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A Yeoman Farm in St Helens

Excavations at Big Lea Green Farm, Sutton, 2002

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Summary

In 2002 the construction of a regional distribution centre by Somerfield plc provided an opportunity for archaeologists from Liverpool Museum to excavate and survey a late medieval and post-medieval farm at Lea Green, near St Helens. Documentary research had already established the occupation of Big Lea Green Farm during the late 17th century by Bryan Lea, 'yeoman of Sutton', and it probably corresponded to lands held by Thurstan de Standish in the 14th century. The archaeological evaluation identified single sherds of pottery dating from the 13th or 14th century. The continuous habitation of the site was briefly interrupted in September 1940, when the farmhouse was badly damaged by German bombing.

The medieval occupation of the site was attested to by a small assemblage of pottery from the 13th century onwards, which was present as a residual component throughout the sequence. Structures from this period were largely truncated by later redevelopment of the site. The earliest post-medieval deposits were a series of 16th-century pits containing waterlogged material including horn, leather, animal hair, antler, well preserved seeds and wood fragments.

A large stone-built, cellared farmhouse, barns and a coach house were built in the 17th century associated with several ditches reflecting a re-organisation of the farm. An associated enclosure ditch was later backfilled prior to 1720 with a large assemblage of domestic pottery including residual Cistercian wares and local coarse wares.

The 18th and early 19th centuries saw only relatively minor changes to the complex, with re-modelling of one of the barns in brick and the construction of a number

of drains. Domestic pottery continued to be deposited into a garden soil behind the farmhouse. Between 1826 and 1849 a wide shallow ditch was excavated defining the south-west corner of the farm. This ditch had the appearance of a medieval moat, but proved to be a 19th-century ditch/landscape feature.

The farm was transformed during the late 19th century (1847-1891) with the reconstruction of the farmhouse in brick, the addition of a stable block to a barn, a new open-sided 'Dutch' barn, the laying/relaying of cobbled yards and the re-organisation of an adjacent enclosure into a kitchen garden.

The farm underwent only superficial modification during the early 20th century, with alterations to the façade of the farmhouse. The farm house was badly damaged by a bomb dropped in September 1940, and was subsequently demolished and replaced by a brick-built farmhouse which shifted the principal access to the complex until its demise in 2002.

During the course of the excavation an exceptional collection of ceramics was recovered: dating from the 13th to the late 19th century, the post-medieval pottery forms an especially rich assemblage which will provide a benchmark for future work in the area. A detailed description and discussion of the ceramics is included below. A regionally significant clay pipe assemblage has been recovered and analysed in addition to horn, bone, and environmental material. The project demonstrated the potential for excavation of smaller yeoman farmsteads which were key components of the late and post-medieval rural landscape in the region and are rarely the focus of study.

Clay Tobacco Pipes and Other Pipe-Clay Objects

D. A. Higgins

Introduction

The detailed recording and analysis of this material, which forms the subject of this report, took place between December 2002 and April 2003.

Methodology

The pipe fragments for all the contexts except for a very large 19th-century group (context 69) have been individually examined and details of each fragment logged on an Excel worksheet. The layout of the worksheet has been based on a draft clay tobacco pipe recording system that has been developed at the University of Liverpool (Higgins and Davey 2004). A context summary has also been prepared as a similar Excel worksheet. This gives the overall numbers of fragments and date range for the pipes from each context. Digital copies of both the worksheet and the draft recording system have been provided for the site archive.

Several of the context groups contained more than one similar pipe bowl or marked stem. In order to identify the individual fragments, capital letters have been allocated to these pieces so that they can be cross-referred to the computerised record. These letter codes have been pencilled onto the bowls following the context number. They appear under a reference column (Ref) in the full catalogue as well as in the captions accompanying the figures. An assessment of the likely date of the stem fragments has also been provided in the catalogue. The stem dates should, however, be used with caution since they are much more general and less reliable than the dates that can be determined from bowl fragments.

A number of stamped makers' marks or decorative borders were present within the excavated material. Some of these marks have been added to the national catalogue of pipe stamps that is being compiled by the author. Any 'Die Numbers' quoted in this report refer to the individual dies identified within this national catalogue.

The Pipes Themselves

The excavations produced a total of 781 pieces of pipe, comprising 339 bowl, 409 stem and 33 mouthpiece fragments. The pipes were recovered from 38 excavated contexts, in addition to which there is a group of unstratified finds. Most of these groups contain between just one and eight fragments of pipe (see Appendix B). Although the finds from these smaller groups can be dated, these dates are not as reliable as those produced by the larger groups and the pipe evidence needs to be considered

in conjunction with both the stratigraphic position of the context and any other dating evidence. Apart from the unstratified material, there were just eight larger groups; seven containing between 14 and 38 fragments and one containing 499 fragments. The one large group produced a closely dated and nationally significant group of 19th-century material and is dealt with in detail by itself (context 69; below). The remaining material can be divided into two main categories; the bulk of the material, which dates from the 17th and early 18th centuries, and a smaller group, which comprises odd pieces of later 18th- and 19th-century material.

In the report that follows, the five most significant context groups are first described, followed by a general discussion of the earlier and later pipe evidence. There is then a detailed account of the 19th-century group and, finally, a section dealing with the pipes as archaeological evidence.

Significant Context Groups

The five most significant groups are described and discussed in context number order below. The context number is given first, followed by the number of bowl, stem and mouthpiece fragments recovered from that context, for example, (8/29/1=38) shows that 8 bowl fragments, 29 stem fragments and 1 mouthpiece were recovered from that particular context, giving a total of 38 fragments in all.

Context 77 (8/29/1=38) This context comprised a baulk across a ditch fill, which also included contexts 95 and 101 (the three ditch contexts are discussed collectively below). This group includes one illegible bowl stamp (Fig. 4.18, no 5), three heel stamps reading IB and a roll-stamp decorated stem (Fig. 4.18, no 13). The fragments in the group are very large (up to 93mm long) and 'fresh' looking, with little sign of abrasion on them. There were many joins between the fragments enabling sections of as much as 182mm in length to be reassembled. Unfortunately the relatively low number of stems (just 3.6 per bowl), and especially mouthpieces (just 1 recovered), meant that it was not possible to reconstruct any complete pipes, which the nature of the group suggests may well have been present originally. The pipe bowls are almost all of *c.* 1660-90 forms, made of an off-white, micaceous fabric that would have been obtained from the local coal-measure deposits. None of these bowls is milled and most have a good burnish on them. The only exception is a single bowl made of a good, white, clay, which was probably imported from south-west England (Fig. 4.20, no 24). This example has a slightly later looking bowl form than the other examples from this context, being of a type that would normally be dated to around 1690-1720. It may well have been made in Chester, where imported fabrics had been used since the early 17th century, but it is not clear if this bowl is intrusive in this context or whether the different looking form simply reflects stylistic differences in contemporary production at Rainford and Chester.

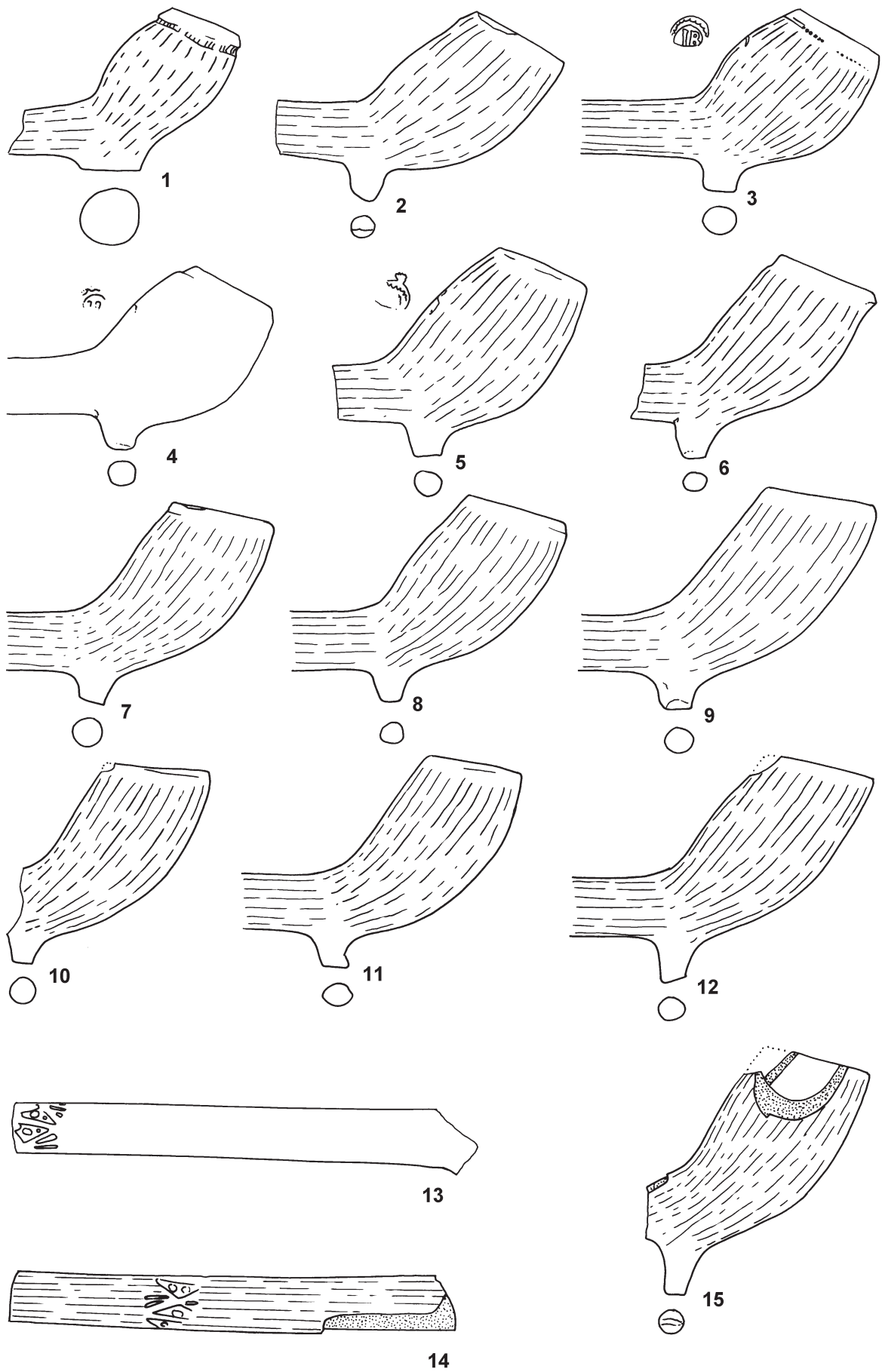


Fig. 4.18: 1-15: Clay tobacco pipes, scale 1:1

Context 77 also produced a stem with a roll-stamped border on it (Fig. 4.18, no 13). The border is crudely executed but it is also made of an imported, non-micaceous fabric. In general terms, this belongs to a series of 'pinnacle and dot' borders that became characteristic of the Chester industry. This particular form, however, is much more crude than the majority of the Chester examples and only one similar and unstratified example was recorded by Rutter and Davey in their study of the Chester industry (1980, Border 29). Similar examples have, however, been noted by the author from Nantwich (NatWest Bank excavations, 1979; NAWST 79 Context 1, SF22) and from excavations at Warrington and Tatton Park in Cheshire (Higgins 1987a, figs 11.4 and 8.14). These relatively crude borders are likely to date from quite early in the local series, which starts around 1690, and they may well have been produced somewhere on the south Lancashire / north Cheshire border, rather than in Chester itself.

In terms of dating context 77, the typologically latest pieces present are the Chester style bowl of *c.* 1690-1720 and the stem border, which is of a similar date. The bulk of the finds, however, are of *c.* 1660-90 styles. It may be that the two later pieces are early examples of their types, perhaps dating to as early as the late 1680s, so that the whole group dates from around 1685-90. Alternatively, these later pieces could represent the final phase of deposition in the ditch, the majority of which had been backfilled in the 1670s or 1680s.

Context 95 (1/2/0=3) This context was part of the ditch fill (see also contexts 77 and 101), but it only produced three fragments of pipe. There is a joining stem and bowl with the stamped mark GR facing the smoker (Fig. 4.19, no 16; National Catalogue Die Number 1957) and a small piece of burnt stem that dates from *c.* 1750-1850. This stem is much later than any of the other pipes from the ditch and appears to be intrusive in this context.

Context 101 (16/9/0=25) This context was part of ditch fill 95 that appeared to contain a discrete deposit of material (see also contexts 77 and 95). The pipes from this context comprise the best group of late 17th -century pipes from the site. All of the pipes from this context fall within a date range of *c.* 1660-1700 and they could all have been laid down in a contemporary deposit of *c.* 1680-1690. All but one of the nine stem fragments join with the bowl fragments recovered, producing a number of substantially complete pipes (e.g. Fig. 4.19, nos 17 and 19). Had all the stem and mouthpiece fragments been recovered, it seems highly probable that complete pipes could have been reassembled from this deposit.

The pipes are all made of local micaceous clay and none of the bowls have been milled. Where it is possible to tell, all of the bowls have been burnished. Despite being quite well burnished, as evidenced by the spacing of the individual burnish lines, many of the bowls do not show a

particularly glossy surface. This may be due to a number of factors, such as the initial susceptibility of the clay to being burnished, how dry the pipes were when they were burnished and the temperature at which they were fired. If a pipe is too highly fired it will, apparently, result in the burnish being dulled or burnt off (N. Winter, pers. comm.).

Eleven of the 16 bowls from this context have makers' marks on them. There are two bowl stamps, one probably reading IB (Fig. 4.18, no 4) and the other GR (Fig. 4.19, no 17; National Catalogue Die Number 1958). The remaining nine marks are all heel stamps, all of which read IB (e.g. Fig. 4.19, nos 18-20; Fig. 4.20, nos 22 and 23). One of these has a particularly curved stem and the bowl rim has distorted or 'squatted' during firing into an oval shape. These two features clearly suggest that the pipe started to collapse during firing, when it would have been resting upright on its rim with the stem leaning against a central support in the kiln. Despite its deformity, the pipe was considered good enough for sale and has been smoked. Another IB pipe from this context, stamped with the same die and probably from the same mould, shares all of these features, as does one of the examples from context 77 (not illustrated).

The bowl forms from context 101 include two bulbous spur bowls, both with stamped marks facing the smoker (Fig. 4.18, no 4; Fig. 4.19, no 17). The first example is rather small and has an abraded surface so it is not certain whether it was originally burnished or not. This piece is the earliest looking from the group and may be residual. There are five spur bowls with a more slender form, none of which is marked (Fig. 4.18, nos 7-9, 11 and 12) and eight bulbous heel forms, all of which are stamped IB (e.g. Fig. 4.19, nos 18-20). The latest forms present are two tall transitional forms, both of which are also stamped IB (Fig. 4.20, nos 22-23). Unfortunately, there were many makers with the initials IB working in the Rainford area, where these pipes would have been produced, making it impossible to identify the exact manufacturer.

What is significant about this group is the association between mark and bowl form. Both of the bulbous spur forms have bowl stamps, while all of the heel bowls have base stamps. The only unmarked bowls are the five more slender spur forms (Fig. 4.18, nos 7-9, 11 and 12). These are made of the same local fabric and they are contemporary with the other forms from this group. Furthermore, these five bowls each have between 70mm and 131mm of surviving stem, showing that they did not have stem marks. This group supports findings by the author from other parts of the country that specific styles of makers' mark were associated with particular bowl forms. In a sense, the mark is as much a part of the design or style of the pipe as a means of identifying the manufacturer.

Context 236 (3/3/0=6) Although a small group, these pipes are of interest because they came from the packing

for the widening of the cellar steps. The three bowl fragments fit to make a transitional bowl form of c. 1680-1720 (Fig. 4.18, no 15) and two of the three stems are decorated with a roll-stamped border, one of which is illustrated in Figure 4.18, no 14. These borders appear to be identical to the example from ditch fill 77 (Fig. 4.18, no 13), suggesting that the two deposits are contemporary. If this is then case, then it may be that the alterations to the main house were associated with a wider refurbishment of the grounds, including the filling of the ditch. The pipes from context 236 are also important because no bowl form has ever been found attached to one of these crude stem borders. Although neither of the stems actually joins the bowl, this group creates an association between the borders and the bowl form that may well indicate the style being used. Both the bowl and stems are made of imported clays, confirming that either these pipes were made away from Rainford or that they represent the first moves towards the use of imported clays at that centre. The bowl form supports a late 17th- or early 18th-century date for these stem borders and, given the similarity with the material from the ditch fills, it seems likely that the refurbishment of the cellar steps took place in about 1690.

