Rotherham, pipemaker, is recorded from a marriage in the parish records in 1757 (240F [11] 11402, SF: 0368).
11. Composite drawing of a roll-stamped mark (c. 1760–1790) with the initials TT (Higgins Die 1839). Possibly Thomas Turner of Leeds/Birstall who is known to have been working c. 1756–1786. Single example recovered from the site (240L 16013).
12. Composite drawing of a roll-stamped mark (c. 1720–1780) with I WILD incorporated into a Midlands Style border (Higgins Die 2181). Almost certainly John Wild of Rotherham who is known to have been working c. 1722–1750. One example recovered from the site (240L 16013).
13. Composite drawing of a roll-stamped THO WILD mark (c. 1750–1790) with a Midlands Style border (Higgins Die 1833). Almost certainly Thomas Wild (3) of Rotherham who appears in the Sheffield Quarter Sessions in 1777. Six examples of this mark were recovered from the site (240D [1] 1154, SF: 0402; 240D [1] 1176, SF: 0151(9); two from 240D [2] 1221, SF: 0114; 240D [2] 1187, SF: 0390 and 240L 16013).

Figure 13

14. Composite drawing of a roll-stamped mark (c. 1740–1780) reading THO WILD (Higgins Die 1832). Almost certainly Thomas Wild (3) of Rotherham who appears in the Sheffield Quarter Sessions in 1777. One example from this site (240F [11] 11451).
15. Composite drawing of a roll-stamped mark (c. 1740–1780) reading THO WILD (Higgins Die 2190). Almost certainly Thomas Wild (3) of Rotherham who appears in the Sheffield Quarter Sessions in 1777. One example from this site (240L 16013).
16. Composite drawing of a roll-stamped mark (c. 1750–1790) reading THO WILD with a border comprising hearts, flowers and a running deer (Higgins Die 2089). Almost certainly Thomas Wild (3) of Rotherham who appears in the Quarter Session in

