Aylesbury Berryfields (ABPR07-08, AYLBER07-14, QAVC12)

Fired Clay Report

By Cynthia Poole

Introduction

A small assemblage of fired clay comprising 293 fragments weighing 2562g was recovered from all excavation areas by hand excavation and from sieved samples, the latter accounting for 40% of fragments but only 14% by weight. The assemblage has a fairly low mean fragment weight (MFW) of 9g reflecting the fragmented character of the assemblage and indicative of the poor quality of preservation, which is reflected in the preponderance of non-diagnostic material. The sieved material had a very low MFW of 3g and produced no identifiable forms apart from the sherds of briquetage. Abrasion is predominantly low.

The material was found in a wide variety of features including enclosure and field ditches, trackways, house gullies, pits, postholes, a quarry or waterhole, small hollows and a cremation. These features are phased from the middle Iron Age to postmedieval periods. However the deposition of fired clay is most intense in the middle Iron Age and early Roman periods and it is probable that much of the fired clay found in later phases is residual, originating in these periods. Fired clay is only intrinsically dateable in the case of a small number of diagnostic objects and therefore much of the assemblage is dependent on associated dated artefacts for its phasing.

Methodology

The assemblage has been fully recorded on an Excel spreadsheet and includes quantification, fabric type, form, surface finish, dimensions, organic impressions and general description. There are no specific guidelines for the recording of fired clay, but the methodology has adopted appropriate practice based on recommendations available for ceramic building material (ACBMG 2007) and prehistoric pottery (PCRG 2011). Fabrics were characterised on the basis of macroscopic features and with a x20 hand lens for finer inclusions.

Fabrics

A range of fabrics were identified, which can be divided into five major groups plus one briquetage fabric. The majority was made in fabric A, which also formed the matrix to the second most common type fabric V. The others fabrics Q, B and H accounted for only 5% of the assemblage. The fabrics are quantified in relation to form in Table 1 and in Table 2 in relation to phase. In the latter it is apparent that fabrics A and Q are present during all major phases, whilst fabrics V, B and H only appear in the Roman period (phases 4-6). It is probable that the local geological clay deposits or overlying clay subsoils formed the source of the clay fabrics. The introduction of organic temper in the Roman period represents a significant change in the technology. Whilst organic tempers are known in earlier periods their use is not particularly common except in certain products such as briquetage vessels. The introduction on a large scale during the Roman period may reflect significant changes in agriculture creating a greater availability of chaff for use in fired clay fabrics.

Fabric A: a fine smooth clay occasionally micaceous with a silky or soapy texture and fired to a range of colours predominantly buff, light yellowish brown, light orange, red and grey. Sub-types included pieces with sparse quartz sand (Aq) or occasionally chalk or calcareous grits (Ac).

Fabric V: The basic matrix was identical in character to fabric A. This fabric was characterised by

moderate to frequent inclusions of organic material represented by the impressions and voids of cereal chaff. This fabric also contained on occasion scattered quartz sand, chalk, flint or shell grits.

Fabric Q: orange, brownish orange, red, yellowish brown, cerise, purple or black sandy clay containing a moderate density of medium and coarse rounded-subrounded quartz sand up to 1.5mm; in a few examples fine quartz sand is dominant (Qf).

Fabric B: red and yellowish brown with thin grey core, sandy clay containing common medium-coarse rounded quartz sand, rare small voids possibly indicative of organic inclusions and red rounded ferruginous clay pellets 1-4mm.

Fabric H: reddish brown, very porous clay with remains of shell/fossils and calcitic inclusions, essentially a very shelly/fossiliferous clay with most of the calcareous inclusions leached out.

Character of the assemblage

Portable oven/hearth furniture

The assemblage is dominated by portable kiln, oven or hearth furniture, comprising triangular perforated bricks, flat plates and a firebar. None were complete and all were very fragmentary with many pieces lacking diagnostic features and assigned to these categories only tentatively based on surface finish and general characteristics of firing. In many cases the fragments had two moulded surfaces at right angles which could derive from any of the types of furniture identified and therefore many of the pieces cannot be identified more specifically than as portable furniture.

