

Chapter 3

Finds

PREHISTORIC POTTERY *by Lisa Brown*

Introduction

A total of 1390 sherds of prehistoric pottery weighing 12,295g was recovered from the site. The assemblage is generally very fragmented, with a high proportion of featureless fragments. Most of the material was recovered from ditch fills, contexts that typically produce small and abraded sherds, but even the Iron Age pit groups yielded only 10 or fewer sherds. The mean sherd weight (MSW) overall is below 9g, and some 65% of sherds are highly abraded.

Nonetheless, there is sufficient distinctive pottery to indicate possibly continuous prehistoric activity from the early Bronze Age to the late Iron Age. The Bronze Age component is very small, and most sherds are not precisely dated owing to a lack of diagnostic features. The Bronze Age ceramic signature is confirmed by a few distinctive vessels, and by a concentration of material of this date in a single location on the site, focused on ring ditch SG8028. There is arguably an early Iron Age component, but caution dictates against confidently asserting activity of this date because of a paucity of distinctive examples. Therefore, sherds of possible early Iron Age date are here designated early Iron Age-middle Iron Age. A similar overlapping of middle and late Iron Age stylistic features has necessitated the use of a broad middle Iron Age-late Iron Age category, but a clear majority of over half the total discussed here can be assigned to the middle Iron Age.

Methodology

Fabrics were identified with the aid of a hand lens and binocular microscope at 20x and 10x magnification, and classified using an alpha-numeric dominant inclusion code, further subdivided on size and frequency of the inclusions, following the recommended guidelines of the Prehistoric Ceramics Research Group (PCRG 2011; PCRG *et al.* 2016). The pottery was recorded in an Excel spreadsheet by context group, feature or deposit type, and feature group. All sherds were counted and weighed. The following characteristics were entered in separate fields where possible: fabric, form, surface treatment, decoration, degree of abrasion, and date. The precision of the dating was depen-

dent on the condition of sherds and on diagnostic features. Degrees of abrasion are based on three broad categories: (3) high – surface survival minimum, breaks heavily eroded; (2) moderate – surface somewhat preserved but clearly worn; (1) fresh or slight wear.

Fabrics

Twenty fabrics within six ware groups were identified, indicating relatively wide variation of potting clay recipes, but within a narrow range of raw materials. The calcareous (fossil shell and limestone) inclusions observed in some of the fabrics could have been procured from the local shell-rich Jurassic and Cretaceous clays that underlie the site, but Jurassic beds extend northwards into the Bedfordshire region, where shell-rich potting clays were heavily exploited during the Roman period. The presence of shell inclusions in Iron Age pottery does not, therefore, necessarily indicate Iron Age pottery production in the immediate locality, but it was not possible to distinguish local from non-local shelly fabrics within this small assemblage. Flint, a common temper utilised in pottery production from the Neolithic and Bronze Age in the region, could have been obtained a short distance to the east on the chalk. Most of the clay matrices contain glauconite or other ferrous oxides, which occur naturally in Cretaceous Gault and Greensand clays, and which can also contain fossil shell debris. Therefore, the raw materials utilised in the production of the pottery could have been accessible close to the settlement, but more distant procurement cannot be ruled out. An exception is a substantial fragment of a South-West Decorated Ware bowl, which was probably produced in the Mendip Hills region of Somerset, and an unusual lugged vessel in a fabric (F3) containing very finely crushed flint could also have been an import to the settlement.

Predominantly flint inclusions

- F1 Coarse, ill-assorted calcined flint inclusions up to 5mm, typically 2-3mm in a lightly sanded, slightly micaceous clay with sparse to moderate scatter of black ferrous pellets.
- F2 Medium grade, well-assorted calcined flint inclusions >3mm in lightly sanded, slightly mica-

ceous clay with varying abundance of red and black iron oxides.

- F3 Finely crushed calcined flint inclusions <2mm in a fine sandy fabric that fires to pale grey or orange.
- F4 Finely crushed and graded calcined flint <2mm in medium grade quartz sand clay.

Predominantly quartz sand

- Q1 Fine glauconitic sandy clay, may have rare small flint or fossil shell inclusions, occasional red iron oxides.
- Q2 Medium grade glauconitic sandy clay, may have rare small flint or fossil shell inclusions and red iron oxides.
- Q3 Fine glauconitic sand with powdery red and black iron oxides, may have rare detrital flint or fossil shell.
- Q4 Coarse grade rounded quartz sand with glauconite and rare fossil shell and detrital flint inclusions 2mm and smaller.
- Q5 South-West Decorated Ware. Medium grade rounded translucent quartz sand with black ferrous pellets and rare calcareous inclusions.

Predominantly grog inclusions

- G1 Lightly sanded slightly soapy clay with sparse fine orange and buff grog pieces, may have rare small calcined flint inclusions.
- G2 Medium grade quartz sand fabric with more coarsely crushed grog pieces than G1.
- G3 Soapy, lightly sanded clay with sparse red and grey grog and red oxides.

Predominantly fossil shell inclusions

- S1 Sparse to common finely crushed shell and rare limestone fragments in fine glauconitic sandy clay.
- S2 Glauconitic sandy clay with medium grade rounded quartz sand, with rare inclusions of fossil shell.
- S3 Medium grade glauconitic sandy clay with red oxides, rare rounded detrital flint, and moderate abundance of fossil shell.
- S4 Relatively coarse fossil shell inclusions in a soapy fabric, with some quartz sand and black ferrous pellets.
- S5 Finely sanded, soapy clay with rare to moderate abundance of fossil shell up to 4mm and sparse small pieces of dark grey grog.
- S6 Soapy, lightly sanded slightly micaceous clay with sparse finely crushed fossil shell and common red oxides.

Predominantly calcareous inclusions

- C1 Rare ill-assorted fossil limestone pieces up to 3mm in a slightly soapy lightly sanded clay with rare oxides.

Vesicular clays

- V Fine sandy fabric with black ferrous pellets and corky appearance due to leaching of calcareous matter, probably fossil shell.

Earlier prehistoric

A small collection of earlier prehistoric pottery, amounting to 202 sherds (1981g), represents 14% of the site total by sherd count. This assemblage is poorly-defined due to levels of fragmentation and a paucity of diagnostic sherds, but includes a definite middle Bronze Age component.

A few small sherds could be of Neolithic or early Bronze Age date, but are too small and worn to classify. A radiocarbon determination of 3800-3650 cal BC (95.4%; SUERC-75472) on carbonised nutshell from posthole 1637 indicates a Neolithic presence on the site, but the ceramic evidence is not definitive. A small shell-tempered sherd bears faint traces of impressed decoration (possibly cord) of a type found on middle and late Neolithic pottery and earlier Bronze Age pottery, but it was residual in Phase 2 roundhouse gully SG8100, and too small and abraded to accurately identify. A 7g sherd in fabric F1 from ditch SG8104 has a small applied boss that is a common feature of middle Bronze Age vessels, but also occurs on Neolithic pottery. A probable oven of middle Iron Age date produced two very small undiagnostic sherds, one flint-tempered (2g), the other grog-tempered (1g). These cannot be further characterised and may even be residual.

The most common Bronze Age pottery fabric is coarse flint-tempered ware F1, but some of the finer flint-tempered sherds and some grog-tempered and shell-tempered sherds are also tentatively assigned to this or a broad earlier prehistoric phase. The F1 fabric group includes a small number of classifiable middle Bronze Age forms. A simple jar with a flattened rim came from pit 1583 (Fig. 3.1, no. 1), but a small round-bodied vessel with at least two small perforated lugs (Fig. 3.1, no. 2), one of only two sherds in fine flint-tempered fabric F3, may be Iron Age (see below). Ditch group SG8029 produced a small group of sherds, including a jar with expanded rim which could belong to large Deverel-Rimbury Bucket or Barrel Urn forms. A simple incurving rim from pit 2761 belong to a smaller, finer vessel, possibly a Globular Urn. Three thick basal sherds from gully SG8150, ditch SG8104, and pit 2763 probably belong to similar vessels. The basal fragments from gully SG8150 were associated with Iron Age sherds, and therefore residual. A body sherd rusticated with fingernail impressions from ditch SG8029 (Fig. 3.1, no. 3) could also be accommodated within the Deverel-Rimbury range, but this type of treatment is also seen on Grooved Ware, domestic Beakers, and even Food Vessels. Ditches SG8104, SG8108, SG8109, SG8110 and SG8117, and

pits 2761 and 2763 all contained body sherds in fabric F1 in small quantities, probably fragments of middle Bronze Age vessels.

Pottery assigned a broadly Bronze Age date was recovered as small, undiagnostic body sherds in flint-tempered and grog-tempered fabrics from ditches SG8032, SG8028, SG8029, SG8027, SG8150 and 1512, and postholes 1519 and 3763. Ring ditch 8028 produced 35g of body sherds in fabric F1, but no distinctive fragments. Eight sherds of flint-tempered pottery (36g), including a shouldered jar with an everted rim, were also recovered from the Aylesbury Vale Parkway site, though all occurrences were residual in later deposits.

Iron Age

The dominant Iron Age assemblage of 1147 sherds (10,070g) arguably spans the early to late Iron Ages, but diagnostic sherds amounting to only 41 rim fragments, 14 bases, and 11 decorated sherds meant that overall fewer than 30 individual Iron Age vessels were recorded, and some of these with limited precision due to small sherd size.

The bulk of the assemblage is apparently middle Iron Age, but identification of pottery of this date is problematic in the Buckinghamshire and surrounding Oxfordshire and Bedfordshire regions, partly due to a rarity of associated datable finds, especially metalwork. It is also difficult to distinguish from pottery of the earlier period as some early Iron Age fabrics seem to have continued into the middle Iron Age at Berryfields, as Slowikowski (2008a) found also to be the case at Aston Clinton. A similar lack of chronological distinction in fabrics has been noted at other regional Iron Age sites, including Bancroft (Knight 1994, 383). However, the use of coarse flint-tempered fabrics was abandoned in the middle Iron Age at Coldharbour Farm (Farley and Smith 1997), and only fabrics with rarer and finer flint temper have been included for consideration as middle Iron Age in the current assemblage.

Rounded vessel forms in glauconitic sandy fabrics dominate the middle Iron Age assemblage, and a small group of more developed, somewhat 'Belgicised' forms in the same fabrics have been regarded as belonging to the transitional stage between the middle Iron Age and late Iron Age.

Early Iron Age-middle Iron Age

Some 80 sherds weighing 651g have been dated to the early Iron Age-middle Iron Age. This material was recovered from ditches SG8093, SG8104, SG8105 and SG8113, and ditch 1585. Postholes 1374 and 1424 also yielded a few sherds each. A relatively wide range of fabrics is represented within this small collection – flint-tempered fabric F2, sandy wares Q1, Q2, Q4, shelly wares S1-S4, and a single vesicular sherd (V1). Diversity of fabrics is a common feature of many early Iron Age assemblages. This diversity pre-dates a trend in southern

Britain towards standardisation of ceramic production as the middle Iron Age progressed and as a preference for sandy fabrics and sinuous forms emerged.

Among the few diagnostic sherds are a carinated bowl of early Iron Age style in fabric F2 from posthole 1424 and two carinated fragments in fabric Q2 from ditch SG8105 and ditch SG8133. Fingertip or fingernail impressions are common devices on late Bronze Age and early Iron Age pottery and there are three Iron Age examples from Berryfields. Two fingertipped rims, both in fabric Q2, were recovered – a bowl sherd from ditch SG8104 (Fig. 3.1, no. 4), and a shouldered jar rim from ditch SG8093 (Fig. 3.1, no. 5). Fingernail impressions feature on a small body sherd in Q2 from ditch 8104. Similar pottery has been dated to the early Iron Age at the Aston Clinton Bypass (Slowikowski 2008a). Notably, however, finger-impressed pottery persisted well into the middle Iron Age in the middle Thames Valley region, and so is not a clear indicator of date.

Two unusual decorated body sherds in oxidised sandy glauconitic fabric Q2 unique to this assemblage may be of early Iron Age date. An oxidised sherd from ditch SG8104 is decorated with poorly-executed overlapping lightly incised or scratched chevrons infilled with white inlay (Fig. 3.1, no. 6). This treatment resembles All Cannings Cross-type decoration (Cunnington 1923; Barrett and McOmish 2009), dated to c 800-700 BC, and may be stylistically related, but also bears similarities to the scratched ornamentation seen on the slightly later (600-400 BC) 'Chinnor-Wandlebury' and related style pottery (Cunliffe 2005, 97-8; Slowikowski 2008a). A small body sherd from same context may be haematite-coated, also a common early Iron Age treatment, but it is too abraded to be certain. The second decorated sherd, weighing only 9g, is decorated with a deeply incised linear grid-like pattern (Fig. 3.1, no. 7), recovered from ditch SG8093. However, caution must be exercised in the interpretation of these small decorated fragments, as they share characteristics of pottery of other traditions.

Middle Iron Age

A total of 885 sherds (7215g) – over 70% by weight of the site total – are middle Iron Age in style. Most of this pottery was recovered as small sherds (MSW 8g) from ditches SG8107, SG8109, SG8117, SG8104, SG8105, SG8113, SG8093 and roundhouse gully SG8106. Ditch SG8104 was particularly prolific, yielding a concentration of 142 sherds weighing 2042g, a group that included fragments of four bases and two ovoid jars. Smaller quantities of pottery were recovered from other isolated ditch segments.

Pits 1153, 1219, 1531, 1533, 1537, 1583, 2855, and 2935 yielded middle Iron Age pottery in generally very small collections of fewer than ten sherds, and four-post structures SG8101 and SG8167 also

contained a few fragments. Fragments of an ovoid jar came from a soil deposit overlying ditch SG8108.

The middle Iron Age fabric range is noticeably more restricted than for the proposed early Iron Age assemblage, with a full 727 sherds, representing 83% of the middle Iron Age total, in glauconitic sandy wares Q1-Q4, mostly Q2. These fabrics are probably petrologically related, and any variations may be a result of clay preparation and the relative fineness of added sand.

The range and number of classifiable forms are quite restricted, and most diagnostic sherds were recovered from ditch fills rather than more secure pit contexts. The material was recovered from fills of ditches SG8104, SG8105, SG8093, SG8106, and a deposit overlying ditch SG8108 (Fig. 3.1, no. 8). Two simple hemispherical bowls were identified, one in fabric Q2 (Fig. 3.1, no. 9), associated with a well-burnished basal fragment in the same fabric (Fig. 3.1, no. 10), the other in shelly ware S1 (Fig. 3.1, no. 11). Six bead rim ovoid or S-profile jars are in sandy fabrics, but there are three examples of this form in shelly fabrics S1 and S4. A smoothed or burnished surface finish is a common feature of these rounded forms. There is a single possible example of a straight-sided jar ('saucepan pot') in fabric S2 from ditch SG8104. The small lugged vessel mentioned above (Fig. 3.1, no. 2) from pit 1583, which also produced a Bronze Age rim, is in an unusual fabric and is a unique form.

Part of a South-Western Decorated Ware (traditionally known as Glastonbury Ware) bowl was recovered in three fragments (Fig. 3.2, no. 12). A radiocarbon date of 524-388 BC from Carn Euny has been obtained for the inception of this tradition, but the decoration on the Berryfields example is of a developed type, probably dating from *c.* 250 BC or somewhat later. South-West Decorated Ware pottery comes in a variety of fabrics and it is difficult to establish the components of any given example without petrological analysis. However, the dominance of abundant subangular quartz grains and fragments of probable sandstone suggest the Berryfields vessel is Peacock's Group 2 (sandstone fabric), with a likely origin in the Old Red Sandstone region of the Mendip Hills (Peacock 1969). As such, this vessel was clearly an import to the site. This ditch fill produced a relatively large assemblage of 67 sherds (776g), including the hemispherical bowl and burnished base mentioned above.

Middle Iron Age-Late Iron Age

A small group of 150 sherds weighing 2162g has been dated as middle Iron Age-late Iron Age on the basis of vessel form and/or treatment. This group includes a slightly wider range of fabrics than seen in the middle Iron Age assemblage, with an increase in shell-tempered wares (S1, S4-S6), but excludes grog-tempered wares, which were a late 1st century BC/AD development and are

discussed by Biddulph (below). Varieties of sandy wares continue to dominate at almost 70%. In the case of body sherds, the distinction between the later Iron Age and middle Iron Age sandy pottery groups is rather vague, but in terms of form, there is a clear indication of a developmental trend towards vessels with higher, more pronounced shoulders and more clearly defined rims. A necked bowl from ditch 8104 (G3) in fabric Q2 is a distinctive late Iron Age form, probably of late 2nd century/early 1st century BC date. Most of this later pottery came from ditch 8104, including a necked bowl (Fig. 3.2, no. 13), ditch SG8108 and wheel-rut 1651 (Fig. 3.2, nos. 14 and 15), but there were examples in ditch SG8093, including a large handled jar (Fig. 3.2, no. 16).

Discussion

The prehistoric pottery assemblage from Berryfields is small, fragmentary, and generally lacking diagnostic features. It provides sufficient evidence, however, to demonstrate activity on the site during the middle Bronze Age and the middle Iron Age, with suggestions of an earlier prehistoric (Neolithic or early Bronze Age) presence, and the possibility of continuous occupation throughout the Iron Age.

Although the Bronze Age 'ceramic signature' is quite faint, there were sufficient diagnostic pieces to confirm a middle Bronze Age presence, and most of the Bronze Age pottery, whether residual or not, was restricted to a small area of the site focused around ring ditch SG8028 and ditch SG8029, a location where Iron Age pottery was largely absent. Most of the diagnostic Bronze Age sherds are fragments of large Deverel-Rimbury style vessels.

The Iron Age pottery, typically for the region, lacks chronological precision, partly due to the endurance of some early Iron Age ceramic fabrics and decorative motifs well into the middle Iron Age. A few distinctive forms, including a necked bowl and high-shouldered bead rim vessels, indicate a progression from simple rounded forms of the earlier stage of the middle Iron Age, to a more developed range of vessels influenced by Continental styles during the last stages of the middle Iron Age.

A typical feature of middle Bronze Age and Iron Age settlements is the deliberate deposition of pottery vessels or vessel parts in pits, waterholes, and ditch terminals. It is possible that some of the large middle Bronze Age fragments were deliberately placed, but there are no clear Iron Age examples of this activity at Berryfields. Special deposits in boundary ditches are admittedly uncommon, and the Berryfields site is no exception. Arguably, the substantial fragment of a South-West Decorated Ware bowl was treated with some attention, perhaps having been curated for a time. Deliberate deposits even of distinctive pottery and high-status objects are not particularly common in

the region and the Berryfields pit groups are typically composed of a few small, abraded sherds, with no noteworthy features. It is not surprising, therefore that there is no evidence of anything other than fortuitous inclusion in naturally eroded fills.

1. Bronze Age jar with simple, flattened rim. Fabric F1. Pit 1583, context 1584. Residual?
2. Small round-bodied vessel with dual finely perforated lugs. Fabric F3. Context 1584, pit 1583. Possibly Iron Age
3. Body sherd with fingernail impressed decoration. Fabric F1. Context 3218, ditch 3217, SG8029. Bronze Age
4. Crudely made bowl with fingertip decorated rim. Fabric Q2. Context 1089, ditch 1088, SG8104
5. Jar with upstanding rim and fingertip decoration. Fabric Q2. Context 1733, ditch 1731, SG8093
6. Body sherd decorated with fine incised diagonal linear pattern with white inlay. Fabric Q2. Context 1470, ditch 1453, SG8104
7. Small sherd with deeply incised linear cross-hatch decoration. Fabric Q2. Context 1730, ditch 1728, SG8093
8. Bead rim jar. Fabric Q1. Spread 1617 (not located on plan, but overlying ditch SG8108)
9. Hemispherical bowl. Fabric Q2, roughly smoothed. Context 1613, ditch 1612 (not located on plan, but in the vicinity of SG8108)
10. Low pedestal base. Fabric Q2, burnished. Context 1613, ditch 1612 (not located on plan, but in the vicinity of SG8108)
11. Ovoid jar with slightly elongated everted rim. Fabric S1, smoothed. Context 1536, pit 1537
12. South-West Decorated Ware bowl ('Glastonbury ware'). Fabric Q5. context 1613, ditch 1612 (not located on plan, but in the vicinity of SG8108)
13. Bowl with short, pronounced neck. Fabric Q2, smoothed. Context 1399, ditch 1396, SG8104
14. High shouldered bead rim jar. Fabric Q2, smoothed. Context 1652, ditch 1651, SG8108
15. High shouldered bead rim jar. Fabric Q1, burnished. Context 1652, ditch 1651, SG8108
16. Ovoid jar with handle. Fabric S1, smoothed. Context 1139, ditch 1137, SG8093

LATE IRON AGE AND ROMAN POTTERY

by Edward Biddulph

Introduction

Almost 8000 sherds of pottery, weighing 89kg, were recovered. The assemblage was recorded to the standard recommended by period-specific pottery study groups (PCRG *et al.* 2016). Table 3.1 lists the quantity of pottery from each of the various phases of the investigation.

All the material, excluding unstratified sherds and pottery recovered by sieving from environmental samples, was fully recorded and analysed in order to refine or confirm the ceramic dates of each context group, and to address areas of research outlined at assessment, in particular pottery trade and production, site chronology, site status and function, patterns of ceramic deposition and context formation, and pottery use. The unstratified and sieved pottery was scanned to identify pottery of intrinsic interest and, in the case of the sieved pottery, to provide a spot-date where no other pottery existed.