Context 269 (5/18/0=23) This group represents the primary fill of ditch 166. It is a very coherent looking group with all of the bowl forms dating from c. 1690-1720. Two of the bowl fragments join so that four different bowls are represented in this group, the three most complete of which are illustrated in Figure 4.20, nos 25, 28 and 29. The fourth pipe is just represented by a spur fragment, very similar to that illustrated in Figure 4.20, no 25. There are numerous cross-joins amongst the 18 stems recovered from this context. Six of the stems join to make up a section of 311mm in length and another three to make up a section of 253mm. The extrapolated taper of the longest stem shows that these pipes would have been at least 340mm (13.25") in length and more likely around 390mm (15.25"). These very substantial portions of pipe not only provide an indication of the stem lengths at the time but also show that fresh domestic waste was being discarded into the ditch.

In contrast with the other ditch fills discussed above (contexts 77/95/101) all of the bowl fragments from context 269 are made of fine, imported fabrics, as are all but five of the stem fragments. Three of these join to make the shorter of the two 'long' stem sections and the other two pieces come from at least one other pipe. This shows that pipes made of local fabrics were still in use but that pipes made of imported fabrics were rapidly replacing them. Burnishing was still in common use with both of the spur fragments and all but four of the stems being burnished. There are two stems of local fabric and two of imported that are not burnished, in addition to which neither of the heel bowls is burnished (Fig. 4.20, nos 28 and 29). Overall 17 of the 23 fragments are burnished (74%).

The 17th- and Early 18th-Century Pipes

With the exception of one large 19th-century group, the majority of the pipes recovered from this site date from the 17th or early 18th century. There are quite a number of stems of general 17th-century type but the earliest bowl fragments only date from c. 1640-60, for example, Figure 4.18, no 1, and it is only from the third quarter of the century that more forms are represented (e.g. Fig. 4.18, nos 2 and 3). This is perhaps surprising given the proximity of Rainford, which established itself as an important pipemaking centre early in the 17th century. The 17th-century pipe evidence from this site is, however, generally rather scrappy and, were it not for the ditch fills, it would be hard to say much about the pattern of pipe use on the site.

A total of 23 makers' stamps belonging to this period were recovered. There are 16 stamps reading IB, another that probably reads IB, two reading GR, three decorative stem borders and one illegible mark. These marks can be divided into three types, as follows: -

Bowl Stamps There are six bowl stamps, all of which are of a distinctive crescent type and placed on spur bowls, facing the smoker. The crescent mark was characteristic of the Rainford industry, although it was also used in surrounding centres, such as Liverpool. Two of these read IB (contexts 110 and 120; Fig. 4.18, no 3), one probably reads IB (context 101; Fig. 4.18, no 4); two read GR (contexts 95 and 101, Fig. 4.19, nos 16 and 17) and one is uncertain (context 77, Fig. 4.18, no 5), but most likely to be another IB mark. There were numerous makers with the initials IB working in the Rainford area, which makes attribution of these marks to a specific maker impossible until individual dies can be tied to specific kiln sites. The GR marks, however, are less usual. Although the author has recorded GR marks from north Lancashire and Cumbria, especially around the Kendal area, these are all heel marks and of earlier date than the Big Lea Green examples. This makes it unlikely that the same maker is represented by the two sets of marks. Furthermore, extensive field collection in the immediate Rainford area has failed to produce any GR marks like the Big Lea Green examples (Ron Dagnall, pers. comm.), and so these pipes are unlikely to come from that production centre. They are, however, of a local style and made of local coal-measure clay. As such, they almost certainly represent a previously unrecorded local maker, working near to the Big Lea Green site, but probably not in the parish of Rainford itself.

Heel Stamps There are 14 heel stamps, all of which read IB and most of which come from the 1680s ditch fill (3 from context 77 and 9 from context 101; Fig. 4.19, nos 18-20; Fig. 4.20, nos 22 and 23). In addition, there is one from context 204, 112 and one from context 230 (Fig. 4.19, no 21). As with the IB bowl marks, these are all of Rainford types, but cannot be attributed to a specific maker,

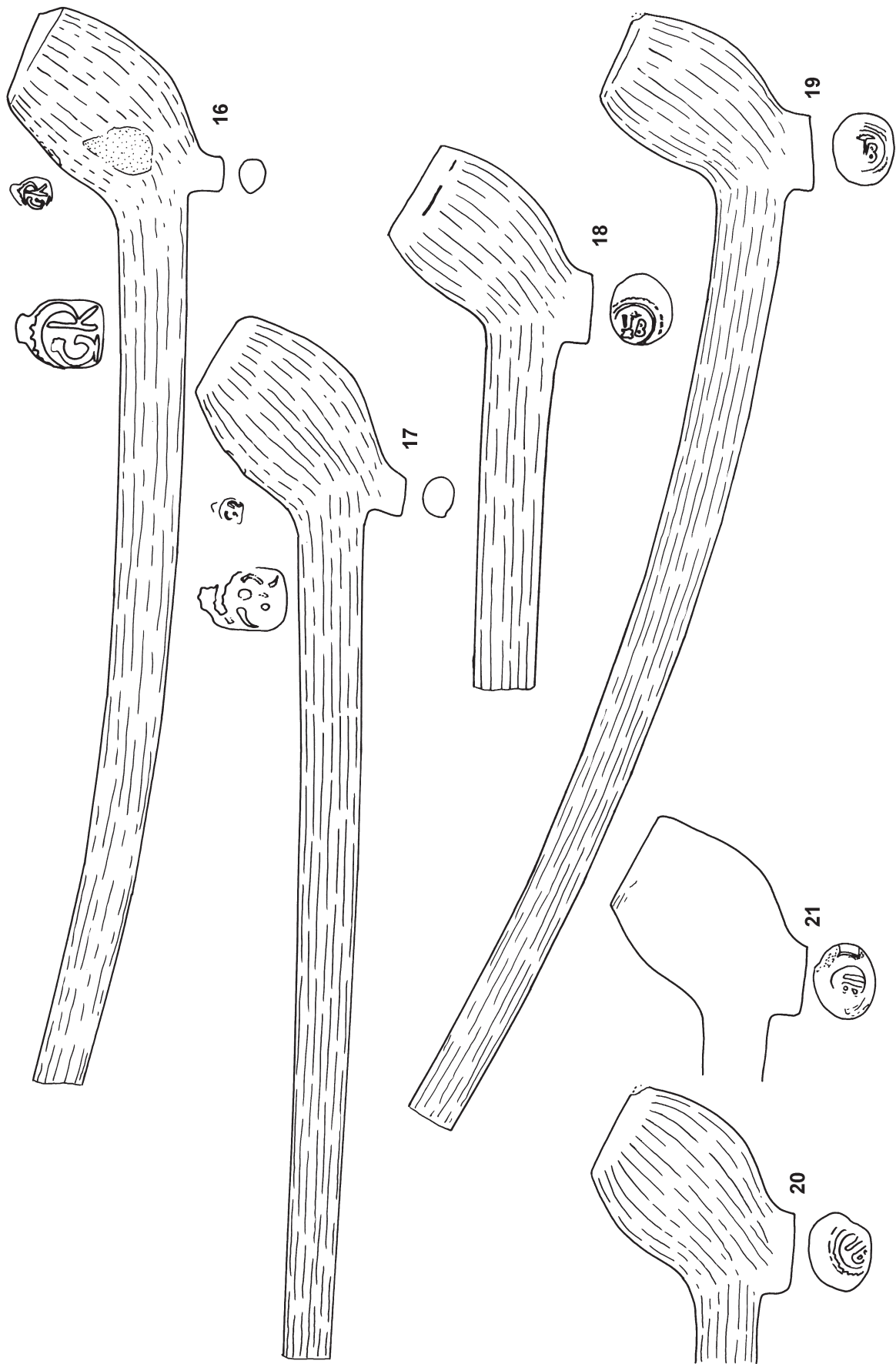


Fig. 4.19: 16-21 Clay tobacco pipes, scale 1:1, with the stamp details for 16 and 17 at 2:1

although the mould and die duplicates discussed below suggest that most of these came from the same workshop.

Stem Borders There are three stem borders, one from context 77 (Fig. 4.18, no 13) and two from context 236 (Fig. 4.18, no 14). The borders are crudely cut and rather poorly impressed, making comparison difficult, but they were probably all made using the same die. In two of the three examples the stem has also been burnished. All three borders occur on pipes made of an imported clay and they probably date from the 1680s, although of a style that would have been used into the early 18th century, most likely with a bowl form such as that shown in Figure 4.18, no 15. Similar stem borders have been recorded from Nantwich and Warrington, suggesting production in this area as opposed to Chester, where only one unstratified example is known.

By far the most significant group of early material is that recovered from three related ditch fills, contexts 77, 95 and 101 (Fig. 2.15). These three fills produced a total of 66 fragments of pipe, comprising 25 bowl, 40 stems and one mouthpiece. These deposits contained contemporary looking groups with many joining fragments. Had a more comprehensive sample of stems and mouthpieces been recovered it seems highly probable that complete pipes could have been reassembled. This ditch group appears to be both freshly deposited and coherent. It is a particularly important group since it fills a gap in the later 17th century where good excavated deposits have not been previously recovered. The substantial pipe assemblage from Bewsey Old Hall, for example, is weak in bowls of this period (Higgins 2011).

The pipes from the three ditch contexts are illustrated in Figure 4.18, nos 4-13, Figure 4.19, nos 16-20 and Figure 4.20, nos 22-24. The breaks in this sequence (Fig. 4.18, nos 14-15 and Fig. 4.19, no 21) are contemporary forms from other contexts so, in effect, the whole sequence (nos 4-24) can be taken to represent the forms current when the ditch was being filled. The majority of these bowl forms would normally be dated to c. 1660-90 but with the latest examples dating to c. 1690-1720. Given the fresh nature of these pipes and their association in a single ditch, it seems most likely that they form a contemporary group, most likely deposited during the 1680s.

The 1680s ditch group suggests that five main styles of pipe were in use at this time. There are 25 different bowls in the pit group, which can be divided up as follows: -

Bulbous Spur Bowls This is a relatively small group, represented by four examples (16% of the bowls from this group). All of these examples have bowl stamps facing the smoker (Fig. 4.18, nos 4, 5; Fig. 4.19, nos 16 and 17). Fig. 4.18, no 4 seems unusually small for this period, but may be a late example of its type, produced from an old mould.

Slender Spur Bowls There are eight examples of more

slender spur forms (32% of the group), none of which is marked. These represent a number of different mould types, showing that this was a popular style at the time as opposed to the group simply reflecting a single batch of pipes to the site. Examples of the bowl forms are given in Fig. 4.18, nos 6-12. A decorative stem border from the ditch (Fig. 4.18, no 13) would probably have been used in conjunction with this bowl form.

Bulbous Heel Forms There are ten examples of this type (40% of the group), making this the most common form represented (e.g. Fig. 4.19, nos 18-20). All of the examples have IB stamps on the heel. The stamps are often poorly applied and the clay is quite coarse, making it hard to identify individual mould or die types for these pipes. It does appear, however, that this group can be divided into just two mould types and two die types. There are seven slightly smaller bowls, most of which are certainly from the same mould and the remainder probably so. Four of the bowls have straight stems (Fig. 4.19, no 18) but the remaining three all have markedly curved stems, the most complete of which is shown in Figure 4.19, no 19. These three bowls also show signs of 'squatting', where the bowl mouth has started to deform during firing. At least some and probably all of the stamps on these seven heels are also the same. This particular die has a lop-sided motif between the initials, a crescent shape beneath them and striations across the field behind the lettering. In contrast, at least two and probably all three of the other bulbous heel forms come from another mould (Fig. 4.19, no 20). These bowls also have a different mark with a much heavier border and simple initials, without other motifs. The duplication of these bowl forms and marks suggests that the IB pipes were not only produced locally but also that they formed a regular supply source for the occupants at Big Lea Green.

Transitional Heel Forms There are two transitional heel forms, representing 8% of this group (Fig. 4.20, no 22 and 23). Both are from different moulds and both have different IB marks on them.

Transitional Spur Form There is just one transitional spur form, representing 4% of the ditch group (Fig. 4.20, no 24). This is the only bowl in the group to be made of an imported fabric and the only one to have a simple cut rim. It is also only one of two that is definitely not burnished, the other example being one of the small bulbous heel forms, of the same form as Figure 4.19, nos 18 and 19.

This group of pipes does much to characterise local production at this date. The most common forms are bulbous bowls, which occur as either heel or spur varieties. Some of these are very similar to their Yorkshire counterparts (White 2002) while others are of distinctive local styles. With one exception the bowls are entirely made of local clays and none of them is milled. The stems were generally straight and the surviving fragments suggest a general length of around 12"-13" (300mm-

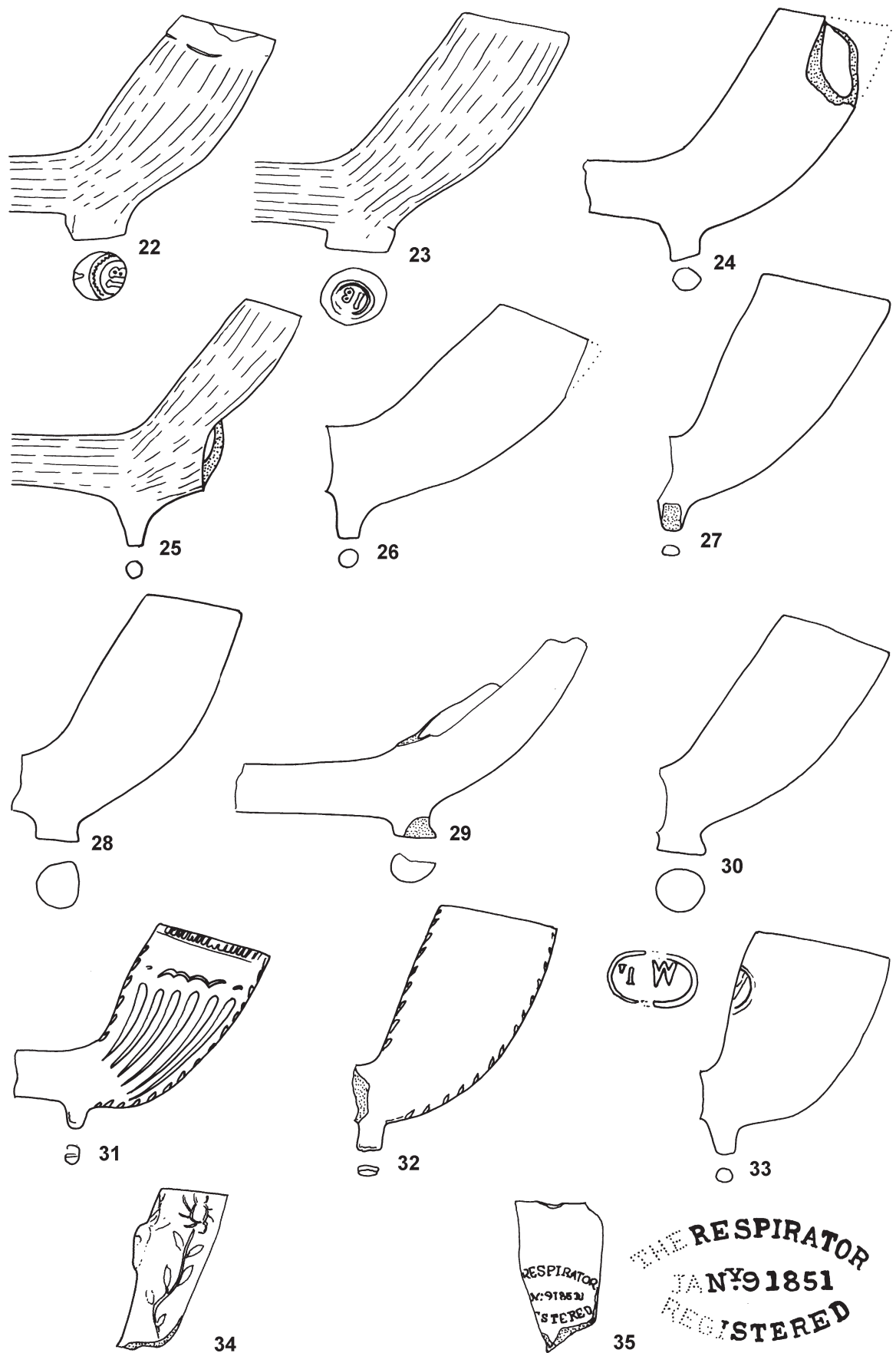


Fig. 4.20: 22-35 Clay tobacco pipes, scale 1:1 , with the stamp detail for 35 at 2:1

330mm) for these pipes. In at least four instances, pipes were sold with markedly curved stems. The curved stems are associated with ‘squatting’ of the bowls and so can be seen as an accidental occurrence rather than an intentional feature. Nevertheless, all four examples show clear signs of having been smoked. Furthermore, these four pipes were made by two different makers, showing that the selling of ‘seconds’ was a regular and acceptable practice at this time. The appearance of transitional bowl forms and a decorative stem border shows that new designs were being introduced alongside the established ones, while the range of bowl forms shows that there was a degree of personal choice in the style of pipe that an individual could select. Finally, there is a clear link between the position and style of the mark and the bowl form that it was used with. Heel bowls had circular base stamps; bulbous spur forms had crescent shaped bowl marks and the slender spur bowls were not marked at all.

