

1.1 Ceramic Building Material

By Susan Pringle

Introduction

- 1.1.1 Ceramic building material weighing 4.845 kg was recovered during Fieldwork Event ARC BBW00.

Methodology

- 1.1.2 All the ceramic building material from the site was assessed. Ceramic building material was divided by form, and fragments counted and weighed. The presence of distinctive fabric types was noted, but no analytical work done on the fabrics from the site, as this task is more appropriately carried out at a later stage when the format for future analysis and publication has been decided.
- 1.1.3 Other information recorded includes the presence of combing, tally or signature marks, the presence or absence of glaze, and any complete dimensions. Where useful, fabrics are compared to those in the Museum of London fabric type series for building materials, and reference has also been made to the provisional type series for medieval brick and tile from Parsonage Farm (Pringle 2000a).

Quantification

- 1.1.4 The assemblage comprises 59 fragments with a total weight of 4.844 kilogrammes ranging in date from Roman to post-medieval.

Roman

- 1.1.5 There are six fragments of Roman brick from the site, weighing 0.844 kg, and five fragments of tegula, weighing 1.39 kg. None of the tiles is complete, but bricks 35 mm and 40 mm thick are present. Two of the tegulae have partial signature marks consisting of double hoops drawn with the fingers at the bottom end of the tile; the significance of these is not known but is likely to relate to the manufacturing process. Both bricks and tegulae are in a fine orange-red fabric with fairly fine, well-sorted moulding sand. The fabric is similar in composition to MoL fabric 2815, but tends to be less well-fired with a powdery feel.
- 1.1.6 The material is likely to be either residual or re-used material. It may have been brought to the site as landfill, perhaps to surface the trackway, or possibly for use in some industrial process; reused bricks and tegulae are often found associated with industrial and agricultural features such as hearths and corn driers.

Medieval and Post-medieval

- 1.1.7 The post-Roman ceramic building materials consist of roofing tile and brick.

Peg tile

- 1.1.8 Seventeen fragments of peg tile, also called plain tile, were recorded, weighing 0.781 kg. Peg tile is present in three fabrics:
- A red fabric with common medium to coarse quartz and sparse white shell; the tile is glazed. This fabric is close to MoL fabric 2586, and is identical to provisional fabric PFM9 from Parsonage Farm. The presence of glaze dates the tile to the medieval period, and the presence of shell suggests that it may be early medieval.
 - A red fabric with grey core and fine calcareous speckle. This is similar to provisional fabric PFM 3 from Parsonage Farm. The date range is not known.

- A pinkish orange fabric with a fine calcareous speckle, similar to MoL fabric 3201. One example with a breadth of 155 mm has two square nail holes set diagonally. In London this type of tile is dated to AD 1500 or later, but similar tiles at Parsonage Farm are likely to be considerably earlier. Kentish dates are likely to apply here.

Brick

- 1.1.9 Eight fragments of post-medieval brick were recorded with a total weight of 1.805 kg. Three fabrics are present:
- An orange-brown fabric with coarse iron-rich inclusions fired to dark red or dark brownish black. This is identical to provisional fabric PFM11 from Parsonage Farm.
 - A red fabric with cream calcareous marbling and some small iron-rich, blackish, inclusions (MoL fabric 3034).
 - A dark red fabric with a very fine texture. The brick is machine-made with fine moulding sand and sharp arrises. This brick is identical to examples from Parsonage Farm where the fabric has been provisionally recorded as PFM10.
- 1.1.10 The medieval and post-medieval brick and tile assemblage is likely to represent discarded material from local buildings, either residual in the topsoil, or dumped as landfill at various times.
- 1.1.11 Table 1.11 illustrates the quantification of all ceramic building materials recovered by count and weight.

Provenance

- 1.1.12 Roman tile comes from Area C only, from contexts (200), (201), (1042) and (1857). The best stratified material is from pit or ditch terminus [1039], which may be associated with the side ditches (sub-groups 1748/1750) of possible trackway 3000 (context (1042)).
- 1.1.13 The single fragment of securely dated medieval tile is from Area C, context (201), subsoil in Area C. Other roof tile which could be medieval or post-medieval comes from unphased pit fill (1243) in Area C, and topsoil contexts in the WBG areas, including context (53) (surface finds, probably originating from the subsoil to the south east). Post-medieval brick comes from Area A, context (424) from post-medieval ditch [425], and in Area C from contexts (489) (in ditch work group 3074), (1806) (probably intrusive in Late Iron Age ditch group 3027) and (1824) (work group 3032).

