

Clay Tobacco Pipes from Excavations at 114-119 St Aldate's and 4-5 Queen Street, Oxford (OXSTAD16)

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Introduction

This report deals with the clay tobacco pipes recovered during an archaeological excavation undertaken at 114-119 St Aldates and 4-5 Queen Street by Oxford Archaeology between March and April 2016. The site code used for the excavations was OXSTAD16. During the Medieval period the area examined comprised backyards behind buildings on the street frontages. In the Post-Medieval period these plots were subdivided and occupied by buildings and yards, with evidence that there were taverns in the vicinity. An assessment report and context summary were prepared for Oxford Archaeology in June 2017, with this final report being prepared in September 2018.

The Clay Tobacco Pipes

The excavations produced 160 fragments of pipe (50 bowl, 104 stem and 6 mouthpiece fragments) weighing a total of 1,614g. The pipes were recovered from a total of 22 different contexts in five of the excavated areas (1, 4, 5, 10 and 11). The pipe assemblage as a whole is in very good condition with many large stem fragments and most of the bowls comprising complete examples. Almost all the pipes recovered belong to a very narrow time band; almost all of the stems are of general seventeenth-century types while the more closely datable bowls range from c1640-1680 with the majority dating from c1650-70. The only notable exceptions are two stems of late eighteenth-century or later date from context 1376. From the pipe evidence, it would appear that there was a brief but intense period of activity resulting in the deposition of archaeological material across this site during the third quarter of the seventeenth century.

The majority of the pipes were recovered from the fills of post holes or pits, the most notable of which was a stone lined cesspit (4073). This feature produced by far the largest number of pipes from the site (82% of all the pipes recovered) and is discussed in detail below. None of the pipes from the excavations are marked and the only decorated examples come from pit fill (4073). A context summary of all the pipes has been provided for the site archive but just the large pit group is discussed here.

Pit Group 4073

There were nine pipe bearing contexts (4005, 4006, 4013, 4014, 4044, 4058, 4061, 4066 and 4067) associated with this stone-lined cesspit, which produced a total of 131 pipe fragments (43 bowl, 82 stem and 6 mouthpieces). There were numerous cross joins between these fragments showing that the pit was filled as a single event. It was also possible to reconstruct around twenty substantially complete pipes and three fully complete pipes, all of which date from c1650-70. Complete pipes are rarely recovered and only around 30 seventeenth-century examples were recorded during a study in the 1980s (Higgins 1987, 64) to which another 20 or so have since come to light. These are the first examples of any date from Oxfordshire or its surrounding counties and the recovery of

three together makes this group of national significance. The pit was located behind the site of the Red Lion inn and the fill included sealed bottles made for Anthony Hall, who was licensee of the Mermaid Tavern until his death in 1675. Numerous fig and grape seeds were also found in the pit, suggesting an affluent establishment/clientele. The pipe group can, therefore, be interpreted as having been discarded at one point in time from a prosperous tavern, most likely sometime around 1660.

A number of other closely datable mid-seventeenth century pipe groups have recently been recovered from Oxford (Higgins 2017; Higgins 2018) but this is the only one to have produced fitting fragments that now allows a number of substantially complete pipes to be compared and contrasted. The other sites do, however, provide useful reference points for the bowl forms and manufacturing techniques. Where more than one bowl occurs in any of the contexts from this pit it has been allocated an additional suffix (A, B, C, etc.) to act as a unique identifier so that it can be individually referred to, the relevant letter having been pencilled inside the bowl.

At least 43 pipes were discarded in the pit, 40 of which fit well as a contemporary group. There was one bowl from the wall of the pit itself that seems unusually large for the group, and must represent an early introduction of a form that would otherwise be dated *c*1660-80. The other two slightly later looking forms also date from *c*1660-80, but came from (4014), one of the upper fills of the pit, where they could be intrusive or have been introduced from elsewhere when the pit was being filled. Unlike most of the other pieces, neither has any surviving stem and they are so similar that they were probably made in the same mould. They also stand out as being the only two bowls from the pit made of a fine sandy fabric from Shotover Hill (see Higgins 2017 for a discussion of this fabric). The author has previously noted that this sandy fabric declined in use during the Commonwealth and does not appear to have been used at all during the 1660s, with a resurgence towards the end of the century (Higgins 2018). The material from (4073) supports this observation and shows that imported clays were almost exclusively used for pipemaking in Oxford when the pit was filled.