The 1680s ditch group discussed above (contexts 77/95/101) contrasts well with the context 269 ditch group, which only dates from a few years later, around 1690-1720. By this time, however, the bowls were all made of imported clays and only two of the four were burnished. The rims were cut rather than being bottered (smoothed with a finishing tool after moulding) and none of the bowls was marked. Finally, the bowl forms are now of a style that would be familiar in Chester as opposed to the earlier forms, which were characteristic of the local Rainford industry. The pipes may still have been made locally in Rainford, but the forms and fabrics now follow the Chester fashions rather than setting the trends themselves.

These two ditch groups also produced some evidence for stem length although, unfortunately, not enough stem or mouthpiece fragments were collected to allow the recovery of complete pipes. Only two sites from the North West have produced complete pipes, both of them early 17th-century kiln sites (Higgins 1982 and Chester, unpublished). No complete pipes of later 17th- or early 18th-century date are known from this region, which is why the Big Lea Green evidence is so important. The extrapolated tapers of large fragments recovered from the 1680s ditch group suggests stem lengths in the region of 12”-13” (300mm-330mm) and the c. 1690-1720 ditch group suggests stems in the region of 13.25”-15.25” (340mm-390mm). These lengths fit with the national trend for a steady increase in average length during this period (Higgins 1987b, 64). Complete examples from the North West are needed to be sure of the exact lengths and to explore the relationship between bowl form and stem length.

Although there are other odd examples of early 18th-century forms, for example Fig. 4.20, no 30, there are no discernible mid- to late 18th-century forms amongst the excavated assemblage. There appears to have either been a change in waste deposition across the excavated area or a change in smoking habits for about a century before pipe evidence picks up again during the 19th century.

The Later 18th- and 19th-Century Pipes

As with the earlier pipes, the later material is generally rather scrappy, save for the large group from context 69, which is discussed separately below. The other 19th-century finds tend to come from mixed or unstratified deposits. The finds include a complete plain spur bowl dating from the first half of the 19th century (Fig. 4.20, no 27) and a number of decorated pieces. The decorated fragments are generally of typical local styles, for example the fluted bowl (Fig. 4.20, no 31) or the fragment with a stag’s head facing the smoker and floral design on the bowl (Fig. 4.20, no 34). Some of the designs are of simple types that are found all over England, such as the bowl with leaf decorated seams (Fig. 4.20, no 32) or the slightly later example of a TW pipe (Fig. 4.20, no 33). This second example is a standard pattern type and the moulded initials TW are part of the design, not a maker’s mark.

One of the most interesting 19th-century fragments is an unstratified find from Area XVIII (SF897). This is a small and abraded bowl fragment with quite thick walls and an incuse stamp with serif lettering facing the smoker (Fig. 4.20, no 35). Small sections of the rim survive in an abraded condition. This was probably plain and finished with a simple cut. The stamp has serif lettering in three lines, the top and bottom of which are curved in opposite directions to form an oval; there is no border. The left hand side of the stamp is missing but the text probably originally read ‘[THE] RESPIRATOR / [JA]NY 9 1851 / [REGI]STERED’ (National Catalogue Die Number 1762).

This is the earliest known registration for a pipe design and, until this piece was found, no example was known to survive. The design was a non-ornamental registration (No 2624) made by Edward Upward, builder, of 51 South Moulton Street, London, W1, on 9 January 1851. The registration was for ‘The Respirator Pipe’ – a long clay pipe with an extra bore hole through the stem and parallel with the normal stem bore. This extended to the far side of the bowl, so as ‘to enable the smoker to inhale atmospheric air through the mouth at each respiration without depending entirely upon the nostrils for the inflation of the lungs while smoking, at the same time it counteracts the heating effects of the smoke in the mouth or tongue’ (Hammond, 1985, 65). Although very fragmentary, this example not only shows that the design went into production but also that it was widely marketed across the country. It is not known how successful the design was, but these designs often only enjoyed short-lived popularity and this example seems most likely to date from the 1850s.

There were 51 marked pipes amongst the later material, all but six of which were recovered from context 69 (see below). The other examples were mixed in nature, comprising one stamped bowl mark, one moulded bowl

mark, one moulded stem mark and three moulded spur marks, all of which were symbols. The bowl marks (the unstratified 'Respirator' mark and the TW mark from context 110) have been mentioned above (Fig. 4.20, nos 33 and 35). The stem lettering comprised part of an incuse moulded, sans-serif, mark that would originally have read 'MILLER / LIVERPOOL' from context 110 (similar to Fig. 4.21, nos 46 and 47 in style). The spur marks comprised a 'flower' mark from context 120 made in the same mould as an example from context 69 (Fig. 4.23, no 91); a ring mark on a plain bowl from context 110 (similar to Fig. 4.23, no 87-89) and a double ring mark from context 165. The double ring was of the type shown in Fig. 4.23, no 90 but occurred on a badly burnt bowl fragment with fluted decoration and, possibly, leaf decorated seams as well (not illustrated).

Context 69

This was by far the largest group of pipes from the site and one that is of considerable interest for two reasons, first, because of the number and range of the pipes present and, second, because of the apparently close dating of this group to the early 1860s. This group not only provides a sample of pipes from a period that is rarely represented in controlled archaeological excavations but also an important sample of pipes from the Liverpool area, where very little work has been done on 19th-century pipe groups. Liverpool was one of the principal pipemaking centres in the country with a substantial export trade. Despite this, Liverpool products are poorly understood and very few of the pipes produced there have ever been published.

The group itself consists of 499 fragments of pipe, comprising 268 bowl, 205 stem and 26 mouthpiece fragments. This appears to be a fairly good sample, since many quite small bowl fragments have been recovered. Despite this, the relatively low number of stems, and in particular mouthpieces, does suggest a certain bias in the collection of this sample. At least 129 pipes are represented by this sample, based on the minimum number of bowl/stem junctions present, each of which had at least part of the stem bore surviving. This figure has been used in the following sections when discussing the relative frequency with which particular bowl forms occur.

Given the consistent nature of this group, an attempt was made to reconstruct the fragments, using the methodology outlined by Higgins (1982). There were two reasons for this; first to try and establish which bowl forms or designs were associated with the named stems, especially the Liverpool ones, and, second, to try and recover examples of complete pipes. Unfortunately, a relatively low number of joins were present amongst the fragments and most of the joins that were found were fresh breaks resulting from the recovery of the pipes. Although some useful joins were found, neither of the primary objectives was achieved.

This particular group of pipes was recovered from a deposit containing large amounts of glass, ceramics and other household waste, so it is clearly domestic in nature. This context group produced four fragments of burnished 17th-century stem, which are clearly residual. There may be one or two pieces of 18th-century stem amongst the group, but these are hard to distinguish from 19th-century material. Given the overwhelmingly consistent 19th-century date of the more diagnostic fragments it appears that any residual material only forms a very small proportion of this group.

The domestic refuse dump itself can be closely dated by the makers' marks on the pipes, most of which point to a fairly brief period of deposition for this material. At least two Liverpool firms are represented amongst the marked pipes, with four examples from each firm being represented. The author has recently undertaken a systematic search of all the Liverpool trade directories to extract pipemakers, which allows these marks to be accurately dated for the first time. The first firm, Jones and Harris, occurs in the directories from 1859-1898 while the second, Miller, only appears from 1860-1875, thus narrowing the likely date of the deposit to just 15 years. The published dates for the pipemakers from some of the other centres represented in context 69 support the dates provided by the Miller pipes and help refine this date even further. The London directories only list Airth & Co, whose mark occurs in this deposit, in 1864. There is also a Posener mark from London with their Rupert Street address, which is only documented in 1862 (Hammond, *in litt*, 31.3.03). The Stewart pipes from Glasgow provide another good date, since this maker only appears in published lists from 1856-61. These dates cluster remarkably tightly and strongly suggest that the material from context 69 was being discarded c. 1860-65. All of the other marked pipes from this context would fit with an early 1860s date range and so, in the following description and discussion, a date of c. 1860-65 can be assumed for all of the 19th-century material from this deposit.

The Marked Pipes

A total of 45 different slogans, makers' marks or symbols were recovered from this group. These are listed in Table 4.3, followed by a more detailed description of the forms for which additional information or good dating evidence is available. In the table the type of mark (IS = incuse-stamped; RS = relief-stamped; IM = incuse-moulded; RM = relief-moulded) and its position on the pipe (BF = bowl facing the smoker; SX = across the stem; SS = sides of the spur; SH = sides of the heel; SL = along the stem sides) are given, followed by the number of examples recovered and the figure number(s) of any illustrated examples.

Some of these marks are just pattern names, for example, 'Garibaldi Pipe' or 'Burns Cutty', while others

Mark	Type	Pos	No	Fig. no	Comments
<i>Bowl Stamps</i>					
AIRTH & CO / AC / LONDON	IS	BF	1	36	Only recorded as pipemakers at Stratford, London, in 1864.
CORK	IS	BF	1	41	Part of an Irish style bowl with milled rim. 'CORK' is a pattern or style name.
GA[RIBALDI] / PIP[E]	IS	BF	1	38	'Garibaldi' was a pattern name for a particular pipe design.
L (crowned)	RS	BF	1	40	Irish style bowl with milled rim. Heel missing.
J.LEAMY / WATERFORD	IS	BF	1	39	Irish pipe.
Philos / Paris / Depose	IS	SX	1	43	Burnished French stem with plain bowl.
POSENER & Co / RUPERT ...	IS	BF	1	37	London manufacturer, only recorded at Rupert Street in 1862.
...ON? / ...E	IS	BF	1	42	Damaged mark – reading uncertain.
??	IS	BF	1		Irish style bowl with milled rim – probably 'DUBLIN' or similar stamp.
<i>Spur Marks</i>					
KK	RM	SS	1	56	Unusual mark with initials vertically and upside-down on the spur.
OO	RM	SS	9	86-9	Symbol marks; 8 on plain bowls and 1 on a bowl with leaf decorated seams.
Ring and dot	RM	SS	2	73, 90	Symbol mark; one on a plain bowl and one on an acorn bowl with leaf seams.
Flower and dot	RM	SH	2	91	Symbol marks on a plain bowl type (same mould).
<i>Stem Marks</i>					
BURNS CUTTY. / BURNS CUTTY.	IM	SL	1	51	Burns Cutty is a pattern name.
JONES & HARRIS / LIVERPOOL	IM	SL	4	44-5	Firm recorded 1859-1898.
McDOUGALL / GLASGOW	IM	SL	6	53-5	2 red clay; 4 white clay. Firm recorded 1846-1967 (Liverpool offices 1878-92+).
McDOUGALL GLASGOW / BURNS CUTTY PIPE	IM	SL	1	52	Burns Cutty is a pattern name. Firm dates as above.
MILLER / LIVERPOOL	IM	SL	4	46-7	Firm recorded 1860-1875.
STEWART / GLASGOW	IM	SL	2	48	Firm recorded 1856-1861.
STEWART	IM	SL	4	59-50	Seems to have lettering one side only.

Table 4.3: Marked tobacco pipes of c. 1860-65 from context 69 at Lea Green

were part of the particular design or style of the pipe. Irish style pipes were particularly popular at this period and stamps such as the crowned L or 'CORK' were added to certain of these styles, regardless of who made them. Many of the pipe manufacturers in north-west England and Scotland produced these Irish style pipes while others, such as the J Leamy pipe from Waterford, are actual Irish imports. This makes it hard to source individual examples that just have generic Irish style motifs on them. In contrast, some of the pipes with makers' marks on them can be well dated and details of the best documented are given below: -

Jones & Harris Four stems with the incuse-moulded, sans-serif, lettering 'JONES & HARRIS / LIVERPOOL' along the sides of the stem were recovered (for example, Fig. 4.21, nos 44 and 45). None of these examples had any border around the lettering, which was generally rather lightly cut, making the marks a little faint and hard to read. Jones and Harris were one of the most

important pipe manufacturers in Liverpool during the 19th century. Despite this, very few of the firm's products have ever been recorded and the company history has never been documented in any detail.

With the aid of trade directories, the origins of the firm can be traced back to the Morgan family, who were prominent pipemakers in Liverpool during the late 18th and early 19th centuries, with at least a dozen family members being recorded as pipemakers in the trade directories. William Morgan I (working c. 1767-1800) is the earliest member of the family recorded in Liverpool and he established his third successive workshop in a court on the north-east side of Gradwell Street, just to the south-west of Wolstenhome Square, in 1794. He is last listed in Gradwell Street in 1800 after which the business appears to pass to his son, William II, and then to Elizabeth Morgan following William II's death in 1816. Elizabeth operated from Gradwell Street until at least 1823 after which she moved to Sir Thomas' Buildings, where she is

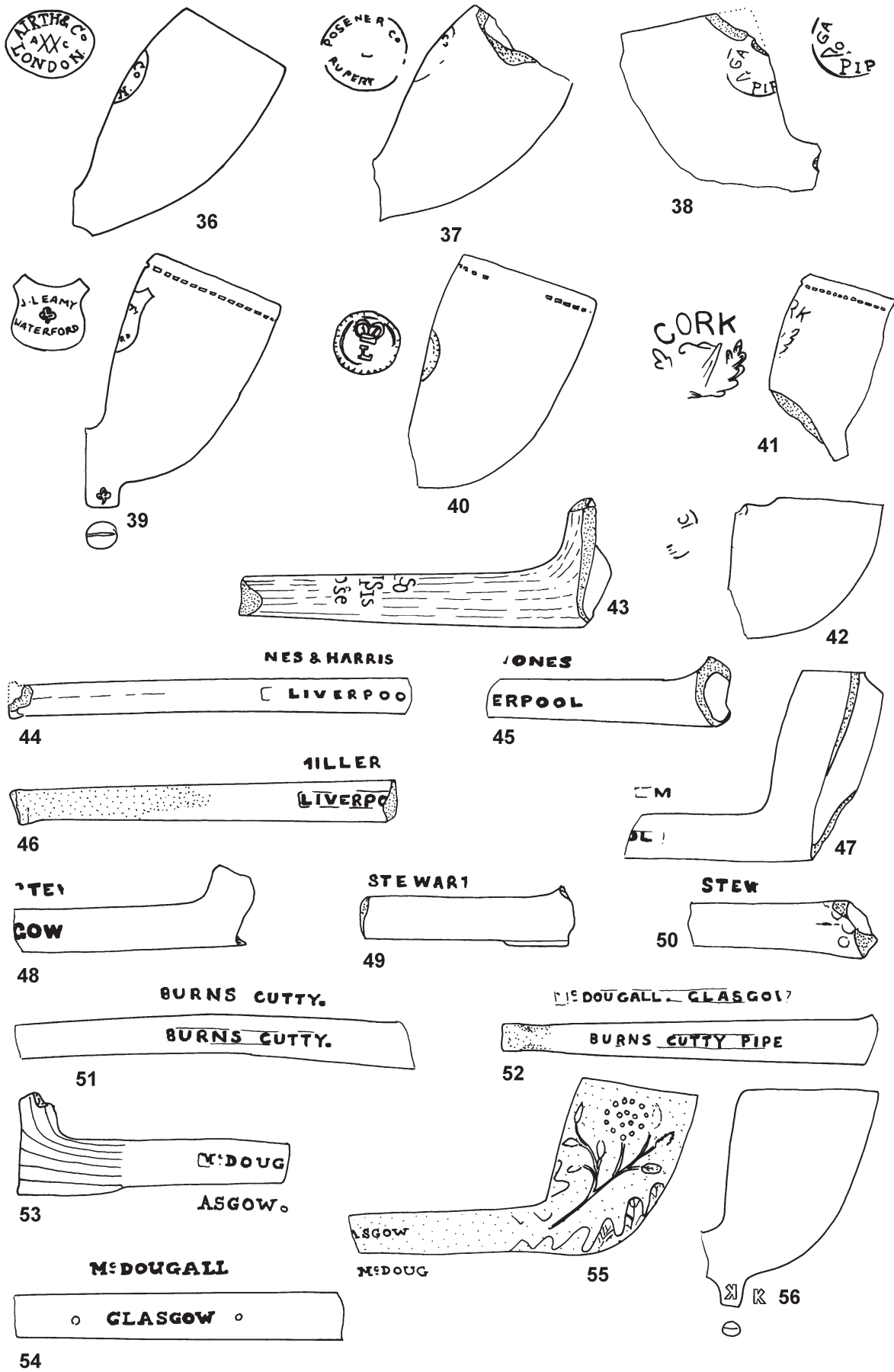


Fig. 4.21: 36-56: Clay tobacco pipes, scale 1:1

recorded from 1825 until 1839, the last year in which any of the Morgans are independently listed as pipe makers in Liverpool.