Each context group was sorted into wares, which were assigned codes taken from Oxford Archaeology's guidelines for recording Roman pottery (Booth 2016). Forms were identified by rim and similarly assigned standard OA form codes (expressed as a two-letter code, such as CK for 'cooking pot' type jar, sometimes followed by a three-digit rim code, for example JB 110, a plain-rimmed curving-sided dish). Each vessel was quantified by sherd count, weight, minimum number of vessels (MV) based on rim, and estimated vessel equivalent (EVE), which measures the surviving percentage of the circumference of a rim. (Thus, a complete rim was recorded as 100%, while half a rim was recorded as 50%. In this report, percentages have been converted to fractions of a whole, 100% becoming 1 EVE and 50% becoming 0.5 EVE.) Forms were matched where possible with well-established regional or industry-based corpora, such as those for Milton Keynes (Marney 1989), the Oxford region (Young 1977), pottery of late Iron Age/early

Table 3.1 Quantities of late Iron Age and Roman pottery by investigation phase

Site	No. sherds	Weight (g)	MSW (g)	MV	EVE	'Completeness' (mean EVE)
ABPR07/08	1195	11,343	9.5	136	11.67	0.09
AYLBER07	14	84	6	3	1.08	0.36
AYLBER10	5202	62,191	12	208	32.20	0.15
AYLBER14	164	1377	8.4	5	1.49	0.3
AYLBER16	157	1183	7.5	17	1.26	0.07
QAVC12	1103	12,535	11.4	104	16.00	0.15
Total	7835	88,713		473	63.7	

MSW – mean sherd weight (weight/sherds), MV – minimum number of vessels (rim count), EVE – estimated vessel equivalent, 'completeness' – EVE/MV

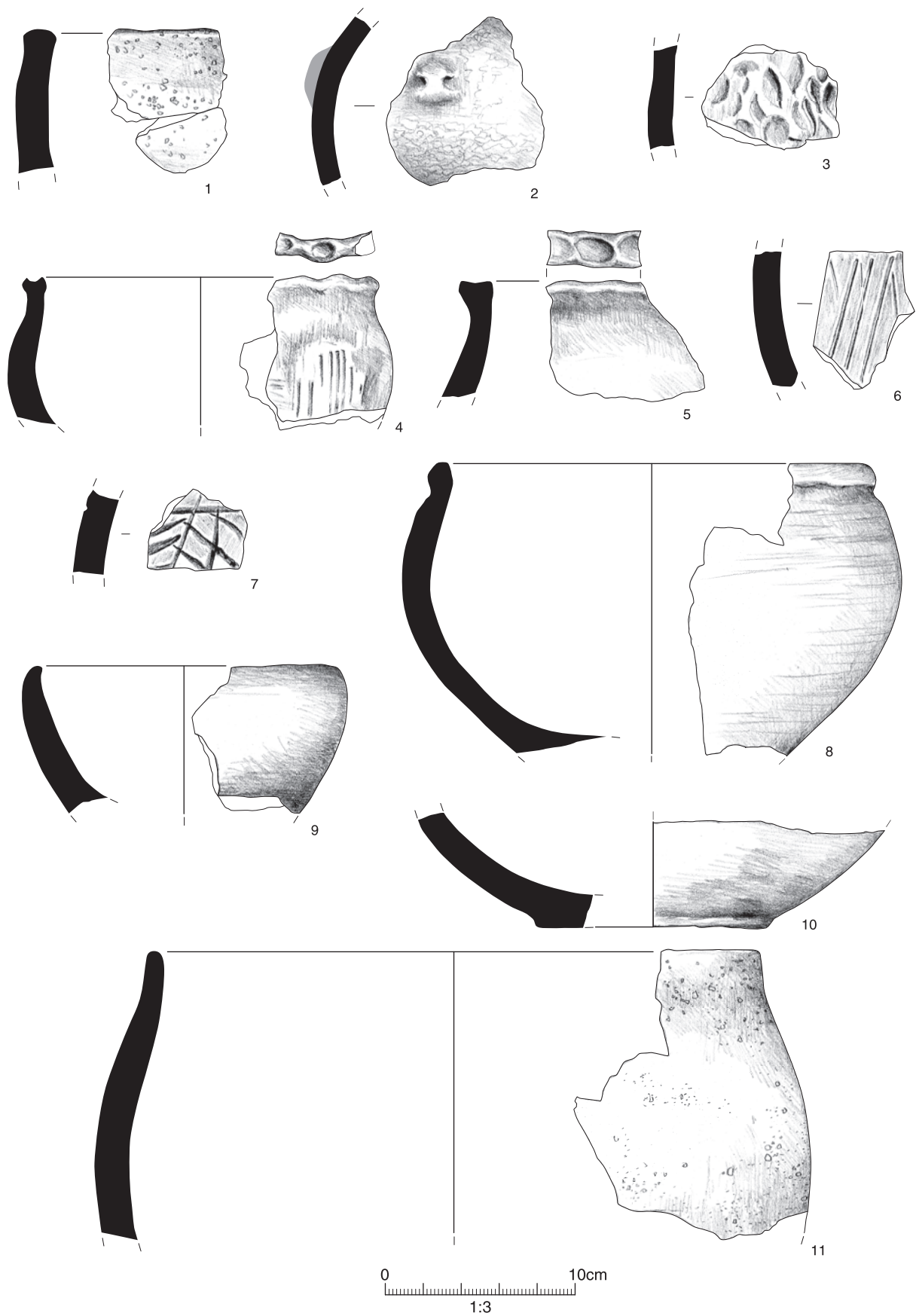


Fig. 3.1 Prehistoric pottery, nos 1-11

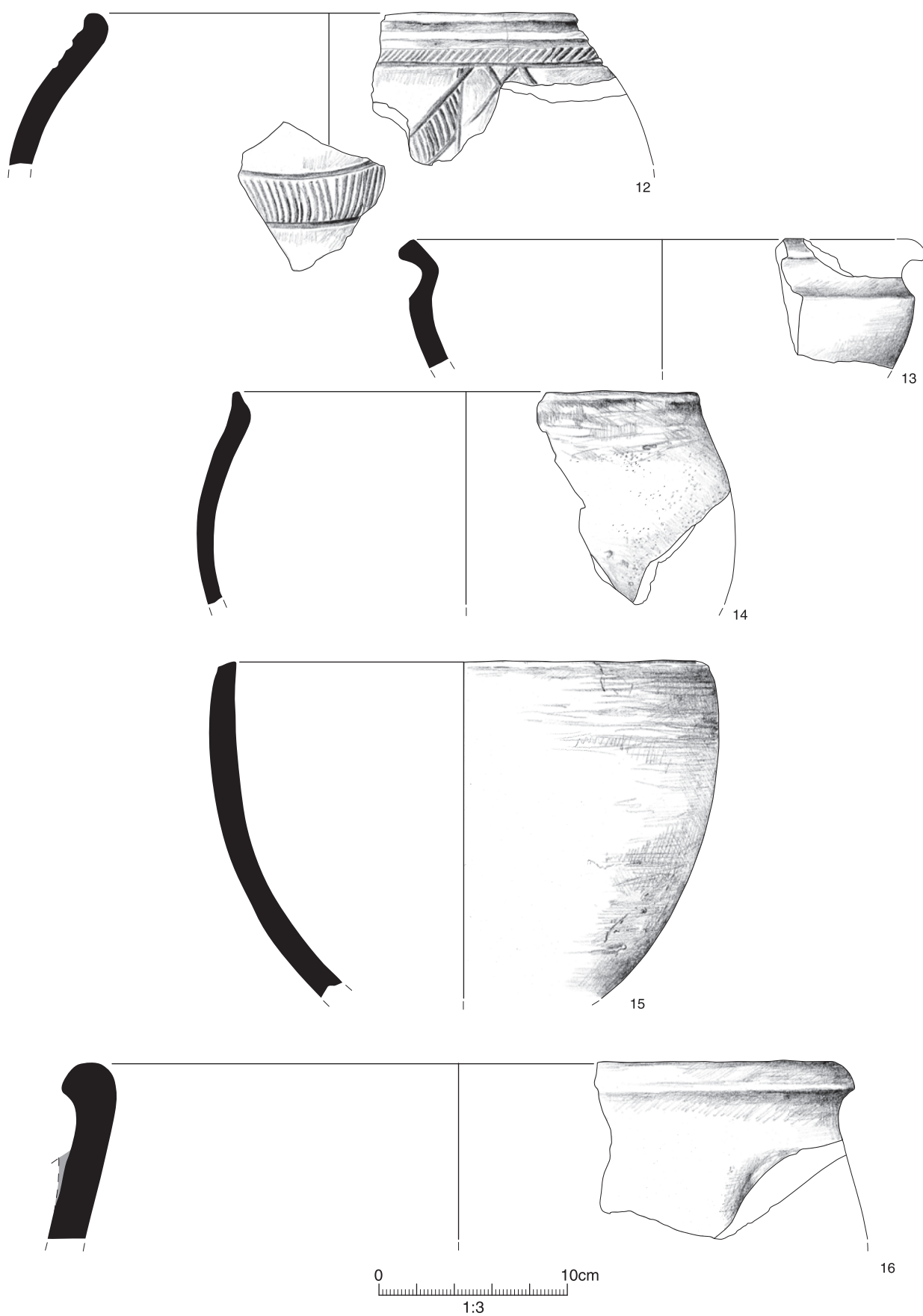


Fig. 3.2 Prehistoric pottery, nos 12-16

Roman tradition (Thompson 1982; Hawkes and Hull 1947), and the samian industries (cf. Webster 1996). Ware codes pertaining to regionally significant fabrics were cross-referenced with the National Roman Fabric Reference Collection (Tomber and Dore 1998). Quantification of forms and fabrics is given in Tables 3.2 and 3.3. The figures exclude unstratified pottery, but include a proportion of the sieved material; that is, in cases where no other pottery from the context was recovered or where the pottery was deemed to enhance the existing context-group (for example in terms of dating or identifiable forms or fabrics). This amounts to 211 sherds, 1378g, 7 vessels (MV) and 2.11 EVE.

Assemblage composition and pottery supply

Sources of supply

Amphora reached the area uncovered at Berryfields from three principal sources: southern Spain (A11), from where olive oil containers (Dressel 20) were exported, southern Gaul (A13), whose potters were responsible for wine amphorae (though no types were recognised by rim), and the Campanian region of Italy (A35), where wine containers were also produced, although a suspected Dressel 1 or Dressel 2-4 amphora from Berryfields was identified only by body sherds. Of these sources, southern Spain was the most important, as measured by all

Table 3.2 Quantification of the late Iron Age and Roman pottery by fabric

<i>Fabric</i>	<i>Description</i>	<i>No. sherds</i>	<i>Weight (g)</i>	<i>MV</i>	<i>EVE</i>
A Amphorae					
A	Indeterminate amphora fabric	4	121		
A11	South Spanish amphora fabric (BAT AM 1)	180	4038	1	0.25
A13	South Gaulish amphora fabric (GAL AM 1)	5	221		
A35	Campanian black sand amphora fabric (CAM AM 1)	6	297		
B Black-burnished wares					
B11	Dorset black-burnished ware (DOR BB 1)	11	476	4	0.16
B20	Wheel-made, BB2-type black-burnished ware	9	93	3	0.15
B30	Imitation black-burnished wares	6	95	2	0.28
C Calcareous wares					
C	Indeterminate calcareous fabric	1	7		
C10	Shelly ware	159	699	3	0.30
C11	Late Roman shelly ware, including Harrold (HAR SH)	62	663	8	1.12
E Late Iron Age/early Roman wares					
E	Indeterminate late Iron Age/early Roman fabrics	2	2		
E10	Organic-tempered fabrics	1	4		
E20	Fine sand-tempered fabrics	136	225	3	0.47
E30	Coarse sand-tempered fabrics	303	3801	13	2.30
E40	Shelly fabrics	11	24		
E60	Flint-tempered fabrics	1	4		
E80	Grog-tempered wares (SOB GT)	3637	42,977	131	17.40
E810	Grog- and sand-tempered fabrics	152	1558	7	2.02
E820	Grog- and shell-tempered fabrics	1	19	1	0.13
F Finewares					
F43	Central Gaulish 'Rhenish' ware (CNG BS)	1	1		
F44	East Gaulish 'Rhenish' ware (MOS BS)	1	1	1	0.05
F51	Oxford red/brown colour-coated ware (OXF RS)	83	837	8	0.79
F52	Nene Valley colour-coated ware (LNV CC)	37	328	8	0.68
F55	Colchester colour-coated ware	1	14	1	0.31
F56	Hadham oxidised ware (HAD OX)	8	44	2	0.08
F60	Unsourced red/brown colour-coated wares	17	149	2	0.20
M Mortaria					
M21	Verulamium-region white ware (VER WH)	6	686	2	0.46
M22	Oxford white ware (OXF WH)	26	901	9	0.92
M24	Nene Valley white ware (LNV WH)	2	27	1	0.05
M41	Oxford red/brown colour-coated ware (OXF RS)	7	163	2	0.35
O Oxidised wares					
O	Indeterminate oxidised fabrics	10	9		
O10	Fine oxidised wares	248	1105	21	2.50

methods of quantification, and vessels from here arrived mainly during the early Roman period. An amphora of broadly Gauloise type was also recorded in Verulamium-region white ware (W21).

Black-burnished wares arrived from Dorset (B11) from the mid-2nd century onwards. Most forms identified by rim are dishes, specifically plain-rimmed types (JB 110), though a 'cooking-pot' type jar (CK) was also recorded. More plain-rimmed dishes were seen in wheel-made black-burnished wares (B20), whose source may include Colchester or Mucking in Essex. More plain-rimmed dishes were supplied in imitation black-burnished wares (B30), whose source is likely to have been more local. That the forms identified in black-burnished

wares are almost exclusively plain-rimmed dishes suggests that the inhabitants of Berryfields strongly associated the form with those wares, possibly owing to functional specialisation, for instance cooking or as table ware, and points to a degree of selection in the pottery supply.

Shelly wares have been divided into two categories: C10, which encompasses all shelly ware except that belonging to groups dated to the late Roman period, and C11, which comprises shelly ware in groups dated to the late Roman period or identified on form or fabric grounds as late Roman shelly ware, such as that manufactured in Harrold, Bedfordshire (Brown 1994, figs 29-40; Tomber and Dore 1998, 115). The former was available as necked

Table 3.2 (continued)

<i>Fabric</i>	<i>Description</i>	<i>No. sherds</i>	<i>Weight (g)</i>	<i>MV</i>	<i>EVE</i>
O11	Oxford fine oxidised ware	8	47	1	0.04
O20	Sandy oxidised wares	130	859	14	2.12
O50	Other oxidised wares, possibly including Hadham (HAD OX)	24	103	3	0.38
O80	Coarse-tempered oxidised wares	60	1710	1	0.08
O81	Pink grogged ware (PNK GT)	138	2882	4	0.32
R Reduced wares					
R10	Fine reduced wares	327	1954	27	3.23
R11	Oxford fine reduced ware (OXF FR)	37	264	2	0.12
R20	Sandy reduced wares	170	1646	14	1.63
R30	Medium sandy reduced wares	953	10,125	115	14.96
R39	Alice Holt fine sandy ware (ALH RE)	17	1521	1	0.45
R40	Other reduced wares, including Hadham (HAD RE 1)	11	139	1	0.17
R44	Granular sand-tempered reduced ware consistent with Verulamium-region grey ware	211	1997	8	1.32
R46	Lower Nene Valley grey ware	1	26		
R50	Dark-surfaced reduced wares	101	1134	8	1.55
R70	Calcareous reduced wares	2	71		
R90	Coarse-tempered reduced wares	34	1351	6	0.36
S Samian wares					
S	Indeterminate samian wares	1	1		
S20	South Gaulish (La Graufesenque) samian ware (LGF SA)	23	169	6	0.50
S30	Central Gaulish samian ware (LEZ SA 2)	46	243	10	0.86
S32	Les Martres-de-Veyre samian ware (LMV SA)	2	36		
S40	East Gaulish samian ware	4	8		
W White wares					
W10	Fine white wares	34	55	1	0.06
W11	Oxford parchment ware (OXF PA)	3	171	2	0.30
W12	Oxford fine white ware (OXF WH)	2	75	2	1.12
W14	Nene Valley white ware (LNV WH)	3	61		
W20	Sandy white wares	28	251	4	0.39
W21	Verulamium-region white ware (VER WH)	107	1118	8	2.61
W30	North Gaulish fine/fine sandy white wares (NOG WH 1-3)	94	437	1	0.06
Z Post-Roman wares					
Z20	Medieval wares	75	514		
Z30	Post-medieval wares	1	15		
Total		7835	88,713	473	63.7

MV – minimum number of vessels, EVE – estimated vessel equivalent. Fabric codes in parentheses after Tomber and Dore (1998)

Table 3.3 Quantification of the late Iron Age and Roman pottery by form

Form	Description	MV	EVE
A Amphorae			
A	Amphora	2	0.36
B Flagons			
B	Indeterminate flagon	2	0.17
BA	Small flagon (up to 60mm rim diameter)	7	4.40
BA/CC	Small flagon/flask	1	0.20
BB	Larger flagon	3	0.97
C Jars			
C	Indeterminate jar	116	9.11
C/E	Jar or beaker	3	0.29
CC	Narrow-necked jar/flask	8	1.53
CD	Medium-mouthed jar, often necked	59	10.99
CE	Squat, high-shouldered or necked jar	13	3.82
CG	Globular jar	2	0.65
CH	Bead-rimmed jar	2	0.19
CJ	Lid-seated jar	13	2.00
CK	'Cooking-pot'-type jar with everted rim (eg black-burnished ware jar)	1	0.03
CM	Wide-mouthed jar	9	3.10
CN	Storage jar	40	3.94
D Jars or bowls			
D	Jar or bowl	7	0.51
E Beakers			
E	Indeterminate beaker	19	1.59
EA	Butt-beaker	11	2.45
EC	Bag-shaped beaker	2	0.23
ED	Globular/bulbous beaker	4	0.79
ED/EF	Globular or poppyhead beaker	1	0.15
EE	Indented beaker	2	0.69
EF	Poppyhead beaker	2	0.58
EH	'Jar' beaker (ie small example of everted rim jars)	1	0.31
F Cups			
FA	Hemispherical cup	1	0.09
FB	Campanulate cup (eg Drag. 27)	3	0.22
FC	Conical cup (eg Drag. 33)	1	0.20
H Bowls			
H	Indeterminate bowl	11	0.62
HA	Carinated bowl	7	1.15
HB 440	Straight-sided bowl with dropped flange	4	0.22
HC	Curving-sided bowl	10	0.72
HD	Necked bowl	8	2.79
I Bowls or dishes			
I	Indeterminate bowl or dish	2	0.13
I 110	Bowl or dish with plain rim	1	0.03
IA	Straight-sided bowl or dish	1	0.05
IA 110	Straight-sided bowl or dish with plain rim	1	0.05
IA 410	Straight-sided bowl or dish with flanged rim	3	0.25
IB	Curving-sided bowl or dish	1	0.05
IB 410	Curving-sided bowl or dish with flanged rim	3	0.45
IB 430	Straight-sided bowl or dish with flange and slight bead	1	0.08
J Dishes and platters			
J 210	Bead-rimmed dish	2	0.09
JA 418	Straight-sided dish with flanged rim	1	0.08
JB	Curving-sided dish	6	0.24
JB 110/120	Curving-sided dish with plain rim	15	1.18

Table 3.3 (continued)

Form	Description	MV	EVE
JB 210	Curving-sided dish with bead rim	9	0.63
JB 220	Curving-sided dish with plain rim separated from body by groove	3	0.55
JB 410/540	Curving-sided dish with flanged rim	2	0.35
JC	Platter	20	1.67
K Mortaria			
K	Indeterminate mortarium	3	0.35
KA	Hook-rimmed/bead-and-flanged mortarium	6	0.77
KE	Tall bead/stubby flanged mortarium	5	0.66
L Lids			
L	Lids	10	0.94
Z Indeterminate forms			
Z	Indeterminate	2	0.04
Totals		473	63.7

MV – minimum number of vessels, EVE – estimated vessel equivalent

jars (CD) and a wide-mouthed bowl or jar (D) and is likely to have derived from manufacturing sites situated on the shell-rich Jurassic Beds to the west of Bedford, among them Emberton and Lavendon, as well as Harrold itself (PKRB, nd), the last being in operation from the later 1st to 4th century (Brown 1994, 20-21). It should be noted, however, that channel-rimmed or lid-seated jars, which are among the principal earlier Roman products of those workshops, were not recorded at Berryfields, suggesting that supply was irregular or that the source of the pottery lay elsewhere. The forms identified in C11 – necked jars with rilled bodies and bowls with dropped-flange rims – are typical of the Harrold repertoire.

Fabrics of late Iron Age/early Roman tradition (E wares) are predominantly grog-tempered (E80), but include smaller quantities of sand-tempered pottery (E20/E30), which also contain occasional grog inclusions. The sandy fabrics were available mainly as lid-seated jars (CJ; eg Thompson 1982, type C5-1) and medium-mouthed jars (CD) with rilled shoulders (Thompson 1982, type C7-1), but a necked high-shouldered jar (CE), globular jar (CG), butt-beaker (EA) and platters (JC) based on Gallo-Belgic prototypes, *Camulodunum* 28 and *Camulodunum* 30 (Hawkes and Hull 1947), were also recorded. The source of the pottery is unknown, but presumed to be local. Some occurrences contained glauconitic inclusions, which is likely to have derived from the Upper Greensand Formation that lies along the foot of the Chiltern Scarp (BGS, nd). An exposure of glauconitic beds has been recorded in Buckingham Street in the centre of Aylesbury (Radley 1993).

A much wider range of forms was available in fabric E80, but principal forms comprised storage jars (CN), CD-type jars – some with, others without, necks – and platters, among them *Cam* 26, *Cam* 28 and *Cam* 32 (Hawkes and Hull 1947). Bowls,

beakers, and lids were also recorded. Fabric E80 was available in oxidised and reduced variants; the latter was better represented, but there was no strong association between surface colour and form. The pottery, as with fabrics E20/E30, is presumed to be of local origin. No kilns producing grog-tempered wares are known in the Aylesbury area, but the structures are likely to have been shallow or, essentially, surface features that are particularly prone to denudation and removal by later truncation, for example ploughing. That said, such kilns are attested in the Milton Keynes area at Caldecotte (Marney 1989, 95-100) and Broughton (Lyons 2014, 99-103) and to the south-east of Aylesbury at Bricket Wood, near Verulamium (Poole *et al.* forthcoming). Indeed, it is not impossible that products of those kilns are among the grog-tempered pottery found at Berryfields. Grog-and-sand-tempered fabrics (E810) were recorded in smaller quantities, but was available in a similar range of forms, including types CD, EA and JC. A single vessel was recorded in grog-and-shell-tempered fabric (E820), although shell or the angular and plate-like voids of leached-out shell were occasionally seen in fabric E80. The vessel assigned to fabric E820 is a jar with a lid-seated and bifid rim (CJ; as Marney 1989, fig. 7, no. 7) and is likely to have a similar source to fabric C10.

It is evident from the quantity of Oxford red/brown colour-coated ware (F51) that the pottery industry of the Oxford region was an important source of ceramics at Berryfields. The ware took the largest share of fine wares at the site and arrived from the mid-3rd century AD onwards. Forms were largely confined to dish type JB (Young 1977, type C45), based on samian prototypes Drag. 31, and necked bowl HD (Young 1977, type C75), but hemispherical bowls and a cup, based on samian forms Drag. 38 and Drag. 33 respectively, were attested by body sherds. Nene Valley colour-coated

ware (F52) was also relatively well represented. It was available as dropped-flange bowls (HB 440) and beakers (a bag-shaped beaker (EC) was recognised by rim, but funnel-necked and indented beakers are also likely to be present). Fine wares also arrived from central Gaul (F43), east Gaul (F44), Colchester (F55) and Hadham (F56), but in much smaller quantities. Beakers were recorded in fabrics F43 and F44, a funnel-necked, globular beaker (ED; *Cam* 395; Hull 1963) was seen in F55, while a shallow, flanged dish (Going 1987, type B10) was present in F56. A reasonably large proportion of colour-coated wares (F60) could not be assigned with certainty to the major industries, either because the fabrics were not sufficiently diagnostic or did not match the standard descriptions. Forms were limited to a necked bowl (HD) and a beaker, probably a funnel-necked vessel. While it is likely that the material does indeed belong to the major industries, the possibility that at least a proportion of it derives from a minor producer (for instance, from North Wiltshire or somewhere more local) cannot be excluded.

The Oxford-region industry also dominated the supply of mortaria. Oxford white-ware mortaria (M22) arrived from the 2nd century AD. Forms included hooked rim types (KA; Young 1977, types M2 and M6) and bead-and-flange types (KE; Young 1977, type M17, M18 and M21). Oxfordshire red colour-coated mortaria (M41), confined to form KE (Young 1977, type C100), reached the site in the 4th century AD. Other mortaria arrived from the Verulamium region (M21) – a hooked-rim type made by Matugenus was recorded – and the Nene Valley (M24).

Turning to oxidised wares, a single vessel, a bowl with a hooked rim, was attributed to the Oxfordshire industry (O11), but most fine oxidised wares could not be sourced (O10). A wide range of forms were recorded in fabric O10, though the emphasis was on table and specialist forms, particularly flagons (B) and beakers (E). A flanged dish (JB; as Going 1987, type B10) and a medium-mouthed jar (CD) were also recorded. Other fine oxidised wares, including potential Hadham products, were recorded as fabric O50. Forms comprised a necked jar (C) with a hooked rim, a cup-mouthed flagon (BA) and a bowl (H). Sandy oxidised wares (O20) were similarly of uncertain origin. However, a bowl or dish with an incipient bead-and-flanged rim (IB 430), whose fabric was reminiscent of the Oxford fabric (Tomber and Dore 1998, 173-7), and a flanged bowl (HC) copying samian form Ritterling 12 and similar to an O11 type (Young 1977, type O39), suggests that the Oxford industry is responsible for some of the occurrences. Pink grogged ware (O81) was much more diagnostic. Production is strongly suspected to be located at Stowe in northern Buckinghamshire, where possible kiln sites have been found (Taylor 2004; P Booth, pers. comm.). Forms identified by rim were confined to storage jars (CN).

Reduced wares made the largest contribution to the assemblage, and of this category, medium sandy reduced wares (R30) dominated. Jars, beakers, dishes and lids were recorded, the best-represented forms being medium-mouthed jars (CD), usually necked, and dishes or bowls with plain or beaded rims (JB 110/210). The material is unsourced, but local production is presumed in most cases. No kilns producing coarse reduced wares or otherwise are known in the southern part of Aylesbury Vale, where Berryfields is situated. This is in contrast to the northern part of the county around Buckingham, as well as Milton Keynes and further south in the Colne Valley, where production is attested (Radford and Zeepvat 2009, 63). However, occasional misshapen pottery from the Berryfields assemblage (see below) hints at nearby kiln sites, and a jar containing glauconitic inclusions may have been made in or to the south or east of Aylesbury. Nevertheless, there are indications that some of the R30 pottery arrived from further afield. Three bowls – two necked vessels (HD) and a carinated bowl (HA) – recall types recorded and presumably manufactured in the Milton Keynes area (Marney 1989, fig 12, no. 53; fig. 16, no. 5; fig. 51, no. 11). Similarly, a narrow-necked jar (CC) with a distinctive bifid and frilled rim resembled a vessel recovered from a site in the northern Milton Keynes area that had been determined by petrological analysis to be of local manufacture (Marney 1989, 81-3, fig. 33, no. 11). It should be noted, however, that the fabric of the Berryfields example does not match that of the Milton Keynes vessel (Marney 1989, 184, fabric 28). The jar may instead be a locally made vessel copying products of, say, the Hadham industry, some of which also had bifid rims with frilled decoration (eg Going 1987, types G26 and H17). Indeed, a dish with frilled decoration in fabric R30 (Fig. 3.9, no. 47), though too sandy to be Hadham reduced ware, does appear to be copying the style of Hadham products in an additional way, also having burnished surfaces.