Conservation

- 1.1.14 Further analysis will be needed on some of the material, so it should not be placed in long-term storage until this has been carried out. There are no special requirements for long-term storage, other than the use of robust packaging materials and a dry environment.
- 1.1.15 At this stage, all the material should be retained. In the future, the majority can be discarded.

Comparative material

- 1.1.16 Comparanda for the ceramic building materials may be provided by other sites in the project, such as Thurnham Roman Villa (Pringle 2000b), or from other Roman sites in the area, such as that at Westhawk Farm, Ashford (Pringle 2000c).

Potential for further work

- 1.1.17 The assemblage is composed of material from Roman, medieval and post-medieval periods. The Roman material is poorer in both quantity and range than the assemblages of the prehistoric period, suggesting that the settlement may have lost its industrial aspect at this time, or ceased to function at all. This diminution of quality has the

potential to provide information on the following landscape zone aims within CTRL period category 4I,

Towns and their rural landscapes (100 BC- 1700 AD) as follows:

- How did the organisation of the landscape change through time?
- Consider the effect on the landscape of known historical events, in this case the arrival of Roman administration.

1.2 Fired Clay

By Susan Pringle

Introduction

- 1.2.1 An assemblage of fired clay weighing 34.899 kg was recovered from Fieldwork Event ARC BBW00.

Methodology

- 1.2.2 All the material was assessed. The fragments were counted and weighed, and notes made of the most distinctive fabrics, surface treatments and any unusual imprints or inclusions. Exceptionally reduced or vitrified material was noted.

Quantifications

- 1.2.3 The assemblage totals 4067 fragments weighing 34, 899 kg. As well as daub and furnace or hearth-related material, the assemblage includes a number of fragmentary loomweights and briquetage. Where these are recognisable they have been separated, together with any identifiable pottery, for specialist examination, although some abraded fragments may remain.

Vitrified material

- 1.2.4 Daub with vitrified surfaces is present in 17 contexts. The material probably represents furnace linings (L Keys pers comm), and in some cases traces of iron are present. Most of this industrial waste comes from Area C, where it is associated with ditch sub-group 1020 (contexts (1500) and (1524)) in Late Iron Age enclosure group 3006, ditch sub-group 1022 in Late Iron Age industrial enclosure group 1972 (contexts (214), (259), (269), (277), (279), (280), (516), (517), (518), (776)), and (contexts (244) and (227)).

- 1.2.5 The only fired clay with slag attached appears to be in context (227), a surface find recovered from top fill of ditch sub-group 1024 in enclosure group 3006, where a fragment of daub contains slag runs, probably of iron (L Keys pers comm).

- 1.2.6 The only vitrified material in Area A is from sub-group 2150, the inner ditch of the Middle/Late Iron Age multiple enclosure 3072, (context (2342)), with a possible fragment from (2357).

Wattle impressions

- 1.2.7 Daub with clear wattle impressions was recorded from five contexts. The majority of the material is orange-firing sandy daub from Area A, Middle/Late Bronze Age activity area group 2442 (contexts (448), (455), (457)). Although from pit fills, the fragments are fairly large and in good condition with some interesting features. There is chunky material 60-70 mm thick in (448) and (455), with impressions of thick wattles, c.30 mm in diameter. Two fragments have evidence of wattles set 38 mm and 65 mm apart, which is closer than is usual in wattle and daub construction, and with no evidence of interwoven wattles. If it can be assumed that these poles were uprights, they must have formed part of a structure incorporating closely set stakes, although it is not clear from the daub whether it was rectilinear or curved.