In about 1834 it is clear that John Jones went into partnership with the Morgan family since ‘Morgan & Jones’ are listed at 6 Beckwith Street in a trade directory of that year. This is the first year in which the Beckwith Street address is recorded as a pipe manufactory and so it seems likely that a new workshop had been established. The same partnership was listed again in 1835 but, by 1837, John Jones alone is recorded in Beckwith Street. The business must have grown rapidly since, by 1841, Jones had addresses in Beckwith Street, Burgess Street and at Sir Thomas’ Buildings. Sir Thomas’ Buildings is the address where Elizabeth Morgan was last recorded in 1839, and suggests that by this date Jones had completely taken over the main part of the Morgan business, which had dominated the Liverpool pipe trade for the previous 70 years. The Burgess Street address does not appear after 1845 but the other two addresses continued in use throughout the 1840s and 1850s.

In the 1851 Census, John is listed as aged 47 (born in Liverpool *c.* 1804), and was living at 49 Sir Thomas’ Buildings, where he was described as a master clay pipe maker, employing 35 men, 20 women and 10 boys. This is a huge workforce and must have made his works one of the largest anywhere in the country at this time. Also living with him were his second wife, Mary Ann (born Liverpool, *c.* 1821); an aunt called Elizabeth Harris who worked as a mid-wife (born Heath Molton, Devon, *c.* 1785), and Margaret Kelley, a 23 year old house servant from Douglas on the Isle of Man.

John had previously been married to an Ann (born Lancashire, *c.* 1811), with whom he had had a son, John George Jones, who was born in Liverpool in about 1827 or 1828. John George was living with his father and recorded as a pipe maker, aged 14, in the 1841 Census and so it is clear that he grew up in the family business. By 1851 he had married Jane Hughes, a shoemaker’s daughter, and had his own house on Brownlow Hill. It is not known exactly when he took over from his father, but he is specifically listed as “John George Jones” in the 1857 directory, when he is listed at the same addresses as his father had been, *i.e.*, Beckwith Street and Sir Thomas’ Buildings.

Unfortunately, the success of the family business was cut short by John George’s untimely death in 1857, as reported in the *Liverpool Mercury* (Wednesday, 11 March 1857; Issue 2954); “March 9, at his residence, Sir Thomas’s-buildings aged 29, Mr. John George Jones, tobacco pipe manufacturer, much regretted by all who knew him”. The directory evidence, together with this report, suggests that his father had already died by this date and that John George had moved into his house

in Sir Thomas’s Buildings. Following his death, the business was rapidly put up for sale, as is shown by an advertisement in the *Liverpool Mercury* just over a week later (Friday, 20 March 1857; Issue 2958):

‘To TOBACCO PIPE MANUFACTURERS AND OTHERS. – TO BE SOLD, by Private Treaty, by order of the Executor and Executrix, the STOCK and GOODWILL of the old-established BUSINESS of the late JOHN GEORGE JONES, situated in Beckwith-street, Park-lane. – Every information will be given by making application at 12, Beckwith-street.’

It is not clear exactly what the outcome of this sale was since Jane Jones, John George’s widow, is listed as a pipe manufacturer at 49 Sir Thomas’s Buildings in Gore’s directories of 1859, 1860 and 1862, which might suggest that she had retained the business. Somewhat confusingly, the same three directories also list ‘Jones & Harris’ as pipe manufacturers at 49 Sir Thomas’s Buildings and 8 Beckwith Street and they also list David Harris as a pipe maker at 49 Sir Thomas’s Buildings. This duplication of names and addresses is explained by the marriage at St Nicholas’ Church on 9 September 1860 of David Harris, bachelor, pipe maker, and Jane Jones, widow. While the precise details of the arrangement are unclear, it is evident that David Harris, 10 years Jane’s junior, had entered into some sort of partnership that gave rise to the firm of Jones & Harris as well as to a marriage.

David Harris had been born in Liverpool in about 1836 but grew up in Wales, where his Welsh father, also called David, was recorded in 1851 as a boot maker employing 15 men and four women in Carnarvon. At that date the 15 year old David was living at home and working as a shoemaker, presumably for his father. How he came to return to Liverpool and change trades to that of a pipe maker is not known, although there may have been a link in that Jane Jones’s father, John Hughes, was also a shoemaker and Jane had been born in Liverpool. In the 1861 census David, age 26 (born Liverpool *c.* 1835) is recorded as a tobacco pipe manufacturer at 49 Sir Thomas Street, with wife Jane, age 36 (born Liverpool *c.* 1825), his 16 year old sister Mary Harris (born Carnarvon *c.* 1845) and a boarder, John Hughes, also 16 and from Carnarvon.

The new start for the family did not last long since Jane died in 1862, as reported in the *Liverpool Mercury* (Friday 18 July 1862, Issue 4504), “HARRIS – July 7, at her residence, 5 Belmont-view, West Derby-road, Jane, wife of Mr. David Harris, of the firm of Jones and Harris, tobacco pipe manufacturers, Sir Thomas’s-buildings.” Within a year there was further misfortune for David when he found himself in court accused of robbery from an unoccupied house. The case was reported in the *Liverpool Mercury* for Monday the 18th May 1863 (Issue 4764) and provides an interesting

insight into what had happened to the business:

‘LIVERPOOL POLICE COURT – SATURDAY, MAY 16. BEFORE MESSRS. LAMPORT AND HOUGHTON . . . ALLEGED ROBBERY FROM AN UNOCCUPIED HOUSE. – David Harris and James Cowley were brought up on the charge of having stolen some doors and fire grates from an unoccupied house in Sir Thomas’s-buildings, Dale-street, the property of the Corporation of Liverpool. It appeared from the evidence given that Harris had formerly carried on the business of a pipe manufacturer upon the premises in question, but in consequence of the house with others adjoining being about to be pulled down for town improvements he had received notice to quit by the 1st of this month, and had left accordingly. On Friday he and the man Cowley were detected by Mr. Swallow, assistant to the borough surveyor, in the act of taking away the doors, fire grates, and an oven from the house. They had a shandry at the front, and in it were five grates, an oven, and two doors, with six others outside the house ready for loading. There was not a door or a grate left throughout the house. Mr. Swallow told Harris he must not take the property away without the permission of the surveyor. He replied that he had the surveyor’s permission to do so. Mr. Swallow remarked that if he (Harris) had got any authority from the surveyor, he (Mr. Swallow) would have received instructions to that effect. The prisoner told him he would take away the doors in spite of him, and whilst Mr. Swallow went for a police officer the articles were taken away, and had not been recovered. – Mr. Weightman, the surveyor, proved that he had not given Harris permission to take the doors and grates from the house. – It was shown that the man Cowley had merely acted as the servant of Harris. – Mr. Black, in addressing the bench on behalf of the latter, said if he went to the building in question, having no just claim, but feloniously took away property, intending to deprive the owners of it, then he was guilty of felony; but if he believed he was justified in taking the property, though he might have acted wrongly in taking it, he could not be held guilty of felony. – Mr. Lamport said his brother magistrate, being a member of the corporation, would not act in the case. His (Mr. Lamport’s) own opinion was that the prisoners had behaved very improperly in removing the property from the premises, and that Mr. Swallow was quite justified in taking the course he had done, and in giving them into custody. The magistrate believed that the prisoners had no felonious intention in removing the doors, &c., and they would therefore be discharged, but they must restore the whole of the property they had removed. – Harris consented to this being done, and he and his fellow prisoner were set at liberty.’

This report not only shows that the property at 49 Sir Thomas’s Buildings had at least five grates, an oven and eight doors, but also that Harris had had to vacate the property by 1 May 1863 for demolition. This would

explain why the trade directories show the firm of Jones & Harris moving from Beckwith Street and Sir Thomas’ Buildings (last listed in directories for 1862) to two new premises at 33 Frederick Street and 37 Vauxhall Road, which are listed from 1864 onwards. Despite Jane’s death in 1862, ‘Jones and Harris’ continue to be listed at 33 Frederick Street and 37 Vauxhall Road until 1888, after which just the Vauxhall Road address appears until 1897.

David Harris re-married soon after Jane’s death to Sarah Woolfall Whitaker (married in the third quarter of 1864, West Derby), who had been listed as a teacher of music in the 1861 census. By the time of the 1871 census the family was living at 8 Crosfield Road, West Derby, with three young children. The household comprised David Harris, 35 (born Liverpool *c.* 1836), tobacco pipe maker employing 10 men and 4 women; Sarah Woolfall Harris, 37 (born Liverpool *c.* 1834); Mary W. Harris, 5 (born Liverpool *c.* 1866); Sarah Ellen P. Harris, 3 (born Liverpool *c.* 1868); Annie E. Harris, 4 months, and Martha Walker, an unmarried general domestic servant aged 18 born at Whiston, Lancashire. By 1874 the family had moved to 7 Yanwath Street, Toxteth Park (Gore’s Dir), but David died soon after, aged 39 (buried in the March quarter of 1875, West Derby).

Sarah clearly took over running the pipemaking business, being listed in the 1881 census at 7 Yanwath Street, Toxteth Park, as a 47 year old widow (born Liverpool *c.* 1834) and described as a tobacco pipe manufacturer employing 6 men, 2 boys and 5 females. Living with her were her two daughters, Mary W. Harris, 15 (born Liverpool *c.* 1866), pupil teacher, and Sarah E. P. Harris, 13 (born Liverpool *c.* 1868) as well as Martha Jameson, a 21 year old general servant born at Huyton Quarry, Lancashire. Sarah is listed as a tobacco pipe manufacturer in the directories until at least 1883 but, by 1891 she appears to have sold the business and was ‘living on her own means’. The 1891 household at 7 Yanwath Street, Toxteth Park, comprised Sarah W. Harris, widow, 57 (born Liverpool *c.* 1834) living on own means; Mary W. Harris, 25 (born Liverpool *c.* 1866), elementary school teacher; Sarah E. P. Harris, 22 (born Liverpool *c.* 1868), Draper’s assistant and Ann Briscoe, a 16 year old general domestic servant born at Huyton Quarry, Lancashire. In 1901 she was still at the same address, the household being given as Sarah W. Harris, widow, 67 (born Liverpool *c.* 1834) living on own means; Mary W. Harris, daughter, 35 (born Liverpool *c.* 1866), head mistress board school and Annie Griffiths, a single 25 year old general domestic servant born in Montgomery. Sarah Woolfall Harris died, aged 75, in December 1909 (West Derby).

As mentioned above, Sarah appears to have sold the business by 1891 and this seems to have been to John Warrington and his son Thomas H. Warrington in around 1888, since they are listed at 37 Vauxhall Road

in trade directories of 1889 onwards, often under the name 'Jones & Harris'. The 33 Frederick Street address does not appear after 1888 and so presumably this location became redundant at the time of the take over. The firm of 'Jones and Harris' continued to be listed at 37 Vauxhall Road in the 'trades' section of the local directories until 1897 but under the 'address' sections both John and Thomas H. Warrington are variously listed at that location, suggesting that they were working together in running the business. There is also the unexplained listing of George Norris (in addition to the Warrington's) at 37 Vauxhall Road for one year only in 1890. The Vauxhall Street address last appears in 1897 and then, in 1898, 'Jones and Harris' appear for the last time under Thomas H. Warrington's entry at 24 Jackson Street. From 1899 Thomas appears as a victualler at this address, suggesting that the long established pipemaking business had finally closed.

Although the Warringtons took over 'Jones & Harris' for the last decade of its existence, this was very much a consolidation within a contracting industry, since the Warrington's had a long established pipe making history of their own and both businesses ultimately disappeared. John Warrington was born in Liverpool in about 1819 and by the time of the 1841 census was already working as a pipe maker. He first appears in the trade directories as an independent maker in 1845 and continued to be listed as a pipe maker in all of the census returns and most of the directories right up until his death in 1896. He was not always amongst the top flight of Liverpool pipemakers and is also recorded as keeping a 'provision shop' during the 1860s and 1870s (sometimes this is the only trade he is listed under). He had at least five children between about 1846 and 1859, including Thomas Henry Warrington (born c. 1846), who went on to become a pipe maker as well, being listed as such between at least 1861 and 1898. Thomas helped his father in the provision shop until he married Julia Delany in 1874 and then, like him, he mixed the trade of pipe making with another occupation, in his case that of a licensed victualler, from at least 1891 onwards. The fact that they retained the name 'Jones & Harris' when the two of them ran that business from 1889-1898 suggests that that company had a much better reputation and pedigree than they had been able to achieve as a family of pipemakers themselves. The closure of 'Jones & Harris' in 1898 marked the end of an unbroken thread of pipemaking activity in Liverpool that can be traced back through a variety of ownerships, name changes and premises to William Morgan in the 1760s.

From the evidence discussed above, it appears that the joint trade names used often reflected the acquisition of existing businesses as much as the actual partnership of two individuals, and that the company name existed independently of the individuals from whom the names originally derived. For example, 'Morgan and Jones' are only listed briefly at the period when the Morgan family

were ending their pipemaking connections. Perhaps the partnership was intended to lend credibility until the newcomer, John Jones, had established himself. Similarly, 'Jones & Harris' appears to have been a partnership that was only formed after the death of John George Jones and at a time when David Harris was just starting out as a 21 year old coming to a new trade. Despite the fact that the Jones family were never really involved in the new company, the joint name continued in use for nearly 40 years, and even survived a change of ownership to the Warrington family. It appears that reputation was important and that a partnership could perpetuate an established name while allowing a newcomer to find their own position in the market. It is possible to summarise the history of this particular chain of firms as follows:-

1834-35	Morgan & Jones	Beckwith St
1837-57	John Jones / John George Jones	Variously at Beckwith St, Burgess St and Sir Thomas' Buildings
1859-98	Jones & Harris	Burgess St and Sir Thomas' Buildings (1859-63)
		33 Frederick St and 37 Vauxhall Road (1864-88)
		37 Vauxhall Road (1889-97)
		24 Jackson Street (1898)

Table 4.4: Summary of Jones and Harris addresses

The peak of production was almost certainly under John Jones, with 65 employees listed in 1851. Jones and Harris emerged as a one of the principal firms during the second half of the century, with 14 employees in 1871 and 13 in 1881. Unfortunately, it has not been possible to identify any of the bowl forms that were associated with the stems marked 'JONES & HARRIS' from the excavation. The products of this firm remain barely known, despite their being one of the key Liverpool manufacturers. Given the general paucity of Jones and Harris marks that have ever been recorded, and the fact that the firm was one of the largest in the city at the time this deposit was laid down, it seems probable that they only ever marked a small proportion of their products. The recovery of kiln dumps from their various production sites is clearly a priority for future research.