Three body sherds recovered from Phase 6 pit 3067 were recorded in a medium sandy fabric (R30) with dark grey surfaces and a pale grey core may have originated west of the site. The fabric is near-identical to a reduced fabric (R37) found in quantity in west Oxfordshire, dominating assemblages at, for example, Yarnton, Asthall and Wilcote (Booth 2011, 371) and may have been produced in that area.

More Oxfordshire pottery was recorded as fine reduced ware (R11), which was represented by a jar, a bowl or jar, and miscellaneous body sherds. Most fine reduced fabrics, however, could not be assigned to source (R10). Much of this material is likely to have been locally made, although the possibility of there being further R11 products within this group cannot be discounted. Jars, beakers, bowls and dishes were represented in fabric R10. Forms included medium-mouthed jars (CD), narrow-necked jars (CC), indented beakers (EE), poppyhead beakers (EF), and plain-rimmed (JB 110) and flanged dishes (JB 410). Sandier

unsourced reduced wares were placed in the general category R20. Forms were confined to jars, which predominated, and dishes and bowls. Three vessels assigned to this fabric group – a bead-rimmed dish (JB 210), a CD-type necked jar, and a jar not identified to type (C) – contained glauconite in addition to quartz and may have a local origin.

The Verulamium region is suggested as the source of another sandy reduced fabric (R44), which took a relatively large share of the reduced ware group (11% of R wares by sherd count). The ware is characterised by a granular fabric of rounded grey and clear quartz and occasional dark grains. The surfaces and core tend to be a uniform light or dark grey. The fabric is identical to Verulamium-region grey ware (cf. Tomber and Dore 1999, 154; Davies *et al.* 1994, 52) under microscopic and macroscopic examination, and occurrences have been tentatively attributed to that source. It is, after all, not unreasonable to suggest that the industry's grey ware products travelled with its more familiar white wares (W21), which also reached Berryfields (W21). However, that fabric R44 is so well represented raises the possibility that a more local producer was responsible. Some 15% of grey wares from College Road, Aston Clinton, comprised coarser fabrics similar to those produced in Oxfordshire or Verulamium (Perrin 2014, 42). A grey ware fabric described as coarse and gritty with abundant ill-sorted quartz grains and sparse black iron ore was recorded in some quantity from the Aston Clinton Bypass (fabric R06B; Slowikowski 2008b, 228). The fabric as a whole was not ascribed to source, though Milton Keynes was suggested for the source of a variant with conspicuous white quartz (Slowikowski 2008b, 228; Marney 1989, 184). It can also be noted that reduced coarse ware made at Gerrards Cross during the 2nd century was made in a fabric with abundant quartz grains (Stainton and Stanley 1987, 164). The question of source will not be resolved without petrological analysis, but it is interesting to observe that forms seen in Slowikowski's fabric R06B – cordoned jars, everted rim jars, flagons, and flanged and plain-rim dishes, were not recorded in fabric R44, in which a variety of jars – medium-mouthed (CD), narrow-necked (CC), wide-mouthed (CM) and lid-seated (CJ) – were available. Other regional industries responsible for the supply of reduced wares, albeit in small quantities, included the Nene Valley (R46) and the Hadham region (R40).

Dark-surfaced wares (R50) represented a range of sandy fabrics united by their very dark grey or black surfaces, and available in forms not typically found in black-burnished wares. A medium-mouthed necked jar (CD), lid-seated jars (CJ), and platters (JC) were recorded. Base sherds in a sand- and limestone-tempered fabric (R70) were also recovered and are likely to be local; Radley (1993) records units of Aylesbury Limestone in the centre of Aylesbury. Coarse fabric R90, largely tempered with sand and grog, was reserved almost exclusively for storage jars (CN).

Samian wares arrived from the industry's principal suppliers. Pre-Flavian importation (up to c AD 70) from south Gaul (S20) is indicated by a Drag. 24/25 cup, while Drag. 29 decorated bowls arrived from the same source at this time or a little later during the early Flavian period. Cup forms Drag. 27 and 42 are also represented. A Drag. 33 cup and a Drag. 18/31 dish may have arrived from Les Martres-de-Veyre (S32) during the early 2nd century. Central Gaulish samian was otherwise best represented by products from Lezoux, which was responsible for dishes in the Drag. 18/31-31 range, dish form Curle 15, bowl form Curle 11, and a Drag. 33 cup. Small quantities of samian ware are likely to have arrived from east Gaulish factories (S40).

Regional industries were responsible for a small proportion of white wares. Products from the Oxford region (W11, W12), the Nene Valley (W14) and the Verulamium region (W21) are represented. The last was the most important in terms of quantity, and supplied flagons (BA) and jars (CD), in addition to the mortaria already mentioned. No forms were recognised by rim in fabric W14, while Oxford-region products include carinated bowls (HA; Young 1977, type P24) and ring-necked flagons (BA; Young 1977, type W6). Flavons and butt-beakers (EA) were available in North Gaulish white ware (W30), though only a single beaker was recorded by rim. Jars (CC and CD), a dish (JB 210) and a bowl (H) were recorded in unsourced sandy white ware (W20); it is possible that some occurrences should more properly be attributed to the Verulamium region. A butt-beaker was recorded in unsourced fine white ware (W10).

Chronological trends from phased groups

Ceramic groups dated by pottery to the late Iron Age or early Roman period and belonging to contexts assigned to Phase 3 (c 50 BC to AD 100) accounted for 4% of the entire pottery assemblage by EVE (Table 3.4). The phased assemblage was dominated by grog-tempered wares (E80). Smaller quantities of sand-tempered fabrics (E30 and E810) were also available. A relatively narrow range of forms – identified as jars, beakers and bowls – were recorded. The presence of Campanian amphora fabric, represented by few body sherds, hints at the arrival of Italian wine before AD 43 or within a decade or two after that date.

The scale of pottery deposition increased during the early Roman period. Ceramic groups belonging to Phase 4 deposits (c AD 43-120) and dated on pottery grounds to that period accounted for 23% of the assemblage by EVE (Table 3.5). Grog-tempered wares (E80) remained important, though now took a smaller share as sand-tempered, wheel-thrown reduced wares, represented largely by fabric R30, began to be deposited. During this time, olive oil containers reached the site from southern Spain (A11), while samian arrived from south Gaul (S20). Of the regional industries, the Verulamium region

Table 3.4 Late Iron Age/early Roman pottery (Phase 3). Quantification by estimated vessel equivalent (EVE)

Fabric	C	CH	CJ	Form CN	EA	ED	HA	Total EVE	% EVE
A35								*	
E30			0.10					0.10	4.3
E60								*	
E80	0.40	0.16		0.16	0.24	0.14	0.31	1.41	60.5
E810					0.82			0.82	35.2
Total EVE	0.40	0.16	0.10	0.16	1.06	0.14	0.31	2.33	-
% EVE	17.2	6.9	4.3	6.9	45.5	6	13.3	-	-

* Fabric present but not represented by rim

was one of the most important, contributing both reduced (R44) and white ware pottery (W21). A more diverse range of forms was recorded in Phase 4, compared with Phase 3. Jars dominated, but the phase also saw the introduction of cups, dishes or platters and flagons, which attest to the influence of Continental-style ceramics or dining practices.

The volume of pottery deposition fell during the middle Roman period. Pottery groups dating to Phase 5 (c AD 120-240/50) and dated by pottery to

that period accounted for 13% of the entire assemblage by EVE (Table 3.6). A greater range of forms and fabrics is evident, reflecting an increase in the availability of pottery from diverse sources. Reduced wares continue to be dominated by unsourced, but probably local, fabrics (R30), but were joined by wares from the Verulamium region (R44), Oxford (R11), and the Nene Valley (R46). The Verulamium-region and Oxford industries also supplied white wares (M22, W12, and W21) in this

Table 3.5 Early Roman pottery (Phase 4). Quantification by estimated vessel equivalent (EVE)

Fabric	A	B	C	Vessel class						Total EVE	% EVE
				E	F	H	J	L	Z		
A11	0.25									0.25	1.7
A35										*	
C10										*	
E20			0.10							0.10	0.7
E30			1.66				0.19			1.85	12.5
E40										*	
E80			5.69	0.65			0.62	0.22	0.03	7.21	48.6
E810			0.36							0.36	2.4
E820			0.13							0.13	0.9
O10										*	
O20			0.04							0.04	0.3
O50		0.20								0.20	1.3
O80										*	
R10			0.07	0.15						0.22	1.5
R20			0.06							0.06	0.4
R30			1.77	0.09		0.05	0.11			2.02	13.6
R44										*	
R50			0.76	0.03			0.15			0.94	6.3
R90			0.14							0.14	0.9
S20					0.24	0.03				0.27	1.8
W10				0.06						0.06	0.4
W14										*	
W20										*	
W21		1.00								1.00	6.7
W30										*	
Total EVE	0.25	1.20	10.78	0.98	0.24	0.08	1.07	0.22	0.03	14.85	-
% EVE	1.7	8.1	72.6	6.6	1.6	0.5	7.2	1.5	0.2	-	-

* Fabric present but not represented by rim

phase, while the Nene Valley industry supplied colour-coated fine ware (F52). Pottery also arrived from the Stowe area in the form of pink-grogged ware (O81) storage jars, and handmade black-burnished ware from Dorset (B11) also reached the site, though in very small quantities. Other black-burnished wares were in wheel-thrown (B20) or imitation (B30) fabrics. Samian wares arrived mainly from central Gaul (S30), a region that also supplied black-slipped 'Rhenish' ware (R43). Olive oil continued to reach the site from Spain, while wine arrived in containers from southern Gaul (A13). Jars as a class decreased significantly in number in this phase, accounting for 29% by EVE, compared with 73% in Phase 4. The decrease was met by an increase in the numbers of flagons (although this class is to some extent over-represented, given that the narrow rims of flagons tend to survive intact better than the rims of wider-mouthed vessels), beakers, bowls and dishes.

Ceramic groups dated by pottery to the late Roman period and assigned to Phase 6 (c AD 240/50-410) accounted for 22% of the entire assemblage by EVE (Table 3.7). Local potters remained the main supplier of pottery, particularly reduced wares (R30), but the period is characterised by the increasing importance of regional producers, particularly the Oxford region (F51, M22, M41, O11, R11, W11 and W12) and Nene Valley (F52, M24 and W14) industries. Other sources of pottery included Dorset (B11), Harrold or neighbouring areas (C11), the Stowe area (O81) and Hadham (F56), although it can be observed that some of these regional producers were poorly represented, and indeed had declined in importance since Phase 5. The only Continental wares represented are amphorae and samian, both being residual by this time. Indeed, it should be noted that the proportion of residual pottery generally could be considered high; judging by the fabrics present, some 12% of the

Table 3.6 Middle Roman pottery (Phase 5). Quantification by estimated vessel equivalent (EVE)

Fabric	Vessel class											Total EVE	% EVE
	A	B	C	D	E	F	H	I	J	K	L		
A11												*	
A13												*	
B11									0.07			0.07	0.8
B20												*	
B30									0.05			0.05	0.6
C10												*	
E30												*	
E40												*	
E80									0.03			0.03	0.4
F43												*	
F52												*	
M22										0.34		0.34	4.1
O10		0.26										0.26	3.1
O11												*	
O20								0.38				0.38	4.6
O50			0.15									0.15	1.8
O80												*	
O81			0.14									0.14	1.7
R10			0.45	0.06	0.77		0.05		0.05			1.38	16.7
R11			0.03	0.09								0.12	1.5
R20			0.16					0.11				0.27	3.3
R30			1	0.09	0.11			0.21	0.58		0.05	2.04	24.7
R44			0.23									0.23	2.8
R46												*	
R50												*	
R90												*	
S30						0.20	0.05		0.18			0.43	5.2
W10												*	
W12		1										1	12.1
W20							0.03					0.03	0.4
W21	0.11	1	0.23									1.34	16.2
Total EVE	0.11	2.26	2.39	0.24	0.88	0.20	0.13	0.70	0.96	0.34	0.05	8.26	-
% EVE	1.3	27.4	28.9	2.9	10.7	2.4	1.6	8.5	11.6	4.1	0.6	-	-

* Fabric present but not represented by rim

phased assemblage by EVE was obviously residual. The phased assemblage was, unsurprisingly, dominated by jars, but higher proportions of bowls and mortaria were deposited in this phase, compared with Phase 5, largely reflecting the increased importance of the Oxford-region and Nene Valley industries.

Special deposits

Pit 3067

Pit 3067 was an oval-shaped feature that had been cut through the fills of pond 3062. The pit contained nine fills, with pottery being recovered from seven

Table 3.7 Late Roman pottery (Phase 6). Quantification by estimated vessel equivalent (EVE)

Fabric	Vessel class									Total EVE	% EVE
	B	C	D	E	H	I	J	K	L		
A11										*	
B11							0.02			0.02	0.1
B20										*	
B30							0.23			0.23	1.7
C10			0.07							0.07	0.5
C11		1.08								1.08	7.8
E10										*	
E30										*	
E80		0.88		0.09	0.01				0.14	1.12	8.1
F51					0.54		0.07			0.61	4.4
F52	0.20			0.05	0.16					0.41	3
F55				0.31						0.31	2.3
F56						0.05	0.03			0.08	0.6
F60				0.06						0.06	0.4
M21										*	
M22								0.46		0.46	3.3
M24										*	
M41								0.05		0.05	0.4
O10				0.55		0.18				0.73	5.3
O11					0.04					0.04	0.3
O20	1	0.22	0.02	0.02						1.26	9.2
O50										*	
O80										*	
O81		0.06								0.06	0.4
R10		0.08								0.08	0.6
R11										*	
R20		0.16								0.16	1.2
R30		2.66		0.69	2	0.13	0.14			5.62	40.8
R39		0.45								0.45	3.3
R40		0.17								0.17	1.2
R44										*	
R50										*	
R90		0.05								0.05	0.4
S20										*	
S30					0.10		0.04			0.14	1
S40										*	
W10										*	
W11					0.30					0.30	2.2
W12	0.12									0.12	0.9
W14										*	
W20										*	
W21	0.08									0.08	0.6
W30										*	
Total EVE	1.40	5.81	0.09	1.77	3.15	0.36	0.53	0.51	0.14	13.76	-
% EVE	10.2	42.2	0.7	12.9	22.9	2.6	3.9	3.7	1	-	-

* Fabric present but not represented by rim

Table 3.8 Pit 3067: vessel class by context. Quantification by estimated vessel equivalent (EVE)

Context	Vessel class					Total EVE
	C	E	H	I/J	L	
3068	0.36			0.09	0.10	0.55
3070	0.12					0.12
3071	0.03	0.09		0.15		0.27
3072	0.26	0.05				0.31
3073	0.06		0.17			0.23
3074	0.68	0.74	1.00	0.34		2.76
3075						0
Total	1.51	0.88	1.17	0.58	0.10	4.24

Table 3.9 Pit 3067: ware group by context. Quantification by sherd count

Context	Ware group										Total sherds
	A	B	C	E	F	M	O	R	S	W	
3068			1	17	5	1	11	21	1	9	66
3070			1	4				7	1	10	23
3071		1		2	1		2	8			14
3072				3	1		4	14	1	2	25
3073	1			1	3		1	2	4		12
3074		3	2	7	1		11	73	3	3	103
3075								3		1	4
Total	1	4	4	34	11	1	29	128	10	25	247

of them. The sequence of deposition consisted of a primary fill (3074), two fills at the edge of the pit representing natural silting (3072 and 3075), and a further sequence of six fills (from lowest to highest: 3073, 3071, 3081, 3070, 3068 and 3069). The pit contained a remarkable assemblage of finds, including complete or near-complete pottery vessels, coins, a wooden basket, the remains of eggs and leather shoes. The dating of the pottery recovered from the earliest fill, 3074, suggests that the

feature received material from the late 3rd century onwards. A large proportion of the assemblage from the feature, some 11% by EVE, was obviously residual, including samian wares and grog-tempered fabric E80. Much of this dated to the 2nd century and is likely to be residual.

The complete or near-complete pottery was recovered from primary fill 3074. Four vessels were recorded (Fig. 3.3): an indented beaker (EE), a necked bowl (HD), a medium-mouthed necked jar



Fig. 3.3 Complete or near-complete pottery from pit 3067

(CD), and the lower half of a 'cooking-pot'-type jar (CK). The last is in black-burnished ware (B11), the others in medium sandy reduced wares (R30). Other pottery from the deposit was more fragmented, though had a higher than average mean sherd weight. Excluding the complete or near-complete vessels, context-group 3074 had a value of 26g, compared with a value of 38g including the complete vessels, and a site-wide value of 10g. Indeed, noticeably higher than average values were calculated for the groups from contexts 3073 and 3071 (37g and 20g respectively). By comparison, values for silting fills 3072 and 3075 and upper fills 3068 and 3070 (13g, 5g, 8g and 9g respectively) are lower, suggesting that the pottery in these deposits had been subject to different processes. This is supported by the fact that the pottery from contexts 3070 and 3075 is entirely residual, dating to the second half of the 1st century AD (Tables 3.8 and 3.9).

These factors together suggest that contexts 3071, 3073 and 3074 contain pottery, particularly the complete or near-complete vessels, that had undergone relatively few episodes of deposition, having been deposited soon after initial breakage or in a deliberate, structured manner. We can also note that the groups from the three contexts have a greater emphasis on specialised or dining forms – beakers, dishes and bowls, pointing to a degree of selection. The underlying pond may itself have been a focus for structured deposition, although the residual pottery in, say, the primary fill of the pit, is too incomplete to allow a firmer view on this, and equally the pottery could have been deposited in the pond as normal household waste, with the feature's wet and soft fills providing a conducive environment for the pottery's subsequent preservation. The condition of the pottery recovered from the pit's silting and upper fills is more consistent with incidental redeposition of long-discarded and broken-up material.

Funerary pottery

Cremation grave 3000 contained three vessels deposited as grave goods. A medium-mouthed necked jar (CD) in a medium sandy reduced ware (R30) served as the cremation urn (context 2998), having been filled with cremated bone. Another CD-type jar in fabric R30 (context 3000), smaller than the urn, was deposited as an ancillary vessel. This was joined by another ancillary vessel in fabric R30 (context 2996). No rim survived, but the vessel is likely to be a small jar. None of the pottery can be closely dated within the Roman period, but is consistent with the radiocarbon date of cal AD 80-250 (95.4%; SUERC-75476) obtained from the cremated bone. All three vessels were largely complete, but had become highly fragmented after deposition. The urn had a mean sherd weight of just 4g, while vessels 2996 and 3000 had values of 6g and 8g respectively. Vessel 2996 appears to be black-

ened on the external surface of the base and lower wall and may have been burnt, having been placed on or near the pyre.

No pottery was deposited as grave goods in grave 3003, but nine body sherds – in fabrics R30, R44 and an unsourced amphora fabric (A) – were recovered from the backfill. The presence of fabric R44 suggests that the pottery was deposited during the second half of the 1st century or first half of the 2nd century AD or later. Although pottery recovered from grave backfills potentially relates to funerary practices conducted before, during or after burial (Biddulph 2015), in the case of grave 3003 all the pottery is likely to be residual. Charred plant remains also recovered from the backfill is consistent with redeposited waste material from nearby crop processing activities, and the pottery may well have been collected with this as incidental occurrences.

Other complete or near-complete pots

Other complete or near-complete vessels were recorded. A butt-beaker (EA) in grog-tempered ware (E80) was recovered from Phase 5 pit 3059. This had been repaired in antiquity with a pitch-like substance and the vessel was residual on deposition (Fig. 3.4). A medium-mouthed jar (CD, fabric E80) with rilled shoulder and deep finger marks extending vertically on the interior surface was recovered from Phase 3 ditch SG8021, which was part of an early Roman field system off Akeman Street. The vessel had been perforated through the base after firing (Fig. 3.7, no. 4; also see below). An indented beaker (EE) with elongated vertical indentations was collected from Phase 5 roadside ditch SG8164, while Phase 4 posthole 3857, within an enclosure (G24) associated with the ladder settlement, contained a near-complete medium-mouthed necked jar (CD; SF2788) in fabric R50. The jar is likely to have been whole on deposition, but had been damaged by later ploughing. The substantial remains of a necked bowl (HD; SF 2637) in fabric R30 was deposited in Phase 6 on top of a stone surface (3276) within Phase 5 pit 3270. Another group of pottery is worth highlighting. Phase 4 ditch SG8025, also part of field system off Akeman Street, contained the base and body sherds of a storage jar with multiple perforations through its base. The sherds were deposited in a group and were associated with charcoal, though no charcoal was found within the vessel itself.

Of these vessels, two – the butt-beaker from pit 3059 and bowl from pit 3270 – were part of larger ceramic groups of fragmented pottery of various forms and fabrics and presumably deposited as waste, or redeposited in the case of the material from 3059, although that group also included the substantial remains of a grog-tempered flagon. The remaining vessels had been deposited as individual items, possibly having served ritual or profane functions or contained substances that isolated them from other pottery and routine means of



Fig. 3.4 Butt-beaker in grog-tempered ware from Phase 5 pit 3059. The vessel had been repaired in antiquity

disposal. It is notable that most of the vessels are jars or jar-like bowls, which could have served a variety of domestic purposes not necessarily relating to cooking and food storage. The perforated storage jar from ditch SG8025, given its perforated base, size and associated charcoal, is especially intriguing. The storage jar may have been used as a latrine and was eventually dumped into the ditch, along with the charcoal to dampen the odours.

Pattern of pottery deposition

Pottery was recovered from a range of feature types across the site (Table 3.10). Ditches received the largest share of the pottery. The features provided convenient hollows for household waste, if necessary away from the core areas of domestic activity, and may in addition have contained redeposited material initially scattered or dumped into the fields

Table 3.10 Pattern of pottery deposition by feature type

Feature type	Sherds	Weight (g)	MSW	MV	EVE	Completeness
Alluvium	2	16	8	1	0.02	0.02
Beamslot	1	6	6	1	0.06	0.06
Deposit	2	5	2.5			
Ditch	5849	52,019	8.9	271	37.38	0.14
Furrow	360	3090	8.6	31	2.66	0.09
Grave	30	56	1.9			
Gully	1	15	15			
Layer	50	407	8.1	2	0.23	0.12
Pit	1358	24,148	17.8	106	15.84	0.15
Ploughsoil	18	314	17.4	8	0.67	0.08
Pond	11	126	11.5	3	0.44	0.15
Posthole	215	1810	8.4	6	0.72	0.12
Pottery vessel	266	1405	5.3	2	0.67	0.34
Road surface	5	114	22.8	1	0.03	0.03
Spread	4	6	1.5			
Stakehole	1	31	31	1	1	1
Subsoil	5	15	3			
Trackway	8	84	10.5			
Tree-throw hole	221	2479	11.2	24	1.73	0.07
Waterhole	72	933	13	11	1.9	0.17
Wheel-rut	6	14	2.3			

that the ditches defined. A large amount of pottery was also recovered from pits, but the pottery here appears to be of different character to the material from the ditches. The mean sherd weight (MSW; weight / sherd count) for the ditch assemblage is noticeably lower than that for the pit material. The sherds from the ditches are, on average, smaller and more fragmented, suggesting that the ditch and pit assemblages have had different depositional histories. Assemblages ultimately deposited into pits may have been exposed to fewer episodes of redeposition and weathering than the pottery that was deposited into ditches, and once deposited in the pits were sealed relatively quickly, preventing further significant damage. Indeed, one of the features, pit 3067, contained a number of complete vessels (see above). That said, the 'completeness' statistic (EVE / number of vessels or MV), which records the average size of surviving rim – 1 EVE equating to a complete circumference or 100% – suggests that the condition of pottery in ditches and pits is rather more similar, both having values of 0.1 EVE or 10%. Some other observations may usefully be made. Furrows represented the third largest feature-type group by weight. As the furrows are medieval in date, all the pottery represents redeposited and residual material brought up or dragged by the plough. Tree-throw holes also contained a relatively large amount of pottery. The tree-throw holes were concentrated in an area of roadside enclosures and may represent one or more phases of tree clearance to prepare the land for farming. The subsequent holes were subsequently filled with domestic waste, possibly deliberately taken from convenient dumps or middens, judging

by the condition of the pottery, in order to level the ground. Road surfaces contained very little pottery, but the pottery that was recovered had the highest MSW (23g) out of all the feature types. The completeness statistic is, by contrast, very small (0.03 EVE), indicating a high degree of fragmentation. The category 'pottery vessel' represents complete or near-complete vessels deposited in graves or other features and assigned their own context numbers on site. Some of these are discussed in more detail above (see 'Special deposits').