The triangular perforated bricks (traditionally and still frequently referred to as loomweights) take the form of triangular blocks with a perforation usually piercing each corner. These have been positively identified in the assemblage when the rounded corner exhibiting the triangular form or a perforation angled to the surface is present. Perforations measuring variously 10, 14, 15 and 20mm in diameter were identified on four groups and a thickness of about 60mm estimated for one of these. The form originates in the early Iron Age and continues to be used into the early Roman period.

A number of pieces were tentatively identified as plates on the basis of surface finish and fabric, but most had only a single well finished surface. Only one piece (G15, ditch 8009) could be positively identified as a plate: this formed a flat slab 33mm thick with two fairly smooth flat moulded parallel surfaces with slight irregularities from organic impressions on one side. The other side is smoother and has been fired black. Another piece initially classified as CBM is probably a flanged plate. It has a flat moulded surface and a straight edge alongside which was a low rectangular flange 25mm wide standing 7mm high. A flange is not a normal feature, but some circular discs have a thickened bulbous edge creating a lip and dished surface and straight edged polygonal or rectangular plates also may have thickened edges, such as examples from Didcot, Oxon (Poole forthcoming).

A single example was positively identified as a firebar (ABPR08 409). It had flat even surfaces and rounded angles and formed part of a rectangular sectioned bar, measuring 44 mm wide. It is typical of the tapering fire or kiln bars from the east Midlands region, which have been found in association with pottery kilns (Swan 1984, 63-4). Firebars of this type date to the late Iron Age and Roman period. Although this item was associated with mid-late Roman pottery, both the firebar and pottery were found residually in a later medieval furrow.

Structural fired clay

A large number of the fired clay fragments were non-diagnostic having either a single flat smooth surface or being amorphous with no deliberately shaped surfaces surviving. This has been classified as indeterminate, but may include structural material from ovens or hearths, though no pieces had features distinctive to such structures. A proportion of the indeterminate material is made in a sandy fabric that does not appear to have been generally used for the furniture and these pieces may be structural. Occasionally finger marks are present wiped across the surface and some fragments have a grey fired or burnt surface, which may be derived from a hearth surface. One fragment with a smooth flat surface was found in a middle Roman cremation deposit (ctx 2994) and probably comes from the burnt ground surface under the pyre scraped up as part of the cremation remains.

Briquetage

Five small sherds of briquetage (6g) in a chaff tempered fabric were found in a phase 4 curvilinear gully 8061. The sherds are probably fragments of salt moulds that remained attached to the salt blocks during transportation. The salt moulds were normally removed before transporting from the salt production sites so its occurrence is rarely more than a few fragments on inland sites importing the salt. The presence of briquetage is significant in indicating trade in this essential item, which would have been used not only for consumption but was served in a variety of activities such as curing meat and cheese production. The nearest production sites and likely source are on the Essex coast.

Provenance and significance

The middle Iron Age assemblage was recovered from features of Groups 3 and 4, associated with the round houses and enclosures, except for a small scrap from an isolated pit elsewhere on the site. All of the fired clay from the settlement appeared to derive from portable furniture, of which only triangular perforated bricks were positively identified. A squared corner fragment indicates some sort of rectangular object, possibly a thick plate, firebar or rectangular 'Belgic' brick, though the two latter possible identifications would be more appropriate in a late Iron Age context.

The largest quantity of fired clay was recovered from early Roman features which included triangular perforated brick fragments and pieces of flat plates in fabrics A and V and probable structural material in fabric Q. It is likely that the firebar found residually in a medieval furrow also originated in this period. This appears to have been the period of most intense activity utilising fired clay structures and furniture. The triangular bricks and plates are commonly found in domestic settings, but may also be associated with other artisan activities. The precise functions are uncertain but triangular bricks have been found in association with pottery production (Poole 2010, 131-3) and with clear evidence for use as pedestals in salt production (Poole 2015, 303-5). They have also been found in possible structural situations: Lowther (1935) recorded their use in an Iron Age oven near Guildford and the common feature of heavy burning or firing on one side only suggests possible uses as kerbs or floors in ovens or hearths. The plates or discs were possibly used as a suspended floor within ovens or over hearths, supported by the triangular bricks. All such uses could be purely domestic, but the presence of a rectangular firebar hints that pottery production may also have been undertaken in the vicinity probably on a small scale to serve the needs of the community with basic coarsewares.