- 1.2.8 A fragment from (455), pit [456], has a thick upright with a thin wattle bent round it, perhaps from another part of the same structure. Context (457), pit [458], contains similar orange sandy daub but with slightly thinner wattles, *c.* 20-25 mm in diameter, and impressions of interwoven wattles and flat timber ?studs. This appears to be conventional wattle and daub and may have come from a different structure.
- 1.2.9 Daub with the imprints of thin wattles, *c.* 10 mm in diameter, occurs in context (2345), inner enclosure ditch (sub-group 2150) in Middle/Late Iron Age multiple enclosure 3072.
- 1.2.10 Wattle-imprinted daub from Area C is confined to a single abraded fragment from context (1042), from Early Romano-British pit [1039].

Fired clay objects

Loomweights

- 1.2.11 Fragments of three types of loomweight are present in the fired clay assemblage: cylindrical with axial hole, pyramidal and triangular. The first two are usually found on Bronze Age sites and the last is an Iron Age type.

Briquetage

- 1.2.12 Scraps of fine clay, pale orange to cream in colour, with fine organic inclusions were noted in several contexts in Area C. The best examples come from context (1441), in ditch sub-group 1020 (enclosure group 3006), where two fragments are similar in form to material from North Ring, Mucking, Essex (Bond 1988, 40, 50).
- 1.2.13 Context (277) from ditch sub-group 1022 (enclosure group 1972) contains smaller fragments, and there are possible briquetage scraps in contexts (561) and (1213), part of activity group 1952, and from contexts in Beaker period pit [1374] in pit group 3022. Some of these, particularly the scraps of fine clay with coarse flint inclusions, may be abraded pottery. This material has been separated out for the attention of the pottery specialist.
- 1.2.14 Table 1.12 illustrates the quantification of all fired clay from the site by count and weight.

Provenance

- 1.2.15 Fired clay and daub come from both Areas A and C, where the distribution of the various types appears to be significant. All daub with wattle impressions, with the exception of one fragment, is from Area A, where it is concentrated in the pits belonging to activity area group 2442, supporting the interpretation of the presence of a structure (group 3037). A smaller quantity of such material originated from the inner ditch of multiple enclosure 3072, context (2345) in sub-group 2150.
- 1.2.16 Daub with traces of vitrification comes predominantly from Area C, sub-groups 1020 (Late Iron Age enclosure 3006) and 1022 (Late Iron Age enclosure 1972), where it probably represents the remains of furnace linings associated with the industrial activities otherwise attested. Similar fragments are also present in Middle/Late Bronze Age activity area group 1952, some containing metallic slag runs, probably from iron-working (L Keys, pers comm). The only vitrified daub from Area A is from the inner ditch of the Middle/Late Iron Age multiple enclosure 3072, in sub-group 2150, in contexts (2342) and (2347).

Loomweights

- 1.2.17 Loomweights come from Areas A and C. Three different types were noted: cylindrical with an axial hole from Area C, contexts (201), subsoil; (206), from enclosure ditch 1972 group delineating Middle/Late Bronze Age activity area 1952; and (238), a pit fill

in this latter group 1952. Pyramidal forms with a lateral hole were recorded from Area C, in contexts (446) and (447) fills in pit group 3038 and from possible wattle-and-daub structure 3037 (respectively in Middle/Late Bronze Age activity area group 2442). Triangular-shaped loomweight fragments originate from Area A, context (2427), in (ditch sub-group 2150 in Middle/Late Iron Age enclosure 3072).

- 1.2.18 The loomweights from Area C are probably Late Bronze Age in date, whilst the one found in Area A is consistent with the Middle-Late Iron Age date of the feature. However, all fragments should be examined by a specialist to refine their dating and to assess their cultural significance. The condition of the material is fairly abraded, but there is no risk to its preservation.

Conservation

- 1.2.19 Further analysis will be needed on some of the material, so it should not be placed in long-term storage until this has been carried out. There are no special requirements for long-term storage, other than the use of robust packaging materials and a dry environment.
- 1.2.20 At this stage, all the material should be retained. In the future, the majority can be discarded. Material to be retained includes the fired clay which has features of interest and is likely either to be of assistance in the interpretation of the site, or to provide useful comparanda with similar material from other sites.

Comparative material

- 1.2.21 Comparanda for the fired clay assemblage may be provided by other Bronze and Iron Age sites in the Lower Thames Valley such as Mucking in Essex (Bond 1988).