McDougall Duncan McDougall & Co were one of the largest pipe manufacturers in the British Isles. The company operated from 1846-1967 and they exported pipes all over the world. They appear to have taken over David Miller's business in Liverpool around 1876 or 1877 (see below) and had stores at 18 Seel Street and 15 Gradwell Street from at least 1878-82. From 1883 until at least 1892 they had commission agents in Liverpool to oversee their business there. The directory evidence shows that McDougall pipes were being stocked in Liverpool from at least 1878-92 and, as one of the country's principal manufacturers, their products are

likely to have been available in the Liverpool area both before and after these dates.

Eight stems marked McDougall, representing seven different pipes (two fragments join), were recovered from context 69 (e.g. Fig. 4.21, nos 52-55). This makes McDougall marks the most numerous from this group, despite the fact that they were imported from Scotland. Six of the examples have the incuse-moulded serif lettering 'McDOUGALL / GLASGOW' along the sides of the stem. The letters are generally small and neatly formed and the serif lettering contrasts with all of the other moulded stem marks from this context, which had sans-serif lettering. In two instances there is a relief-moulded dot at each end of the word 'GLASGOW' (Fig. 4.21, nos 53 and 54). The seventh example is different in that it has incuse, sans-serif lettering reading 'McDOUGALL. GLASGOW / BURNS CUTTY PIPE' (Fig. 4.21, no 52). Burns Cutty was a pattern name that was widely used for pipes at this period, almost always of a plain, spurless type, such as Figure 4.24, nos 113-119. The McDougall example (Fig. 4.21, no 52) is interesting in that the stem has been reused after having been broken, the abrasion and wear marks from the teeth being clearly visible near the broken end, which has slightly rounded edges.

In four of the McDougall examples, it is possible to identify the bowl form that was associated with the stem mark. There are two identical examples of pipes with a bold leaf design on the seams and a flower on each side of the bowl (Fig. 4.21, no 55). Both of these examples are the made of red clay. There are also two examples, from different moulds, with traces of broad flutes extending along the stem, one of which is illustrated in Figure 4.21, no 53. These would have been spurless bowls, like the examples illustrated in Figure 4.22, nos 61 and 62.

Miller David Miller was born in Scotland in about 1834 (1871 census) and is first listed in the Liverpool trade directories in 1860, when he appears to have been living at 98 Duke Street and making pipes at 18 and 20 Seel Street. This seems to have been a new enterprise for the 26 year old since, in the 1859 Directory, Houghton, Little & Co were listed as wine, spirit, ale and porter merchants at 18 and 20 Seel Street. Furthermore, in 1859 the address at 98 Duke Street was occupied by George Miller, presumably a relation. By 1864 the directory records that David Miller had business premises at 18 Seel Street and 15 Gradwell Street, which he continued to operate until at least 1875. In the 1871 census, David Miller was given as single, age 37, and living as a lodger in Duke Street. Advert for the business appeared in *The Liverpool Telegraph and Daily Shipping and Commercial Gazette* on 30 and 31 October 1874 as follows:-

PIPES;
TOBACCO PIPES

FOR HOME USE AND EXPORTATION
MILLER'S

18, SEEL-STREET and 15, GRADWELL-STREET
The celebrated British Straw Pipes.

Miller does not appear in the 1876 or subsequent trade directories but it is interesting to note that D. McDougall and Co of Glasgow are listed at 18 Seel Street and 15 Gradwell Street from 1878 onwards, which suggests that McDougall's took over Miller's business and/or premises. Miller has not been traced in the 1881 census and may have returned to Scotland, where he may have had family pipemaking connections, since pipemakers named John Miller are recorded in Aberdeen (1820), Edinburgh (1838-40) and Glasgow (1866-8). There was also a firm called Miller & Kerr in Glasgow in 1869 (see also the notes on the Stewart family below for other Scottish pipemaking connections with Liverpool). Miller is only recorded as a pipemaker in Liverpool from 1860-75 but there may also have been other commercial or warehouse activities taking place alongside his pipemaking activities since, in 1876, Houghton and Hallmark are given as wine and spirit merchants at 18 and 20 Seel Street, presumably a continuation of the business noted there in 1859, before Miller arrived.

There are four stems marked Miller from context 69, all with incuse-moulded, sans-serif lettering. Only one has part of the bowl surviving, a plain, spurless, type (Fig. 4.21, no 47). One stem has the mouthpiece surviving, marked by a line cut in the mould where the stem was to be trimmed. This example has been finished with a light brown glaze (Fig. 4.21, no 46). Another named stem fragment has splashes of a thick, matt black substance on, which may well be the remains of some sort of mouthpiece finish.

Two of the marked stems from context 69 have the start of the name on them, making it clear that it is just 'MILLER', without any initial. A marked stem from Ballasalla, on the Isle of Man, has incuse-moulded, serif lettering reading 'D.MILLER' on one side with incuse-moulded, sans-serif lettering reading 'LIVERPOOL' on the other (Higgins 1996, fig. 19.1). It is odd that the script does not match on each side of this pipe, suggesting that the two sets of lettering are not contemporary. Since sans-serif script tends to be later it seems most likely that it was the place name 'LIVERPOOL' that was added later. McDougall's were using serif script in Glasgow and so the Ballasalla stem could support the suggestion that Miller started his career in Scotland, changing the place name on his moulds when he arrived in Liverpool. Clearly more evidence is needed to test this hypothesis but it is interesting to note the difference in style between the Big Lea Green and Ballasalla examples.

Posener & Co One bowl with an incuse stamp facing the smoker reading 'POSENER & Co / RUPERT [ST]'

was recovered (Fig. 4.21, no 37). Adolph and David Posener were prominent London manufacturers, who are listed in the trade directories from 1863-1915 (Hammond 1999). None of these entries, however, gives the Rupert Street address, which is only recorded in 1862, when both Adolph and David patented tobacco pouches (Hammond, *in litt*, 31.3.03). This not only suggests that the Big Lea Green example dates from early in their career but also that it can be accurately dated to around 1862.

Stewart Six pipes marked Stewart were recovered – two had the incuse-moulded, sans-serif lettering ‘STEWART / GLASGOW’ on the sides of the stem (Fig. 4.21, no 48). The other four were all damaged but appeared to have just ‘STEWART’ in a similar script on the left-hand side of the stem (Fig. 4.21, nos 49-50). The attribution of these marks with just a surname is slightly uncertain since there were various pipemakers named Stewart in both Glasgow and Liverpool during the 1860s.

The firm of ‘C Stewart & Co’ is listed in Glasgow from 1856-60 and a Charles Stewart from 1860-61 (Anon 1987, 349). These two references may well relate to the same individual who was, presumably, responsible for the fragments marked ‘STEWART / GLASGOW’ from Big Lea Green. Nothing else is known of Stewart’s career, but it seems likely that he was connected with the Liverpool pipemaking family of this name. It may well be that he moved to work in Liverpool himself, since a Charles Stewart is documented working in the city as a pipemaker from 1867-70. There were clearly links between the Stewart families in Liverpool and Scotland (see below) and so it is quite possible that Charles worked in both centres. Similar links with Scotland have not only been noted amongst other Liverpool firms (for example, see McDougall’s above) but also in Manchester, where Edward Pollock from Edinburgh established his works in 1879. It appears that there were strong links between the pipe making industries in Scotland and the North West of England during this part of the 19th century.

The earliest Stewart pipemaker recorded in Liverpool is a William (Junior), who was listed as a pipe manufacturer at 84 Castle Street, Kirkdale, in 1864 (Gore’s Directory). This address had been occupied by a forwarding agent in 1862 and so this appears to have been a new enterprise. A David Stewart, pipe maker, was recorded at the same address in 1865, while William Stewart was listed as a pipe manufacturer at 3 Summer Gardens, King Street, Kirkdale in 1865. Charles Stewart was listed in the directories running a pipe manufactory at 15 & 17 Gildart’s Gardens from 1867-70, while William Stewart & Son were also listed as pipemakers at the same address from 1868 onwards. In 1870 Charles Stewart, William Stewart and William Stewart Junior were all recorded as pipemakers living at 26 Juvenal Street, showing that they were all members of the

same family. Charles may have had a dual occupation, since he was listed at 26 Juvenal Street in 1868 as the ‘Reverend Charles Stewart’. Charles is not listed in the directories after 1870 but the workshop in Gildart’s Gardens continues to be listed, with various changes in street number, operating under the name of William Stewart & Son, from 1868-1900.

The 1871 Census Return for 26 Juvenal Street lists William Stewart (senior) as head of the household, aged 65, born in Scotland and employing 10 men, 6 women and 5 boys. This shows that the Stewarts had already established a substantial pipemaking business by this date. Included in the same household were his wife, Elizabeth, and five of their children, all of whom were unmarried and all of whom had also been born in Scotland. Only one of these was listed as a pipemaker and that was William, aged 25. This must have been the ‘William Stewart, Junior’, who was listed as such in the 1864 directory, when he would only have been about 18. Given his young age at the time, it would seem likely that he set up as a pipemaker with family backing as part of a business move from Scotland. This would help explain why David, Charles and William (senior) all appear as pipemakers at this period and why the quite elderly William (senior) was able to establish himself so quickly.

In the 1881 Census, William (senior) was recorded as 78 years old and his household included one daughter, Isabella, aged 39, born in Scotland and another, Elizabeth, aged 24, born in Liverpool. This suggests that William (senior) must have moved to Liverpool between 24 and 39 years previously, i.e., between 1842 and 1857 (although in 1871 Elizabeth had been given as being born in Scotland). If William had moved earlier, it is not known what he was doing until 1868, when he is first recorded as a pipemaker (there were 11 William Stewart’s listed in both the 1862 and 1867 Liverpool directories, none of whom were pipemakers).

Given that both Williams certainly came from Scotland and that they appear to have been related to Charles, it seems highly probable that Charles Stewart who is listed as a pipemaker in Glasgow is the same one who appears in Liverpool. His move must have taken place at some point between 1861, when he is last recorded in Glasgow, and 1867, when he first appears in the Liverpool directories. Charles’s relocation to Liverpool in the early 1860s may well also explain why some of the Big Lea Green pipes are marked ‘Glasgow’ and why some of the pipes are marked with the surname on one side only, the place-name having been deleted from the moulds when he moved. Since Stewart pipemakers are documented in both Glasgow and Liverpool it will be impossible to attribute the pipes that are just marked ‘Stewart’ to a particular member of the family with any certainty until more examples, or good kiln groups, have been recovered.

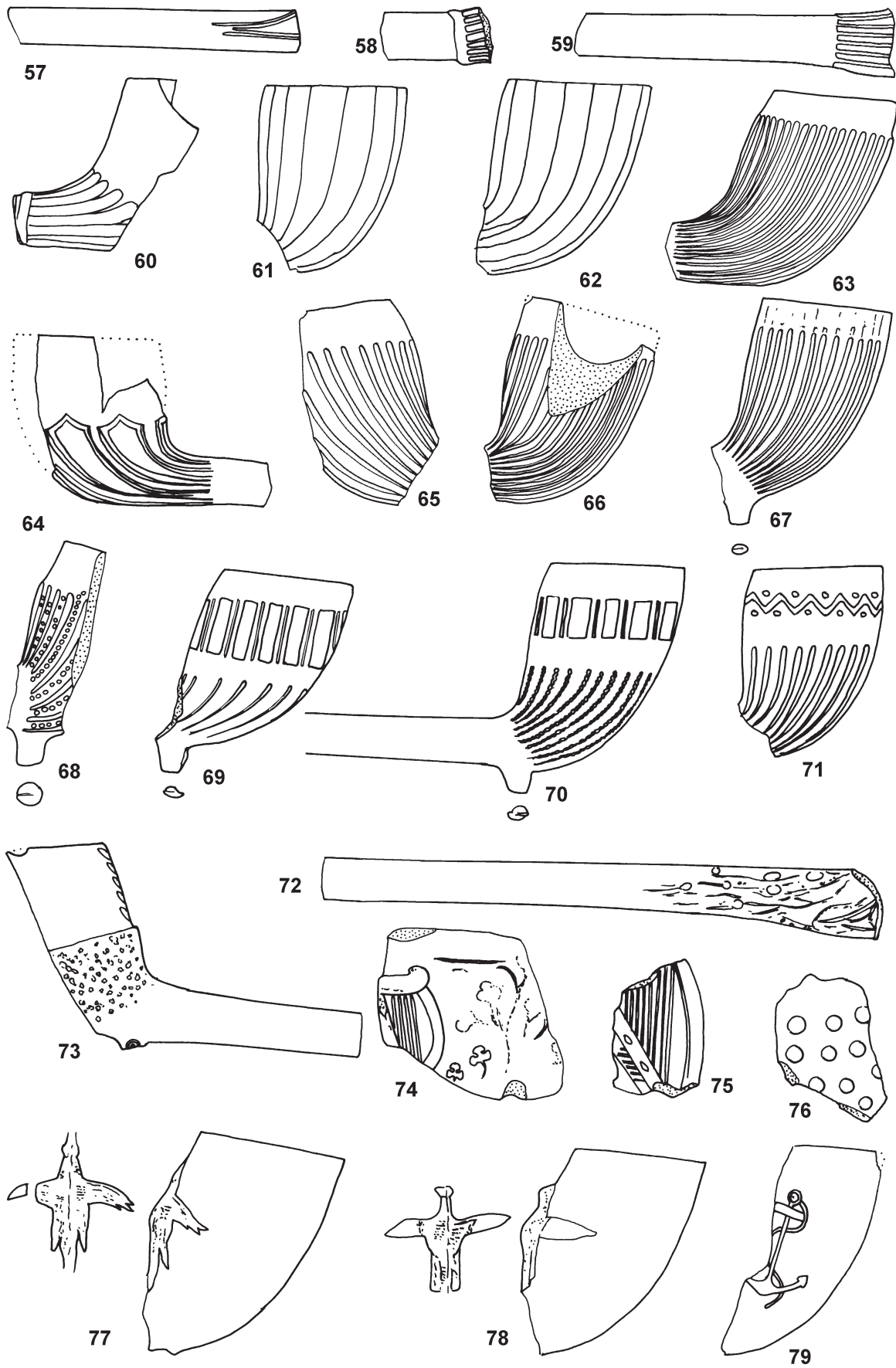


Fig. 4.22: 57-79: Clay tobacco pipes, scale 1:1

Another Charles Stewart appears in the Liverpool directories between 1901 and 1932, but this is too late to be the same Charles who was working in the 1860s. This later Charles may well have been the nephew of William Stewart Senior, since a two year-old nephew called Charles was living with William Senior in 1881 (Census). This second Charles appears to have worked principally as a pipe-mounter and repairer rather than as a manufacturer but he continued a family connection with the trade that lasted for at least 70 years.

Little can be said of the Stewart bowl types represented by the finds from context 69, other than one example appears to have had a plain, spurless bowl (Fig. 4.21, no 48); two examples had a narrow bar moulded beneath the stem (Fig. 4.21, no 49) and one example has some relief moulded dots on the bowl (Fig. 4.21, no 50). This last type may have had a bowl similar to the fragment illustrated in Fig. 4.22, no 76. The two pieces with the bar beneath the stem may well have been from a pattern known as 'St Patrick'. This was a spurless form with a cross set against a shamrock leaf beneath the bowl and a few small 'beads' running up the seam away from the smoker. A small bowl fragment with beading on, and probably from one of these bowls, was also found in this context (Fig. 4.23, no 80).

