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Clay Tobacco Pipes

by Dr D A Higgins

Introduction

The excavations produced a total of 163 fragments of pipe, comprising 34 bowl, 120 stem and 9 mouthpiece fragments, from a total of 51 different contexts. None of the context groups was particularly large with only two contexts, 663 and 940, producing more than 10 pieces of pipe. A context summary giving the total number of fragments and their date range for each context is provided in Table 7. This table provides an indication of the overall date range represented by the clay tobacco pipe fragments recovered from each context (Cxt). It also shows how many fragments of bowl (B), stem (S) or mouthpiece (M) this date range is based on as well as the total number of fragments (Tot) from each context. The total number of marked (Mkd) examples in each context and the Figure number of any illustrated examples (Fig) are also provided. 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 any particular date range. The pipes are described and discussed collectively below. This is followed by a section dealing with their relevance to the dating and interpretation of the archaeological contexts from which they were recovered.

Methodology

The 163 pipe fragments have been individually examined and details of each fragment logged on an Excel worksheet. The layout of the worksheet has been based on the draft clay tobacco pipe recording system, which has been developed at the University of Liverpool (Higgins and Davey, 1994). Copies of both the worksheet and the draft recording system have been provided for the site archive.

Bowl forms have been recorded with reference to the London typology established by Atkinson and Oswald (1969), although the dating has been modified according to the form and attributes of the individual fragments. Variants of the basic London shape illustrated in the typology have had the letter 'v' placed after the type number.

An assessment of the likely date of the stem fragments has been provided. The stem dates should, however, be used with caution since they are much more general and less reliable than the dates which can be determined from bowl fragments. All of the pipes were recorded and dated before the preliminary pipe assessment and other site data were examined. This methodology avoids any preconceptions being formed as to the possible date or nature of the various pipe groups while they were being identified and catalogued.

The bowl forms

This site produced a relatively small assemblage of pipes with some 31 identifiable bowls being recovered. The majority of the bowl forms recovered date from around 1700-1770 with only small numbers of earlier and later examples being present. All of the seventeenth- and eighteenth-century bowls are of typical local styles and would have been made at workshops in or around Oxford. The earliest example dates from *c* 1660-1680 (Context 939 Phase 4; Fig. 19, No. 1) and is of fairly sharply bi-conical spur form, which is typical of the area. There is the upper part of a similar but larger bowl of *c* 1660-90 from Context 604, Phase 5. This has a strongly curved form and would almost certainly have been another spur type, similar to Oswald's Type B from St Ebbe's (Oswald 1984, 252). A late seventeenth-century spur type, dating from *c* 1680-1710, was recovered from Context 671, Phase 5 (Fig. 19, No. 2).