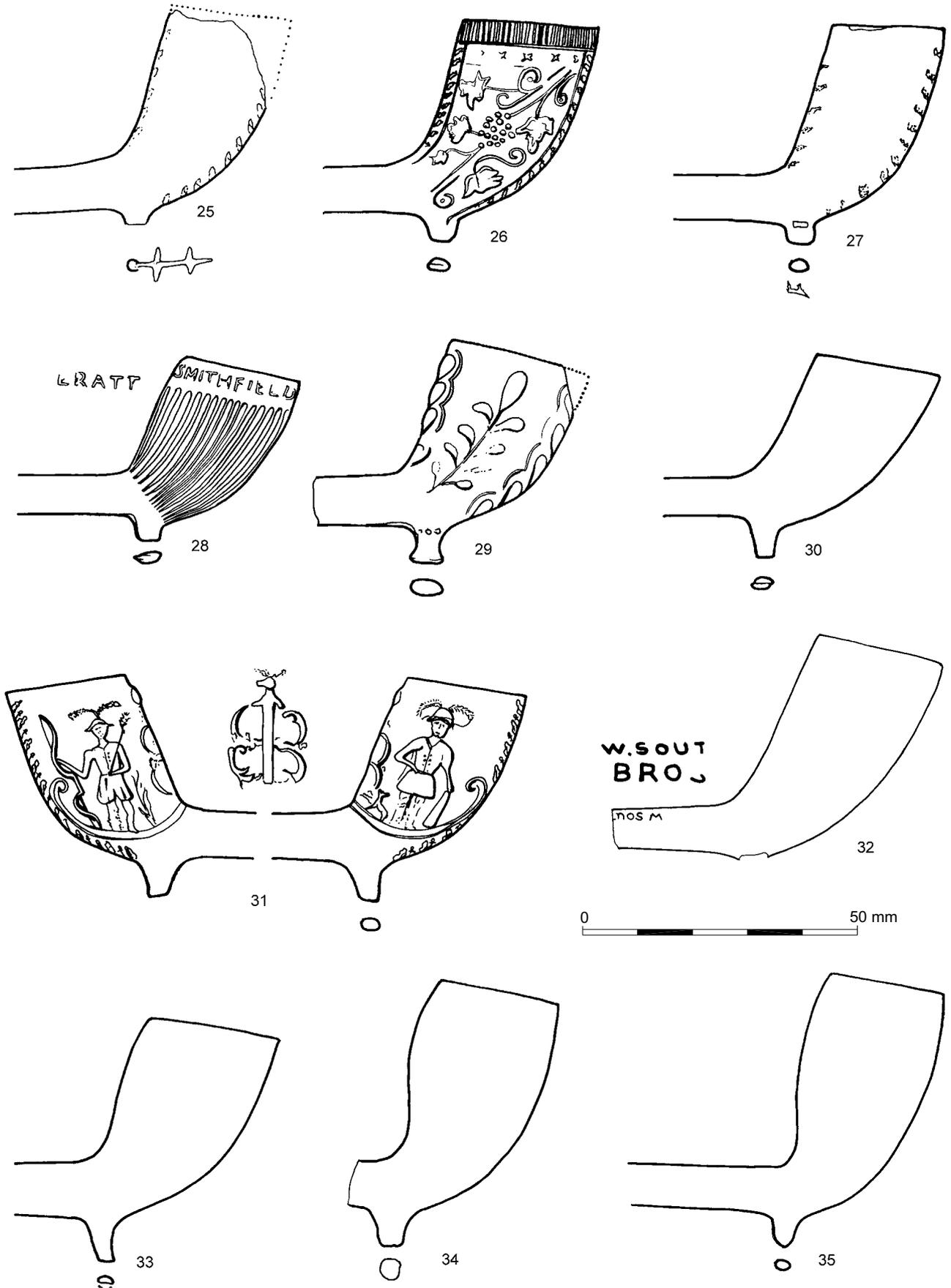


Figure 14 Clay tobacco pipes (Nos 25–35)