Bowl Forms

The bowl forms represented in this group are much more diverse than would have been found in any of the preceding periods. During the 1840s and 1850s a new spurless form of pipe became popular in Britain, for example, Figure 4.24, nos 112-119. These spurless pipes often had short stems, another innovation that was introduced at the same period. Just over a half of the bowl forms from this context group were spurless types, a total of 67 out of 129 identifiable pipes. The majority of these were plain (55 examples; e.g. Fig. 4.24, nos 112-119), although some had bowl stamps added to them (Fig. 4.21, nos 38 and 42) or makers marks moulded on the stem (Fig. 4.21, nos 47-48). The 12 decorated examples only represent about 18% of the spurless bowls and almost all of these are one of a variety of fluted forms (e.g. Fig. 4.22, nos 58-64). The only notable exceptions were the two red bowls with leaf and flower decoration on them (Fig. 4.21, no 55). Fragmentary remains hinted at one or two other designs, for example, the stem with a rusticated section and part of a large leaf design that would almost certainly have come from a spurless pipe (Fig. 4.22, no 72). This piece is also notable since it clearly comes from a long-stemmed pipe, whereas spurless bowls were more frequently used on short-stemmed pipes.

In contrast, spur forms could be found on either long- or short-stemmed styles. The majority of the 62 identifiable spur forms (40 examples; 65%) were plain types (e.g. Fig. 4.23, nos 87-98; Fig. 4.24 nos 99-100). Some of

these can be compared with other material to show what form the complete pipes are likely to have taken. For example, long-stemmed pipes shipped out of Liverpool on the *Adgillus* in 1874 had bowl forms similar to Figure 4.23, nos 88 and 94. The *Adgillus* was wrecked off the Isle of Man and complete pipes salvaged from her had stems of between 376mm and 388mm in length (14.5"-15.25"; author's collection). Large forms, such as that shown in Figure 4.23, no 91, would also have had long stems and some of the smaller ones, such as Figure 4.23, nos 93, 97 and 98, would probably have had short stems. With many of the bowl forms, however, it is hard to be sure, since they could have occurred as either long or short varieties. In general terms, the plain spur bowls are more likely to represent long-stemmed pipes than the spurless varieties.

Two of the spur bowls were made of red clay (Fig. 4.23, nos 97 and 98), but these were always rare and the majority of the pipes are white. Several of the bowls had symbol marks moulded on the spur (e.g. Fig. 4.23, nos 87-91). The symbol mark consisting of two small o's was also found amongst the *Adgillus* pipes. In one instance a plain bowl was marked with the relief moulded initials KK (Fig. 4.21, no 56). These are very unusually orientated, not only being upright on the spur, but also inverted. The maker has not been identified. The low number of actual makers' initials on the spurs is a regional characteristic, since a contemporary group from the south of England would have contained a significant proportion of spurs marked in this way.

Most of the spur bowls were of 'average' size, although one fragment in particular clearly came from a much larger variety. This fragment (Fig. 4.24, no 101) has had its substantial heel or spur broken off and only a part of the bowl survives. The surviving fragment has very thick walls and appears to have been plain. Where decoration occurred on the spur bowls, it was most likely to consist of either flutes (11 examples (18%); Fig. 4.22, nos 67-70) or leaf decorated seams (7 examples (11%); Fig. 4.23, nos 81-86). Occasionally, these basic elements were combined with other designs, such as the 'acorn' bowl with leaf decorated seams shown in Figure 4.22, no 73. Several of the more fragmentary pieces are also likely to have come from spur forms, for example, the ship and anchor design, of which fragments of two examples from the same mould were recovered (Fig. 4.22, no 79) or the examples with birds facing the smoker (Fig. 4.22, nos 77-78). These birds are perhaps intended to represent doves, a motif that was certainly being used on pipes at the time, although they could alternatively be intended to be Liver Birds, the symbol of Liverpool and a motif that was popular on local pipes from the late 18th to the mid 19th century. The Liver Bird, however, is usually depicted standing and with a piece of seaweed in its beak rather than in flight with its wings spread. The example illustrated in Figure 4.22, no 77 is one of two examples from this context, both

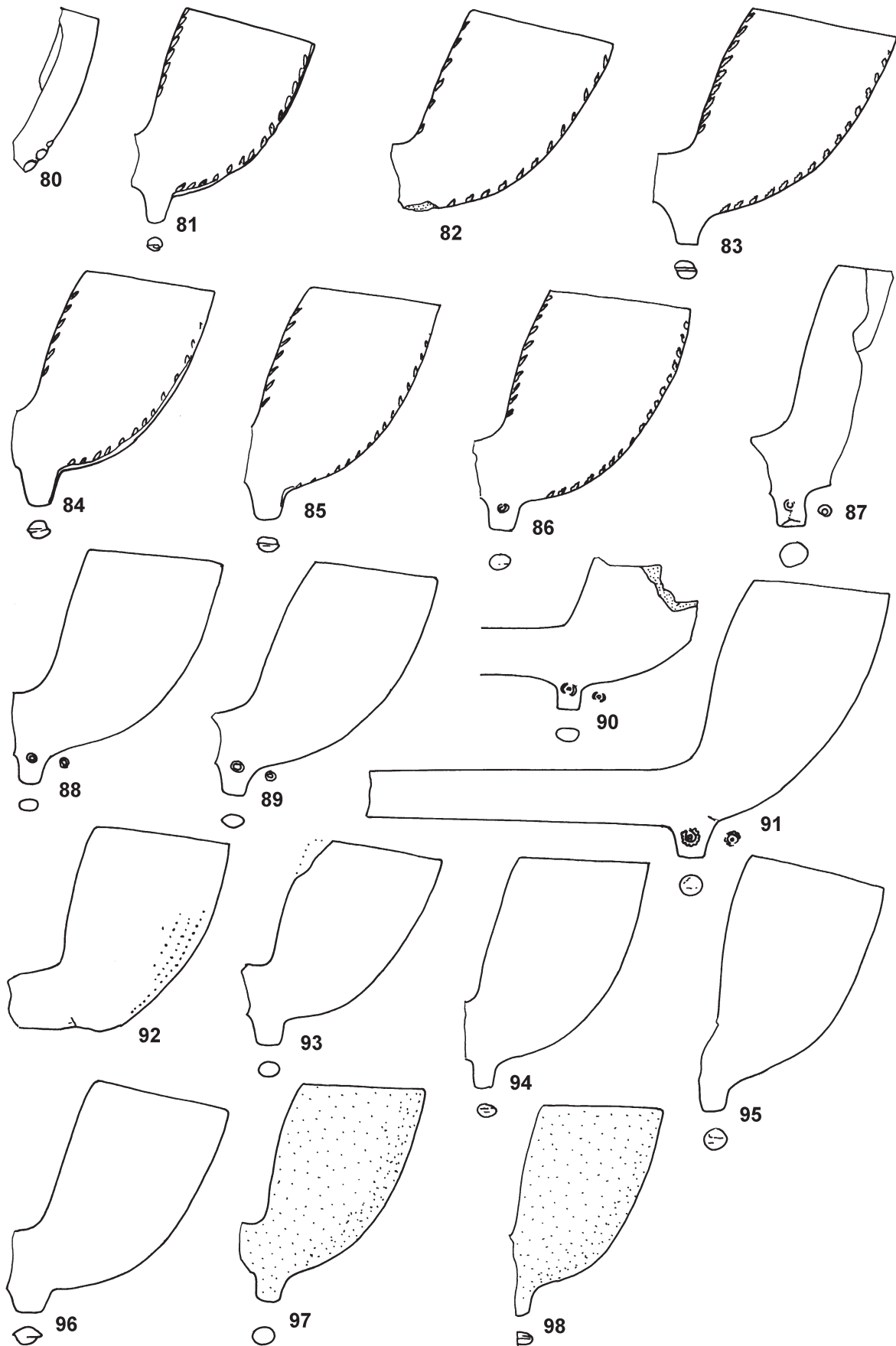


Fig. 4.23: 80-98: Clay tobacco pipes, scale 1:1

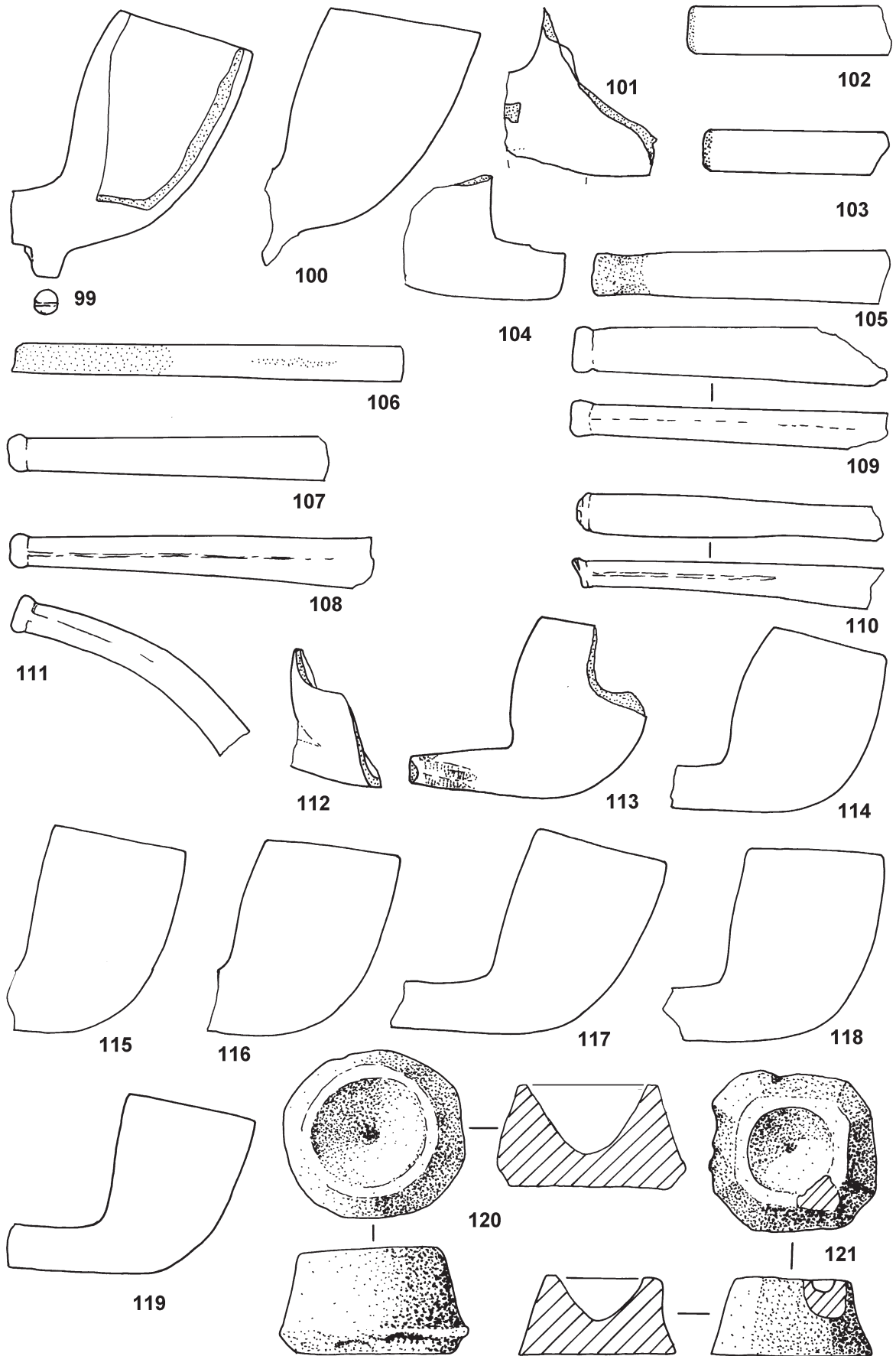


Fig. 4.24: 99-119: Clay tobacco pipes; 120-121: Other pipe-clay objects, scale 1:1

of which were produced in the same mould. Another example that appears to be identical, even down to the damaged left wing, has been found at Bickerstaffe, West Lancashire (Ron Dagnall, pers. comm.). The design is also known from slightly further afield, for example, an example from excavations at Hamilton Place in Chester has this design on the bowl but is from a different mould from either of the Big Lea Green examples. This suggests that various local manufacturers were making this bird design.

The final category of pipes to mention includes both plain and decorated varieties and, potentially, both spur and spurless types. These are the Irish style pipes. Irish migrants had long worked as labourers in England but, following the Great Famine of the 1840s, even more Irish families settled in Britain. Irish style pipes became very popular and were not only imported from Ireland but also made in identical styles by many of the British manufacturers. Irish style pipes are characterised by various combinations of thick-walled bowls; patriotic decoration or slogans; Irish pattern names and marks containing Irish names or places, many of which were quite spurious and nothing to do with where the pipes were actually made. Late 19th-century trade catalogues from pipe manufacturers in Scotland or north-west England show a variety of Irish patterns with marks such as 'O'Brien' or 'Dublin' on them.

The assemblage from Big Lea Green includes a small but distinctive group of Irish style pipes, which shows the range that was being used in the area during the early 1860s. There are parts of at least four Irish style bowls with milled rims and stamps on the bowl, the most complete of which are shown in Figure 4.21, nos 39-41. It is worth noting that, at this date, all of these examples have hand-applied milling around the rim, as opposed to moulded milling, which became common in the later 19th century. These examples all have very thick walls and designs such as this were often marketed as 'Dublin', 'Derry' or 'Cork' (cf. Fig. 4.21, no 41). Figure 4.21, no 39 is an actual Irish import, being stamped J Leamy, Waterford, but the others could have been made anywhere, the crowned L mark being particularly common on this style of bowl (Fig. 4.21, no 40). A similar bowl with a shield shaped 'J. LEAMY / WATERFORD' stamp on it has been recovered from the fields around Slack House Farm near Ormskirk, suggesting that Leamy regularly exported to the North West. Decorated pipes are represented by part of a very large, thick-walled bowl with fairly crude harp and shamrock decoration on it (Fig. 4.22, no 74) and part of another with a much more finely executed harp on it (Fig. 4.22, no 75).

Mouthpieces and Reworked Breaks

A total of 26 mouthpiece fragments were recovered from context 69 and these provide an indication of the

forms and finish that were in use during the early 1860s. Ten of the mouthpieces were formed in the traditional manner, with a simple cut end, as shown in Figure 4.24, no 106. In two instances, there appears to have been a small line cut in the mould, presumably to indicate the point at which the stem was to be trimmed to form the mouthpiece so as to produce pipes of a uniform length (Fig. 4.21, no 46). The illustrated example is interesting since it comes from a short-stemmed pipe made by Miller of Liverpool. This type of simple cut end had been universally used on the earlier pipes, which had longer stems. The Miller fragment is from a short-stemmed or 'cutty' pipe, a style that was introduced during the 1840s and 1850s. These pipes generally had a nipple type of mouthpiece and so this example appears to represent a hybrid between the two styles. The line around the stem forms a slight thickening, or nipple, where the stem is cut, but it is not as clearly formed or pronounced as in the fully developed examples.

Of the ten examples with cut ends, four have glazed mouthpieces. As is usual with this type of finish, the glaze fully coats the end section and then extends up the stem as a series of splashes. The Miller stem (Fig. 4.21, no 46) is fully coated for 20mm and has splashes extending for 57mm from the tip. The glaze is a translucent brown colour, like varnish, with an area of darker mottles on one side. One edge of the mouthpiece is quite rough. There are two other examples of a brownish glaze, both of which have a very uneven application and rough surface to the glaze. At least one appears to have been badly burnt, presumably having been discarded into a domestic hearth after having been broken, and it may be that this affected the glaze. The rough finish on these examples could have been due to the glaze being re-melted and picking up debris from a hearth or fire after the pipes were discarded. Certainly the rough finish would not have made them very pleasant to smoke and it seems unlikely that they would have been sold in this form. One has a complete coat for about 21mm and extends up to 26mm in places; the other is fully coated for 19mm with areas coated for up to 31mm. The final piece has a smooth, pale green glaze on it (Fig. 4.24, no 106). This glaze coats the stem fully for 22mm with splashes extending for at least 58mm up the stem.