One bowl was missing its base, but the others comprise 36 spur forms and six heel forms (details of all the bowls can be found in Table 1). One or two of the pipes had stem bores of either 6/64" or 9/64" but the rest were all of either 7/64" (16 examples) or 8/64" (23 examples). Only four of the heel forms had complete heels and all of these were round or oval in plan; none had the pointed tail sometimes found on early to mid-seventeenth century pipes in Oxford. Spur forms appear to have been regarded as the more prestigious style of the two and this is reflected by the fact that 34 of these had burnished bowls (94%), whereas none of the heel bowls were burnished. Furthermore, 29 of the spur bowls (81%) had a good or fine quality burnish (i.e., better than average) and 27 of 31 examples with surviving stem also had this burnish as well (87%). The quality of the stem burnish was often a little less good than that of the bowls but the overall pattern is clear – spur pipes almost all had burnished bowls and most of them had burnished stems too, while the heel forms were completely unburnished. Reconstruction of around 20 substantially complete pipes has also allowed the length of the stem burnishing to be assessed for the first time. There were 16 spur pipes where this could be measured, showing that burnishing extended to between 130mm and 205mm from the bowl junction (the length of the longest strokes measured), invariably ending with strokes of irregular length so as to fade into the unburnished section running up to the mouthpiece. Most of the examples had between 150mm and 185mm of burnished stem (12 examples, representing 75% of the sample).

Cxt	Ref	H/S	Rim Milling				Bowl Burnish					Stem Burnish					SB (mm)	Stem Bore				
			M0	M1	M2	M3	M4	B0	BP	BA	BG	BF	S0	SP	SA	SG		SF	6/64	7/64	8/64	9/64
4005	A	S			1					1					1			180	1			
4005	B	S		1							1										1	
4006	A	S						1			1			1				155		1		
4006	B	S						1			1					1					1	
4006	C	S	1								1					1					1	
4013		S	1								1					1					1	
4014	A	S						1			1					1		205				1
4014	B	S						1			1					1					1	
4014	C	S	1								1			1							1	
4014	D	S	1								1					1		155		1		
4014	E	S				1			1						1					1		
4014	F	S	1								1			1						1		
4014	G	S	1								1				1					1		
4014	H	S						1			1					1		170			1	
4014	I	S						1			1					1		150			1	
4014	J	S	1						1					1							1	
4014	K	LS			1					1											1	
4014	L	LS			1					1												1
4014	M	-			1				1													
4014	N	H	1						1												1	
4014	O	H					1	1					1								1	
4044	A	S	1									1	1								1	
4044	B	S			1						1					1		175			1	
4058	A	S	1								1			1				135		1		
4058	B	S	1								1			1				130			1	
4058	C	S	1									1		1						1		
4058	D	S				1					1			1				155			1	
4058	E	S				1					1				1			195			1	
4058	F	S			1						1				1			180		1		
4058	G	S				1					1				1			160			1	
4058	H	S			1						1				1			155		1		
4058	I	S									1				1					1		
4058	J	S									1									1		
4061	A	S			1						1					1					1	
4061	B	S						1			1					1				1		
4066	A	H						1	1					1							1	
4066	B	S	1								1										1	
4067	A	S				1					1			1				175		1		
4067	B	S				1					1					1		180			1	
4067	C	S						1			1					1					1	
4067	D	H						1	1					1							1	
4067	E	H						1	1					1						1		
4067	F	H					1		1					1						1		
Tot			13	1	7	8	12	8	3	4	27	1	9	6	10	11	0		1	16	23	2

Table 1: The attributes of the 43 bowls recovered from pit 4073 of c1650-70 showing their context number; unique reference letter; whether these are heel or spur forms (H/S or LS for large spur forms); the amount of rim milling (to the nearest quarter) ranging from none (M0) to four quarters milled (M4); the presence/quality of bowl burnish (B0 = no burnish, BP = poor burnish, BA = average burnish, BG = good burnish, BF = fine burnish); the presence/quality of stem burnish (graded as for bowls, but with the prefix S); the length of stem burnish from the bowl in mm; the stem bore in 64ths of an inch.

There was less distinction with regard to the amount of rim milling between the two forms, with both styles exhibiting both fully milled and unmilled examples (four of six heel forms were fully milled and eight of 36 spur types; one of six heel types were unmilled and twelve of the 36 spur types). Although these two extremes (i.e., either completely milled or completely unmilled) were the most numerous types, there were also various intermediate levels of milling for both styles. This general pattern accords with a group of *c*1650-70 from The Queen's College where more variable levels of milling were found to have replaced the almost consistently fully milled pipes from earlier groups (Higgins 2017). Milling is generally taken as an indicator of the quality of a seventeenth-century pipe, the more complete the milling the better the quality. In mid-seventeenth century Oxford, however, this does not seem to follow, with the burnished spur forms being just as variable as the cheaper heel types.