After about 1690 spur forms rapidly went out of fashion, being replaced by heel

Table 7: Clay tobacco pipe context summary

Cxt	B	S	M	Tot	Date	Mkd.	Fig	Comments
201		3		3	1660-1880			
202	1	1		2	1780-1880	1	9	Relief moulded serif mark GN for Geo Norwood of Oxford, recorded 1852-63.
301		7		7	1680-1880			
302		4		4	1680-1880			All but one of the stems dates from c1680-1770.
303		1		1	1780-1880			
408		1		1	1680-1770			
414	2		1	3	1650-1770			Bowl fragments suggest a late C17th or early C18th date.
421		2		2	1690-1780			
501		2		2	1700-1850			Stems of different dates.
504		2		2	1660-1770			
505		1		1	1690-1770			
506		1		1	1690-1770			
600	2	3		5	1680-1770			Both bowls date from c1700-1770.
601		1		1	1700-1770			
604	1	4		5	1660-1820			Material of mixed date. Bowl dates from c1660-90.
611		1		1	1660-1700			
626		1		1	1760-1820			Medium thick, quite long frag with a slightly deep oval section; possibly curved.
629	1	5	1	7	1820-1880	1	8	Consistent group of fine, long stemmed frags; bowl with stars on spur and damaged bowl stamp.
648		1		1	1820-1880			Curved frag from a long-stemmed pipe with thin stem; 80mm survives.
656		1		1	1640-1700			
660		1		1	1700-1770			
661	1	5		6	1690-1820			Bowl frag of c1760-1820 from large, full bodied example with neatly finished rim; stems of all date from c1690-1780.
663	8	8	1	17	1680-1770		3, 4 6, 7	Very good, consistent group with large 'fresh' fragments, probably dating from c1690-1730.
667	3	5		8	1690-1770			Consistent looking group; bowl forms suggest a date of c1690-1750 for this group.
668	1			1	1690-1710		5	Transitional heel form. Rim damaged but probably not milled.
669	1			1	1660-1690			Upper portion of a large local bowl type, curvaceous. Probably Oswald's St Ebbe's Type B.
671	1			1	1680-1710		2	Local transitional spur form, a little asymmetrical and with flattened not trimmed spur. Rim damaged but probably not milled.
684		3		3	1700-1780			
689		1		1	1700-1770			
692	1	1		2	1680-1770			Small bowl fragment only.
696	3	2	2	7	1780-1890	3	10, 11	Two complete cutty pipes marked Higgins Agent and a bowl marked TH. Fresh looking group; probabl;y deposited around 1850-75.
709		1		1	1680-1770			
731			1	1	1610-1700		12	Very unusual mouthpiece - very thick (8-9mm) but with the mouthpiece cut and smoothed before firing.
734		7		7	1680-1770			Consistent looking items.
739	1	2		3	1640-1750			Bowl form c1690-1740.
755		4		4	1680-1820			Most stems date from c1750-1820.
778		1		1	1660-1700			
780	2	1		3	1670-1770			
790		4		4	1700-1780			
877		2		2	1610-1820			Stems of different dates, the later one c1760-1820.
909		1		1	1680-1750			
910			1	1	1700-1770			
913		8		8	1680-1900			Mainly late C17th or C18th; some pieces may be C19th.
914		1		1	1680-1770			
915		1		1	1700-1780			
939	2	4		6	1640-1770		1	Latest bowl fragment is c1700-1770.
940	3	7	2	12	1610-1770			Three fitting fragments making an incomplete bowl of c1690-1750
952		5		5	1690-1770			
964		1		1	1690-1770			
966		1		1	1690-1750			
2019		1		1	1700-1770			

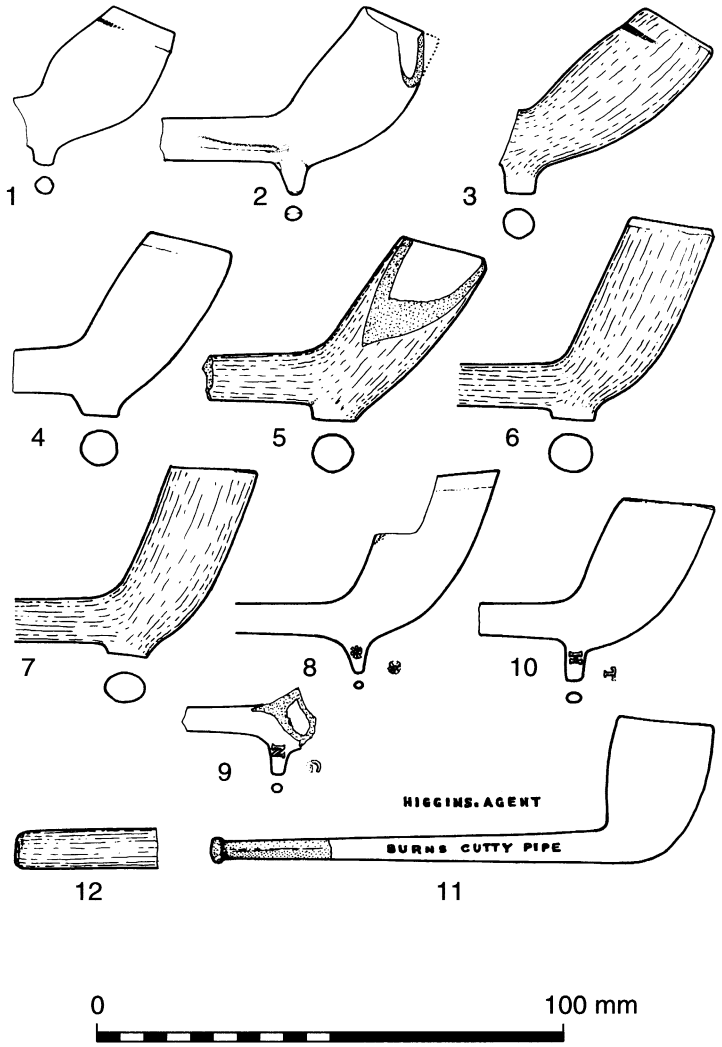

Figure 19: Clay tobacco pipes: 1-12 (illustrated by D.A. Higgins)

types. A variety of transitional forms reflecting this period were recovered from the excavations (Fig. 19, Nos 3-5). By about 1700 a tall cylindrical form had emerged and this became the standard form produced for the next sixty or seventy years (Fig. 19, Nos 6-7). About half of all the identifiable forms from the excavations were of this type. From about 1760 new forms with fuller bodies and thinner walls were introduced but these types are absent from the Sackler assemblage.

