

The Saxon and early medieval pottery from Moor Lane, Staines

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The Moor Lane excavation revealed two distinct phases of occupation, the first of which was associated, in the main, with chaff-tempered pottery and the second with pottery of 11th- to 12th-century date. In an assessment of the pottery the unusual nature of the earlier assemblage and the impossibility of providing a close date for this phase of activity was noted and as a result C14 dating was obtained for the carbon in samples of the pots themselves. A sample of six vessels was also examined in thin-section and chemical analysis was carried out on the pottery fabric. As a result of the first C14 date, which suggests a 10th-century date for the sample, this first phase is classed here as mid to late Saxon. The second phase of activity was correlated with the sequence obtained in the city of London and is thought to date to the late 11th to early 12th centuries, probably after the Norman conquest.

Mid to Late Saxon

Pottery fabrics

On the basis of study of the sample of six thin sections the chaff-tempered pottery was divided into two groups, Fabric 1 and Fabric 2.

Fabric 1 (sections V1246-8) contains moderate to abundant vegetal inclusions up to 4.0mm long. These inclusions are charred and surrounded by a dark halo. These inclusions were not identified. Away from these inclusions, however, the body is oxidised. The groundmass of the vessels consists of anisotropic baked clay minerals and contains moderate to abundant angular quartz, c.01-0.2mm across, sparse rounded opaque grains of similar size and sparse muscovite laths, up to 0.2mm long. No rounded quartz grains or other inclusions larger than c.0.2mm were noted.

Binocular microscope examination identified two sherds of this fabric which contained rounded fragments of an oolitic limestone. Neither of these was thin-sectioned.

Fabric 2 (sections V1250-2) contains abundant vegetal inclusions of similar size to those in fabric 1. Unlike fabric 1, the samples of Fabric 2 were all completely sooted except for a thin margin at the surface. Sparse rounded quartz grains were present in all three sections, ranging up to 0.3mm across. The groundmass consists of anisotropic baked clay minerals and contains abundant angular quartz of silt grade, that is, slightly finer in texture than in Fabric 1, and moderate muscovite grains of similar size. A single irregular nodule of micrite was observed (in sample V1251). This consisted of a dolomitic matrix with non-ferroan calcite specks (ie less than 0.1mm across) and sparse larger dolomite crystals and an angular quartz grain c.0.2mm across. This may be a septarian nodule although no comparative sections of such nodules was available for comparison.

The difference between the two fabrics is subtle and difficult to spot in the hand specimen except at x20 magnification. However, the chemical analyses confirm that the two groups are chemically different. The MgO to CaO ratio for the six samples shows that fabric 2 samples have a higher ratio which is much more variable than in fabric 1. This is shown in Fig 1 where the MgO to CaO ratio for the three fabric 1 samples shows a strong correlation whereas in the Fabric 2 samples MgO is higher and there is no correlation of the two elements.

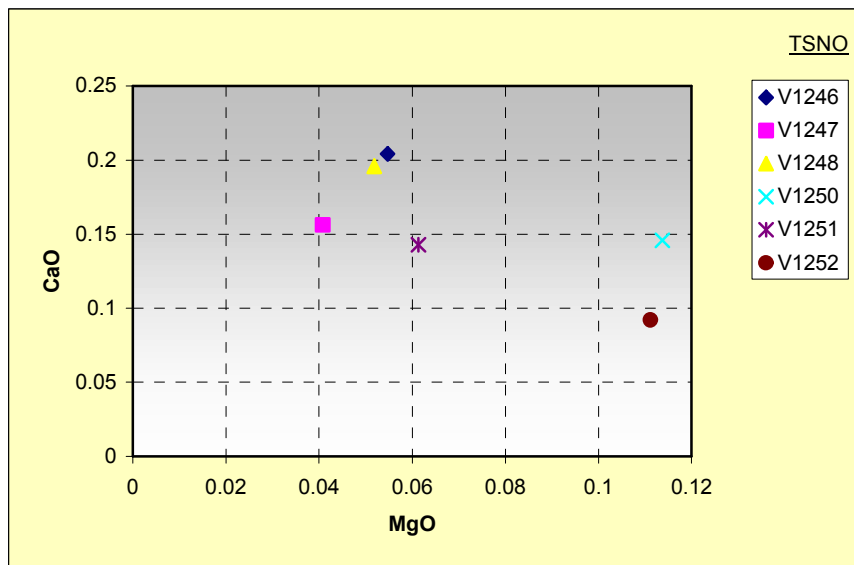


Figure 1 MgO plotted against CaO for the six chaff-tempered samples, normalised by Al₂O₃.