Potential for further work

- 1.2.22 The fired clay assemblage is largely composed of industrial waste, artefacts and structural remains of Bronze Age and Middle to Late Iron Age date. It has the potential to address the following issues with respect to the original Landscape Zone aims within CTRL period category 3,

Farming Communities (2,000-1,000 BC):

- Determine how settlements were arranged and functioned over time

- 1.2.23 The fired clay and daub can be divided into functional categories relating to industrial and domestic activities. It can thus support the evidence from other artefact and ecofact groups from the site to show where and when specific activities were carried out.

Bibliography

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Pringle, S, 2000b Assessment of ceramic building material from Thurnham Roman Villa (ARC THM 98), Thurnham Roman Villa (WBSDS ARC 420/99 63+400 - 63+900), Thurnham Lane To W of Crismill Lane (WBG ARC 420/99 63+900-66+350) and Hockers Lane (WBSDI ARC 420 62+200-63+000), interim report prepared by OAU for URL

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Table 1.11: Quantification of ceramic building materials by count and weight

Context	Count	Weight (g)	Type	Period	Early date	Late date	Comments
35	1	18	Peg	med/post-med	1100	1800	Orange red fabric, grey core, calc incls.
53	2	362	Peg	med/post-med	1100	1800	Conjoin; 2 square nail holes set diagonally; breadth = 155mm; fabric MoL 3201.
100	2	23	Peg	med/post-med	1100	1800	Fabric 3201.
200	1	283	Tegula	Roman	40	400	MoL fabric 2815, broad flange.
201	3	556	Brick	Roman	40	400	2815, 40mm thick.
201	11	332	Peg	med	1100	1800	MoL fabric 2586, red sandy version, with glaze
201	2	1015	Tegula	Roman	40	400	2815 - 2 with part 2-finger hooped signature marks
201	23	24	Tile	?	0	0	Abraded chips and flakes.
424	1	102	Brick	post-med	1450	1900	Orange-brown fabric with coarse iron-rich inclusions fired dk red/dk brown/black. (=PFM11)
489	1	442	Brick	post-med	1700	1900	Red fabric with cream calcareous marbling and some small iron-rich, blackish, incls (MoL fabric 3034)
517	1	1	Stone	?	0	0	Crumb of cream coloured sandstone.
1042	2	134	Brick	Roman	40	400	Fine orange-red fabric nr MoL 2815; fairly fine, well-sorted moulding sand, c.35mm thick.
1042	2	92	Tegula	Roman	40	400	Conjoin; same red fabric and sanding as brick.
1243	1	46	Peg	med/post-med	1100	1900	3201 - part n/hole
1806	1	456	Brick	post-med	1450	1900	Orange sandy fabric with blackish iron-rich incls, 63mm thick (=PFM11)
1824	4	667	Brick	post-med	1700	1900	Brick 65mm thick. Fine moulding sand (=PFM10)
1824	1	138	Brick	post-med	1450	1900	Orange sandy fabric (=PFM11)
1857	1	154	Brick	Roman	40	400	Fine sandy orange fabric, some dark iron-rich incls (=PFM11)