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Fired Clay Report Tables

Table 1: Quantification of fired clay by form and fabric

	Nos						
Fabrics	**A**	**B**	**H**	**Q**	**V**	**X1**	**Total Nos**
Firebar	1						1
FB/TPB?	2						2
OP/FB?	7						7
Flanged plate?	1						1
Oven plate					1		1
Oven plate?	2			1	4		7
OP/TPB?	16				20		36
TPB	14						14
TPB?	40				1		41
Utilised	106	2	1	9	22		140
Indet	24		1	12			37
Briq vessel						5	5
CBM?				1			1
Total nos	**213**	**2**	**2**	**23**	**48**	**5**	**293**
	Wt (g)						
Fabrics	**A**	**B**	**H**	**Q**	**V**	**X1**	**Total Wt (g)**
Firebar	57						57
FB/TPB?	11						11
OP/FB?	338						338
Flanged plate?	42						42
Oven plate					27		27
Oven plate?	35			10	106		151
OP/TPB?	105				242		347
TPB	488						488
TPB?	380				32		412
Utilised	388	29	6	37	50		510
Indet	120		20	29			169
Briq vessel						6	6
CBM?				4			4
Total wt g	**1964**	**29**	**26**	**80**	**457**	**6**	**2562**

Table 2: Quantification of fired clay forms in relation to phase

Nos	Unph	LPreh	LIA-ER	ER	E-MR	MR	LR	Med		Pmed		Ro	Total
Phase	**0**	**2**	**3**	**4**	**4_5**	**5**	**6**	**8**	**8?**	**9**	**?9**	**10**	**Nos**
Firebar								1					1
FB/TPB?				2									2
OP/FB?		7											7
Flanged plate?							1						1
Oven plate				1									1
Oven plate?		1		2				3	1				7
OP/TPB?				16		20							36
TPB		3		11									14
TPB?		1		39					1				41
Utilised	4	18		69	9	32	4	3		1			140
Indet	6	1	2	12	11	1		1			3		37
Briq vessel					5								5
CBM?												1	1
Total nos	**10**	**31**	**2**	**152**	**25**	**53**	**5**	**8**	**2**	**1**	**3**	**1**	**293**
Wt (g)	**Unph**	**LPreh**	**LIA-ER**	**ER**	**E-MR**	**MR**	**LR**	**Med**		**Pmed**		**Ro**	**Total**
Phase	**0**	**2**	**3**	**4**	**4_5**	**5**	**6**	**8**	**8?**	**9**	**?9**	**10**	**Wt (g)**
Firebar								57					57
FB/TPB?				11									11
OP/FB?		338											338
Flanged plate?							42						42
Oven plate				27									27
Oven plate?		10		35				88	18				151
OP/TPB?				105		242							347
TPB		221		267									488
TPB?		32		348					32				412
Utilised	31	68		240	29	120	10	8		4			510
Indet	16	7	9	67	34	5		20			11		169
Briq vessel					6								6
CBM?												4	4
Total wt g	**47**	**676**	**9**	**1100**	**69**	**367**	**52**	**173**	**50**	**4**	**11**	**4**	**2562**

Table 3: Quantification of fired clay fabrics by phase

	Nos						Total Nos	Wt (g)						Total Wt (g)
Phase\Fabric	**A**	**B**	**H**	**Q**	**V**	**X1**		**A**	**B**	**H**	**Q**	**V**	**X1**	
0 unphased	6			4			10	45			2			47
2 later prehistoric	29			2			31	659			17			676
3 LIA-ER (50BC-AD100)	2						2	9						9
4 ER (AD43-120)	124	2		5	21		152	979	29		21	71		1100
4 5 ER-MR	9			9	2	5	25	30			27	6	6	69
5 MR (AD120-240)	31		1	1	20		53	114		6	5	242		367
6 LR (AD240-410)	5						5	52						52
8 Medieval (AD1050-1500)	4		1		5		10	65		20		138		223
9 Post-medieval	3			1			4	11			4			15
10 Roman				1			1				4			4
Total	**213**	**2**	**2**	**23**	**48**	**5**	**293**	**1964**	**29**	**26**	**80**	**457**	**6**	**2562**