Examining the distribution of pottery by major landscape groups (Table 3.11), we see that features along Akeman Street – roadside ditches, field ditches extending alongside or perpendicular to the road, and a nearby pit and pond – were the focus for pottery deposition. Trackway group G7 also received a relatively large amount of pottery. The features along the road and trackway were accessible, away from living spaces, and likely to have captured material from passing travellers, as well as local inhabitants. Pottery was deliberately deposited into pit 3067 (G10) in the late 3rd century, but as the long sequence of coin deposition (extending from the 1st to the late 4th century) suggests, the location appears to have been a special place that people visited before this and indeed continued to visit throughout the Roman period. It is worth noting, too, that the complete or near-complete vessels described above (excluding those from graves and pit 3067) were from features associated with, or close to, Akeman Street, that is, roadside ditches (G8), field ditches (G14) extending from the road, pit 3059, and another pit (3270)

Table 3.11 Pattern of pottery deposition by major landscape group

Group	Description	Sherds	Weight (g)	MSW	MV	EVE	Completeness
G1	Western trackway	5	25	5	2	10	5
G4	Middle Iron Age settlement	1	3	3	1	3	3
G6	Early Roman field system	130	1568	12.1	12	145	12.1
G7	Trackway	220	1892	8.6	11	225	20.5
G8	Roman road (Akeman Street)	186	2623	14.1	12	118	9.8
G9	Roman road (Akeman Street)	7	117	16.7	1	3	3
G10	Pond 3062/Pit 3067	376	7312	19.4	37	625	16.9
G11	Trackway	23	168	7.3	4	19	4.8
G12	Ladder settlement	199	2347	11.8	27	477	17.7
G13	Rectangular enclosure	59	611	10.4	2	8	4
G14	Trackway and field system	1861	20243	10.9	78	1158	14.8
G15	Field system	724	7856	10.9	6	84	14
G16	Trackway and field system	4	19	4.8	1	12	12
G17	Field system	194	2095	10.8	14	182	13
G18	Ditches south of Akeman Street	132	862	6.5	6	135	22.5
G19	Field system	16	111	6.9	2	6	3
G20	Ring ditch and other features in south-eastern part of site	3	5	1.7			
G21	Two ditch groups in south-eastern part of site	29	45	1.6			
G22	Medieval ditches	126	1184	9.4	4	111	27.8
G23	Enclosures and field system	170	1448	8.5	21	156	7.4
G24	Early Roman enclosure and roundhouse	343	3457	10.1	16	312	19.5

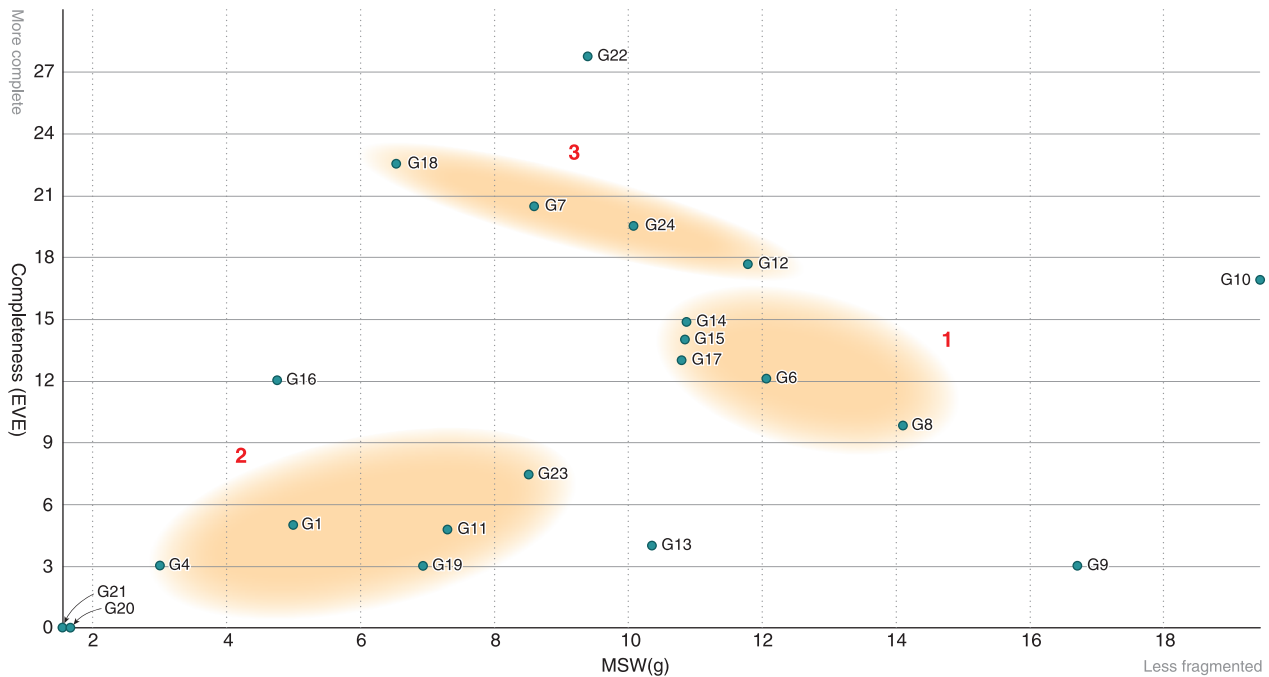


Fig. 3.5 Scattergram plotting ceramic assemblages of landscape groups based on the relationship between mean sherd weight and 'completeness' (mean EVE)

associated with group G10. To these, we can add other relatively well-preserved vessels, such as a storage jar in fabric R39 with almost half of its rim intact and many base and body sherds present, which was found in roadside ditch SG8018 (G8).

This mixture of deliberate and more incidental deposition that appears to characterise the pattern of deposition along Akeman Street is supported by analysis of pottery condition. Comparing the two measures of condition introduced above – mean sherd weight (MSW) and completeness – allows us to separate groups of pottery based on their condition more readily than using a single measure alone. Calculating MSW and completeness for each landscape division produces two sets of values that can be plotted on a scattergram (Fig. 3.5). (For our purposes, completeness values have been obtained from EVE values expressed as percentages, a complete vessel being 100%, rather than 1 EVE. This makes the two sets of final values more comparable.) The scattergram shows MSW on the X axis – the higher the value, the less fragmented the pottery – and completeness on the Y axis – the higher the value, the more complete the pottery rims. A group of whole pots would therefore be plotted in the top right hand corner, while a group of tiny fragments would be plotted closer to the axial origin. Pit/pond group G10 includes the structured deposit group of complete or near-complete vessels from pit 3067 and therefore has a relatively high MSW and completeness. We can detect a loose grouping (group 1 on the figure) of landscape groups close to the centre of the plot (and closest to group G10), whose pottery is characterised by relatively large sherds and a middling to high degree of rim

completeness. Another loose grouping (group 2) can be seen closer to the axial intersection and is characterised by relatively low MSW values and a low degree of rim completeness. Tellingly, the central grouping largely comprises groups associated with Akeman Street, while the grouping closer to the axial intersection comprises groups located away from Akeman Street or groups with prehistoric origins. The values give the Akeman Street-related grouping a degree of coherence and the two groupings are suggestive of different depositional histories. A third grouping (group 3), overlapping somewhat with the central group, has relatively high completeness and middling MSW values, and mainly comprises landscape groups associated with the ladder settlement (eg G12, G24) and a trackway (eg G7) in the central and northern part of the site.

The character of this third grouping – relatively complete, but fragmented pottery – may reflect the proximity of the group to the core of settlement, its pottery having undergone a sequence of initial breakage, discard onto middens or household waste deposits (there subject to further breakage), and final deposition in nearby ditches and pits. The pottery from medieval settlement group G22, though residual, is similarly relatively well preserved because the material was redeposited from locations close to settlement. The group 1 values – relatively large sherds, but a greater degree of separation of component parts of the vessel – reflect good accessibility provided by the road, and the combination of deliberately deposited complete vessels and more mundane incidental and waste deposition. The more fragmented and separated character of the grouping around the axial origin

reflects a greater degree of redeposition and incidental waste, the pottery having been, for example, incorporated into manure spreads or deposited away from the core of the settlement.

One outlier is also of interest. Road surface group G9, as mentioned above, has a high MSW but low completeness, the result of a few relatively large and heavy amphora body sherds, possibly deposited as a road repair.

Settlement status and function

The archaeological remains at Berryfields are located largely on the opposite side of Akeman Street to the putative core of the nucleated settlement or 'small town' of Fleet Marston, whose existence has long been surmised by a wealth of finds spots and structural evidence (Radford and Zeepvat 2009, 57). How the evidence at Berryfields relates to this urban centre (does it, for instance, form part of Fleet Marston's rural hinterland, comprising fields, satellite farms and smaller settlements?) remains a matter of discussion (see Chapter 6). Pottery can help inform the debate, and a number of measures can be employed to highlight differences and similarities within and between sites. Jeremy Evans (2001a, 26-31) explored the relationship between certain open forms and jars, and the use of the resulting ratio as an index to site type. He found that basic rural sites have relatively high proportions of jars (suggesting continuation of Iron Age cooking and dining practices) and low proportions of dishes/bowls (denoting specialist dining vessels and Continentally influenced foodways). Urban sites tended to have higher

proportions of dishes/bowls and fewer jars, while villas lay in between the two site types. Paul Booth's survey of pottery assemblages from Upper Thames Valley sites (Booth 2004), meanwhile, revealed the usefulness of assigning pottery to one of two categories: fine and specialist wares (comprising samian, amphorae, mortaria, white wares, fine wares, and white-slipped wares), which were usually traded and acquired more out of choice than necessity, and other, typically coarse wares (black-burnished, reduced, calcareous, and oxidised). Assemblages from higher-status sites are characterised by relatively high proportions of fine and specialist wares. Samian is another obvious means by which site type can be assessed, with the amount of decorated pottery compared with plain forms providing a useful index. Steve Willis (1998, 105-11; 2005, section 7.3.2) records higher than average proportions of decorated samian at military and urban sites, and lower than average proportions at basic rural sites.

Using Evans' measure first, Figure 3.6 plots values derived from Berryfields' phased assemblages (Tables 3.4-3.7) against values from a selection of settlements that also lie along or close to Akeman Street. The selection comprises data from extramural areas of Alchester (Evans 2001b, table 7.31; Booth 2018, table 3.13), Aston Clinton Bypass 'Site B' (Slowikowski 2008a, tables 18 and 19), Asthall in Oxfordshire (Booth 1997, table 5.20), and Kingshill South (Biddulph 2018, tables 3.5-3.8) on the outskirts of *Corinium*, where the road ends. It should be noted that the Alchester data (Evans 2002, table 7.31) exclude samian, while the Aston Clinton data are based on vessel count calculated from all

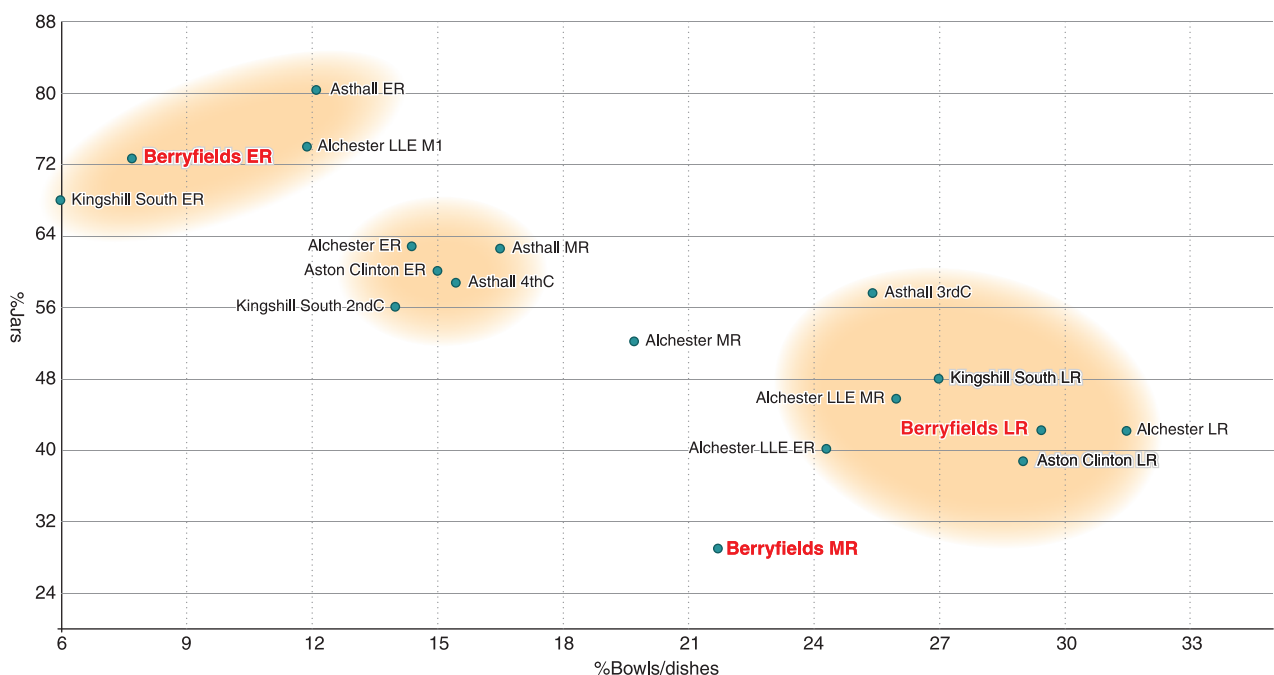


Fig. 3.6 Scattergram showing the comparative proportions of jars and open forms (bowls and dishes) in phased ceramic assemblages from settlements on Akeman Street, based on quantification by EVE

sherds (Slowikowski 2008a, 78). The remaining data are based on EVEs. The Alchester data are of particular interest, deriving from the extramural settlements to the north and east of the major nucleated settlement or 'small town' (Booth *et al.* 2001, 443). If Berryfields has an analogous relationship to Fleet Marston, then we may expect the ceramic profiles of Berryfields and extramural Alchester to be similar.

A number of observations can be made from the scattergram (Fig. 3.6). The mid-1st century or military phase of Alchester's eastern extramural settlement (LLE or Langford Lane East) and the early Roman phases of Asthall, Kingshill South and Berryfields form a loose grouping, with assemblages characterised by relatively high proportions of jars and low proportions of dishes and bowls. Kingshill South at this time comprised an agricultural landscape of fields and enclosures peripheral to the putative estate centre (Simmonds *et al.* 2018). Despite the mid-1st century activity at Langford Lane East being contemporary with the occupation of a legionary fort at Alchester, its position on the plot suggests that the inhabitants of the civilian settlement did not benefit from military supply. Asthall, like Fleet Marston, is a major nucleated roadside settlement (Booth 1997, 158), but its positioning closer to Berryfields suggests that in this early phase, Asthall was similarly of a more basic character. After *c.* AD 70, when it is likely that the town of Alchester itself was established (Simmonds and Lawrence 2018, 5), the early Roman eastern extramural area of Alchester saw a dramatic increase in the proportion of dish and bowls at the expense of jars; the town's northern extramural area is also separated from other early Roman sites, though not to the same extent. Notably, the northern area during this time is joined by Aston Clinton, a settlement of uncertain status.

The gap between Asthall and Alchester is retained in the mid-Roman period, hinting at some differences in pottery use and settlement status (adding Alchester's samian wares, in which dishes and bowls are a significant element, would only serve to widen the gap). This, however, conflicts with the picture obtained from a ranking of sites based on the proportions of fine and specialist wares (Booth 2004), which suggests that early Roman Alchester and Asthall are much closer in status than the form comparison allows. First- and 2nd-century assemblages from both sites have levels of 7/8% fine and specialist wares by sherd count (Booth 2004, tables 1 and 2). Values obtained for Berryfields sit comfortably alongside these figures: 10.3% fine and specialist wares by sherd count in Phase 4 and 16.3% in Phase 5.

Returning to Figure 3.6, Asthall and Kingshill South are brought closer together in the mid-Roman period – a villa-like building or proto-villa had been established at Kingshill South during the 2nd century (Simmonds *et al.* 2018) – but mid-Roman Berryfields is closer to mid-Roman phases of both northern and eastern extramural areas of Alchester,

characterised by relatively low proportions of jars and high proportions of bowls and dishes.

Berryfields joins Kingshill South, the northern extramural area of Alchester and Aston Clinton in a loose late Roman cluster, suggesting that the sites during this time were of broadly similar status, although the increased supply of Oxford industry products, particularly its red colour-coated ware (F51) in which bowls and jars were preferentially supplied (Young 1977), is undoubtedly a factor here, serving to flatten differences between sites (cf. Booth 2004, fig. 3). As in the early and mid-Roman periods, Asthall and Alchester are divergent in the late Roman period, Asthall having higher proportions of jars. The difference is reflected in the proportions of fine and specialist wares: 16% by sherd count at Asthall, compared to 23% at Alchester's northern extramural settlement, a figure reached in the 4th century (Booth 2004, tables 1 and 3). At 18.5%, the value for Berryfields in Phase 6 is within the range set by these figures. Notably, the pottery assemblage collected from the mainly late Roman agricultural settlement at Weedon Hill just 2km east of Berryfields has a low-status character (Seager Smith 2013, 14), with 7% fine and specialist wares by sherd count (although this figure is based on the entire assemblage, not only groups dated specifically to the late Roman period, and therefore the percentage for the late Roman period could be higher).

The profile of Aston Clinton, as shown on Figure 3.6, is of interest. Analysis of the excavated evidence suggested that the earlier Roman settlement was of a modest character, while in the late Roman period, the 'farm had never developed a particularly high status' (Masefield 2008, 194). From a ceramic standpoint, however, there is little to separate the site in both the earlier and later Roman periods from others of a purported higher status. However, what impact the different pottery quantification method employed for the Aston Clinton material may have had on the comparison is uncertain.

Turning to decorated samian, Berryfields appears to take a middling position. Ten per cent of samian by vessel count (based on all sherds) is decorated at Berryfields, compared with 19% at Alchester (Dickinson 2001, tables 7.11 and 7.12), 12% at Asthall (Mills 1997, tables 5.9 and 5.14), 10% at Kingshill South (Biddulph 2018, 77), and, befitting its more modest status suggested by the archaeological remains, 8% at Aston Clinton (Wild 2008, 112).

Clearly, there is no simple correlation between the status of a site and its pottery, and the results of the various measures are not necessarily consistent. However, considering all the measurements together, the strong impression is that the pottery of Berryfields is consistent with settlement associated with nucleated settlements along Akeman Street, albeit at the lower end of the rankings. This may reflect the site's roadside setting on the periphery of the putative 'small town' of Fleet Marston, but the comparison also supports the possibility of a specialist function – whether religious, industrial or

agricultural – at least during the mid- and late Roman periods. Quite how the Weedon Hill settlement, whose activities including malting, related to Berryfields or Fleet Marston is uncertain (see Chapter 6), but a combination of distance from urban or villa-estate centres and its own specialist function may well account for that site's lower-status signature.

Aspects of pottery use

Burning, blackening and limescale

Almost 30 vessels displayed evidence of burning or blackening or internal deposits (Table 3.12). Medium-mouthed (usually necked) jars (CD), mainly in reduced fabrics, lid-seated jars (CJ), a black-burnished ware jar (CK), and a necked bowl (HD) were sooted externally or had an internal off-white coating characteristic of limescale. The evidence indicates that the vessels were placed on the hearth and used for cooking and boiling water, although the use of hot stones to heat water might be a possibility in the case of vessels with internal limescale but no external sooting. Oxford white ware mortaria (M22) were relatively well represented. These were typically blackened on the rim, and examples were also noted with blackening on the exterior and interior surfaces, including the interior surface of the base. Such evidence is known elsewhere, for example at the Chemistry Research Laboratory site in Oxford, where a number of Oxford white ware mortaria (fabric M22) were uniformly burnt on the flanges and rims (Biddulph 2005, 163). One interpretation of this evidence is that mortaria were used as cooking vessels, as well as food preparation vessels. The pattern of blackening suggests that the mortaria were inverted over cooking vessels or food such as bread in the manner of a *testum* or *patina* and set on the hearth casserole-like, with hot embers placed on top of the

mortaria (Grocock and Grainger 2006, 77-82). An alternative, and perhaps more plausible explanation, is that the blackening was a product of the kiln firing, the rising carbon particles being trapped by the vessels' broad rims and deep bodies. This is consistent with analysis of organic residues on some 250 mortaria from Britain and Germany, which showed no evidence of heating, but instead indicated that the vessels had been used to process a range of unheated plant and animal products (Cramp *et al.* 2011).

Use-wear

Clear evidence of use-wear was recorded on a single vessel. The red slip across the base of a cup in South Gaulish samian ware (S20) had been removed through use. The size of the sherd did not permit the extent of the wear to be determined, but slip was entirely absent from the centre of the vessel. The form is uncertain, but the wear is consistent with the pattern typically associated with Drag. 27 cups (Biddulph 2008). The footring was broken, but it is unclear whether it had been removed accidentally or deliberately (Fig. 3.9, no. 55).

Graffiti

Two examples of graffiti were recorded. A body sherd with traces of incised lines that may once have been an X was noted on a body sherd of a plain vessel in South Gaulish samian ware (S20). A large pedestal base from a beaker in fine oxidised ware (O10) has six notches on the edge of its bottom surface (Fig. 3.9, no. 57).

Modifications

Modifications made after firing were seen in seven vessels. All had been perforated through the base. Vessels identified to form comprise a storage jar

Table 3.12 Types of burning or blackening by form. Quantification by count of vessels

Form	Fabric	Category							Total
		1	2	4	5	6	7	9	
C	O20	1							1
CD	R30, R44, R50, W21	1		1		1	1	1	5
CJ	E30			2					2
CK	B11					1			1
HD	R30						1		1
K	M22	1							1
KA	M22	2							2
KE	M22							2	2
L	R30	1							1
-	A11, M22, R10, R44, R70, S30, W14, W20, W21	5	3		2			2	12
Total		11	3	3	2	2	2	5	28

Key: 1 burning, general; 2 burning, pre-deposition or breakage; 3 burning, post-breakage; 4 external sooting; 5 internal burnt ?food residue; 6 limescale and external sooting; 7 limescale; 8 composite; 9 unspecified blackening

(CN) and a necked jar (CD; Fig. 3.7, no. 4) in grog-tempered ware (E80), and a necked bowl (HD) in medium sandy reduced ware (R30). The jars have multiple small perforations, but the bowl has a single large hole in the centre (Fig. 3.8, no. 27). The edges of the hole are ragged, suggesting either that a ring of small holes had been made, with the centre being lost subsequently as a weak point (Peña 2011, 144-5), or that the ring provided the means by which the centre could be punched out. A similar hole was noted on a high-shouldered necked jar (Going 1987, type G19.4) from Elms Farm, Heybridge (Biddulph *et al.* 2015, KPG 17). All three vessels are complete or substantially complete. Multiple perforations were also recorded in the bases of four vessels in fabrics E80, O81, and R11. It is not known whether these perforations were made when the vessels were complete, or represent opportunistic modifications of already broken pottery. It can be noted, however, that the assemblage, including the pottery not identified to form, is dominated by utilitarian vessels in coarse fabrics, suggesting that the use to which the vessels were subsequently put required similarly robust pottery. A purpose-made strainer (MG) was present in a medium sandy reduced ware (R30). At least six perforations were made through the base of the jar- or bowl-shaped vessel before firing (Fig. 3.8, no. 36). The precise function of all these vessels beyond strainer is difficult to ascertain without further, scientific analysis (for example organic residue analysis), but it is not implausible that the vessels served as colanders in the kitchen, cheese presses or flowerpots.