Fully developed nipple mouthpieces occur on 16 of the examples. This style of mouthpiece was almost always associated with the short-stemmed or 'cutty' pipes that became popular during the 1840s and 1850s. In six of these instances the stem is cylindrical to the end, which then terminates in a rounded nipple (Fig. 4.24, no 107). One of these examples is unusual in that it is made of red clay. More frequently, however, the stem becomes oval or lozenge-shaped before the nipple (10 examples, e.g. Fig. 4.24, nos 108-111). Usually this shaping is confined to a short distance on each side of the stem extending from the nipple towards the

bowl but, in some instances, the whole mouthpiece section becomes widened. Figure 4.24, no 109 shows an example where the whole stem becomes broad and flattened as it extends from the mouthpiece, before turning in sharply to become cylindrical at a distance of 52mm from the tip. Figure 4.24, no 110 shows a less extreme example, where the end 35mm is flattened. In one instance the whole of the stem is lozenge-shaped (Fig. 4.24, no 108) and the angle change at the sides of the stem would have continued up the sides of the bowl. This stem is particularly short – it survives to a length of 60mm and is just starting to open into the bowl. Another mouthpiece has been given quite a sharp curve to the stem (Fig. 4.24, no 111). This pipe would have also had a very short stem and a bowl similar to Figure 4.24, no 112. Only two other fragments of sharply curved stem were recovered from this context, showing that short-stemmed pipes with sharply curved stems only formed a small part of the styles in use.

None of the nipple mouthpieces has a glazed finish, perhaps because this would have been more difficult to apply to these short-stemmed pipes. Other types of finish, such as wax, may well have been used but this rarely survives in the archaeological record. One piece shows staining for 21mm from the tip where some such finish appears to have degraded while a stem fragment marked 'MILLER / LIVERPOOL' has splashes of a matt-black substance on it, which probably came from some sort of mouthpiece finish. Although a relatively small sample of mouthpieces was recovered, they clearly show a wide range of mouthpiece styles and finish was being used by the 1860s.

One final point in relation to mouthpieces is the evidence for the reuse of broken pipes from this context. There were at least four stems and two bowls where the broken end showed signs of having been slightly rounded or smoothed (Fig. 4.21, no 52; Fig. 4.24, nos 102-105 and 113). The degree to which the broken edges have been rounded is generally very slight, although the bowl fragment (Fig. 4.24, no 105) has had its broken stem end ground completely smooth. This example seems too short to have been smoked in this condition, unless it was inserted into some other sort of stem, as appears to have been the case with the bowl shown in Figure 4.24, no 113. In this instance, the broken stem end has a series of facets cut into it so that it tapers to a rounded point. This reworked end could easily have been inserted into some other form of tube or stem so as to allow reuse of the pipe. In other instances, there is no doubt that the broken pipe was re-used with just the surviving stem, as can be seen in Figure 4.21, no 52 and Figure 4.24, no 105 where the abraded end of the stem has been worn into a slight hollow by the teeth having clenched the pipe. The context as a whole produced the remains of at least 129 pipes, based on the minimum number of bowl/stem junctions present. These half dozen examples of modified breaks suggests that only

a small percentage of the pipes were reused after they had become broken (four modified stems out of the 205 recovered from this context amounts to only about 2% of this sample).

The Pipes as Archaeological Evidence

One of the most useful functions of pipe fragments is as a means of accurately dating and interpreting the archaeological deposits in which they occur. The detailed catalogue, deposited as part of the site archive, provides details of all the fragments recovered while a summary of this information is provided in the site archive. The significant contexts have been described and discussed above. The following section considers how this information fits into a broader interpretation of the site.

The first point to note is that the archaeological record only produces a partial and biased sample of what once existed. Despite being continually occupied during the post-medieval period, this site produced hardly any 18th-century pipes and, had the domestic dump (context 69) not been within the excavated area, there would only have been scant remains of the 19th-century occupation. In this sense, the pipes only reflect events that have happened to survive in the archaeological record and their absence in other periods may simply reflect waste disposal taking place away from the main occupation site.

The pipes that have been recovered, however, provide some useful evidence for the use of the site. The three groups from the first ditch (contexts 77, 95 and 101) all appear to come from 'fresh' deposits containing large and unabraded fragments. The numerous cross-joints suggest that this material has not been much disturbed since it was discarded and it seems likely to reflect domestic debris discarded into the ditch as it was being filled. The large amount of substantially intact domestic pottery accompanying the pipes supports this view and suggests a major clearance and remodelling of the house and grounds at this time. The presence of a few transitional pipe types places this event late in the 17th century. The small number of these transitional forms together with the lack of more developed 18th-century forms suggests that this event did not take place after about 1700 and a date between 1680 and 1690 seems most likely. At the same time, similar pipe forms were found in the widening of the cellar steps, suggesting that these two events were contemporary. Documentary sources should be able to identify the family that generated this material and it may even be possible to identify a family death or change of ownership that gave rise to a refurbishment of the house and grounds at this time. The filling of another ditch, represented by the pipes from context 269, took place a little later and shows that changes to the layout of the property continued into the early 18th century.

Most of the later deposits only produced scrappy evidence, making it hard to use the pipes in any meaningful way to interpret the site. The only exception is the 1860s rubbish dump, context 69. This has provided a wealth of information about the material possessions and lifestyle of the farm's occupants at this time. The 1861 Census will easily identify the household at the time and enable the artefactual evidence to be related to named individuals. The pipes suggest that the occupants enjoyed a comfortable lifestyle with access to a wide range of different styles. These were not necessarily always the cheapest, with imported examples and long-stemmed pipes making up a significant proportion of the assemblage. Having said that, there was no evidence of the elaborately decorated French pipes which were readily available at this time, or imported porcelain bowls, which are sometimes found at this date (e.g. Higgins 1992b).

At a broader level, the pipes provide an indication of how the farm drew on local services and supplies. Big Lea Green is situated on the southern edge of the Rainford pipemaking area. It is no surprise that all of the 17th-century pipes seem likely to have come from this centre. The situation in the later 17th and early 18th century is less clear. The bowl forms at this period are of Chester types and they are made of imported, not local clays. Unfortunately, many of the Rainford makers at this period adopted Chester styles and the use of imported clay so, without makers' marks, it is impossible to be sure whether these pipes are locally produced or imports from elsewhere. Liverpool must be considered as a likely alternative source for these pipes, although only one good group of this date has been published from the city, making it hard to be sure what was being produced there (Davey 1985). What is clear, however, is that Liverpool was using imported clays and producing similar forms to Chester. Given its proximity, Liverpool must be a more likely source than Chester for any imported pipes of this type to Big Lea Green.

The few early 19th-century pipes are of local styles, in contrast to which the 1860s group from context 69 produced a wide range of material. This shows that, by the 1860s, transport systems had developed sufficiently to allow a much greater range of products to enter the market. Rainford still possessed a thriving pipemaking industry but it was now in competition with products from as far away as Scotland, Ireland and France. No Manchester products were identified amongst the assemblage but this is another production centre that has been little studied. Manchester pipes were certainly reaching Warrington during the 19th century (Higgins 1987a, fig. 10.14) and so some of the unmarked examples from this site may have come from that centre.

Other Pipeclay Objects

In addition to the pipes, three other pipeclay objects were

recovered from the site. Two of these were small objects with a smooth, rounded depression in the centre. The first (Fig. 4.24, no 120) is made of a very hard fired clay that has a very dense feel to it – more like a parian or porcellanous body than a simple ball clay. The object has been formed in a two-part mould shaped as two truncated cones and with the mould seam around the carination where they join. The mould seam itself does not fit very tightly, leaving quite a ragged edge where it meets. A pellet of clay has clearly been pressed in the mould leaving fold marks where it has been squeezed and a void in one area where it has incompletely filled the mould.

The second example (Fig. 4.24, no 121) is made of a more typical feeling pipeclay and has also been formed by squashing a pellet of clay into a mould. In this instance, however, the mould appears to have been one piece and octagonal in form. The faceted sides are slightly dished and there are clear fold and stretch marks where the clay has been forced into the mould and compressed. The base of the object, however, is not mould formed, but has been created by slicing the clay off, presumably flush with the edge of a one-piece mould. This action has left a sharp and fairly ragged edge around the base of the object.

At present, it is not possible to identify these objects. What can be said, however, is that they belong to a class that has been quite widely reported from archaeological sites, the author's files containing notes on examples from Rainford in Merseyside, Kington in Herefordshire, Winster in Derbyshire, Sheffield Castle and a site somewhere in Shropshire. Furthermore, these objects occur in two distinct forms, those with rounded hollows in the centre and those with rounded protrusions. Examples of both forms have been illustrated by Dagnall (1988, fig. 14). These objects occur in a variety of shapes – round, octagonal, square – and with either plain, dished or fluted sides. What links them all is the fact that they all have either dished hollows or rounded protrusions in the centre. They are also all mass produced, being roughly pressed into moulds with little regard for the folds, voids or stretch marks that often appear. Furthermore, the bottom edges are usually just roughly trimmed leaving a sharp edge. These characteristics, combined with the number of sites from which examples have been found, suggests that they were once relatively common objects, but not ones that required any great degree of finishing, especially around the base.

Until now, it has not even been possible to assign a date to these objects with any degree of certainty. The recovery of one of these examples from context 69 is important in that it provides an early 1860s context for at least one of these objects (Fig. 4.24, no 120). The other example (Fig. 4.24, no 121) was recovered from context 110, a context that produced pipes of 17th- to late 19th- or even early 20th-century date. Quite a number of these objects have been found in the fields around Rainford and it has been assumed that they formed a sideline of the pipemakers there (Dagnall 1988). Gordon Pollock, a retired pipemaker

from Manchester who started work in the 1920s, had never seen any objects like these and so, if these were pipemakers' sidelines, they are likely to have gone out of production by the early 20th century.

Various suggestions as to the possible use of these objects have been put forward, but the only really credible one appears to be that they were used in pairs as miniature mortars and pestles to crush pills. It is certainly tempting to see the two different types engaging with one another, although the sharp and often roughly finished edges do not seem conducive to being held and pushed together to crush pills. Furthermore, no example has yet been noted with any sign of wear or polish where the rounded surfaces have been rubbed together. It may be, however, that any such wear would be very slight and not easy to detect without high resolution magnification. At present the use of these objects remains uncertain. But what this site does do is to provide two more examples as well as a date in the early 1860s when they can be shown to have been in use.

The final pipeclay object from this site is also slightly hard to identify with any certainty although it is probably either a pipe or a doll's leg. The object itself was recovered from context 69 and so it can be dated to the early 1860s. It has been pressed in a two-piece mould and has a 4/64" diameter hole running through it (Fig. 4.25, no 122). It is formed in the shape of a leg, at the upper end of which part of an opening or cavity survives. This object is quite large and chunky for a pipe, on top of which the seams and surface appears to have been wiped to give a smooth finish. As such it seems most likely to be part of a doll's leg, the cavity being to accommodate some organic upper part and the hole to facilitate attachment. The other possibility is that it is part of a pipe shaped as a lady's leg. Such pipes are known, with the toes forming the mouthpiece and the bent thigh the bowl. The scale, realistic form and finish of this piece all suggest, however, that this is the less likely of the two options.

Summary

The pipes from this site not only provide a valuable means of dating and interpreting the deposits in which they occur, but also an important reference point for future pipe studies. The 1680s ditch group shows the range of local bowl forms and finishing techniques that were in use as well as providing two different examples of a previously unrecorded maker's mark. This group fills a gap that is not well represented in previously excavated groups and makes an interesting comparison with the contemporary material found elsewhere in the region as well as to the east of the Pennines. It also provides tantalising evidence as to the stem length of these pipes, although it was not possible to reconstruct any complete examples.

The pipes from context 69 form a large and coherent group and one that sets an important benchmark for both regional and national pipe studies. The group is closely datable to

the early 1860s and provides an excellent example of the range of pipes available to and being used in a domestic context. The local styles of bowl form and decorative motifs that flourished in the area during the first half of the 19th century had completely disappeared, to be replaced by more general regional or national styles. There is also a fundamental change in the types of pipe represented, with short-stemmed or cutty pipes now making up a significant proportion of the assemblage. Just over half of the pipes had spurless bowls and the majority of these (82%) were plain. When decoration did occur, it was almost always some sort of fluted pattern with just one or two other designs being represented, for example, the 'St Patrick' or flower motifs. A similar pattern could be observed amongst the spur pipes, 65% of which were plain. Decoration was then predominantly either flutes (18%) or leaves (11%), with a limited range of other designs. These included patterns with local appeal, such as the possible Liver Birds or ship and anchor motif. There was also a small but important group of Irish styles present.

A significant number of the 499 fragments had some form of maker's mark on them (45 examples). The rarest type of mark was hand applied and this type was represented by eight bowl stamps and one stem stamp, all of which were incuse. The next most common type were spur marks, of which there were 14 examples, all but one of which were just symbols. The most common type of mark, however, was the incuse moulded stem mark, which was represented by 22 examples. With the exception of the McDougall marks, these were all formed of sans-serif lettering, which shows that this script had become firmly established by the early 1860s.

The marked pipes represented a very wide range of sources. There were several examples from Glasgow and one from Ireland. Local Liverpool makers were reasonably well represented and there were two examples from London as well as one from France. This wide range of sources was something of a surprise, especially given the sites location on the edge of the major Rainford pipemaking industry and close to Liverpool, which had a significant pipemaking industry of its own. The diversity of these sources may well reflect both the growth of Liverpool as a major international port and the increased internal trade that was possible as a result of the railways. The wide range of sources is clearly in marked contrast to the predominantly local distribution of pipes that had characterised earlier periods. It is also significant that this material was reaching consumers in the port's hinterland and that it was not confined to the urban areas around the docks themselves.

Despite the fact that a significant number of 'imported' pipes were clearly both available and being used, the majority of the pipes recovered were unmarked. In most cases each pipe was slightly different, showing that a very large number of mould types was represented. Most of these unmarked pipes are likely to have been made locally,

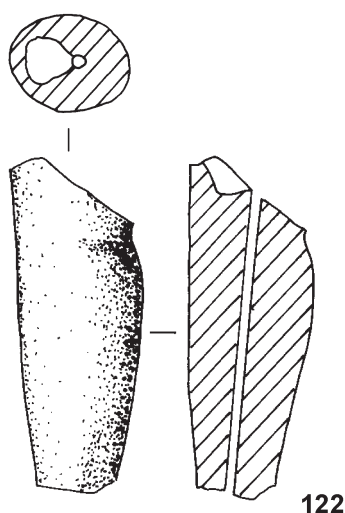


Fig. 4.25: 122 Pipe-clay object, scale 1:1

being the 'bread and butter' production that would have supplied the everyday market. In one or two instances, duplicate examples were recovered, for instance, two examples of Figure 4.22, nos 69, 77 and 79, while there were three examples of Figure 4.22, no 64 and as many as nine of Figure 4.22, no 70. The types with multiple examples are even more likely to be local products, as opposed to the single examples of French or Irish marks. At a broad level, it can be assumed that this group represents both the nature and range of pipes being used in this particular household. The marked pipes indicate the available supply sources while the unmarked pipes are more likely to reflect the styles that were being produced in the local pipemaking centres of Rainford and Liverpool.

List of Figures

Where there is more than one bowl fragment from the same context a letter (A, B, C, etc) has been allocated to each piece to identify it in the records. These letters have been pencilled onto the pipe fragments and are given in brackets following the context number. The illustrations are all at 1:1 with the exception of the stamp details in nos 16, 17 and 35, which are at 2:1. All objects are from Area XVIII.