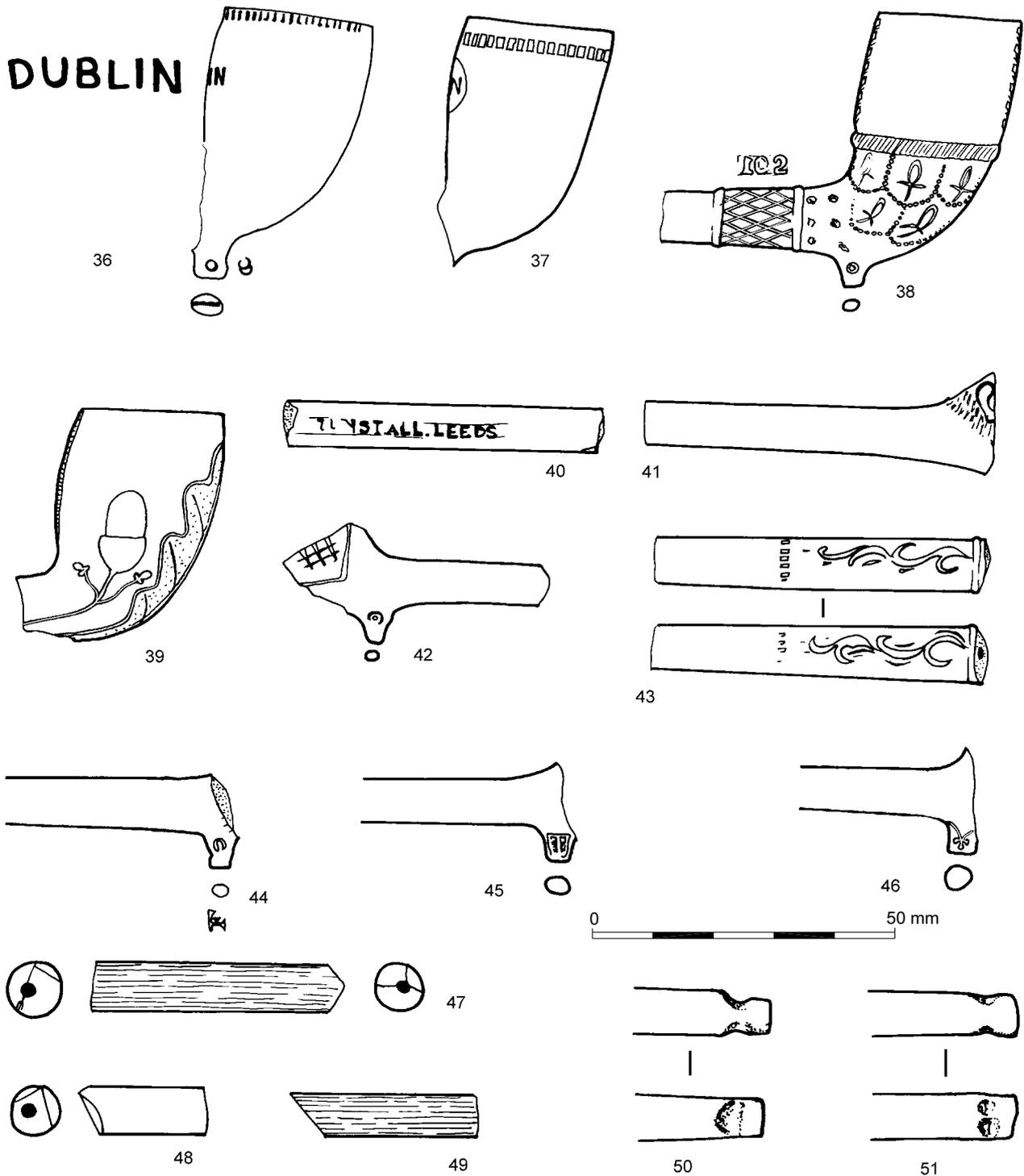


Figure 15 Clay tobacco pipes (Nos 36–51)

Sheffield in 1777. Two examples from the site (240N [D] 15392 and 240F [11] 11424, SF: 0417).

17. Composite drawing of a roll-stamped mark (c. 1760–1780) reading WILL WILD (Higgins Die 1925). Almost certainly a product of William Wild of Rotherham who is known to have been working c. 1764–1774. Four examples recovered from the site (240D [1] 1032, SF: 0023; two from 240D [1] 1154, SF: 0201 and 240L 16036).

18. Spur bowl (c. 1750–1800); no internal bowl cross; not burnished; rim cut and not milled; stem bore 5/64" (240F [11] 11467, SF: 0495).

19. Originally a spur bowl, although the spur is now missing (c. 1760–1800); mould-decorated with staggered flutes/scallops together with a stag's head on the seam of the bowl facing the smoker; no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64". Similar pipes are known to have been

made by Samuel Lumley of Doncaster who is known to have been working until his death in 1769 (240F [11] 11451, SF: 0477).

20. Plain spur bowl (c. 1820–1860); not burnished; rim cut and not milled; stem bore 4/64". The bowl form is similar to a London Type 28 (240F [11] 11346, SF: 0622).
21. Plain spur bowl (c. 1840–1880); no internal bowl cross; not burnished; rim cut and not milled; stem bore 5/64". This is possibly a Broseley product (240F [11] 11348, SF: 0625).
22. Bowl fragment (c. 1800–1840) mould-decorated with narrow flutes and dots; no internal bowl cross; not burnished; rim appears to have been wiped; no milling (240F [11] U/S, SF: 0474/14).
23. Spur bowl (c. 1790–1820); not burnished; rim cut but not milled; stem bore 5/64"; decorated with fine flutes (240N [A] 15085).
24. Spur bowl (c. 1810–1840) mould-decorated with floral motifs and with the relief moulded lettering T. PINDER SHEFFIELD along the side of the stem; no internal bowl cross; not burnished; rim cut and not milled; stem bore 5/64". Thomas Pinder is known to have been working in Sheffield c. 1825–1829 (240F [11] 11467, SF: 0495).