Repair

Four vessels have evidence of repair. A necked jar (HD; Thompson 1982, type C7-1) in sandy fabric E30 has a rivet hole through its neck. Another rivet hole perforated the shoulder of a necked jar or bowl in fabric E80. The vessel also has what appears to be an attempted hole; the wall of the neck is not perforated, but has a rounded dent. The holes may represent repairs, although, given their location and the utilitarian character of the pottery, the possibility that the perforations are suspension or steam holes may also be considered (Peña 2011, 236). Two vessels had more certain evidence of repair. A small hole with an *in situ* lead rivet was recorded on a Curle 11 bowl in Central Gaulish samian ware (S30). A butt-beaker (EA; cf. Hawkes and Hull 1947, *Cam* form 119) had cracked longitudinally in two places from the rim to c 50mm above the base, and had been repaired by means of a line of pitch or tar that extended along each crack on the external surface of the vessel (Fig. 3.7, no. 2). The use of pitch or tar as a glue is attested elsewhere in Roman Britain, with examples known at Springhead in north Kent and Asthall in Oxfordshire (Booth 1997, 123; Seager Smith *et al.* 2011, 124-5), among others. Analysis of samples

from Springhead identified the substance used as birch bark tar (Seager Smith *et al.* 2011, 125), which had also been used to line the interior surface of two flagons and a cup from a mid-1st century burial on the A2, again in north Kent. An adhesive derived from birch bark, identified through micro-analytical techniques, was used to repair an Ecton ware jar from Northamptonshire (Charters *et al.* 1993). The substance used for the repair on the *Cam* 113 beaker may similarly have been birch bark tar, and applied as much for its properties as a sealant as an adhesive.

Local production

Four vessels are potentially identified as kiln 'seconds', and may be the products of local pottery manufacture. A lid-seated jar (CJ) in dark-surfaced reduced ware (R50) and a necked jar (CD) in a medium sandy reduced ware (R30) have misshapen rims (Fig. 3.9, no. 56), which must have dropped or otherwise become distorted before or during firing. A medium-mouthed and neckless jar (CD), also in fabric R30, is overfired, as is a vessel of unknown form in sandy oxidised ware (O20). Local pottery production is also posited at Site 9 of the Aylesbury to Steppingley pipeline near Quarrendon, which contained kiln furniture and pits that may have been used to quarry clay (Network Archaeology 2007).

Catalogue of illustrated pottery (Figs 3.7-3.10)

A selection of pottery is presented here in order to illustrate the chronological sequence. Pottery of intrinsic interest is also shown.

Context 3060, fill of pit 3059

1. Bead-rimmed jar (CH), grog-tempered ware (E80).
2. Butt-beaker (EA; Hawkes and Hull 1947, *Cam* 119), grog- and sand-tempered ware (E810). Strip of pitch or tar along two vertical cracks, applied as repair.
3. Carinated bowl (HA), grog-tempered ware (E80).

Phase 3. Ceramic date: early/mid-1st century AD

Ditch 3364, group SG 8021

4. Medium-mouthed jar (CD) with rilled shoulder and deep finger marks extending vertically on interior surface. Six perforations made through base after firing. Context 3368.
5. Wide-mouthed jar (CM, similar to Hawkes and Hull 1947, *Cam* 264), grog-tempered ware (E80). Burnished on neck and shoulder. Context 3367.
6. Complete base from large jar, grog-tempered ware (E80). Regular pattern of faint linear incisions on interior surface of lower wall made before firing – manufacturing marks. Context 3367.

Phase 3. Ceramic date: early/mid-1st century AD

Context 3017, fill of pit 3008

7. Necked, cordoned jar (CE; Thompson 1982, type B1-1), grog-tempered ware (E80).
8. Storage jar (CN; Thompson 1982, type C6-1), grog-tempered ware, oxidised (E80).

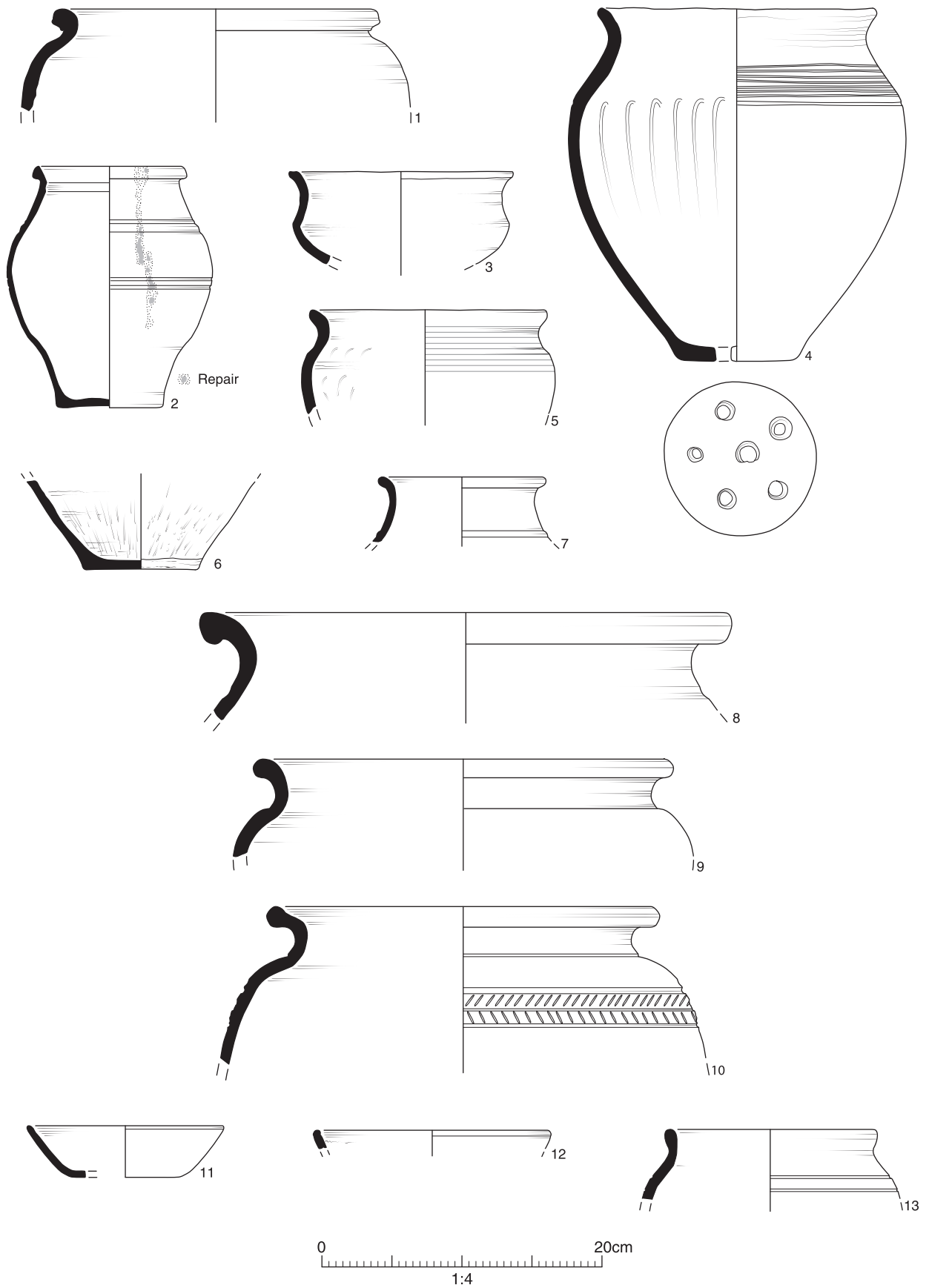


Fig. 3.7 Roman pottery, nos 1-13

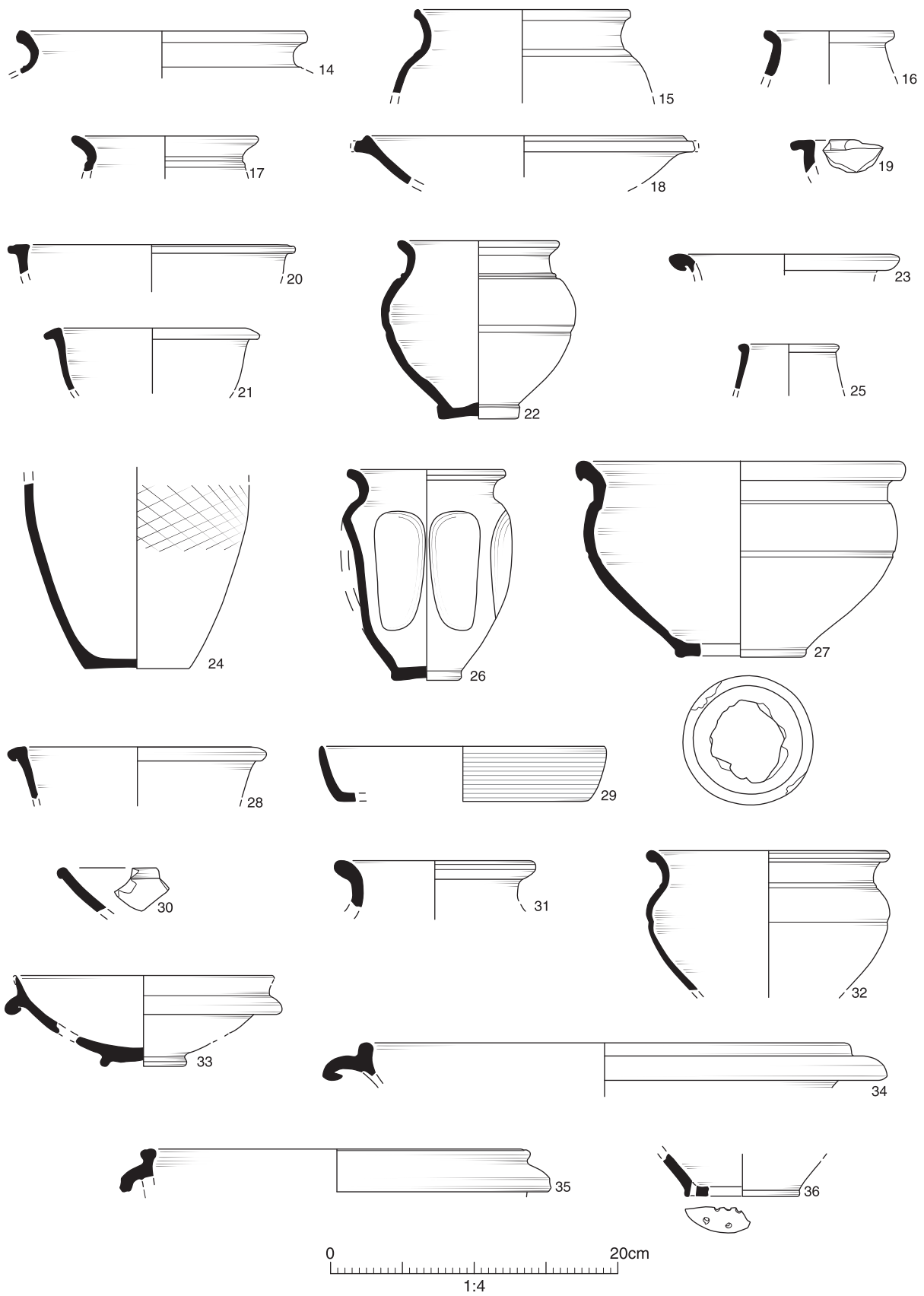


Fig. 3.8 Roman pottery, nos 14-36

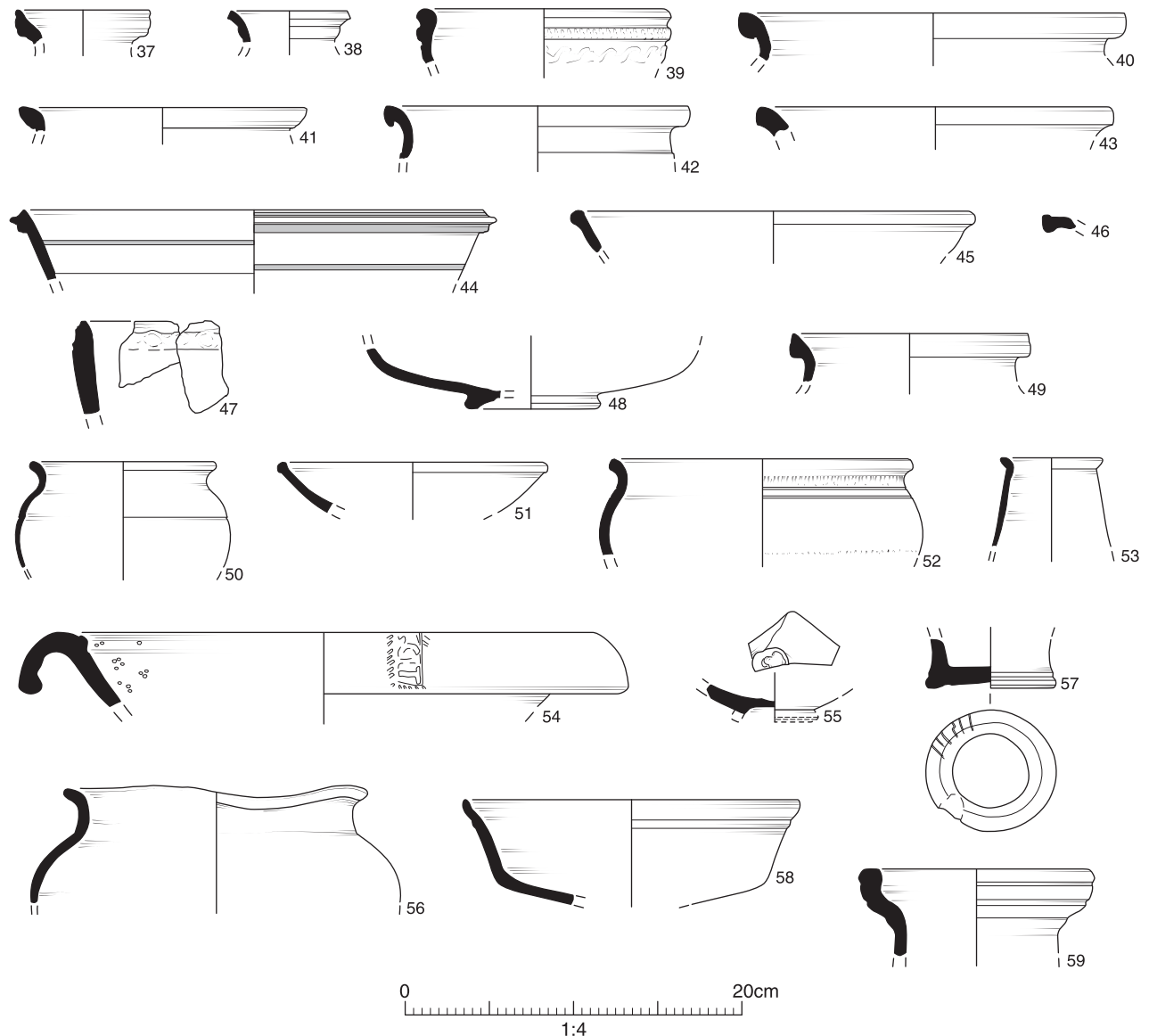


Fig. 3.9 Roman pottery, nos 37-59

9. Storage jar (CN; Thompson 1982, type C6-1), grog-tempered ware, oxidised (E80).
 10. Storage jar (CN; Thompson 1982, type C6-1), grog-tempered ware (E80). Impressed herringbone decoration on shoulder.
 11. Platter (JC; Hawkes and Hull 1947, *Cam* 28), coarse sand-tempered fabric (E30)
 12. Platter (JC), grog-tempered ware (E80).
- Phase 4. Ceramic date: mid-1st century AD

Ditch group SG660

13. Medium-mouthed jar (CD), grog-tempered ware (E80). Context 431, fill of ditch 430.
14. Necked jar (CD), grog-tempered ware, oxidised (E80). Context 431, fill of ditch 430.
15. Necked jar (CE), grog-tempered ware, oxidised (E80) Context 431, fill of ditch 430.
16. Butt-beaker (EA), grog-tempered ware (E80). Context 499, fill of ditch 498.

Phase 4. Ceramic date: mid-late 1st century AD

Context 3849, fill of pit 3848

17. Narrow-necked jar (CC), medium sandy reduced ware (R30).
18. Curving-sided dish or bowl (IB) with bead-and-flanged rim, sandy oxidised ware (O20). The fabric contains clear, grey and rose-coloured quartz grains, which characterise fabrics of the Oxford industry (Tomber and Dore 1998, 174), and it is possible that the vessel is an Oxford product, although the form is not precisely attested among the repertoire (Young 1977).
19. Curving-sided dish or bowl (IB) with flanged rim, medium sandy reduced ware (R30).
20. Curving-sided dish or bowl (IB) with flanged rim. A shallow groove extends around the tip of the upper surface of the flange. Medium sandy reduced ware (R30).
21. Curving-sided dish or bowl (IB) with flanged rim, sandy oxidised ware (O20).

Phase 5. Ceramic date: mid-2nd century AD

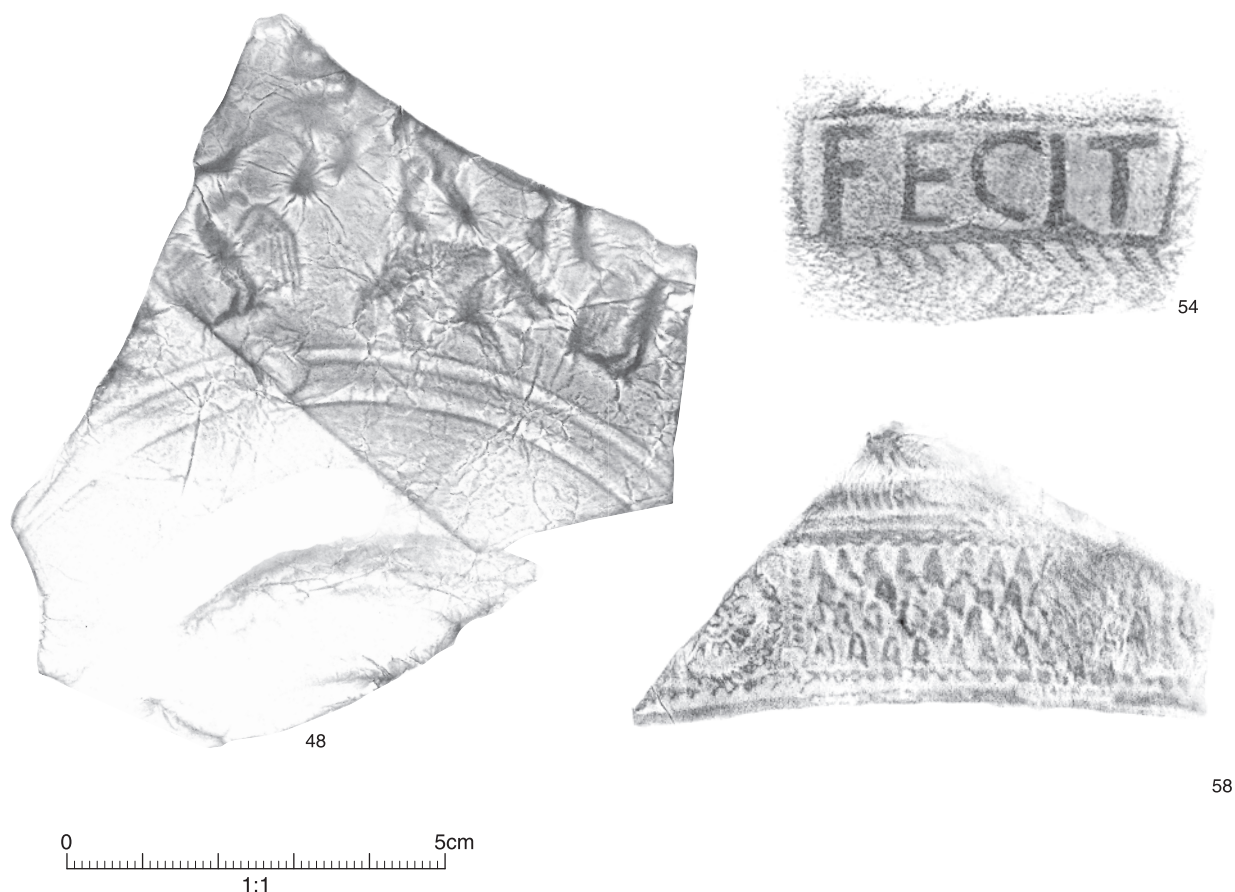


Fig. 3.10 Roman pottery, decorated samian and a mortarium stamp

Context 3074, fill of pit 3067, G10

22. Medium-mouthed, globular necked jar (CD), recovered substantially complete (SF 2654), medium sandy reduced ware (R30). Sooting on exterior surface, 'limescale' on interior surface.
23. Medium-mouth jar (CD) with short neck and hooked rim, medium sandy reduced ware (R30).
24. 'Cooking-pot' jar (CK), black-burnished ware (B11). Lower half of vessel recovered complete (SF 2656). Sooting on exterior surface, 'limescale' on interior surface. Incisions on interior surface and base made in antiquity, ?cleaning marks.
25. Bag-shaped beaker (EC), fine oxidised ware (O10).
26. Indented beaker (EE), recovered substantially complete (SF 2686), medium sandy reduced ware (R30).
27. Necked bowl (HD), recovered complete (SF 2655), except for hole in the base made after firing. Medium sandy reduced ware (R30), light grey with orange-red patches.
28. Straight-sided dish or bowl (IA) with flanged rim, medium sandy reduced ware (R30).
29. Curving-sided dish (JB) with plain rim, wheel-made black-burnished ware (B30).
30. Curving-sided dish (JB; Drag. 31) with bead rim, South Gaulish samian ware (S30).

Phase 6. Ceramic date: mid-3rd century AD

Context 3275, fill of pit 3270, G10

31. Necked jar (C), late Roman shelly ware (C11).

32. Necked bowl (HD, similar to Marney (1989), fig. 12, no. 53. Medium sandy reduced ware (R30). SF 2637.
33. Flanged bowl (H) copying samian form Drag. 38, fine oxidised ware (O10).
34. Mortarium with prominent bead and wide, hooked flange (KE, Young 1977, type M17), Oxford white ware (M22). Blackening on rim.
35. Mortarium with prominent bead and downward-pointing flange (KE, Young 1977, type M21), Oxford white ware (M22). Blackening on rim.
36. Base of strainer (MG) with six or more small perforations made before firing, medium sandy reduced ware (R30).

Phase 6. Ceramic date: mid-late 3rd century AD

Context 447, fill of pit 446

37. Ring-necked flagon (BA), Verulamium-region white ware (W21), residual.
38. Flagon or beaker, Nene Valley colour-coated ware (F52).
39. Narrow-necked jar (CC) with frilled decoration (cf. Marney 1989, fig. 33.11), medium sandy reduced ware (R30).
40. Medium-mouthed necked jar (CD), medium sandy reduced ware (R30).
41. Medium-mouthed necked jar (C), sandy oxidised ware (O20).
42. Medium-mouthed necked jar (CD), medium sandy reduced ware (R30).
43. Storage jar (CN), pink grogged ware (O81).
44. Carinated bowl (HA; Young 1977, type P24), Oxford parchment ware (W11).

45. Bead-rimmed dish (JB 210; Young 1977, type C45), Oxford red colour-coated ware (F51).
46. Flanged dish (JB; Going 1987, type B10), Hadham oxidised ware (F56).
47. Dish (JB) with groove and frilling below rim and burnished surfaced, medium sandy reduced ware (R30).
48. Bowl (Drag. 29) in South Gaulish samian ware (S20) with unusual freestyle decoration depicting four animals: a bear (Hermet 1934, plate 26, no. 1), an eagle (Hermet 1934, plate 28, no. 8), a lion (Hermet 1934, 25, no. 26), and probably a deer. AD 60-80. (Identification by Joanna Bird.)

Phase 6. Ceramic date: 4th century AD

Context 448, fill of pit 446

49. Medium-mouthed necked jar (CD), sandy white ware (W20), possibly Verulamium (and residual).
50. Necked bowl (HD), brown-slipped ware with red core (F60).
51. Bead-rimmed dish (JB 210) copying Drag. 31, sandy white ware (W20).