Table 1.12: Quantification of fired clay by count and weight

Context	Count	Weight (g)	Type	Period	Comments
201	4	114	Daub?		Orange-red daub with sparse coarse qtz; 2 frags have smoothed curved surfaces - loomweight? All abraded.
201	9	473	Loomweight	LBA?	Loomweight - conical with axial hole; fine orange-firing clay with sparse-frequent med-coarse qtz.
201	79	992	Loomweight?	LBA?	Orange-firing sandy fabric; ?2 loomweights - 1 reduced.
206	1	478	Loomweight	LBA?	<201> conical loomweight, axial hole; fabric = [201]
210	142	536	Loomweight?	LIA?	Orange-firing daub/fired clay; very small frags, most probably crushed loomweight.
214	1	61	Daub		Vitrified and iron-rich - prob vitrified hearth lining, industrial waste.
219	1	59	Daub	LIA?	Mixed orange and lt orange brown clays; sparse fine to med sand; flat surface, no impressions. Incl part loomweight - red spotty fabric.
221	1	454	Daub		Vitrified with iron concretions on vitrified surfaces, vitrified hearth lining?
227	2	154	Daub?		Fired clay with metallic slag - slag runs, prob iron (L Keys pers comm)
232	22	48	Fired clay		<201> abraded, some resemble loomweight fabric.
238	13	108	Loomweight	BA?	Loomweight fragments; cylindrical with axial hole. Also incl fabric with very coarse flint flakes.
244	2	137	Fired clay		Incl orange clay with red spots, nr loomweight fabric, and v light wt vitrified fabric with frequent v coarse flint incls.
244	4	37	Loomweight	BA?	BA(?) fabric x 4 (2 conjoin)
254	498	4032	Daub		<209> Incl thick chunks with reduced areas; orange slightly sandy fabric with sparse iron-red incls; some may be abraded loomweight.
259	264	1335	Daub		<202> incl smoothed daub with reduced & vitrif surface, some join. Also ?slag. Rest abraded, some oxid, some reduced. Furnace lining, prob finger-smoothed.
261	192	1143	Daub		<203> Incl smoothed vitrified surfaces - furnace lining? 2 with smoothed convex surfaces.
277	1	207	Daub		Orange-firing, lumpy shape with vitrified surface - furnace lining?
277	26	45	Daub		Orange sandy crumbs, all abraded, most oxidised.
277	46	105	Fired clay		Most is fine clay with fine organics, pale orange-cream, in thin 'petals' - briquetage?
277	24	44	Fired clay		Scraps of pale orange clay, some with coarse flint incls <261>; briquetage?
279	53	119	Daub		<204> Orange-firing daub with vitrification; lot of reduced abraded crumbs.
280	77	270	Daub		<205> orange-firing daub with sparse qtz, some vitrified with traces ?slag - furnace lining? 1 finger-smoothed surface.
411	1	9	Daub		Orange with some qtz, abraded.
420	22	64	Daub		Lumpy orange-firing daub, sparse coarse qtz. 2 crumbs with v coarse flint flecks. Oxid & reduced.
439	1	21	Daub		Orange clay, some qtz and dk red iron incls - abraded; no surfaces or imprints.
446	37	570	Loomweight	LBA?	<400> Pyramidal type? Orange fabric w/ qtz, reduced.
447	3	146	Loomweight	LBA?	Pyramidal; orange-brown clay, sparse organics mod coarse/v.coarse qtz
448	8	923	Daub		Daub 60-70mm thick with curved ?wattle imprints, c.30m diam, set c.65mm apart. Slightly reduced, may be from curved structure.
455	1076	10494	Daub		<292> from wattle & daub structure; thick wattle ?uprights (c.30mm diam) set close (eg 38mm apart), no interwoven wattles; thick upright with thinner wattle bent round it; most oxidised with some reduced patches.
457	419	4613	Daub		Chunks of orange sandy daub, broken up but not much abraded. Imprints include wattles (c.20-25mm diam); interwoven wattle; flat timber, Flat surface. Max thickness c. 60mm <293>.
505	44	100	Daub?		<208> abraded crumbs, orange and buff clay, both