Principal Components Analysis of the Staines samples together with samples of early and mid Saxon chaff-tempered sherds from various sites in the Thames valley. It can be seen from plot of Factor 1 against Factor 2 (Fig 2) that the Fabric 2 vessels are chemically indistinguishable from those from other sites in the Thames valley, whereas the Fabric 1 vessels are clearly different. However, a plot of Factor 3 against Factor 4 (Fig 3) separates the Barking samples from the rest.

It is clear that the Barking samples and the Staines fabric 1 samples were made from different raw materials. However, the failure to distinguish samples from the remaining sites might either be because the vessels were made from raw materials available throughout the Thames basin but which are essentially very similar in composition or it might be that the Staines fabric 2 vessels were made at the same centralised production centre that supplied Lundenwic and outlying agricultural settlements.

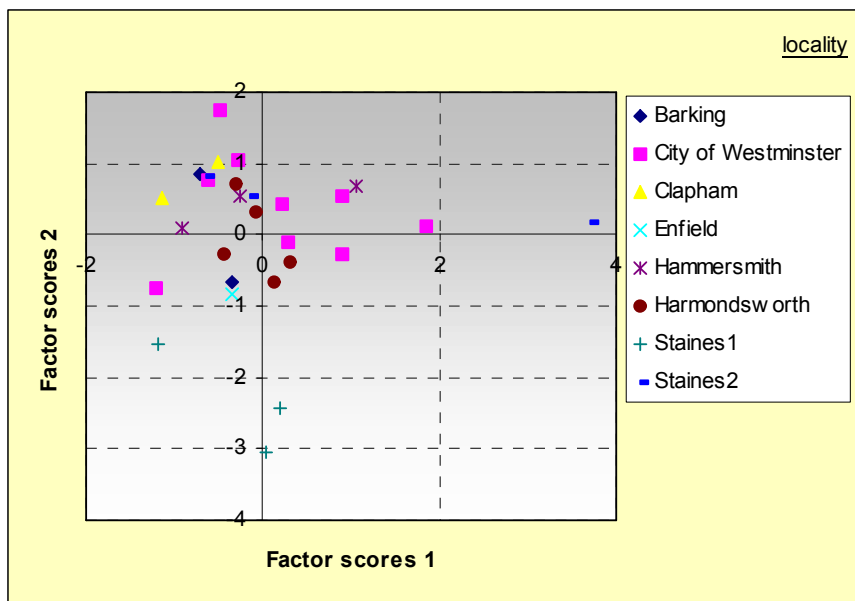


Figure 2

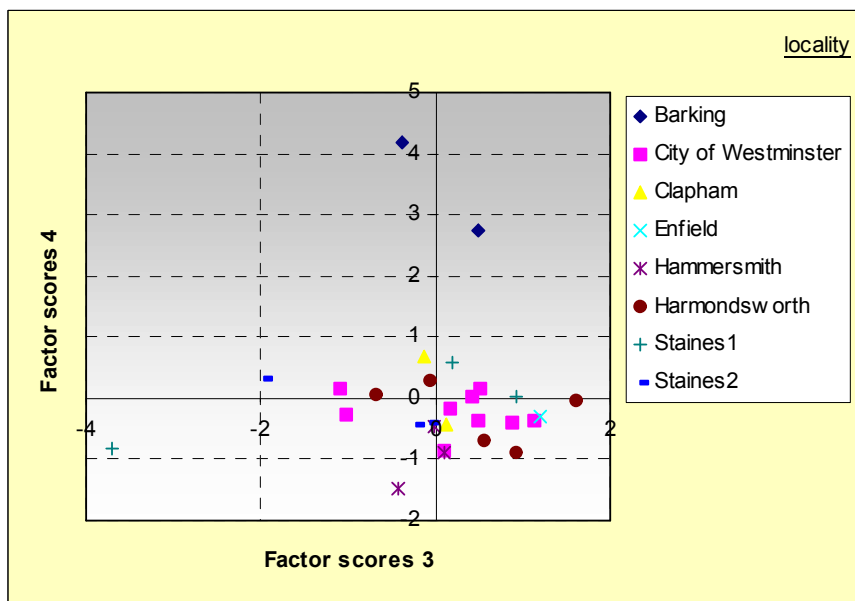


Figure 3

Given the apparent difference in date between the majority of these samples and those from Staines the first interpretation, that the raw materials are not distinguishable, is probably correct. The chemical composition of the two Staines fabrics (omitting elements which might be present in calcareous nodules or post-burial concretions) were compared with a range of kiln products of various periods whose source is known. Fabric 1 is similar to white-firing wares from Kingston-upon-Thames, Southwark (presumably made from clay shipped downriver) and Brockley Hill. All three are likely to have utilised the Reading Beds clay at the base of the Tertiary sequence. Fabric 2 is similar to greyware from Kingston-upon-Thames, redware from Brockley Hill and redware from London. The linking factor between these three sites is the London clay. However, neither the Reading Beds nor the

London Clay would contain the quantities of quartz silt and fine sand seen in the Staines samples and it is likely that the vessels were either made from alluvial clays derived from those two clay beds or that clays from those beds were being mixed with superficial silts or brickearths.