Phase 6. Ceramic date: 4th century AD

Context 334, fill of ditch 333, group SG358

52. Necked bowl (HD; Young 1977, type C75) with rouletted decoration, Oxford red colour-coated ware (F51).

Phase 6. Ceramic date: AD 325-400

Context 540, fill of pit 539

53. Funnel-necked beaker with globular body (ED), Colchester colour-coated ware (F55).

Phase 6. Ceramic date: mid 3rd to 4th century AD

Pottery of intrinsic interest

54. Hook-rimmed mortarium (KA), Verulamium-region white ware (M21). Potter's stamp on flange: FECIT with herringbone-patterned border. Counterstamp of Matugenus, who worked within the period AD 80-125 (Hartley 1999, 195). Context 3963, pit 3962. Phase 4.
55. Base of cup or, less likely, a bowl, in South Gaulish samian ware (S20). Slip completely worn away across interior surface of base. There is a thumb-sized dent in the centre of the base, which may be an accidental mark made by the potter or a deliberate impression made in lieu of a name-stamp. Context 7098, ditch 7097, group SG8050. Phase 5.
56. Medium-mouthed necked jar (CD), medium sandy reduced ware (R30). The vessel has a distorted rim, potentially identifying it as a 'second' from a local production site. Context 3996, waterhole 3993. Phase 5.
57. Pedestal base of beaker with six notches on edge of base. Fine oxidised ware (O10). Context 3981, ditch 3980, group SG8057. Phase 5.
58. Carinated bowl (HA, Drag. 29), South Gaulish samian ware (S20). Context 3073, pit 3067. Phase 6.
59. Amphora (A), Gauloise-type, Verulamium-region white ware (W21). Context 3066, pond 3062. Phase 5.

MEDIEVAL POTTERY by Edward Biddulph

Some 67 sherds of medieval pottery, weighing 450g, were recovered. The material had been collected mainly from the fills of plough furrows (Phase 8, G22), although the largest group of 37 sherds came

from a pit (7165). In general, the size of context groups from each feature was small, comprising an average of six sherds, each group having a mean sherd weight of 7g. The assemblage as a whole is therefore highly fragmented, consistent with incidental deposition in agricultural features through ploughing and related activities.

CLAY PIPE by Kate Brady

A single fragment (13g) of clay pipe was recovered from a plough furrow (2823) in the central part of the site. The piece is a 'Turk's Head Bowl', a fairly common type of moulded clay pipe depicting a human head. The type dates to the mid- to late-19th century.

CERAMIC BUILDING MATERIAL

by Cynthia Poole

Introduction and methodology

A small assemblage of ceramic building material (CBM) amounting to 111 fragments weighing 4670g was recovered from field and trackway ditches, furrows, pits, postholes, tree root hollows, miscellaneous natural hollows and subsoil layers. A fragment of modern asbestos sheet (14g) found in a Phase 3 ditch must be intrusive. The material is all fragmentary with no complete objects recovered. The only complete dimension measurable was thickness. Abrasion was predominantly low to moderate. The mean fragment weight (MFW) of 42g is low, though not unexpected for a group containing a large number of fragments of medieval/post-medieval roof tile. The MFW of the Roman tile was 83g, in contrast to that of the post-Roman tile of 24g, reflecting the variation in size of the original forms of each period.

The assemblage has been fully recorded on an Excel spreadsheet in accordance with guidelines set out by the Archaeological Ceramic Building Materials Group (ACBMG 2007). The record includes quantification and details of fabric type, form, surface finish, forms of flanges, cutaways, markings and evidence of use/reuse (mortar, burning etc). The terminology for Roman tile follows Brodribb (1987); coding for markings, tegula flanges and so on follows that established by OA for the recording of CBM, and tegula cutaway types are linked to those classified by Warry (2006). Fabrics were characterised on macroscopic features and with the aid of x20 hand lens.

Roman

The Roman tile amounts to 34 fragments weighing 2823g and comprises the most common standard forms of tegula, imbrex, brick and flue tile. The plain flat tile fragments were classified as Roman on the basis of fabric and finish.

Fabrics

The Roman tile was made in four fabrics, all of which are to some extent sandy. The same broad constituents may occur in all the fabric types, which are differentiated largely on the density of inclusions. The tile was probably produced relatively locally; tile and brick production is recorded in the county during the medieval, post-medieval and modern periods, so it is perhaps surprising that no Roman tile production has come to light, though it is possible the tileries concentrated around St Albans in Hertfordshire were supplying this area in view of the direct access along Akeman Street. Similar tile fabrics have been recorded at Grendon Underwood (Slowikowski 2008c), where fabrics 1 and 2 equate to the tile fabrics from Berryfields.

Fabric B: orange, fine sandy clay, containing frequent coarse quartz sand and red, rounded iron-rich argillaceous pellets 1-2mm.

Fabric C: orange, occasionally with grey core, fine smooth clay containing a moderate density of medium quartz sand up to c 0.5mm size, evenly distributed and occasionally containing other inclusions, among them red iron oxide grits, quartzite grits and coarse flint grits up to 12mm.

Fabric D: orange or orange-red, occasionally with light grey core, fine or very fine sandy clay, sometimes micaceous, containing rare medium-coarse quartz sand grains, diffuse faint clay pellets, sporadic maroon or red ferruginous grits mostly less than 2mm, but one of 12mm. Coarse white moulding sand was noted on one tile.

Fabric E: orange-red or orange with cream streaks sometimes in quite a fine laminated clay containing medium-coarse quartz sand in variable densities and sparse red or cream argillaceous pellets 0.5-4mm and infrequent red ferruginous grits.

Brick

Seven fragments were identified as brick on the basis of thickness or corner form. These were made in fabrics C, D and E. They measured 35, 37, 44 and 41-45mm thick and had smooth, even upper surfaces and a somewhat rougher base, which in one case had been knife-trimmed. One had the impression of a cereal spikelet on the underside. These pieces probably derive from the smaller types of brick, such as *bessalis*, *pedalis* or *lydion*.

Flat tile

Several plain fragments lacking diagnostic features were assigned to this category and formed nearly a third of the Roman tile. They were made in fabrics C, D and E and in general had a smooth upper surface and a rougher sanded lower surface, which was knife-trimmed along the edge in one case. They measured 17-29mm thick and all are likely to derive

from the central flat areas of *tegulae*. One, which had a very worn surface, had probably been used in a floor or metalled surface. Burning occurred on the surface of two tiles, indicating re-use in a hearth or oven.

Tegulae

Five tegulae (521g) were identified on the basis of flanges and corner cutaways. They were made in fabrics C, D and E and generally had a smooth upper surface and bases varying from even to rough or irregular. The range of thickness was 15-25mm. Two had been burnt during secondary use.

The *tegulae* included only one with the flange surviving though poorly preserved. It had a curved profile (type D or E) measuring 32mm wide by 46mm high externally. At the corner this had been cut to form an upper cutaway of type A4, where the flange had been partly excised to a depth of 17mm, leaving a rectangular recess and the lower part of the flange in place. Two tiles had remains of the finger groove running alongside the flange base, one of which also had a small area of a lower cutaway surviving. What little survives suggests it is of 2nd-3rd century type (Warry 2006; type B6 or C5). One without other features had a nail hole 10mm in diameter centred 48mm from the edge. Another tile had a single narrow curving finger groove that probably formed part of a type 1 signature mark.

Imbrices

Imbrices formed a fifth of the assemblage (6 fragments, 579g) and were characterised by the curvature of the surface, though on some this was quite slight, suggesting a more angular rather than rounded profile. They were made in fabrics B, C and E and had a smooth upper surface, slightly rougher underside and both smoothed and rough edges. Most measured 14-17mm thick, but two were rather thicker at 20 and 23mm. The thickest might possibly be a ridge tile.

Flue tile

Two flue tiles (170g) made in fabrics D and E were identified, based on the presence of keying on the outer surface. One measuring 22mm thick had two bands of coarse combing crossing at an acute angle, which probably form a saltire-type design (Fig. 3.11, no. 1). The bands of combing are 32mm wide or more, consisting of four or more grooves 4-5mm wide and 5mm apart with a rounded concave profile.

The second tile is interpreted as a *voussoir* on the basis of combed keying on adjacent surfaces, forming straight, vertical and horizontal bands. The combing was coarse, the bands measuring over 27mm wide made with a comb that had more than four teeth. Each tooth mark measured 5-6mm wide set 2-3mm apart and had a short wide V-shaped profile, probably similar in form to one illustrated

by Brodribb (1987, fig 48.3). Combed keying is typically 2nd century or later in date.

Box flue tile with broadly similar characteristics of size and keying was found at Grendon Underwood (Slowikowski 2008c), where quantities suggested the presence of a heated building.

Discussion of the Roman tile

Whilst the suite of material is typical of Roman masonry buildings, including a heated room, it is unlikely that such a building existed on or adjacent to the site. The presence of less common forms, in particular the voussoir, suggests that the material derived from buildings of a wealthy or high-status establishment with heated and vaulted rooms, probably a bath-suite. The tile was probably obtained from a villa or similar type of building during refurbishment or following disuse. Some of the tile has evidence of reuse in the form of burning on one or more surfaces, suggesting that it had been built into ovens or hearths. Such reuse of tile in minor structures of this sort is typical of rural settlements. The Roman tile occurs as a concentration close to Akeman Street and as a scatter across the eastern area of the excavation, with little occurring to the west of the trackway G7/G11, which ran north-east off Akeman Street. The Roman tile was largely recovered from field and enclosure ditches and trackways, which have been phased to the Roman period, and it is probable much that of the tile was distributed fortuitously as the result of agricultural activities such as manuring of fields or maintenance of tracks. Some of the tile occurs residually in later features.

Post-Roman

The post-Roman assemblage consisted entirely of roof tile (75 fragments, 1832g), which, apart from a single tile of Anglo-Norman type, has been assigned a post-medieval date, broadly 16th to 18th century. However, dating peg tile, which barely changed its form since its inception in the 12th century is an imprecise art, especially when no examples of complete tiles survive.

All the tile that was confidently identified as post-Roman was made in Fabric Q. This was red, orange, light orange, or reddish brown in colour and in rare examples had a grey core. The matrix was a fine sandy clay, occasionally with cream streaks, and contained moderate-frequent medium-coarse quartz sand up to 0.5mm, and in some cases a low density of cream clay pellets and red or dark red ferruginous clay pellets, mostly c 1-2mm but up to 7mm. A number of small scraps in other fabrics were of uncertain identification and may be from Roman imbrices.

An unusual flanged tile had the characteristics of the Anglo-Norman roof-tile form (Fig. 3.11, no. 2). Though these tiles developed on the continent direct from Roman *tegulae*, this was not the case in



Fig. 3.11 Ceramic building material

Britain. This flanged form was re-introduced by the Normans and was in use for a short period of time during the late 11th and 12th centuries. This tile measured 16mm thick and had a rectangular flange 16mm wide by 25mm high with no cutaway at the corner (differentiating it from Roman *tegulae*). A conical nail hole measuring 10mm in diameter and narrowing to 3mm at the base was made before firing and was centred 40mm from the top and side edges. It was unglazed and had a pressure mark from stacking on the side of the flange. The tile was unstratified, but was found in the Aylesbury Vale Parkway area of the site. It must have originated from a high-status building, such as a manor house. Flanged roof tiles are more commonly found in the larger urban centres, such as London, York or Southampton or on ecclesiastical sites.

The remaining tile was all flat roof tile, probably peg tile, though only five pieces had evidence of peg holes, which ranged from 9 to 14mm in diameter, centred 18-29mm from the top edge and 32-38mm from the side. Most tiles were neatly made with even regular surfaces and fairly angular arrises, apart from a few slightly rougher examples that may date to the earlier post-medieval period or possibly late medieval in one or two cases. The tiles measured 13-16mm thick, apart from one that was 11mm thick and which was later than the other tiles, being probably of 18th-19th century date. The tiles are broadly dated to the 16th-18th century, but some of the thicker examples could be slightly earlier, perhaps 15th century.

The tile was recovered from a range of contexts, including subsoil layers, the fills of furrows ditches, hollows and pits, most of which are assigned to Phases 8 and 9. The tile no doubt was introduced into the area as a result of agricultural activities, such as manuring or metalling of farm trackways.

Some occurred in Roman features, which may indicate that these had not fully silted up until the medieval period. The largest concentration was recovered from the Group 22 trackway and field ditches in the north-east area of the site, which are associated with ridge-and-furrow and relate to the deserted medieval village of Quarrendon. This association and the presence of more securely dated medieval pottery, may indicate the roof tile should also be assigned a late medieval date or perhaps 14th-15th century. However, it is alternatively possible the tile does indeed relate to later continued use of the fields after Quarrendon itself had been abandoned.

FIRED CLAY by Cynthia Poole

Introduction and methodology

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 has 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, gullies, pits, postholes, a quarry or waterhole, small hollows and a cremation. These features are phased from the middle Iron Age to post-medieval 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, having originated in these periods. Fired clay is only intrinsically datable 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.

Table 3.13 Quantification of fired clay by form and fabric

<i>Fabrics</i>	<i>A</i>	<i>B</i>	<i>H</i>	<i>Q</i>	<i>V</i>	<i>X1</i>	<i>Count</i>
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
Indeterminate	24		1	12			37
Briquetage vessel						5	5
CBM?				1			1
Total count	213	2	2	23	48	5	293
<i>Fabrics</i>	<i>A</i>	<i>B</i>	<i>H</i>	<i>Q</i>	<i>V</i>	<i>X1</i>	<i>Weight (g)</i>
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
Indeterminate	120		20	29			169
Briquetage vessel						6	6
CBM?				4			4
Total wt (g)	1964	29	26	80	457	6	2562

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 the methods used 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 and 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 3.13 and in Tables 3.14 and 3.15 in relation to phase.

In the latter, it is apparent that fabrics A and Q are present during all major phases, while 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. While 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).

Table 3.14 Quantification of fired clay forms by phase

Phase	Unph 0	LPreh 2	LIA-ER 3	ER 4	E-MR 4/5	MR 5	LR 6	Med 8	8?	PMed 9	?9	Ro 10	Count
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
Indeterminate	6	1	2	12	11	1		1			3		37
Briquetage vessel					5								5
CBM?												1	1
Total count	10	31	2	152	25	53	5	8	2	1	3	1	293
Phase	Unph 0	LPreh 2	LIA-ER 3	ER 4	E-MR 4/5	MR 5	LR 6	Med 8	8?	PMed 9	?9	Ro 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
Indeterminate	16	7	9	67	34	5		20			11		169
Briquetage vessel					6								6
CBM?												4	4
Total wt (g)	47	676	9	1100	69	367	52	173	50	4	11	4	2562

Table 3.15 Quantification of fired clay fabrics by phase

Phase \ Fabric	A	B	H	Q	V	X1	Count	A	B	H	Q	V	X1	Weight (g)
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

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 a 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 was 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 (Fig. 3.12). 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 originated in the early Iron Age and continued 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 SG8009) could be positively



Fig. 3.12 Fired clay

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 and 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 in Oxfordshire (Poole forthcoming).

A single example was positively identified as a firebar. It had flat, even surfaces and rounded angles and formed part of a rectangular-sectioned bar measuring 44mm 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 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 middle Roman cremation burial 3000 and probably comes from the burnt ground surface underneath the pyre, having been scraped up along with the cremated remains.

Briquetage

Five small sherds of briquetage (6g) in a chaff-tempered fabric were found in Phase 4 roundhouse gully, SG8061. 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 salt from the production sites, so their occurrence rarely comprises 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 used in a variety of activities such as curing meat and cheese production. The

nearest production sites and likely source are on the Essex coast.

Discussion

The middle Iron Age assemblage was recovered from features of landscape groups G3 and G4, associated with the roundhouses and enclosures, except for a small scrap from an isolated pit elsewhere on the site. All 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 last two 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. The early Roman period appears to have represented the most intense period for the use of 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 only one side 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 was undertaken in the vicinity of the site, probably on a small scale to serve the needs of the community with basic coarse wares.

WORKED STONE by Ruth Shaffrey

Phased

A small assemblage of worked stone comprising mainly querns, but also some structural stone, was recovered. A single fragment of worked stone was recovered from an early prehistoric (Phase 1) context. This is a crudely shaped stone that has been rubbed smooth and flat at both ends through use as a smoother. The remaining worked stone was recovered from Roman or unphased contexts. It includes fragments of lava querns and a substantial fragment of a Hertfordshire Puddingstone bun-shaped quern, which is of standard form and size.

A fragment of a probable quern or millstone is made from a Jurassic shelly limestone and a fragment of a Millstone Grit millstone of c 78cm diameter was found in pit 3067.

The quern materials are broadly typical of Roman sites in the area. Hertfordshire Puddingstone querns are typical of the earliest (1st century) Roman period and lava querns too are likely to be early Roman in use. Millstone Grit querns were used throughout the Roman period, but millstones typically date to the 2nd century onwards. Millstones of any material are rare in the area (see below) but Millstone Grit examples are known at Grendon Underwood and Aston Clinton (Chapman 2014, 46; Shaffrey 2014) and so materially at least, the millstone is not out of the ordinary.

All the querns of the above stone types were imported to the area. This pattern is typical of the period and probably represents easy access to trade passing along Akeman Street. In contrast, limestone was not a common choice for a quern material during any period and if it is indeed a quern, its presence suggests that there was also some *ad hoc* use of materials. Roman examples of limestone querns have been recovered from sites including Peterborough, Ashton, Faringdon and Fairford (Shaffrey personal observation; Ian Meadows pers. comm.; Shaffrey 2004a; 2004b).

Structural stone includes a fragment of dwarf column made of clearly banded, spar supported, shelly oolitic limestone, probably a Windrush valley Jurassic limestone, and a single tessera.

Unphased

A small fragment of larvikite wall veneer was unstratified. Larvikite is a syenite and marble usually known as blue pearl granite (despite the fact that it is not a granite) and mainly used in major buildings, such as Westminster Abbey and in (relatively modern) shop frontages. It is not likely to be of Roman origin.

Discussion

The Roman worked stone presents an interesting group of material. The number of quern fragments is relatively small considering the quantities of wheat identified among the plant remains, although fragments from four or five querns is not insignificant. However, the presence of a millstone fragment is tantalising because it provides clear evidence for the centralisation of grain processing. No evidence for a mill structure was found within the excavated area, but a location on the nearby River Thame seems highly likely. Interestingly, Roman millstones are not common in the Aylesbury area, with only one other recorded example, at Walton Court c 3.5km to the south (Farley *et al.* 1981). In the wider area, evidence for centralised milling in the form of millstones has been found at Aston Clinton some 8km to the east, at Grendon Underwood 12km to

the north-west, and notably at Thame 14km to the south-west, where four millstones were found (Chapman 2014; Shaffrey 2014; Shaffrey in prep).

The querns and millstone may have been used for the production of flour, or, more likely, their use related to the crushing of malt, as indicated by the sprouted grains found among the plant remains. A similar connection might be made between the querns and sprouted grains at Weedon Hill only 2km away (Hayward 2013). Although some of these were too fragmentary for diameter to be measured, none of the quern fragments at Weedon Hill were identified as millstones. The likelihood, therefore, is that the mill was located nearer to Berryfields.

This likely existence of a mill near Berryfields points to some higher level of investment in the processing of malt, and the location on Akeman Street, where passing trade might have stopped for refreshment, should be considered as a possible influencing factor for this. There is no doubt that a similar mill existed, for example, in the roadside settlement at Ewell in Surrey, taking advantage of the customers requiring bread and ale on their journeys southwards from London (Shaffrey 2017). It is worth noting that the millstone fragment at Berryfields was amongst other finds in pit 3067 that have been interpreted as being votive in character. The millstone was found resting on the side of the feature. It is possible that its heavy weight in soft deposits simply led to its final resting place, but, if the mill had been a significant component of the economy of the people who were active at Berryfields, it is perfectly possible that its deposition (in a feature clearly used for the deliberate discard of coins), was equally significant. There is every reason to suppose that querns and/or millstones were of as much importance as any other type of object owned by an individual.

The presence of a column and a single tessera are further indication of the existence of some wealth in the area, if not at Berryfields itself. They provide evidence for Roman buildings nearby of reasonably high status and it might tentatively be suggested that the occupants of such buildings would have had the wherewithal to invest in the construction of a mill, and perhaps to discard potentially useful pieces of stone in significant contexts.

Catalogue of worked stone (Fig. 3.13)

Rubbed stone. Ferruginous fine-grained sandstone. Hand sized crudely shaped stone that has a flat smoothed face at each end, presumably used for rubbing. Measures 91 x 66 x 59mm. Weighs 505g. Context 3397, fill of ditch 3096, SG8035, G20. Phase 1. Early prehistoric.

Tessera. White fine-grained sugary quartz sandstone. Small and shaped from an unusual material. Measures 11 x 13 x 17mm. Weighs 4g. Context 3368, fill of ditch 3364, SG8021, G15. Phase 4. Early Roman.

Upper rotary quern fragment (Fig. 3.13, no. 1). Hertfordshire Puddingstone. Bun-shaped quern with

slightly angled but nearly flat grinding surface. Circumference chipped all round near the grinding surface. Sloped upper face curves round to the top. Conical eye / hopper. Lowest 2cm is cylindrical. Pecked grinding surface. Measures 280mm diameter x 106mm high. SF 2776. Context 3390, fill of pit 3388, SG8021, G15. Phase 4. Early Roman.

Probable rotary quern fragments. Lava. Six fragments of friable rounded and non-diagnostic lava. Weighs 249g. Context 3826, fill of posthole 3758, SG8161, G24. Phase 4 or 5. Early-mid Roman.

Probable rotary quern fragments. Lava. Three fragments of friable rounded and non-diagnostic lava. Weighs 273g. Context 4117, cobbled surface. Phase 5. Mid Roman.

Millstone, probably an upper (Fig. 3.13, no. 2). Millstone Grit. Flat disc type. One face is roughly tooled/worked, the other has obvious rotational grooves. The eye is large, so probably an upper stone, but is not circular. Edges are vertical and straight and dressed. Measures approximately 780mm diameter x 69mm thick. SF 2674. Context 3075, fill of pit 3067. G10. Phase 6. Late Roman.



Fig. 3.13 Worked stone

Worked stone, possibly from a quern. Shelly limestone. Several finger width parallel grooves on one side consistent with the preparation of a millstone grinding surface. Weighs 470g. Context 447, fill of quarry pit 446. Phase 6. Late Roman.

Dwarf column fragment. Shelly oolitic limestone, possibly a Windrush valley Jurassic limestone. Neatly worked around the circumference and with one very worn side. Measures approximately 160mm diameter. Weighs 3209g. Context 422, fill of furrow 419, SG469. Phase 8. Residual.

Pebble hone/rubber. Fine-grained grey sandstone. Flat rounded cobble. Both faces are flat and very smooth but it is the wear on the surviving end that is distinctive with the rounded end having a double chamfer. Must have been used to rub rounded things. Measures >69 x 57 x 16mm. Weighs 113g. Context 5602, fill of trackway 5601. G7. Roman.

Wall veneer. Larvikite (marble). Thin piece, slightly polished on one face. No original edges. Measures 5mm thick. Weighs 10g. ABPR08. Unstratified.

FLINT *by Michael Donnelly*

Introduction

Excavations brought to light a small assemblage of 114 flints and 209 pieces of burnt unworked flint weighing just 351g (Table 3.16). The assemblage was very dispersed, with the 114 flints spread across 71 contexts, only three of which contained five or more flints. The largest assemblage, of 15 flints, originated from tree-throw hole 1982. There were seven flints from pit 2774 and five from pit 1501. The remaining contexts contained very few flints, with no obvious concentrations. The flint assemblage included material dated to the early Mesolithic period, late Neolithic-early Bronze Age and middle-late Bronze Age. In addition to this, numerous early blade forms were recovered that could date to any period between the Mesolithic and the early Neolithic. Burnt unworked flint was recovered from numerous contexts, but nearly always took the form of very small fragments recovered from samples. Only a few larger fragments suitable as pot boilers were identified and these were mostly in stone materials other than flint.

In addition, three worked flints were recovered from three contexts in the Aylesbury Vale Parkway site: a broken blade-like flake, a secondary flake and a core trimming flake. All were residual in later features.