During the nineteenth century a much wider range of bowl forms was employed and these tend to be less regionally distinct than the earlier examples. A small number of examples were recovered from the excavation, all of which have local makers' marks on them (Fig. 19, Nos 8-11). One notable feature of the nineteenth-century groups is the high proportion of very fine stems present. These are typically well made, from long-stemmed pipes and with very small bores. Long, thin stems are more difficult to produce than short, thick ones and reflect a more elegant and expensive style of pipe. The frequent occurrence of these types amongst the nineteenth-century material may well reflect a general preference and demand for more refined smoking pipes at Oxford.

The marked pipes

Only five of the pipes recovered had makers' marks on them and all of these date

from the nineteenth century. This is not surprising given the generally low level of marking employed in the Oxford industry prior to that date. Most of the marked pipes were recovered from the fills of brick or stone lined features (Phase 5) in the gardens of the Beaumont Street properties, which were laid out in the 1820s.

One of the marked pieces came from Context 629 Phase 5, the fill of a small brick lined feature (Fig. 19, No. 8). This example dates from c1820-80 and has a relief moulded star on each side of the spur. The bowl is damaged, but the very edge of an incuse stamped mark survives. The Huggins family of Oxford, recorded from at least 1841-76, is known to have used bowl stamps (Oswald 1984, fig. 56) and this is most likely to be one of their products. The stamp is interesting in that it appears to have had a beaded or milled border, a style not previously recorded from Oxford. A fragment from a very similar bowl with a long spur and fine stem was recovered from Context 202 (Fig. 19, No. 9). This is marked with the relief moulded initials GN and can be attributed to the Oxford maker George Norwood, who is recorded working between 1852 and 1863 (Oswald 1984, 262).

The other three marked pipes were all recovered from Context 696, the fill of a large stone-lined feature which may have been a coal bunker but which became a rubbish pit. There is one bowl from a long-stemmed pipe with the relief-moulded initials TH on the spur (Fig. 19, No. 10). A wide range of pipes marked TH is known from Oxford (Oswald 1984, fig. 56) and these have been attributed to T Huggins, who is recorded at Banbury during the 1850s. The number of TH pipes which have been recorded from Oxford suggests that this maker, and possibly others with these initials, must have been based there at some point during the nineteenth century. The other two marked pipes are short-stemmed or 'cutty' pipes, both of which could be completely reassembled from fragments. These two examples are both from the same mould and have incuse moulded lettering reading 'HIGGINS.AGENT / BURNS CUTTY PIPE' on the stem (Fig. 19, No. 11). The 'Burns Cutty' was a plain, spurless, pattern of pipe and was perhaps the most popular and widespread of the nineteenth-century designs. These examples are particularly interesting in that they were clearly produced for a wholesaler, a fact rarely advertised on the pipes themselves. In this case the wholesaler can be identified as John Higgins who was born in Hammersmith in about 1823. By 1851 he was living at 23 Wilderness Row, Clerkenwell, where he was described as a 'pipe importer' and again in 1853 as an 'importer of fancy pipes'. From 1862 he appears in the trade directories as an agent, being recorded at 124 Aldersgate St from 1862-80, 143 Aldersgate St from 1881-1882 and 10 Long Lane, West Smithfield, from 1883-91. From these references the Oxford pipes can clearly be dated to around 1850-90. The pipes themselves are quite fine and neatly made and, having been supplied via a London agent, may have been a little more expensive than similar types which would have been produced locally. The three marked examples from this pit form part of a fresh looking group of pipes, the most likely deposition date for which would have been during the third quarter of the nineteenth century.

The decorated pipes

None of the pipes recovered from this excavation are decorated. The earlier pipes, which were rarely decorated anyway, form the bulk of the assemblage with only four or five nineteenth-century bowls being present. Decoration was much more common during the nineteenth century but the small size of this group does not make their absence significant.