Pottery forms

There is probably a fundamental difference between the method of construction of these vessels and that of the majority of chaff-tempered vessels in the Thames valley, in that they seem to have been made on a flat surface, starting with a disk of clay to which coils were added. In one instance the base is covered with chaff impressions and it appears that it was made on a chaff-strewn surface. Other chaff-tempered vessels seem to have either been made using a hemispherical mould, such as a broken potsherd, or entirely in the hands, although they too were probably made using coils. Another remarkable feature of the pottery, but one shared also by other chaff-tempered pottery in the area, is the crudeness of the technique. Most of the body sherds are of variable thickness and have a lumpy appearance. However, despite that, there are traces of burnishing on the vessels shoulders, and on both sides of the rim.

Two or possibly three forms can be recognised in this collection. The first is the jar, having a constricted neck, a short vertical or slightly everted rounded rim and a flat base. From the rim and shoulder sherds it is possible that there were two shapes, one having a distinct shoulder and the other having a more globular body. Many of these sherds have sooting on the exterior and some have traces of carbonised food on the interior whilst others have a kettle fur deposit. One base sherd has a deep groove moulded into it, probably one of two forming a cross. No parallels for this feature are known.

The second form is recognised solely by the thickness of the walls and the curvature of the wall sherds. These sherds appear to have come from large storage jars.

The third form is represented by a handle. This handle seems to have been a horizontal handle with an oval cross-section and tapering shape. The handle seems to have been added to the lip of the vessel. Whilst it is possible that the handle was attached to a jar it is unlikely that it would have been strong enough to support the weight of a filled jar. The other possibility is that the handle came from a bowl or dish.

Distribution of pottery

Table 1 shows the distribution of sherds of these chaff-tempered fabrics in contexts dating to the mid/late Saxon period. The two main fabrics are present in roughly equal quantities and for each of the large assemblages there is little difference in the ratio of one to the other.

Table 1. Distribution of Chaff-tempered fabrics in stratified mid/late Saxon contexts

trench	Scraps	FABRIC 1	FABRIC 2	FABRIC 1+OOL	Grand Total
170		17	20		37
158	16	5	5		26
155		8	2	1	11
252		2	6		8
259		4			4
154		2	1	1	4
179			2		2
191		2	1		3
272		1	1		2
274		1	3		4
175			2		2
156	2				2
181		1	1		2
189			1		1
190			1		1
253/254			1		1
276			1		1
Grand Total	18	43	48	2	111

Thus, there is no internal evidence in the pottery assemblage to support a long chronology for the occupation.

By the early 10th century shell-tempered pottery was in use in the Thames valley both upstream and downstream of Staines. I have proposed, on the basis of petrological examination, that the wares found in Oxford and those found in London were made from the same source and that these provide evidence for the use of the Thames for transporting low cost commodities by the early 10th century (Vince and

Jenner 1991). However, this view has been challenged by Maureen Mellor 1994 and Philip Jones (Jones 1982) and if the C14 date for the Moor Lane chaff-tempered pottery can be trusted then it provides more evidence for their position. There would then be a situation in which wheelthrown shell-tempered pottery was being used in the new towns of Oxford and London whilst in the countryside the earlier traditions continued. If this shelly ware was not used at Staines it casts doubt not only on the use of the Thames for transport but also on the source of the pottery since the only other route between London and Oxford is overland, a distance of about 57 miles.

Late 11th to 12th century

The 11th to 12th-century occupation of the Moor Lane site produced a collection of 105 potsherds. Of these, 46 are of chaff-tempered ware and are extremely unlikely to be contemporary. The remaining wares are mainly of types known from the City of London and for which a relatively close date can be given. It is always possible that wares were in use closer to their source at earlier or later dates than those found further afield. However, such argument would only hold true for two or three of the wares found here, since petrological analysis suggests in the remaining cases that the wares were either made to the east of London or have a source equidistant from Staines and London.

Pottery fabrics

Nine wares were present in this phase. Of these, six were present in the London late Saxon and Saxo-Norman sequence (Vince and Jenner 1991). One is a medieval Berkshire or east Wiltshire ware (Newbury B) and the other two are of types not previously encountered by the author and coded using the DUA system as MISC FHSY and MISC SY.