1. Pipe bowl of *c.* 1640-1660. The rim is bottered and the surface has been given a good burnish. Stem bore 7/64". Context 237, SF1181.
2. Pipe bowl of *c.* 1660-1680. The rim is bottered and the surface has been given an average burnish. Stem bore 7/64". Context 237, SF1188.
3. Small, bulbous spur form of *c.* 1650-1680 (and probably *c.* 1655-1670) with a flattened base to the spur and a crescent shaped IB mark facing the smoker. The rim is bottered and the surface has been given a fine burnish. There is a thin band of milling around three-quarters of the rim. The small bowl form and presence of milling differs from the larger, later forms illustrated below. Stem bore 8/64". Context 110, SF185.
4. Pipe bowl of *c.* 1660-1690 with a crescent-shaped bowl stamp, which probably reads IB (the surname initial is unclear). The surface of the pipe is soft and has abraded rather making it unclear whether it was burnished originally - slight striations on stem suggest it may well have been. The rim is bottered and the fragment has 81mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (L).
5. Pipe bowl of *c.* 1670-1690 with an illegible stamped bowl mark. The rim is bottered and the surface has been given an average burnish. Stem bore 7/64". Context 77, SF817 (D).
6. Pipe bowl of *c.* 1660-1690. The rim is bottered and the surface has been given an average burnish. Local spur type, similar to another bowl in Context 77, SF817 (A), but from a different mould and of a slightly poorer overall finish. Stem bore 6/64". Area XVIII, Context 77, SF817 (B).
7. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The fragment has 91mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (N).
8. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The fragment has 130mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (P).
9. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The bowl (SF28) joins with a stem from the same context (SF29) to give 122mm of straight stem surviving. Stem bore 7/64". Context 101, SF28/29 (Q).
10. Pipe bowl of *c.* 1670-1700. The rim is bottered and the surface has been given a good burnish. Neatly finished local spur type. Rim slightly chipped but unlikely to have been milled at all. Stem bore 7/64". Context 77, SF817 (C).
11. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The fragment has 131mm of straight stem surviving. Stem bore 8/64". Context 101, SF28 (O).
12. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. This fragment has 70mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (R).
13. Pipe stem of *c.* 1680-1720 with part of a crude decorative border made up of lines and dots, the edge of which is about 64mm from the bowl junction - bowl missing. Imported fabric; stem bore 7/64". Context 77, SF821.
14. Pipe stem of *c.* 1680-1720 with a fine burnish. Slightly oval stem in an imported fabric with a stem border starting at least 45mm from the bowl. Although there is a contemporary bowl in this context (no 15), it is almost certainly from a different pipe. This context also contains another decorated border, probably identical, but from another pipe. Stem bore 6/64". Context 236, SF900 (AH).
15. Pipe bowl of *c.* 1680-1720. Three joining fragments (freshly broken) from a very hard fired transitional spur type made of a fine, imported fabric. The rim is cut and the surface is not burnished. Stem bore 6/64". Context 236, SF898.
16. Pipe bowl of *c.* 1660-1690 with a stamped mark reading GR. The rim is bottered and the surface has been given an average burnish. There is a flattened base to the spur. A joining stem gives *c.* 155mm surviving and this is markedly concave on its upper surface. The bowl rim looks pretty circular without obvious sign of squatting, but it is a thick, robust form that would be resistant to this. Stem bore 8/64". Context 95, SF234. Stamp detail at 2:1. National Catalogue Die Number 1957 (type example).

17. Pipe bowl of *c.* 1660-1690 with a stamped mark reading GR. The rim is bottered and the surface has been given an average burnish. The bulbous bowl (SF28) fits a joining stem (SF29) giving a total of 146mm of straight surviving stem. Pipe neatly made and finished. Stem bore 7/64". Context 101, SF28/29 (M). Stamp detail at 2:1. National Catalogue Die Number 1958 (type example).
18. Pipe bowl of *c.* 1660-1690 with a stamped mark reading IB. The rim is bottered and the surface has been given a poor burnish. There is 61mm of surviving stem. Stem bore 7/64". Context 101, SF30 (U).
19. Pipe bowl of *c.* 1660-1690 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish. The bulbous heel form (SF30) joins a stem fragment (SF29) to give a total of 172 mm of surviving stem. The stem is markedly concave on its upper surface and the bowl has squatted during firing. Stem bore 8/64". Context 101, SF29/30 (X).
20. Pipe bowl of *c.* 1660-1690 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish; there is 50mm of surviving stem. Same mould type as another example in the same context (T). Stem bore 8/64". Context 101, SF30 (S).
21. Pipe bowl of *c.* 1660-1680 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish. The relief stamped IB mark has been applied sideways to the heel. Stem bore 7/64". Context 230, SF894.
22. Pipe bowl of *c.* 1680-1710 with a stamped mark reading IB. The rim is bottered and the surface has been given a poor burnish. Transitional bowl form with an inverted IB mark on the heel and 77mm of stem surviving. Stem bore 7/64". Context 101, SF30 (Z).
23. Pipe bowl of *c.* 1680-1710 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish. Transitional bowl form with IB mark on the heel and 75mm of stem surviving. Stem bore 7/64". Context 101, SF30 (AA).
24. Pipe bowl of *c.* 1690-1720 with a cut rim. Later looking bowl form than the rest of the context group. Glossy fabric, but no clear sign of having been burnished - only very lightly if it has been. Stem bore 6/64". Context 77, SF817 (H).
25. Pipe bowl of *c.* 1690-1720. The rim is cut and the surface has been given an average burnish. Transitional spur form in a well fired imported fabric. Only the bowl appears to be burnished, not the surviving stem (22mm). Base of spur trimmed. Very similar to, and possibly from the same mould as another example (AC). Stem bore 6/64". Context 269, SF887 (AB).
26. Pipe bowl of *c.* 1690-1730. The rim is internally trimmed and cut; the surface has been given a good burnish. Typical local transitional form, well made and finished and with a trimmed base to the spur. Stem bore 5/64". Context 88, SF178 (I).
27. Pipe bowl of *c.* 1800-1850 with a cut rim. Stem bore 4/64". Context 88, SF178 (J).
28. Pipe bowl of *c.* 1690-1720. The rim is cut but the surface has not been burnished. Complete transitional heel form with a small round heel, slightly flared (Chester style). Imported fabric. Stem bore 6/64". Area XVIII, Context 269, SF887 (AE).
29. Pipe bowl of *c.* 1690-1720. Two joining fragments (fresh break) of a transitional heel form with a small round flared heel (Chester style). Imported fabric. Stem bore 6/64". Context 269, SF887 (AD).
30. Pipe bowl of *c.* 1690-1720 with a cut rim. Chester style bowl with a flared round heel and cut rim. Rather deep oval stem. Stem bore 6/64". Context 120, SF46.
31. Pipe bowl of *c.* 1810-1850 with a cut rim. Fairly crudely decorated bowl comprising leaves on the seams with enclosed flutes on the bowl sides. A relief moulded design at the rim imitates milling. Small, rather square spur, not trimmed. Stem bore 4/64". Context 204=112, SF892.
32. Pipe bowl of *c.* 1810-1850 with a cut rim and crude leaf decoration on the seams. The whole bowl has been badly burnt with the result that it has cracked and slightly warped after having been broken. Stem bore 4/64". Context 273, SF891.
33. Pipe bowl of *c.* 1860-1920 with a cut rim a moulded bowl mark reading TW in serif letters. These letters form part of the pattern of this particular style of pipe rather than being the maker's initials. Stem bore 4/64". Context 110, SF183.
34. Pipe bowl of *c.* 1780-1840 with a cut rim. The bowl fragment has a relief moulded stag's head facing the smoker, flanked by naive foliage/flower motifs. This design is typical of local decorated bowls of early 19th-century date. Context 324, SF893.
35. Small and abraded bowl fragment of *c.* 1850-1870 with quite thick walls and an incuse stamp with serif lettering facing the smoker. The stamp has serif lettering in three lines, the top and bottom of which are curved in opposite directions to form an oval; there is no border. The left hand side of the stamp is missing but the surviving text reads [THE] RESPIRATOR / [JA]NY 9 1851 / [REGI]STERED. This is the only known example of a design registered by Edward Upward of 51 South Moulton Street, London, W1, on 9 January 1851. Small sections of the rim survive in an abraded condition. This was probably plain and finished with a simple cut rim. Context U/S, SF897. Fragment illustrated as viewed by the smoker. Stamp detail illustrated at 2:1. National Catalogue Die Number 1762 (type example).
- 36-120 & 122. Group of pipes and other pipe-clay objects from a domestic rubbish tip, which was deposited *c.* 1860-1865. This group is important in providing a closely dated sample of the styles of pipe that were current at this period. The whole context group fully described and discussed in the above report. Context 69.
121. Pipe-clay object, probably of late 19th-century date. Context 110, SF182.

Leather

Quita Mould

Methodology

When examined the leather had been conserved by freeze-drying, following a pre-treatment of glycerol (Cristanetti 2003). Species identification was made, where possible, using low power magnification (x3). Where the grain surface of the leather was heavily worn identification was not always possible. The distinction between immature (calfskin) and mature cowhide is not always easy to determine and the term bovine leather has been used when in doubt. Shoe sizing has been calculated according to the modern English Shoe-Size scale with the sole measurement

Appendix B: Summary of Clay Tobacco Pipes by Context

This appendix provides a summary of the clay tobacco pipe evidence from the site. The context number is given first (Cxt) followed by the number of bowl (B), stem (S) or mouthpiece (M) fragments recovered from that context and the total number of pipe fragments from the context as a whole (Tot). The suggested date of the context, based on the pipe fragments, is then given, followed by a summary of the marked or decorated pieces from each context and the figure numbers of any illustrated examples (Fig.). Bowl fragments, especially if they are marked, are much more closely datable than stem fragments. For this reason, the number and type of fragments present should be taken into account when assessing the reliance that can be placed on the suggested context dates given here.

Cxt	B	S	M	Tot	Date	Marks	Decoration	Figs	Comments
25		1		1	1800-1900				Plain stem fragment, almost certainly of C19th date.
36	1			1	1810-1870		flutes		Small spur fragment with traces of fine fluted lines surviving on the bowl. Most likely c. 1810-50 but of a type that could have been made into the second half of the C19th.
37		1		1	1840-1920				Plain stem fragment but with a taper that suggests it is from a cutty pipe, i.e., post c. 1840.
61		4		4	1680-1850				3 stems of c1680-1740 and one later piece of c1750-1850.
63		2		2	1760-1900				2 joining fragments (freshly broken) of late C18th or C19th type.
65		3		3	1680-1850				Stems of mixed date.
66			1	1	1820-1900				Long (65mm), thin (3.5x5mm) mouthpiece with a thin, patchy, very pale green glaze covering the end 44mm of stem. Part of a long-stemmed pipe.
69	268	205	26	499	1860-1900	*	*	36-120, 122	A very large group, including many marked and decorated pieces, which suggest a date of c1860-65 for this deposit. This group has not been catalogued in detail, but is fully illustrated and described in the report. Context includes a pipeclay object and doll's leg (Figs 120 & 122).
72		1		1	1700-1740				Quite a thick, deep oval stem fragment, suggesting an early C18th date, but with an unusually small bore.
73		1		1	1750-1850				
77	8	29	1	38	1660-1720	IB x 3	roll-stamped border	5, 6, 10, 13, 24	Very consistent group with large and joining fragments. All but one of the bowls would fit with a c. 1660-90 deposition, with 1680-90 being most likely. The one odd bowl is of a c. 1690-1720 type but could be either intrusive or an early example of its type.
79		6		6	1610-1800				Mixed fragments of C17th and C18th date. Latest pieces are C18th, but cannot be more precisely defined within that century.
80		3		3	1610-1910				Two C17th fragments and a later one of c. 1810-1910.
88	3	11		14	1850-1920			26, 27	Fragments of mixed date, with the latest being c. 1850-1920.
95	1	2		3	1660-1850	GR		16	Complete bowl and joining stem of c. 1660-90, the bowl stamped GR. Also a small fragment of badly burnt stem - most likely of c. 1750-1850. This small piece which could be intrusive in this context.
101	16	9		25	1660-1700	IB x 9, IB? and GR		4, 7-9, 11, 12, 17-20, 22, 23	Reasonably large and extremely consistent group of pipes. All the bowls would fit within a 1660-1710 date range, with deposition c. 1680-1690 being most likely. All but one of the stem fragments fit the bowls making substantially complete pipes. Very 'fresh' looking deposit, likely to be of one date.
107		2		2	1610-1750				

108		1		1	1610-1710				
110	5	32	1	38	1610-1920	IB, MILL/ / RPOOL, oo, TW		3, 33, 121	Mixed group, mainly C17th in date but including some C18th and C19th or later pieces. Four marked pieces - a C17th IB stamp; a moulded MILLER / LIVERPOOL stem mark of 1860-75; a moulded symbol spur mark (oo) and a moulded TW bowl mark (part of the pattern, not a maker's mark). Context includes a pipeclay object (Figure 121).
120	8	14		22	1610-1900	IB, **	Leaf dec seams	30	Odd group in that one fresh bowl and 9 of the stems would all go together as a 1690-1720 deposit. There are, however, odd earlier pieces, such as a bowl of 1650-80 stamped IB and a few later pieces, including four joining C19th bowl fragments with leaf decorated seams (fresh breaks). There is also a moulded star mark on a spur of c. 1860-1900 and a stem of c. 1680-1730 with a ground end.
154		4		4	1660-1710				Three C17th stems and one of C18th date (c. 1700-80).
155	1	2		3	1610-1700				Two C17th stems and a spur fragment of c. 1680-1740.
165	4	10		14	1610-1900	oo	Leaf dec seams; leaves and flutes		Fragments of mixed date but with 3 of the 4 bowl fragments dating from the C19th. One has leaf decorated seams (spur missing), one has a double ring symbol mark moulded on the spur with flutes and leaf seams on the bowl and one is from a miniature pipe.
193		1		1	1800-1860				Deep oval stem fragment, most likely first half of C19th but could possibly be later.
200		1	1	2	1850-1920				Soft fired and battered mouthpiece fragment with joining stem chip - freshly broken. The stem is thick and sharply tapered and has a flattened oval with sharp points as it approached the nipple mouthpiece. From a stocky cutty pipe of later C19th date.
	2			2	1660-1850	IB	leaves, flutes, etc	31	One bowl of c. 1660-90 had an IB heel stamp. The other dates from c. 1810-50 and has moulded leaves on seams with enclosed flutes on the bowl sides and a relief moulded design at the rim, imitating milling.
209	1	5		6	1610-1900				Fragments of mixed date, up to and including C19th.
230	1	2		3	1680-1780	IB		21	Fragments of mixed date, including a bowl of c. 1660-80 stamped IB.
236	3	3		6	1680-1720		2 roll stamped borders	14, 15	3 joining fragments (freshly broken) from a very hard fired transitional spur type of c. 1680-1720. The context group includes two contemporary roll-stamped stems suggesting a closely datable deposit.
237	2	6		8	1640-1680			1, 2	Two bowls of c. 1640-1680; all other stems fall in 1610-1710 range, and could be contemporary with bowls.
258		4		4	1660-1710				3 stems are basically C17th types, the fourth is c. 1680-1800. All 4 would fit within a c1680-1710 range.
264		1	1	2	1610-1800				Battered and not very datable fragments - the latest is C17th or C18th.
269	5	18		23	1690-1720			25, 28, 29	All bowls date from c. 1690-1720 and the stems are consistent with this as a date of deposition. Group contains large and fitting fragments suggesting that it represents a 'fresh' and closely dateable deposit. No marked or dec pieces.
273	3	2		5	1640-1850		Leaf dec seams	32	Fragments of mixed date, the latest piece apparently a bowl fragment of c. 1810-50 with leaf decorated seams. This, together with another late C18th or early C19th piece has been badly burns after having been broken.
308		1		1	1680-1740				Quite oval sectioned stem in an imported fabric.
313		1		1	1780-1900				Very small stem fragment, most likely of C19th date.

324	1	2	1	4	1780-1900		Stags head, foliage, etc	34	Fragments of late C18th or C19th date, the most closely datable of which is a bowl fragment decorated with a relief moulded stag's head facing the smoker flanked by naive foliage/flower motifs. Typical of local decorated bowls of late C18th or early C19th.
325		1		1	1800-1900				
U/S	6	18	1	25	1860-1920	[THE] RESPIRATOR / [JA]NY 9 1851 / [REGI] STERED	football boot, flutes & leaf dec seams	35	Mixed fragments including 4 C19th pieces with moulded decoration - 2 with flutes, 1 with leaf decorated seams and 1 with a football boot 'spur'. There is one pipe with a bowl stamp (The Respirator) for a registered design of 1851.
	339	409	33	781					

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Abbreviations

BAR	British Archaeological Reports
CBA	Council for British Archaeology
Lancs RO	Lancashire Record Office, Preston
MPRG	Medieval Pottery Research Group
NA	The National Archives, Kew
NMGM	National Museums and Galleries on Merseyside (since 2003, National Museums Liverpool)
NML	National Museums Liverpool