					oxidised and reduced.
516	125	270	Daub		<210> mostly small and abraded, some oxid, most reduced, incl vitrif material. 1 frag with finger-smoothed surfaces.
517	64	229	Daub		<211> incl vitrified with ?slag, most is abraded scraps, oxid and reduced.
518	137	2119	Daub		<219> furnace lining.
561	4	15	Fired clay		2 smooth lt orange clay - briquetage?; 1 lt brown sandy; 1 cream v sandy, looks like mortar.
561	18	30	Fired clay		Fine clay, some flint tempered; pot or briquetage?
711	5	16	Daub		Sandy, brownish-orange, abraded.
727	13	1	Fired clay		<217> Crumbs, some reduced. 1 bit is smooth light orange clay.
729	39	99	Fired clay		<216> Mostly lt brown, lumpy with organics, some reduced; 2 bits w/ smoothed curved surface, but v small.
746	1	1	Fired clay		Light orange, slightly lumpy, no surfaces/impressions.
776	32	80	Daub		<220> reduced orange daub, prob from furnace lining
783	1	12	Daub		Orange slightly sandy daub, reduced. Abraded, no prints or surfaces.
801	3	81	Daub		Orange sandy daub, all abraded; 1 reduced.
1042	1	282	Daub		Orange-brown sandy daub, reduced inner surface, organics; trace of ?wattle print but is abraded.
1048	1	2	Daub		Abraded crumb of fine orange-firing fabric.
1201	235	751	Daub		Orange sandy daub; smallish frags, some with flat smooth surfaces. Incl white surfaces like limewash, but no reaction with acid - natural clay? <269>.
1201	1	97	Daub?		Coarse sandy orange-brown fabric - ?form
1213	6	2	Fired clay		Fine, v light brown clay, some organics. Very abraded, may be briquetage.
1231	9	207	Daub?		Incl brown, v sandy and orange sandy lumpy; all abraded, no surfaces, impressions.
1231	1	21	Daub?		Poorly fired sandy orange fabric, tile or daub?
1232	7	12	Daub?		Some nr brown v sandy in [1231]; 4 small orange crumbs with lot of organics.
1287	2	24	Daub?		Poorly mixed orange daub or f/clay, some sand; abraded.
1332	1	20	Daub		Poorly mixed orange daub - reduced (?) to lt brown on ?top.
1366	2	1	Daub		Orange, sandy crumbs.
1376	1	236	Daub		Lt orange-brown clay with several sets of fingerprints; some qtz/flint incls. Function?
1377	3	23	Fired clay		Fine, light brown fabric with organics, prob briquetage or pot
1441	4	48	Daub?		
1441	15	110	Fired clay		Most is probably briquetage.
1479	4	4	Daub?		Orange-brown crumbs.
1500	4	86	Daub		Much vitrified & reduced - industrial waste? Incl orange clay with red spots, smoothed surfaces, abraded.
1501	4	5	Daub?		Crumbs of orange-firing sandy clay.
1507	3	13	Fired clay?		Light orange, orange and reduced daub or fired clay frags, all abraded.
1511	2	59	Fired clay?		Fairly fine v sandy orange fabric, 1 v reduced. 1 with smoothed curved surface - loomweight?
1524	2	36	Daub?		Reduced with vitrified areas - furnace lining?
1742	1	18	Daub		Orange sandy; abraded.
1791	17	198	Daub		Some conjoin; sandy, orange-firing; some smoothed, flattish, surfaces. Range from oxid to completely reduced, no imprints.
2085	6	4	Daub?		Orange crumbs, abraded.
2129	2	109	Fired clay		Conjoin; lt orange fabric, whitish surfaces - incl of sparse flint flakes, c.3mm; concave finger or ?wattle print. Briquetage?
2178	30	96	Daub		Orange sandy, most v small; no surfaces or impressions.

2210	2	15	Daub		1 orange sandy, 1 reduced - neither has surfaces or imprints.
2210	19	110	Daub?		Coarse lt orange daub, no surfaces; abraded scraps. Lot of iron-rich material included <380>
2213	1	13	Daub		Poorly mixed orange, and orange sandy with red spots - both abraded.
2233	1	5	Daub		Sandy orange, abraded.
2257	1	65	Daub		Fine, lt orange, poorly mixed clay; oxidised surfaces, reduced inside.
2293	9	242	Daub?		Lumpy orange fabric with coarse qtz.
2342	7	36	Daub?		<382>, some vitrified or with attached iron-rich material included - industrial waste?
2345	2	31	Daub		Sandy orange, with v light brown to cream surface; finer orange streaky; both abraded.
2345	85	265	Daub		Mostly small bits orange sandy daub, finger-smoothed surface. Thin wattle impressions (c.10mm). Incl scrap with flint temper - briquetage? Some scraps with charcoal/iron-rich material. <383>
2345	2	30	Daub?		Orange slightly sandy x 1; banded cream & orange clays, slightly reduced; both abraded.
2357	1	4	Daub?		Scrap with v sandy surface - industrial waste?
2358	1	5	Fired clay?		Light orange clay with coarse and v coarse red incls, surface lt brown - nr loomweight fabric.
2360	36	144	Daub		1 fine clay, mostly reduced; rest sandy orange, most oxidised.
2427	3	101	Daub		Light orange clay with numerous iron-rich incls; assoc with iron-working??
2427	16	510	Fired clay	LIA?	All triangular loomweight.
2438	2	15	Daub?		Fragr conjoin; light brown clay with poorly sorted coarse qtz - reduced? ?fingermarks on surface <396>