Table 3 lists these ware and their period of use in the City of London. When these date ranges are compared with the site stratigraphy it can be seen that only one assemblage, from F11, might be earlier than the mid 11th century whilst two cuts, F134 and F135, contain pottery of early 12th-century or later date. However, since many of the types were still current in the mid 12th century it is possible that the occupation is mostly 12th century.

Table 2

Ware	Name	Date range	NOSH
EMCH	Early Medieval chalky ware	Mid 11 th to mid 12 th C	7
EMFL	Early medieval flinty ware	Late 10 th to mid 12 th century	3
EMS	Early medieval sandy ware	Late 10 th to late 11 th century	4

EMSH	Early medieval shelly ware	Early 11 th to mid 12 th century	4
ESUR	Early Surrey ware	Mid 11 th to mid 12 th century	29
MISC FHSY	Unknown flint, shell and sand tempered, handmade	Unknown	8
MISC SY	Unknown sand tempered, handmade	Unknown	2
NEWBURYB	Newbury Group B	Early 12 th to late medieval	1
SHER	Hertfordshire/Middlesex greyware	Early 12 th to late medieval	1
Grand Total			59

Pottery forms

Most of the vessels jars present in this phase were jars. Most of the jar sherds were sooted on the outside and therefore the vessels were mainly used for cooking. A variety of shapes were represented, including globular vessels with everted rims, some with thumbled decoration on the rim. A shallow dish in ESUR fabric was present in a later deposit but clearly originated in this phase. The three sherds of MISC FHSY from F134 are sooted on the exterior but one of the sherds has the beginnings of a spout. These sherds therefore probably come from a spouted bowl, a type known in the pre-conquest 11th century.

Distribution of pottery

The distribution of 11th to 12th-century pottery on the Moor Lane site is shown in Table 4. In addition, sherds of chaff-tempered pottery were present, and in F102 these outnumber the contemporary pottery by 23 sherds to 1.

Table 3

cname												Grand
	F011	F003	F016	F102	F136	F137	F146	GN22	STR A	F134	F135	Total
EMCH	0	0	0	1	0	1	0	2	1	2	0	7
EMFL	3	0	0	0	0	0	0	0	0	0	0	3
EMS	0	0	2	0	0	0	0	0	0	0	2	4

EMSH	0	0	0	0	2	0	2	0	0	0	0	4
ESUR	0	2	7	0	1	2	4	2	0	3	8	29
MISC FHSY 1	0	4	0	0	0	0	0	0	0	3	0	8
MISC SY	0	0	1	0	0	0	0	1	0	0	0	2
NEWBURYB0	0	0	0	0	0	0	0	0	0	1	0	1
SHER	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	4	2	14	1	3	3	6	5	1	9	11	59

Acknowledgements

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Appendix 1a: ICPS Major elements (percent oxides)

TSNO	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO
V1246	21.94	5.57	0.6	2.24	0.15	0.34	0.52	1.3	0.03
V1247	11.77	5.25	0.48	1.84	0.11	0.95	0.39	2.15	0.05
V1248	20.84	5.94	0.54	2.04	0.14	0.34	0.55	1.42	0.03
V1250	14.25	6.71	1.62	2.08	0.37	2.53	0.72	1.98	0.06
V1251	14.84	6.5	0.91	2.12	0.19	1.7	0.6	1.63	0.03
V1252	15.2	7.69	1.69	1.4	0.52	2.85	0.82	1.31	0.05

Appendix 1b: Minor and trace elements (ppm)

TSNO	Ba	Cr	Cu	Li	Ni	Sc	Sr	V	Y	Zr*	La	Ce	Nd	Sm	Eu	Dy	Yb	Pb	Zn	Co
V1246	449	75	24	113	68	13	121	89	39	73	31	52	34.404	5.415	1.1544	5.63	4.21	56	57	5
V1247	540	54	21	47	47	9	166	70	26	67	31	48	32.712	4.275	0.88	3.82	2.31	63	58	10
V1248	432	80	27	98	48	12	157	93	36	74	32	62	35.344	6.33	1.3248	5.63	2.21	46	74	6
V1250	944	108	28	63	60	15	212	130	33	93	42	74	44.556	7.645	1.4632	5.42	2.82	55	148	20
V1251	680	82	18	49	84	14	177	98	41	79	107	288	110.074	24.05	3.78	10.13	82	5.16	117	20
V1252	646	119	25	63	56	17	160	143	23	89	39	78	40.608	6.455	1.2848	4.22	3	29.2	114	26