Fabric types

During the examination of a pipe assemblage from Oxford Castle it was noted that many of the locally produced pipes of seventeenth and early eighteenth-century date were made of a distinctive local fabric (Higgins 1999). This fabric is characterised by the presence of numerous fine sand (quartz) inclusions. The

inclusions can just be discerned with the naked eye but they are particularly noticeable when a hand lens is used. The seventeenth and eighteenth-century pipes from this site were also made of this fine sandy fabric, confirming that it was in general use amongst the Oxford area makers and not peculiar to the castle site. The use of almost inclusion-free west country clays is only observed amongst the nineteenth-century fragments from this site.

Manufacturing and finishing characteristics

Although this is only a small assemblage, an analysis of the various finishing techniques used on the pipes supports observations made on the much larger group from Oxford Castle. A burnished finish was commonly applied to locally produced pipes in the Oxford area during the seventeenth and eighteenth centuries. An analysis of the Sackler Library data confirms that the earlier bowl forms, ranging in date from *c*1660-1720, are less likely to be burnished than slightly later forms of *c*1680-1770 but that where this finish was applied, the earlier forms generally have burnishing of a higher quality. There were seven bowls in the earlier group of which just four (57%) were burnished. In contrast, sixteen of the eighteen later bowls (89%) were so treated. However, two of the earlier burnished pipes (50%) had a good quality burnish whereas only three (19%) of the later ones achieved this quality. The majority of the later group, eleven of the sixteen examples (69% of the later burnished pipes), just had an average quality finish.

It was also noted that the majority of the eighteenth-century stems were also burnished. In some cases the burnish could be seen to have ended around half to three-quarters of the way along the pipe. Many of the unburnished fragments were of a small diameter (ie, from near the mouthpiece) and so could have come from pipes that were otherwise mainly burnished. This means that a simple count of burnished fragments will not reflect true percentage of burnished to unburnished pipes in an assemblage.

Milling was confined to the earlier bowl forms produced before c1710. The earliest spur form (Fig. 19, No. 1) was half milled while a slightly later example from Context 604 Phase 5 was three-quarters milled. The transitional bowl from Context 663 Phase 5 (Fig. 19, No. 3) only has a token one-quarter of the rim milled. Despite the absence of milling amongst the standard eighteenth-century forms, the rims were still carefully finished. All of the eighteenth-century pipes had bottered (smoothed) rims and about half of them had also been internally knife trimmed to give a fine, even rim finish. None of the pipes had an internal bowl cross.

Amongst the later, ie nineteenth-century material the only points of note are with regard to the form and length of the stems. The thin-walled bowl from context 629 Phase 5 (Fig. 19, No. 8) was associated with a number of long, thin stem fragments. These stems represented at least two different pipes but both would have had a similar bowl to that recovered. The stems were notably slender and neatly formed with an unusually small bore (3/64 in). From the extrapolated taper it is clear that this pipe style would have had a fine, curved stem with a length of some 35-40 cm (14-16 in) originally. The George Norwood fragment from Context 202 Unphased (Fig. 19, No. 9) was clearly from a similar form of pipe. The longer and thinner a stem was, the more difficult it was to make. The fine quality and elegant nature of the nineteenth-century stems from this site suggests that there may have been a general demand for such pipes amongst the social elite of Oxford.

Two other pipes of note are the ones marked 'Higgins.Agent' from Context 696 Phase 5 (Fig. 19, No. 11). Although of a standard nineteenth-century form these examples also have rather finer stems than would normally be expected for this type of pipe. Given that Higgins was known to specialise in imported pipes it is

quite possible that these were export products from France or the Netherlands, made especially for the English market. Support for this suggestion comes from the fact that the very end of each mouthpiece has been knife trimmed, a finishing technique typically used in neighbouring areas of northern Europe but rarely employed in this country. These two pipes also provide a rare opportunity to see the complete form of the pipe. Both examples had stem lengths of around 86 mm (3 3/8 in) and both have the decayed traces of what appears to have been a red wax coating to the mouthpiece.

The final piece of note is a mouthpiece fragment from context 731 Phase 4 (Fig. 19, No. 12). This has a fairly large bore (7/64 in) and is of 17th-century date. What is unusual is the thickness of the stem at its termination. Usually seventeenth-century stems taper to quite a fine tip. This piece was clearly finished at this point before firing and so either represents an unusually short, stubby pattern of pipe or one with a stem which broke during manufacturing and was finished off short. Either way, this is an extremely unusual piece.