Figure 14

25. Spur bowl (c. 1810–1850) with leaf-decorated seams; very distinctive internal bowl cross; not burnished; rim damaged; stem bore 4/64" (240H [14] 14029).
26. Spur bowl (c. 1830–1850) mould-decorated with a bunch of grapes motif; not burnished; rim cut with moulded milling; stem bore 5/64". Similar examples of this design in the collections of Sheffield Museum are marked 'J Dee Sheffield' who is known to have been working c. 1833–41 (240F [11] 11064, SF: 0073).
27. Spur bowl (c. 1810–1850) with leaf-decorated seams; no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64". There is rather poorly moulded lettering on the sides of the spur which appears to read FI (240F [11] 11330, SF: 0619).
28. Heel bowl (c. 1840–1880) mould-decorated with fine flutes with the moulded lettering ERRATT / SMITHFIELD around the rim; no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64". Although documentary evidence shows that the Erratt family were working in Sheffield during the 1850s to 1870s, the bowl form would suggest that they could have been working as early as the 1840s (240F [11] 11291, SF: 0569).
29. Bowl with a pedestal heel (c. 1810–1850) mould-decorated with a leaf motif; no internal bowl cross; not burnished; rim cut and not milled; stem bore 5/64" (240F [11] 11047, SF: 0043).
30. Plain spur bowl (c. 1840–1880); not burnished; rim cut and not milled; stem bore 4/64" (240F [11] 11348, SF: 0625).

31. Spur bowl (c. 1840–1880) decorated with the Foresters' Arms; no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64" (240D [5] 5003, SF: 0106).
32. Originally a spur bowl, although the spur is now missing (c. 1850–1960); not burnished; rim cut and wiped but not milled; no internal bowl cross; stem bore 4/64"; marked with the lettering W SOTH[HORN & CO] / BRO[SELEY ...] along the stem. William Southorn and Co was a prominent firm of pipemakers working in Broseley, Shropshire from 1823 through to the firm's closure in 1960. This style of incuse stamped mark was not used until after c. 1850 (240N [B] 15107).
33. Plain spur bowl (c. 1840–1880); no internal bowl cross; not burnished; rim cut and not milled; stem bore 5/64" (240F [11] 11179, SF: 0307).
34. Plain spur bowl (c. 1860–1900); no internal bowl cross; not burnished; rim cut and not milled; stem bore 5/64" (240F [11] 11348), SF: 0625).
35. Plain spur bowl (c. 1860–1900); no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64". Found in the goit and donated by Mr Crowther, former site electrician.

Figure 15

36. Spur bowl (c. 1870+); not burnished; rim cut with moulded milling; no internal bowl cross; stem bore 4/64"; marked with the incuse stamped lettering DUBLIN on the bowl facing the smoker. Sides of the spur marked with a relief-moulded ring motif; on the smoker's left this appears to have been double stamped in the mould (240N [B] 15107).
37. Irish style bowl, spur now missing (c. 1840–1910); rim cut with moulded milling; stem bore 4/64". Marked with the incuse stamped lettering DUBLIN in an oval border on the bowl facing the smoker (240F [11] 11247, SF: 0361).
38. Spur bowl (1879+); mould-decorated; no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64". Pattern number 102 moulded into the side of the stem. This particular pattern number and design was produced by John Pollock and Son of Manchester, a company that was founded in 1879 (240F [4] 4037, SF: 0145).
39. Bowl (c. 1850–1910) mould-decorated with an acorn on either side of the bowl with a large oak leaf along the front seam; no internal bowl cross; not burnished; rim cut and not milled; stem bore 4/64" (240F [11] 11218, SF: 0342).
40. Stem fragment (c. 1840–1860) with the incuse moulded lettering ... TUNSTALL LEEDS; stem bore 5/64". Probably either George Tunstall (recorded c. 1840–1847) or Henry Tunstall (recorded c. 1836–1861), both of whom were working in Leeds (240F [11] 11057, SF: 0065(7)).