Raw material and condition

The flint originated from a wide range of sources including good quality material with thick chalk cortex through to very weathered chalk, rolled river gravel and pieces with thermal surfaces. The flints were generally in good condition but only 23% had

Table 3.16 *The flint assemblage. Quantification by count of objects*

Category type	Count
Flake	65
Blade	15
Bladelet	14
Blade index	30.85% (29/94)
Irregular waste	3
Chip	1
Sieved chip	2
Core rejuvenation flake	1
Core multi-platform flake	1
Scraper end	1
Scraper side+end	2
Microlith	1
Awl	1
End truncation	2
Retouched bladelet	1
Retouched flake	2
Retouched other	1
Retouched miscellaneous	1
Total	114
Burnt unworked	209 / 351g
No. burnt (%)	19/114 (16.67%)
No. broken (exc. chips) (%)	33/111 (29.73%)
No. retouched (exc. chips) (%)	12/111 (10.81%)

fresh edges and most displayed light or moderate edge damage (70.8%). Overall, the assemblage would appear to have two main components, the first being contemporary material deposited in pits or tree-throw holes, and the second being residual material in later features that had probably not moved far from its primary depositional context.

The assemblage (Fig. 3.14)

The assemblage contained 65 flake blanks and 29 blade or bladelet blanks, giving a high blade index of 30.85%, indicating an assemblage where blade production was important. Since the assemblage was in fact made up of numerous smaller sets of flint, some of these may have been very blade heavy and most probably date to the Mesolithic or early Neolithic period. The flake assemblage also included many thin regular examples of likely early date alongside a few thick squat hard-hammer flakes of probable middle-late Bronze Age date.

The only core recovered was a complex multi-platform example geared towards flake production. This was formed on a very small nodule with thin rolled cortex, highlighting the limited availability of good quality flint. Core dressing flakes were also

rare and were represented by a single core rejuvenation flake.

Tools were extremely common at 10.7%, and although this may indicate selective recovery, such assemblages are usually also core heavy. Since that is not the case here, the commonness of tools may be real. High tool numbers are usually associated with domestic settings in which the more industrial part of the process has occurred elsewhere, or with very selective burial environments such as some burials or tool caches. However, many of the tools recovered are early prehistoric in date and probably represent repeated short-stay visits to a preferred site by very small groups.

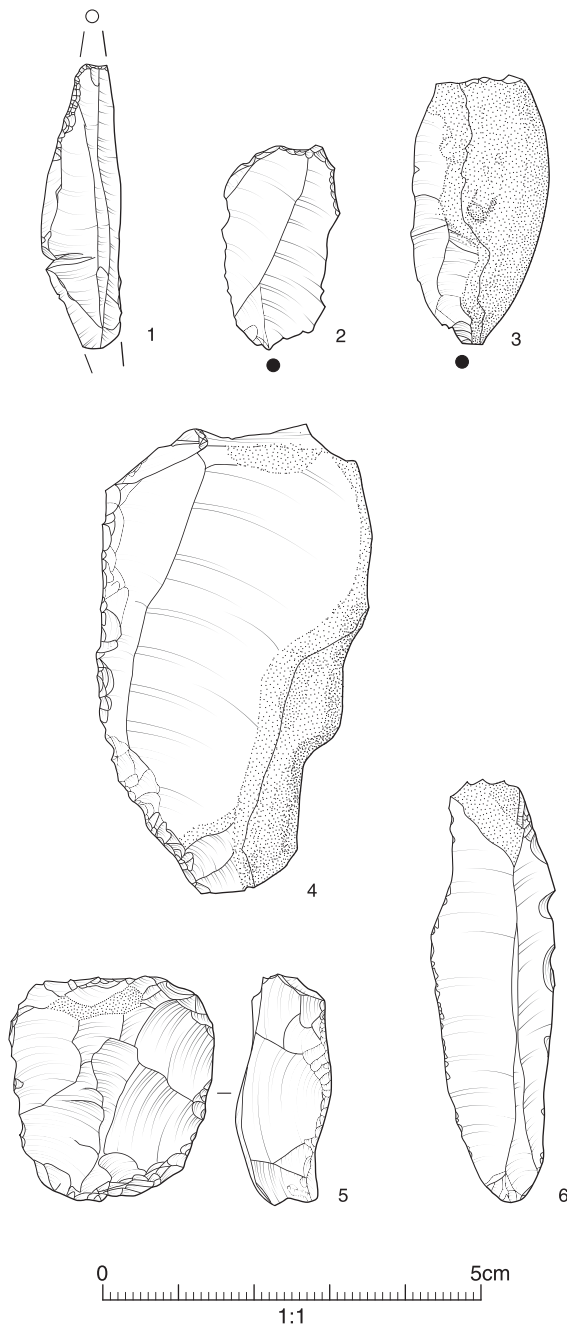


Fig. 3.14 Worked flint objects

The tools recovered spanned a range of dates and consisted of one microlith and one possible microlith fragment. The microlith (Fig. 3.14, no. 1) was recovered as a stray find and consisted of an obliquely blunted microlith of early Mesolithic date (Clark 1933; Jacobi 1978). The extremity of its tip and base were missing so it is possible that this piece may have been an example of a point with basal retouch (Saville 1981; Conneller *et al.* 2016) and could actually date to slightly later in the Mesolithic period. The possible microlith fragment was recovered from pit 1501 and its form could not be determined, but it was broad enough with obvious backing to perhaps be a broken early Mesolithic example. However, it may in fact have been a different tool altogether, possibly a broken end truncation, but in either case the date for this tool would be early. Two more end truncations were recovered, one from pit 2774 (Fig. 3.14, no. 3) and another from tree-throw hole 1982. Both were fashioned on blade blanks and these pieces are usually dated to the Mesolithic or early Neolithic periods. One retouched bladelet was also recovered as a residual find in Phase 3 ditch SG8021 and is also likely to be early in date.

One irregular, snapped heavy awl was found with skeleton 3340. This piece was quite crude in form and may well be later prehistoric in date, but it is unlikely to represent a formal grave good and is most likely residual. Four scrapers were recovered from four separate contexts. These were generally quite complex in form and many are likely to be Neolithic or early Bronze Age in date. However, some of the longer examples may well also date to the early Mesolithic. One end scraper on a long regular flake was very heavily rolled and certainly residual. Another fairly elongated example was recovered from tree-throw hole 1093 and had quite crude distal scraper retouch that continued along its entire left side, becoming more knife-like towards the proximal end (Fig. 3.14, no. 4). Two side-and-end scrapers were also recovered, one of which was undiagnostic, but the second example had been formed on a re-used core tablet and was probably Neolithic, or less likely Mesolithic in date (Fig. 3.14, no. 5). Finally, two undiagnostic retouched flakes were recovered, one from posthole 1036 (possibly associated with gully SG8150) and another as a residual occurrence in a later feature.

Only one of these tools appeared to be later prehistoric in date but limited activity from this period was identified and consisted of a few typically squat flakes. These were usually hard-hammer struck with little or no platform preparation and often had failed terminals, simple flaking patterns and cortical or thermal platforms. Additionally, some of the less diagnostic tools could also belong to the later prehistoric period. The relative lack of such flintwork may indicate a paucity of later Bronze Age activity or it may be that a lack of local flint nodules meant that other materials were used for producing simple tools here.

Key contexts

Fill 1502 from pit 1501 contained five flints including a broken microlith or end truncation. The pit also contained two narrow bladelets and a trimming flake. The assemblage may well be of mixed date but all the artefacts, including both possible options for the tool fragment, would readily belong in a Mesolithic context. If the tool fragment was not a microlith then an early Neolithic date for the entire assemblage would also be appropriate.

Tree-throw hole 1982 contained 15 flints, 12 of which were flakes with two blade forms and a single end truncation. As with pit 1501, this tool most likely dates to the Mesolithic or earlier Neolithic period. The flake assemblage from the tree-throw hole did not contain examples that would be considered later prehistoric in form, but did contain several thin and/or soft hammer flakes that are probably early. However, the assemblage was not particularly fresh and may relate to several different episodes of flint use that were subsequently incorporated into the feature.

Pit 2774 contained seven flints: one blade, four flakes, a chunk and an end truncation. The blade and one flake also displayed signs of probable use as serrated tools. As with tree-throw hole 1982 the assemblage could either belong to a single early prehistoric knapping episode and be contemporary with the pit, or could represent mixed material incorporated into the pit's backfill. The flints were in good condition and were largely complete, indicating that they may be contemporary with the pit.

Discussion

Prior to the excavations at Berryfields, very little prehistoric archaeology had been identified in the immediate area, although one small flint scatter had been identified in the south-eastern part of the MDA during the Billingsfield evaluation (Cox 1997). Despite numerous phases of excavation, very little flintwork has been found to alter that view. The quantity, quality and, perhaps more importantly, the lack of any concentrations of flint does seem to suggest very little activity here during the earlier parts of prehistory. The near total lack of cores and related core dressing flakes is also important, as normally these pieces are over-represented in residual flint assemblages from later prehistoric landscapes and their absence here strongly suggests that very limited primary knapping took place at this location.

Diagnostic flint artefacts are rare but those identified also suggest very sporadic activity in the early Mesolithic period and late Neolithic/early Bronze Age. It is also likely that some of the numerous dispersed blade forms relate to activity in the Mesolithic and/or early Neolithic periods (eg Fig. 3.14, no. 6). The three key contexts described above most probably also belong to this same broad phase of early prehistory, but the features are very

dispersed and are unlikely to relate to the same group of people or site. However, they do indicate repeated visits on a very limited scale, and some recent large-scale projects, for example the Bexhill-Hastings link road (OA 2019), have shown that such sites were very probably common across many parts of England especially along major rivers and their tributaries.

One clear omission from the assemblages is a distinct lack of typically middle Bronze Age and later flintwork, with just a few flakes and tools from these periods. Flint use in later prehistory is sometimes difficult to identify, and is often characterised by very expedient flint use, with *ad hoc* tools being produced when needed and then discarded. This pattern of activity does not work well when there is a lack of suitable flint nodules or older cores/tools around for scavenging. It may be the case that materials other than flint fulfilled the need for these expedient tools during the later Bronze Age and Iron Age at Berryfields.

ROMAN COINS by Paul Booth

Introduction

Some 311 Roman coins were recovered from the various excavations. These comprise finds from hand excavation and associated metal-detecting activity, the latter accounting for the great majority of the coins from the Aylesbury Vale Parkway site. The coins were initially scanned rapidly to provide provisional dating for the site sequence. Selected pieces were then submitted for cleaning by a conservator prior to full recording. The detailed identifications are tabulated below, combining all the component sites. Standard references (to volumes of RIC or LRBC) were recorded where possible. Wear was recorded (approximately) using the categories defined by Brickstock (2004), but these have to be treated with extreme caution. All the coins were listed in an Excel spreadsheet (see Appendix 1). The degree of security of the identifications is indicated in the appendix; some identifications remain very tentative.

The condition of the coins was very variable, ranging from very good to very poor. There was some variation in this aspect across the site; the coins from the Parkway site, for example, were in particularly poor condition overall, to the extent that, while 91 of the 116 coins were assigned to a Reece period with varying degrees of confidence, only five were sufficiently well preserved to allow a specific catalogue number to be assigned. The condition of coins in the important associated pond and pit features (3062 and 3067) was hugely variable, and is discussed further below.

The assemblage

The coins are all of copper alloy, apart from a single worn 'antoninianus' of Mariniana (SF 2664). They

Table 3.17 Quantification of coins by issue period and phase

Date	Reece period	Total coins	Phase total	% of coins assigned to phase
41-69	2/3	1		
69-96	4	1		
96-117	5	1		
117-138	6	1		
138-161	7	7		
161-180	8	2		
180-192	9	1		
193-222	10			
222-238	11			
238-260	12	2		
Phase A	Uncertain	14	30	10.9
260-275	13	21		
275-296	14	44		
Phase B	Uncertain	22	87	31.8
296-317	15	5		
317-330	16	9	14	5.1
Phase C	Uncertain			
330-348	17	54		
348-364	18	27		
364-378	19	42		
378-388	20	1		
388-402	21	10		
Phase D	Uncertain	9	143	52.2
3-4C/unassigned		37		
Total		311	274	(88.1)

can be summarised in chronological terms, using issue periods and analytical phases as defined by Reece (eg 1991) as shown in Table 3.17.

Some 229 coins (73.6% of the total) were assigned to specific issue periods with varying degrees of confidence. Further coins could be assigned to one of the four main phases of issue defined by Reece, leaving just under 12% of the assemblage, mainly consisting of completely eroded and/or encrusted coins of 3rd- or 4th-century date, not identifiable to any of these phases. Coins of Phase D (AD 330 onwards) form the largest phase group, but they do not dominate the assemblage in the manner that is typical of many Romano-British rural sites (including roadside and other minor nucleated settlements). Overall the assemblage spans much of the Roman period, but coins of 1st-century date are almost absent amongst the identified material, and while it is possible that some of the undated coins of Phase A are of the 1st century rather than later, the balance of the identified Phase A pieces suggests that there are unlikely to be many of these. The earliest closely identified coin is a sestertius of Trajan (SF 2641) dated AD 103-111. Earlier coins are

a probable Claudian copy as (SF 2622), with another much less certain example from the Parkway area (SF 34), and a further as, perhaps of Vespasian (SF 2621). It is notable that the majority of the identified earlier Roman coins come from pit 3067 (see further below). Most of these are for Antoninus Pius and Faustina II. The Severan period is not represented, and the only 3rd-century coins certainly of Phase A are a CONSECRATIO issue of Mariniana (SF 2664) and a probable issue of the joint reign of Gallienus (SF 2676).

The later 3rd century is well-represented in this assemblage. Period 13 issues include further coins of Gallienus, and Victorinus, Claudius, and the Tetrici, but some of these may be irregular. Regular issues of Period 14 comprise one of Tacitus, four certain (and two probable) of Carausius and two of Allectus. Irregular ('barbarous') radiates have been assigned to Period 14. The problem of distinguishing between regular and irregular radiates was greatly exacerbated by the poor condition of many of the coins. The significant number of uncertain coins of Phase B will have included further irregular issues, but also regular ones.

Coins of Phase C are moderately well-represented, the figure of 5.1% falling almost exactly in the middle of the range of values seen in Reece's '140 sites' (Reece 1991, 64). Most notable was a large AE2 (SF 2533) of Constantius I as Caesar, with the reverse type SACRA MONETA AVGG ET CAESS NOSTR, from the north Italian mint of *Ticinum*. Described by the authors of RIC VI as common, this must nevertheless be very rare as a site find in Britain; for example, the 1998 publication of coins from Cirencester lists no examples amongst the 3785 coins from excavations, nor are there any in the corresponding Cirencester Museum collection of over 6600 coins (Reece 1998).

Amongst the intrinsically unremarkable Phase D coins, Periods 17 and 19 are fairly equally represented. In Period 17, most of the characteristic reverse types were present, and the equally characteristic importance of supply by the Trier mint in this period was also noted; the 18 examples where a mint could be assigned consisted of 12 issues of Trier and 6 of Lyons. The Period 17 coins include an uncertain number of irregular issues (18 of the 54 coins assigned to this period were noted as probably or possibly irregular). The following period, however, was dominated by small irregular *Fel Temp Reparatio* (fallen horseman) issues, albeit that a few of these were identified solely on criteria of size (typically around 8-10mm in diameter) and general character. Irregular issues amounted to 24 of the 27 coins in this period, the only example certainly not of 'fallen horseman' type being SF 2529, a small piece cut down from a SALVS DD NN AVG ET CAE issue of Magnentius and Decentius. The principal type in Period 19 was *Securitas Reipublicae* (24, as opposed to 16 examples of *Gloria Romanorum* and two *Gloria Novi Saeculi*). The poor representation of Period 20 is typical, but there was a respectable

showing of coins of Period 21 (AD 388-402), the last period of regular import of Roman coins to Britain, with 9 of the 10 examples coming from the main AYLBER10 excavation. How long such coins remained in circulation after the end of the 4th century remains debatable; the poor and apparently worn condition of many of these coins cannot necessarily be taken as a clear indication of extended use.

Site contexts

Many of the coins were not significantly stratified. Much the largest single context group (81 coins) was from context 3082, but this was a widespread layer. It is notable that this deposit contained only a single early Roman coin, the rest dating from the later 3rd century up to the end of the Roman period, including 8 of the 10 coins assigned to Period 21. Layer 3082 also produced the *Ticinum* coin noted above.

Most remarkable is the material from pond 3062 and pit 3067. The former produced only a single

coin (SF 2635), from fill 3063. This was very heavily corroded and could only be identified as a dupondius/as of 1st-2nd-century date. Pit 3067 cut the fills of pond 3062 and produced 46 Roman coins. These came from several fills, but the majority (31 coins) were from the basal fill, 3074. Coins from this feature were in very variable condition as a result of periodic waterlogging and, in some cases, probably long-term burial in anaerobic conditions. Iron panning was also a characteristic of some of the fills. As a result, the coins range from examples in ordinary good condition, to ones with extremely bright brassy surfaces (though often heavily eroded and etched), to ones completely corroded into black lumps representing exfoliating surfaces (as was the case with SF 2635 in pond fill 3063). In some cases, the brassy surfaces are overlain with very hard black encrustation.

The coins from fill 3074 range in date from the earliest closely dated piece (the sestertius of Trajan mentioned above) to the 2nd and later 3rd centuries, including the coin of Mariniana mentioned above,

Table 3.18 Coin assemblages from local sites and selected regional roadside settlements

Date	Reece period	Berryfields	Billingsfield evaluation	Walton Court Aylesbury	Cow Roast	Magiovinium combined	Alchester A421
LIA	1			3	5	5	
41-54	2	1	1	6	10	3	
54-69	3				5	13	
69-96	4	1		3	16	16	2
96-117	5	1		3	8	24	1
117-138	6	1		2	8	14	2
138-161	7	7			9	21	2
161-180	8	2			5	16	1
180-192	9	1		1	4	5	1
193-222	10			4	6	10	
222-238	11				3	5	
238-260	12	2		1	1	8	1
Phase A %		7.0	2.0	13.4	18.8	23.8	2.8
260-275	13	21	9	49	49	74	34
275-296	14	44	3	5	72	62	40
Phase B %		28.4	23.5	31.4	28.5	22.8	20.6
296-317	15	5	1	4	6	12	2
317-330	16	9		14	15	27	10
Phase C %		6.1	2.0	10.5	4.9	6.5	3.3
330-348	17	54	8	40	67	136	173
348-364	18	27	6	16	33	45	28
364-378	19	42	17	13	70	75	48
378-388	20	1		3	1	2	1
388-402	21	10	6	5	32	21	13
Phase D %		58.5	72.5	44.8	47.8	46.8	73.3
Total assigned to phases		229	51	172	425	596	359
1-2C uncertain		14		3		27	2
3-4C uncertain		68	11	29		96	57
Total		311	62	204	425	719	418

Table 3.19 Coin assemblages from selected regional rural settlements

Date	Reece period	Grendon Underwood Rural	Mantles Green Amersham Villa estate?	Fenny Lock MK Rural	Wavendon Gate MK Rural
LIA	1		1	3	1
41-54	2				
54-69	3				
69-96	4	1		2	3
96-117	5				2
117-138	6				5
138-161	7			3	1
161-180	8				9
180-192	9				1
193-222	10		1		2
222-238	11			2	1
238-260	12				
Phase A %		6.7	2.0	5.3	32.1
260-275	13	1	16	25	9
275-296	14		6	2	6
Phase B %		6.7	22.0	14.4	19.2
296-317	15	1		4	1
317-330	16		5	14	
Phase C %		6.7	5	9.6	1.3
330-348	17	1	25	93	13
348-364	18	3	16	12	10
364-378	19	8	15	26	13
378-388	20			1	1
388-402	21		15	1	
Phase D %		80.0	71.0	70.7	47.4
Total assigned to period		15	112	188	78
1-2C uncertain		1	27		8
3-4C uncertain			79		23
Total		16	206	188	109

*total includes coins simply described as 'illegible' or '1-4C'

and terminating with single coins of AD 348-350 (SF 2632) and 364-375 (SF 2668), but including a further five coins only assigned a broad late 3rd-4th-century date, so more 4th-century material might have been present. The wide date range is reflected in the coins from the other fills of the pit. Context 3073, which overlay 3074, contained two asses – the probable Claudian copy (SF 2622) and issue of Vespasian? (SF 2621) – as well as three 2nd-century and three later 3rd-century pieces. The five coins from the next (middle) fill in the sequence, 3071, included two of the House of Valentinian. Overall, feature 3067 produced 15 of the 28 1st- and 2nd-century coins from the site,

The relatively significant number of coins and the (possibly) watery nature of the fill of feature 3067 might suggest votive deposition, but the significance of the chronological range of the

material is uncertain. The quantity of early Roman coins is sufficient to indicate that deposition was ongoing in the 2nd century, if not earlier, and the later 3rd century is well-represented. It is less clear that the 4th-century coins indicate continued votive activity. If the integrity of the individual fills (and their associated assemblages) of feature 3067 is assumed, the implication of the coins in context 3074 is that this is a late Roman feature which was cut through a potentially lengthy sequence of fills of the pond which had seen periodic, perhaps low level, deposition of coin over a long time-frame, resulting in redeposition of an extremely mixed collection. The proportion of the coins from feature 3067 which were originally deposited in the pond and only ended up in the later feature as a result of redeposition is, however, unknowable. It is possible that the 4th-century coins, for example,

Chapter 3

<i>Wood Corner MK64 Rural</i>	<i>Broughton Manor Farm/ Brooklands, MK Rural, complex</i>	<i>Bancroft MK Villa etc</i>	<i>Bancroft MK Temple/mausoleum etc</i>	<i>Bourton Grounds Temple</i>
	1	5	1	
	4	3	2	
1	2	2		1
	3			
	10	1	2	
1	2	3		2
	6			
	1			
		1		
	3	2		1
5.6	26.0	1.9	9.3	1.6
2	42	32	1	19
2	2	42	1	2
11.1	35.8	8.1	3.7	8.6
	1	3	1	1
3	1	84		5
8.3	1.6	9.5	1.9	2.4
16	20	500	14	78
9	4	95	7	103
2	16	113	14	27
		3		3
	5	23	11	3
75.0	36.6	80.5	85.2	87.3
36	123	912	54	245
4	4?	3		
24	14?	101	7	70
65*	141	1023*	61	315

were entirely related to the later feature, but it is not possible to be certain.

Local and regional context

The Berryfields assemblage makes a useful addition to the corpus of Roman coins from the area, since relatively few rural settlement sites have produced significant collections, a reflection, at least in part, of the limited extent of excavation of such sites in rural Buckinghamshire. The settlement context, broadly that of a minor nucleated settlement with roadside elements, is reflected in the relatively diverse coin assemblage, and also in its sheer size (cf. Brindle 2017, 242). Table 3.18 compares the Berryfields coin loss data with those for a couple of very local sites. These include an evaluation of part of the present site, then known as Billingsfield (Cox 1997). Significant quantities of Roman coins have been

recovered in metal-detecting at Quarrendon and other closely adjacent locations; the relevant data are held in the PAS database. Data from some other roadside settlements in the region within a radius of 25km of the present site are also presented in Table 3.18. These include other Akeman Street sites, at Cow Roast to the south-east (Reece 1982) and Alchester to the north-west (Darwish 2001). On Watling Street to the east there are no meaningful data for Dunstable, but *Magiovinium* provides some information and was also the location of an important moneyer's hoard, most probably of later 3rd-century date (Zeepvat 1994).

The figures suggest some broad similarities in the character of the assemblages from Berryfields with the nearby site at Walton Court, a minor nucleated site perhaps including a shrine, to the south-east (Farley *et al.* 1981), and Cow Roast. The coins from the Billingsfield evaluation, however, reveals a

rather different pattern from that of the main Berryfields groups, with the great majority of the coins assigned to Phase D and the later 4th century being particularly strongly represented, though this might be in part simply a consequence of the relatively small sample size. The broad phase percentages of the Billingsfield evaluation are mirrored very closely in the much larger assemblage from an extramural settlement area at Alchester, though this similarity masks significant differences within the 4th century, the emphasis of the Phase D coinage at Alchester falling firmly in periods 17 and 18, in marked contrast to the late 4th-century focus at Billingsfield. It should be noted that for Berryfields, the calculation of percentages is different in Table 3.18 from that used in Table 3.17. In the latter, the totals of coins assigned to Phases A, B and D included material that could not be assigned to specific issue periods but was nevertheless identifiable in terms of broad phase. The net effect of this approach was to increase the representation of Phases A and B and reduce that in Phase D, resulting in an overall pattern that is even closer to those from Walton Court and Cow Roast than is shown in Table 3.18. For strict comparative purposes, however, these less precisely identified coins have been discounted in Tables 3.18 and 3.19, since the other available data do not allow allocation of coins of similar character in the same way. The presentation of data in Tables 3.18 and 3.19, the latter showing patterns of coin loss from selected rural settlements in the region, including all those local sites with significant assemblages and a number in the Milton Keynes area some 20-25km to the north of Berryfields, follows a consistent format (note that data for Tables 3.18 and 3.19 not otherwise referenced have been derived from the Roman Rural Settlement Project database (Allen *et al.* 2015)).