The pipes as archaeological evidence

Despite the small size of this assemblage, the pipes are still able to contribute to a broader understanding of the site and its use during the post-medieval period. The first point to note is the overall chronological distribution of the pipe assemblage. The earliest diagnostic fragment only dates from *c*1660-80, some 50 or 60 years after the habit of smoking had become common amongst the general population. Furthermore, only a small percentage of the assemblage dates from the late seventeenth century. The paucity of pipes from this period suggests that, whatever its use, the site was being kept free of domestic rubbish for most of the seventeenth century. Loggan's map of 1675 shows the site as a large walled area of open ground. The adjoining area to the north was also open and walled but has cultivation beds indicated as opposed to the excavation area, which does not. If this distinction is reliable, then it may well be that the excavated area was grassed during the seventeenth century, which would accord with the low level of artefacts encountered.

In contrast, the majority of the pipes recovered from almost all the pipe bearing deposits date from around 1690-1770. Indeed, this end date may be a little late since many of the eighteenth-century forms appear to be early types, perhaps suggesting that most of this material was deposited around 1690-1740. This indicates that there was a major change in the use or management of this area around 1700, which completely altered the pattern of artefact deposition. Furthermore, a number of features can be attributed to this period. The foundations of the buttressed building of Phase 4 appear to have been robbed at this date. Four out of the six fills identified within the robber trench (Contexts 734, 939, 940 and 966; Fig. 19, No. 1) contained pipe fragments and these were consistently of late seventeenth to early eighteenth-century date. Likewise, Contexts 663 and 667 contained consistent pipe groups of a similar date (Fig. 19; Nos 3, 4, 6 and 7). These two contexts comprised the fill of a large pit, which may have been used for gravel extraction. This evidence suggests that, from around 1700, the area was regarded as waste ground which was being dug into for gravel and stone and upon which domestic waste was being discarded.

Around the middle of the eighteenth century the disposal pattern of pipes changes again and the archaeological record falls silent. This seems likely to reflect another change in the site's use, perhaps as it was tidied and grassed as an open area again. The final change comes around 1820 with the construction of new houses and the division of the area into small domestic gardens. It is notable that relatively few of the pipes date from this period and that, when they do occur, they tend to be confined to the final fills of stone lined pits in the gardens. This suggests that the disposal of domestic waste had become well managed with almost everything being disposed of away from the site. The pits themselves seem likely to have been

used as the receptacles for household waste or for the contents of privies. These would have been regularly emptied while in use. The mid- to late-nineteenth-century date for the pipes from the final fills of these features, for example, Contexts 629 and 696 (Fig. 19; Nos 8, 10 and 11), may well reflect changes in the system of sanitation and waste disposal, which rendered these features obsolete.

Summary and conclusions

The pipe evidence from this site confirms earlier observations regarding the clay sources, styles and manufacturing techniques of the local industry. Almost all of the pipes recovered are likely to have been made in or near Oxford and show that, despite its cosmopolitan nature, the town's smoking needs were primarily catered for locally. The two exceptions are the Higgins pipes of c 1850-90 which were probably imported, via London, from France or the Netherlands. These two examples represent a more refined class of product although all of the pipes are generally neat and well finished and, particularly during the nineteenth century, appear to have been of a fine and elegant appearance.

In terms of the archaeology of the site, the pipes suggest a number of distinct phases of use during the post-medieval period. During the seventeenth century the site appears to have been kept free of domestic waste and may well have been grassed. Around 1700 the digging of pits and robbing of wall footings suggests a period when it was regarded as waste ground before another period of archaeological inactivity from the mid-eighteenth century. The low level of pipe finds following the site's redevelopment for housing in the 1820s is a salutary reminder that domestic occupation does not always result in the deposition of domestic waste. The gardens appear to have been kept clean and tidy with the only significant pipe groups coming from the infilling of redundant pits.

Acknowledgement

I am most grateful to Peter Hammond of Nottingham for providing me with the details of John Higgins from his current research into the London pipemaking industry after 1750.