41. Bowl fragment (c. 1830–1880); no internal bowl cross; not burnished; no rim surviving; stem bore 4/64". Part of a head bowl, the ear is clearly visible (240F [11] 11290, SF: 0565).
42. Spur bowl fragment (c. 1830–1870); no internal bowl cross; not burnished; no rim surviving; stem bore 5/64". A dot and circle mark can be seen on the sides of the spur together with traces of moulded decoration, which appears to be the bottom of a Prince of Wales feathers and may be part of the arms of Wakefield (240F [11] (11085), SF: 0173).
43. Stem fragment (c. 1820–1860); stem bore 5/64". Traces of a mould-decorated design comprising tendrils running along the sides of the stem (240F [11] 11555, SF: 0641).
44. Spur bowl fragment (c. 1840–1860); not burnished; no rim surviving; stem bore 3/64". The initials FC are moulded on the sides of the spur. This may be Frederick Cartwright of Sheffield, recorded working from at least 1854–1860 (240F [11] 11179, SF: 0307).
45. Spur bowl fragment (c. 1840–1910); not burnished; no rim surviving; stem bore 4/64". Small shield design moulded on to the sides of the spur (240F [11] 11555, SF: 0641).
46. Spur bowl fragment (c. 1840–1910); not burnished; no rim surviving; stem bore 5/64". Small shamrock design moulded on to the side of the spur (240D [4] 4035, SF: 0065).
47. Burnished stem fragment probably dating from the late 18th century; stem bore 4/64". Stem has a number of sharply ground facets at both ends (240F [11] 11424, SF: 0417).
48. Stem fragment dating from the late 18th, or early 19th century; stem bore 5/64". Stem has three sharply ground facets at one end (240F [11] 11424, SF: 0417).
49. Burnished stem fragment dating from the late 18th, or early 19th century; finely burnished; stem bore 4/64". Stem has been ground very neatly at a c. 40 degree angle (240F [11] 11407, SF: 0391).
50. Stem fragment dating from the late 18th or early 19th century; stem bore 5/64". Stem has been modified for re-use and shows signs of teeth wear at one end (240F [11] 11209, SF: 0330).
51. Stem fragment dating from the 19th century; stem bore 5/64". Stem has been modified for re-use and shows signs of teeth wear at one end (240D [4] 4036, SF: 0154).

Glass

by Lorraine Mepham

A total of 1122 pieces of glass was recorded, deriving from various parts of the site, and including several complete vessels. It is, however, apparent that this total does not include all of the glass originally

recovered from Riverside Exchange, from comparison with records compiled during the earlier assessment phases (Willmott 2005a; 2005b). No quantifications are available for the unseen glass; the quantifications given in this report, and the functional categories discussed, refer to the analysed assemblage only, with a few specific exceptions.

The analysed assemblage includes vessel and window glass, with a small number of objects and undiagnostic fragments. The date of the glass is exclusively post-medieval, covering the period from the late 17th to late 20th century.

Containers

Containers account for 361 pieces of glass, including 13 complete bottles and jars. These would have contained a wide range of beverages (both alcoholic and non-alcoholic), foodstuffs, pharmaceuticals and other household goods, and also in some cases materials for industrial use. The earliest vessels date from the late 17th/early 18th century, although the majority belong to the 19th and 20th centuries.

Beverages

The earliest beverage containers recovered comprise free-blown green wine bottles from the period from the mid-17th to the early 19th century. None of the earliest ‘shaft and globe’ (c. 1660–80) forms were identified, but there are fragments from ‘onion’ (c. 1680–1730), ‘mallet’ (c. 1725–60) and ‘squat cylindrical’ (c. 1740–1830) forms. All are fragmentary, and many show noticeable abrasion, suggesting that in many cases these fragments occurred residually. Most examples came from trench 11 in Area 2 (Town Mill and Cutlers’ Wheel) and Area 1 (Tanneries).

Two fragments appear to derive from mould-blown prismatic (probably octagonal) wine bottles. These belong to a period of experimentation with mould-blowing in the 18th century, beginning c. 1730, but were never particularly common (Dumbrell 1992, 87–90).

There are a number of cylindrical beer bottles of late 19th- and 20th-century date in brown and green glass. One carries the mark of John Lancaster, Sheffield. John Lancaster (Botanical Brewer) is listed in White’s Directory for 1911 at Hawksley Avenue, Hillsborough. Another, in colourless glass, is from Moors’ and Robsons’ brewery in Hull. The individual breweries of Henry and Charles Moor (Crown Brewery) and Edward Robson were acquired by Hull United Breweries Ltd in 1888, and the company then changed its name to Moors’ and Robson’s (<http://www.breweryhistory.com/Breweries/YorksHullMoors&Robson.htm> [accessed 13/3/13]). However, many of the beer bottles from the site can probably be linked to the presence here from the mid-19th