Makers' marks are not very common on Oxford pipes and none were recovered from the excavation. Likewise, decoration at this period was rare and only two decorated pipes were present. One just has a single band of milling 20mm from the bowl where the stem has been repaired during manufacture. The pipe had broken again at this point showing where the broken ends had been pushed back together and there are irregularities flanking the milling where the stem has been smoothed. Repairs of this type, usually disguised with milled bands, are not infrequent finds across the country. In contrast, the other decorated piece has an ornately decorated stem that starts 60mm from the bowl and extends for a further 127mm along the stem. The central section comprises chevron decoration that has been created by scraping a toothed implement, perhaps a milling tool, at alternate angles across the stem. This has created slight facets to the stem, 12 or 13 in total, with one small strip that has been missed or left plain deliberately on each side. The chevron decoration is flanked at each end by a series of stem borders that have been created by impressing a toothed blade into the clay at a slight angle to form each band – eight on the bowl side and nine towards the mouthpiece end. This technique of using a decorated blade in an opposing manner to form paired bands is a technique that appears to be peculiar to Oxford region, where it was used from the mid-seventeenth century through to the early eighteenth century.

The bowl forms all suggest local production for this pipes from this pit. The high level of finish on the spur forms makes it impossible to carry out reliable mould identification using surface flaws, but subtle differences in profile and overall shape show that several (perhaps many) different moulds must be represented. Apart from the three larger types mentioned above the spur bowls are all of a very uniform style showing that the Oxford makers were working to a common standard of shape and finish. The principal variation is simply that of overall size, which varies slightly, probably reflecting the gradual evolution towards larger size that was a characteristic of the seventeenth century. The heel forms are almost as uniform, with just two slightly smaller and more variable pieces, but the other four being very similar in size and shape.

The most important outcome of this study was the reconstruction of three complete pipes from this group. Only six mouthpieces were available and, had more been recovered, there is no doubt that many other pipes could have been reconstructed. A study of the evolution of stem length has shown that stems got longer during the course of the seventeenth century but that different lengths also existed at any one time, being related to the style and quality of pipe (Higgins 1987). The three pipes reassembled from this pit are all spur types. The shortest has a relatively small bowl form and thin stem, with a stem length of 289mm (11 ³/₈""). The other two pieces both have slightly larger bowls and chunkier stems, with lengths of 293mm (11 ¹/₂"") and 304mm (12""). These two are so similar in bowl form that it is likely that they come from the same mould, the difference in length being accounted for by the stretching/compression of the clay during manufacture, the point at

which the stem was cut off to form a mouthpiece, and shrinkage during firing. Similar differences between pipes made in the same mould has been noted previously (Higgins 1987, 56-60) and so some variation is not unexpected. In broad terms, however, these spur pipes had stem lengths that ranged from around 11 ½” to 12”. No complete heel pipes were recovered, but two almost identical examples each had surviving stems of around 245mm and their stem taper suggests that they would have been of a comparable length.

The complete pipes are of a similar length to the mid-range of other known examples of this period (Higgins 1987, 64). Without more complete examples to compare, it is not known whether longer or shorter examples were also current in Oxford at this time (perhaps with identical bowl forms) or whether this was the standard length for all pipes produced at this particular centre. The former is more likely, since various prices/lengths are recorded in many other parts of the country. Of particular significance in relation to these new finds is the 1710 mould size agreement implemented by the Bristol pipemakers to standardise their products. This listed six different styles of pipe with stem lengths ranging from 8” to 16”, including ‘Pened Heels’ and ‘Gauntletts’ of 11 ½” each (Jackson and Price 1974, 85). These two styles almost certainly equate, respectively, to the spur and heel forms found at Oxford, showing that these forms already existed with comparable stem lengths some half a century before the mould size agreement was drawn up.

References

- Higgins D. A., 1987, *The Interpretation and Regional Study of Clay Tobacco Pipes: A Case Study of the Broseley District*, doctoral thesis submitted to the University of Liverpool, 628pp (available online at https://www.academia.edu/34528546/Higgins_1987_-_The_The_Interpretation_and_Regional_Study_of_Clay_Tobacco_Pipes).
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