List of illustrated pipes (Fig. 19)

1. Bi-conical spur form of c1660-80. Rim bottered and half milled. Stem bore 7/674 in. Context 939.
2. Transitional spur form of c1680-1710 with slightly asymmetrical bowl. Rim damaged but internally knife trimmed and bottered with no surviving trace of milling. Spur flattened but not trimmed. Stem bore 6/64 in. Context 671.
3. Transitional heel form of c1680-1710. Rim one-quarter milled, internally knife trimmed and bottered. Poor burnish. Context 663 (A).
4. Rather squat heel form of c1690-1720. Rim bottered but not milled. Stem bore 6/64 in. Context 663 (B).
5. Transitional heel form of c1690-1710. Rim damaged but internally knife trimmed and bottered with no surviving trace of milling. Average burnish. Stem bore 5/64 in. Context 668.
6. Tall example of standard 1700-1770 form with rim still dropping slightly away from stem, probably early C18th. Rim bottered but not milled. Stem bore 5/64 in. Average burnish. Context 663 (F).
7. Slightly shorter example of standard 1700-1770 form with rim parallel to stem. Rim internally knife trimmed and bottered but not milled. Stem bore 6/64 in. Average burnish. Context 663 (D).
8. Thin-walled bowl with fine spur and stem, c1820-1880. Rim cut. Unusually small bore of 3/64 in. Relief moulded star on each side of spur and part of an incuse stamped bowl mark with a milled border. Possibly a product of the Huggins family of Oxford. Context 629.
9. Spur fragment from a similar bowl to that illustrated in Fig. 19, No. 8.

Relief moulded initials GN on the spur, attributed to George Norwood of Oxford, recorded 1852-63. The base of the spur has been trimmed. Stem bore 3/64 in. Context 202.

10. Spur bowl of *c*1820-1860 with cut and wiped rim. Relief moulded initials TH on spur, attributed to T Huggins. Stem bore 4/64 in. Context 696.
11. Two fitting fragments making up one of two identical complete pipes with 86 mm long stems, *c*1850-1890. Cut rim and nipple mouthpiece with traces of a decayed red coating, presumably wax.. The very end of the mouthpiece has been knife trimmed, suggesting production in France, Belgium or the Netherlands. Incuse moulded stem mark reading 'HIGGINS.AGENT / BURNS CUTTY PIPE'. John Higgins was a London agent specialising in imported pipes who is recorded working between 1851 and 1891. Stem bore 4/64 in. Context 696 (B).
12. Mouthpiece dating from *c*1610-1700. Thickness of mouthpiece is extremely unusual but it has clearly been finished before firing. Stem bore 7/64 in. Context 731.

Ceramic building material

by Kate Atherton and Nick Mitchell

Introduction

The excavations produced 968 fragments of ceramic building material with a total weight of 74,415 g. The majority of the material is flat roof tile with a limited range of ridge forms and brick fragments present. The assemblage includes 35 floor tile fragments which appear to represent three floors of decorated tiles and two floors of plain tiles. There are a further 114 fragments of stone weighing 29,702 *g* and this includes both limestone and slate roofing material.

Methodology

Each fragment was counted and weighed and measurements were made of all complete surviving dimensions. The floor-tiles and ridge tiles were examined with a x20 lens to relate their fabrics to the established fabric series of the Oxford region (S Robinson 1980, 196, microfiche DO9-D14). Fabric analysis was not attempted for the flat roof tile or the brick since this level of fabric analysis is not considered reliable without corroboration from typological features.

The building material forms are described in the first half of the report and each type is further discussed in the second half.

Description

Floor tile

There are 35 fragments of floor tile, 31 of which are decorated, with eight different designs present. The decorated floor tiles of the Oxford region are well-known and are catalogued in two publications, Haberly 1937 and Hohler 1942. The designs present at the Sackler Library are therefore not illustrated here but are referenced to the relevant publications in Table 8.

The assemblage includes inlaid tiles, two types of slip-patterned tiles, and two types of single-colour tiles. Floor tiles which are inlaid have been stamped with a design and the impression filled with a white clay. In contrast to this, slip-patterned tiles, which are sometimes called 'Penn-type' and have also been referred to as 'printed' tiles (the term 'printed' was widely used following Haberly's (1937) description of these tiles as being 'imprinted') are not properly inlaid but are decorated with a design in very shallow white slip. The method of manufacture, which is not yet clearly understood, often leaves the surface of the tile smudged and consequently small fragments of these tiles are difficult to assign to the known range of designs. In contrast to the inlaid tiles their bases are not keyed.

The five groups described below probably represent five separate tiled pavements. They are grouped according to style of decoration, fabric and dimensions.