While on the one hand there are broad similarities, and on the other, some of these rural assemblages are of a size such that the significance of their composition must be regarded as uncertain, there are no close matches between their coin loss profiles and those of the larger nucleated settlements. Considerable variety is evident within this group of sites. Wavendon Gate and Broughton, both in Milton Keynes, are characterised by markedly high levels of coin loss in Phase A – significantly above those seen in the nucleated settlements – modest loss in Phase B and comparatively low levels of loss in Phase D, although at Wavendon Gate this figure is still almost half of the total assemblage assigned to period (and a relatively large proportion of the assemblage consisted of unassigned 3rd- and 4th-century coins). Only Broughton has a level of Phase B coin loss that compares with the larger nucleated settlements, and then an almost identical level of loss in Phase D, a notable (and more usually urban) pattern, as observed in the report (Popescu 2014, 303), and one not seen in any of the other sites in this comparative review. Elsewhere, much higher

percentages of Phase D coins are characteristic, and indeed in line with what might be expected, of a ‘typical’ rural coin loss pattern. The majority of unassigned 3rd-4th-century coins which are a significant component of some of these assemblages are likely to have been of 4th-century date, as for example at Wood Corner, Milton Keynes (Zeepvat 1987; note that the site total given here is derived from the microfiche coin list and not the published summary). At much the largest assemblage, from the villa at Bancroft (Davies 1994), Phase D coins total 80.5%. Whether this figure can be seen as completely typical may be debated, but its particularly strong representation of Period 17 coins is matched elsewhere, at Fenny Lock and Bourton Grounds (the latter a temple site), as well as at Alchester. Further comparable rural assemblages, for example in the Thames Valley to the west (eg King 2007; Booth 2010), lie well beyond the 25km radius of Berryfields used here.

It is notable that assemblages from all site types include coins of Period 21, the latest period of (relatively) regular supply to Britain. These are only absent in some of the rural sites where small assemblage size may be the explanation in some cases. Their consistent presence in the larger nucleated settlements is characteristic (eg Walton 2012, 102), and is particularly high at sites such as Cow Roast (eg *ibid.*, 105-6, figure 66c). Representation of Period 21 at Berryfields is less notable, but at 4.4% (in Table 3.18, or 3.6% by the slightly different calculation shown in Table 3.17) is still slightly above Walton’s revised British mean value of 3.2% (*ibid.*, 233, table 7). Amongst the comparative sites shown in Table 3.19, Mantles Green, Amersham, c 24km south-east of Berryfields, stands out for its exceptional representation of Period 21 coinage, even allowing for the high proportion of the assemblage not assigned to any period. Here the probable villa estate context is probably significant, but many sites of this general character in the region do not necessarily have such high proportions of Period 21 coinage. Amongst the other sites with Period 21 coins, Broughton is also notable, not for a particularly high representation of such coins, but for the presence of a heavily clipped siliqua, probably indicating coin use after c AD 410 (Popescu 2014, 303). A second siliqua, of Gratian (375-8) was in fresh condition. These two coins underline the rather unusual character (numismatically, at least) of this site, already indicated.

Only Bourton Grounds gives a fairly clear picture of what a largely votive assemblage might have looked like in this region, but it is unfortunate that almost one third of the coins from this site were not identifiable to period. The strong 4th-century emphasis has been noted already, and is shared, though with a very different breakdown within Phase D, by the temple mausoleum group from Bancroft; the main Bancroft assemblage, again with very strong 4th-century representation (see above), also included a temple component, but the

quantification of this within the larger assemblage is not clear. The relevance of these figures to the possible votive material from feature 3067 at Berryfields is probably very limited as it is likely that deposition reflected by the coins in the latter was under way from the 2nd century if not earlier, the disproportionate concentration of early Roman material in this feature having been noted above. Deposition of this character can be paralleled at sites such as Westhawk Farm (Kent), where, however, the 2nd-century emphasis of deposition in a roadside waterhole was more closely defined (Guest 2008).

METAL AND GLASS OBJECTS *by Ian R Scott*

Introduction and methodology

There are 260 metal objects (474 fragments), excluding Roman coins, and one glass bead from the Berryfields excavations. The objects were recovered through a combination of hand-excavation and metal-detecting. The metals have been fully recorded onto an Excel spreadsheet, with context details, measurements and written description. A large proportion of the assemblage is either unstratified or not securely phased (Table 3.20) but there are some identifiable Roman, medieval and post-medieval objects.

Assemblage composition

The assemblage comprises objects ranging in date from the later prehistory to the present day. Much of the metalwork comprises miscellaneous pieces of rods, bars and the like, nails and other objects that are not closely datable ($n = 183$; frags = 386). For this

reason the report focuses on selected dated finds after brief consideration of functional composition of the metals assemblage.

There is a small number of metal objects of obvious Roman date and a quantity of other metal objects that are not datable from contexts of Roman date (Table 3.20, Phases 3 to 6). Datable Roman finds include numerous coins mainly of late date (Booth, above), a few early Roman brooches (Cat. nos 4-12) and other personal and toilet items (Cat. nos 14-19) and two fragments of 1st-century military equipment (Cat. nos 20-21), including a very well-preserved fragment of cavalry harness pendant (Cat. no. 21). Other finds include a small lion head stud (Cat. no. 22), and three tools comprising a smith's hammer (Cat. no. 23), an axe (Cat. no. 24) and a small stock knife (Cat. no. 25). The total number of nails from the site, even assuming all are Roman in date, which is unlikely, is only 32 (frags = 66), which is a small quantity for a Roman occupation site. In fact, just 15 nails are from contexts of Roman date, two from post-Roman phases, and 15 from unphased contexts or are unstratified. Definite structural metalwork is also limited. Household items are very limited in range and number. Personal items of Roman date ($n = 14$) and toilet items ($n = 3$) are a little more numerous. There are hobnails, but only eleven in total.

There is a large quantity of unphased or unstratified material ($n = 156$), which includes a number of the small metal objects of medieval date, comprising a cut-down silver long cross penny (Cat. no. 30), part of a rowel spur (Cat. no. 31), a fragment of an ampulla (Cat. no. 32, formerly no. 29), two folding clasps (Cat. nos 33-34), buckles, a strap loop and strap ends (Cat. nos 35-39), as well as horseshoes and coins of later medieval and post-medieval date.

Table 3.20 Summary quantification of the metals assemblage by object function and site phase (object count)

Function	2	3	4	5	Phase 6	8	9	unph	u/s	Total
Arms								2		2
Coins/jetons							1	3	3	7
Tools			1	1	1		1	5	2	11
Transport					1	3	3	5		12
Measure								2		2
Religion							1			1
Personal			2		7	1		17	3	30
Footwear		3			3			5		11
Toilet								2	1	3
Household					3	2		3		8
Structural					1		1	2		4
Binding								3		3
Nails			4	7	4	1	1	13	2	32
Misc			1	1	7	2	3	20	2	36
Unknown/unidentified	2		1	5	5	1	1	16	1	32
Waste				1	18	2		38	6	65
Total	2	3	9	15	50	12	12	136	20	259



Fig. 3.15 Metal objects, nos 1-22

Bronze Age metal finds

One of the earliest objects from the site is a small fragment from the mouth of a late Bronze Age socketed axe (Cat. no. 1). This comes from widespread layer, which also produced a few objects and numerous coins of Roman date and seems to have been deposited in the late Roman period (Phase 6). There is also a copper alloy awl (Cat. no. 2), unfortunately unstratified, but which looks like a Bronze Age form.

Catalogue of prehistoric metal objects

1. **Socketed axe**, fragment from mouth of a late Bronze Age socketed axe. Casting seam visible. Cu alloy. 25mm x 24mm. Context 3082, buried soil, SF 2578, Phase 6.
2. (not illustrated) **Awl**, small, tapers to both ends, one end (the blade) is of circular section, the other end (tang) is rectangular in section. Both ends are a little broken or worn. Probably Bronze Age. Cu alloy. L: 41.4mm. Unstratified, SF 2781.

Roman metal and glass objects

There are nine brooches or fragments of bow brooches. These comprise three simple bow brooches (Cat. nos 3-5), two two-piece Colchester brooches (Cat. nos 6-7), a fragment of a Hod Hill brooch (Cat. no. 8), fragments from two possible further Colchester brooches (Cat. nos 9-10) and the catch plate from another bow brooch (Cat. No 11). All date to the 1st century AD. Four of the brooches or fragments (Cat. nos 5, 6, 10 and 11) were recovered from deposit 3082.

A small plain annular brooch (Cat. no. 12), which was found in deposit 3082, is not readily paralleled or confidently dated typologically. Although the annular form might suggest a Saxon or medieval date, its hinged pin and catch plate suggest a Roman rather than later date.

Other personal and toilet items include three bracelets or armlets (Cat. nos 13-15), including one 1st-century broad armlet (Cat. no. 13) with possible military connections, a melon bead (Cat. no. 16), a

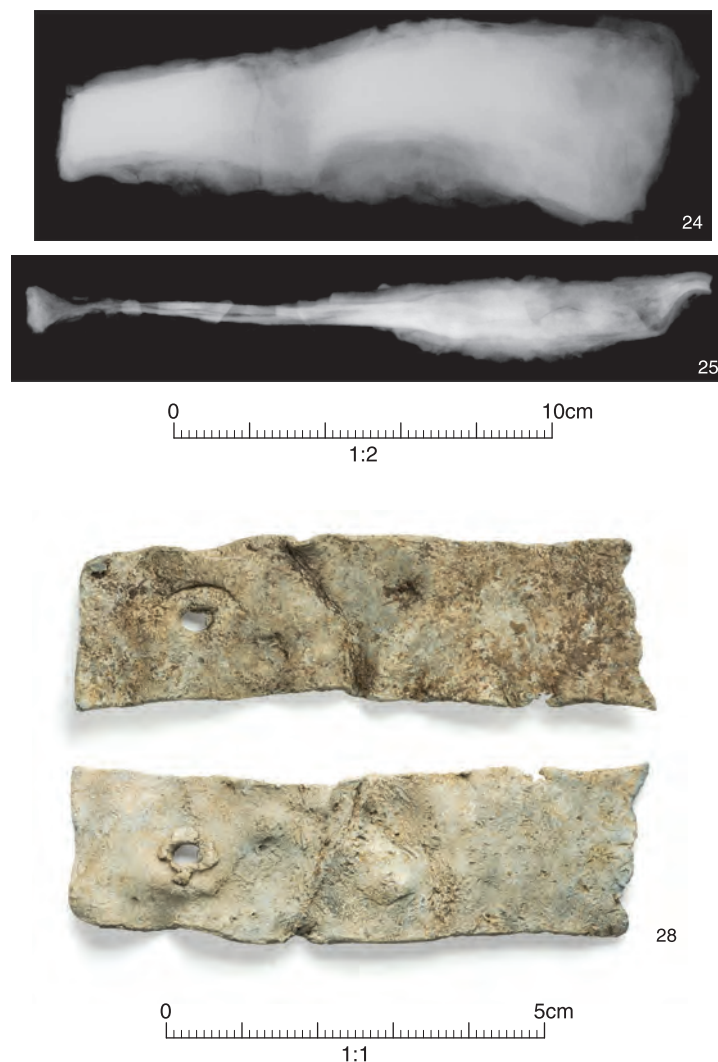


Fig. 3.16 Metal objects, nos 24-28

hair pin (Cat No. 17), a spoon probe (Cat. no. 18) and two refitting fragments from a small circular hand mirror (Cat. no. 19).

The broad armlet (Cat. no. 13), which was found in deposit 3082, is a distinctive British form and occurs in very early post-Conquest contexts. The distribution of the known examples is almost exclusively confined to the south and east of the line of the Fosse Way, with a very marked concentration in the territory of the Catuvellauni and Trinovantes in Essex, Hertfordshire and Suffolk (Crummy 2005, 93, fig. 2). Crummy has argued that they might have been military awards or decorations. They certainly have links with early phases of the conquest of Britain, and stratified examples are found in pre-Boudican or pre-Flavian contexts, which links them with the conquest and initial occupation. However, that does not necessarily make them military awards. Their limited geographical spread and more particularly their limited time frame could suggest that they were rather a brief passing fashion.

The mirror fragments (Cat. no. 19) from a small hand mirror are comparable to an example from Nijmegen with dot-and-circle decoration on the reflecting face and concentric circles on the back (Lloyd Morgan 1981, 42, plates 7a and 7b: Group Gc). The Nijmegen example has a diameter of 122mm. Lloyd Morgan suggested that this type of mirror was popular in the second half of the 1st century (*ibid.*, 37).

There are two fragments from pieces of 1st-century Roman military equipment. There is a buckle tongue of distinctive form (Cat. no. 20) from a Roman military belt (cf. Unz and Deschler Erb 1997, plates 43-44; Grew and Griffiths 1991, figs 14-15) and a well-preserved fragment from a Roman cavalry harness pendant (Cat. no. 21) comparable to an almost complete pendant from Richborough (Henderson 1949, 143-44, pl. li, 181; Bishop 1988, fig. 47, 9c).

A small stud in the form of a lion's head (Cat. no. 22) was also found, again from context 3082. Lion head studs are often found in burials and associated with boxes and caskets (cf. Borrill 1981, 312-14, figs 117 and 119; see also Henderson 1949, 139, pl. xlv, no. 168; Cunliffe 1971, 117-8, fig. 48, no. 125). The sample of 75 lion mask studs studied by Borrill (1981, 316) ranged in diameter from 19mm to 35mm. The Berryfields example has a much smaller diameter.

More functional items include a smith's hand hammer, an axe head with square poll, and a possible small stock knife. There is a biconical lead weight from a steelyard and a probable lead net weight. The smith's hand hammer (Cat. no. 23), with its distinctive curved blade and small striking surfaces, is a type that occurs widely in the Iron Age and Roman period in a range of sizes (Pleiner 2006, fig. 30).

The shaft hole axe head (Cat. no. 24) is broadly of the form which occurred widely across the Roman Empire as Manning (1985, 16, fig. 3; cf. Duvauchelle 1990, 16, fig. 6) has noted. The Berryfields axe has some of the features of Duvauchelle's Type 2b and Type 3; the latter type has affinities with the francisca

type. Axes of similar type certainly occur in the later Roman period, such as those from Richborough (Henderson 1949, 154, pl. lxi, nos 341-42; Böhme 1986, 19, abb. 40, nos 4-6), and the small axe from a late Roman grave at Dorchester, Oxfordshire (Booth 2014, fig. 7). Other axes from late Roman sites in Britain (Böhme 1986, abb. 41-2) tend to be more curved and conform more fully to Duvauchelle's Type 3 (Manning Type 4). Axes similar to the Berryfields axe are found on sites of all dates in the Roman period in Britain and the wider north-western provinces. Pietsch (1983, 86-7, Taf. 1-2, nos 1-26, 28-35) published numerous examples of similar axes from the forts of Saalburg, Feldberg and Zugmantel on the Upper German frontier. These were sites occupied between the late 1st century and AD 260, at which date the frontier was abandoned. The axe form is also found at Pompeii in the later 1st century (Gaitzsch 1980, 342-43, Taf. 4, nos 20-22, Taf. 5, nos 23-27, especially nos 20, 22, 24) and examples of this form of axe were found at La Tène (Vouga 1923, Taf. 43, nos 6-8).

The small stock knife (Cat. no. 25) was used to shape wood and has a handle at one end and hook at the tip of blade which hooked into a loop on the work bench. Anika Duvauchelle (1990, 54 and 91, no. 48) has published a similar knife of comparable size from the Musée romain d'Avenches and suggested that it was billhook, but the small size and hook on the blade suggest that it was a small stock knife. Another possibility is that it was a pruning knife, the hook being used to pull out the stem that was to be cut.

Catalogue of Roman metal and glass objects (Figs 3.15-3.16)

3. (not illustrated) **Simple bow brooch** with four-coil spring. The bow is flat and narrow in section and tapers towards the catch plate. Catch plate not pierced. Cu alloy. Context 1001, subsoil, SF 1005. Unphased.
4. (not illustrated) **Simple bow brooch** with a sprung pin. The pin and spring are missing. The bow is flat and narrow in section and tapers towards the catch plate, which is unpierced. L: 48mm. Cu alloy. Unstratified, SF 2611.
5. **Simple bow brooch** with four-coil spring, but no extant pin. The bow is flat and narrow in section and tapers towards the catch plate, which is not pierced. The brooch is badly distorted, perhaps deliberately. Cu alloy. L: 61mm. Context 3082, buried soil, SF 2575. Phase 6.
6. (not illustrated) **Small two-piece Colchester brooch**, quite narrow ridged bow, lacks catch plate, small wings, complete spring attached through pierced lug, but no pin. L: extant: 29mm; W: 18mm. Cu alloy. Context 3082, buried soil, SF 2759, Phase 6.
7. (not illustrated) **Two-piece Colchester brooch**, bow and wings only. The pierced catch plate is largely missing. The upper portion of the bow has a ridge with fine transverse lines. Remains of a rear hook at top of bow. Cu alloy. L: 50mm; W: 26mm. Unstratified, SF 2780.
8. (not illustrated) **Hod Hill brooch**. Very worn fragment with side lugs and ridges across back. Cu alloy. L: extant: 26mm. Context 2725, soil below topsoil, SF 2601.

9. (not illustrated) **Bow brooch** fragment. Lower portion of brooch bow with central rib and pierced catch plate. Probably from a two-piece Colchester or perhaps a Polden Hill brooch. Late 1st- early 2nd-century. Cu alloy. L: extant: 29mm. Context 2708, layer, SF 2593. Phase 4.
10. (not illustrated) **Bow brooch** fragment, comprising wings, part of spring and the very top of the bow. Possible small two-piece Colchester. Cu alloy. W: 20mm. Context 3082, buried soil, SF 2722, Phase 6.
11. (not illustrated) **Bow brooch** fragment. Small solid catch plate. Cu alloy. L extant: 16mm. Context 3082, buried soil, SF 2549, Phase 6.
12. **Plain annular brooch** of plano-convex section, tinned on front face. Hinged pin, now missing, catch plate incomplete. Cu alloy. D: 24mm. Context 3082, buried soil, SF 2696, Phase 6.
13. **Armlet**. Decorated terminal of broad 1st-century armlet. L: extant: 23mm; W: 17mm. Possible military associations. Cu alloy. Context 3082, buried soil, SF 2542, Phase 6.
14. (not illustrated) **Bracelet or armlet** with band of circular section thickened at the centre. The terminal end is squared off. One terminal is bent out of alignment. Cu alloy. L: 83mm. Context 5134, fill of pit 5131, SF 2820, Phase 9.
15. (not illustrated) **Bracelet or armlet** with band of oval section flattened on the inside thickened at the centre. One terminal is complete, thins and flattens. One terminal is incomplete and bent out of alignment. Cu alloy. 75mm x 57mm. Unstratified metal detecting find, SF 2801.
16. (not illustrated) **Melon bead** fragment, frit. L: 11mm. Context 2601, fill of ditch 2599, SG8009, SF 2503, Phase 4.
17. **Hair pin** with decorative head. It appears to have been deliberately bent and broken. Decorative head comprised almost spherical knob with slightly flattened top. Below at mouldings which unusually are square in cross section. Tip also missing. Cu alloy. L extant: c 84mm. Unstratified, SF 2551.
18. **Spoon probe** with an incomplete narrow spoon, now detached from handle. Cu alloy. L: 104mm. Context 3701, subsoil SF 9.
19. **Circular hand mirror**, two refitting fragments. The mirror has a slightly lipped and bevelled edge and is decorated around the circumference with ring-and-dot with a fine double concentric circle inside the ring-and-dot circle. The reverse has at least two close-set concentric circles. Cu alloy. D: c 120 mm. Context 7002, subsoil, SF 7012 and SF 7015.
20. **Buckle tongue** of distinctive Roman form from a 1st-century military buckle. Tip of the tongue is missing. Cu alloy. L extant: 24mm; W: 11mm. Context 3082, buried soil, SF 2540. Phase 6.
21. **Cavalry harness pendant** fragment, tinned. Cu alloy. L extant: 38mm; W: 19mm. Context 3082, buried soil, SF 2698. Phase 6.
22. **Lion head stud** with short stem. Cu alloy. L: 13mm; head 12mm x 11.5mm. Context 3082, buried soil, SF 2545. Phase 6.
23. (not illustrated) **Smith's hand hammer** with oval eye. Fe. L: 140mm; W: 32mm. Context 3701, subsoil. SF 2. Phase 6.
24. **Axe head**, with a high square butt or poll, curved blade angle slightly forward, and oval eye flanked by rectangular lugs. Poorly preserved and laminating. Fe. L: 183mm; W of cutting edge: c 55mm. Context 9001, subsoil.
25. **Stock knife** (?), with whittle tang at one end and a probable hook or loop at the other end. Fe. L extant: 180mm; W: 25mm. Context 1704, fill of pit 1702, SF 1020, Phase 3.
26. (not illustrated) **Biconical lead steelyard weight**. Remains of iron staple for suspension at one end. Pb. Ht: 45mm; D: 44mm. Context 5001, subsoil, SF 2821.
27. (not illustrated) **Net weight** (?), flat and circular with large central perforation. 24mm x 23mm; Th: 4.5mm. Pb. Context 9211, ditch 9167, SG8167, SF 9002, Phase 6.
28. Rectangular **strip of thin lead sheet** with a nail hole at one end. Pb. L: 77mm; W: 22mm. Unstratified, though probably associated with layer 3082.

Medieval metal objects

A small number of medieval finds were identified. Most were not securely stratified. A clipped and worn long cross penny reduced to the size of a farthing (Cat. no. 30) was unstratified. A rowel spur fragment (Cat. no. 31) was found in the fill of a furrow and a plate from a buckle or strap end (Cat. no. 34) came from a ditch fill (context 5556). Many objects were from the subsoil.

Catalogue of medieval metal objects (not illustrated)

30. **Long cross penny**, silver, clipped and worn to about the size of a farthing. No surviving legends. Edward I to Edward III, but could be later. D: 14mm. Unstratified, SF 2574.
31. **Rowel spur** fragment comprising parts of both curved sides, and a short neck angled down with a slot to take a rowel. Probably dates from the late 13th to late 14th/early 15th century. Fe. L extant: 71mm; W: 55mm. Context 5558, fill of furrow 5573, SF 3011. Phase 8.
32. **Ampulla** for holy water, neck with decoration at its lower edge where it expanded into the now lost body of the ampulla. It would have had handles or loops for suspension either side of the neck. Pb. W: 27mm; Ht extant: 36mm. Context 9001, subsoil, SF 9012.
33. **Simple folding clasp**. Plain rectangular frame with convex sides and folding end with bar mount. The plate is missing (no. 34, SF 7006). Late 13th/early 14th century to early 15th century. Cu alloy. L: 20mm; W: 12.5mm. Context 7002, subsoil, SF 7003.
34. **Simple folding clasp**. The folding end is incomplete (cf. no. 33). The plain frame is trapezoidal, and formed from folded strips on three sides with a fixed roller for the folding end. The rectangular plate is largely complete. It was secured to the strap by a single rivet at its outer end. Late 13th/early 14th century to early 15th century. Cu alloy. L: 40mm; W: 15.5mm. Context 7002, subsoil, SF 7006.
35. **Oval buckle frame** with ornate outer edge and offset bar for strap or buckle plate. Incomplete. Late 12th to late 14th century. Cu alloy. L: 21mm; W: 28mm. Context 7002, SF 7007, subsoil.
36. **Oval buckle frame** with ornate outer edge and offset bar for strap or buckle plate. Complete frame, no plate. Late 12th to late 14th century. Cu alloy. L: 18mm; W: 22.5mm. Context 7002, subsoil.
37. **Five-sided strap loop** with internal rivet (missing). Cu alloy. L: 25mm; W: 15.5mm. Context 7002, unphased

38. **Buckle plate or strap end** fragment. Has two extant rivets side by side at one end (and a thin extension) and a possible rivet or nail hole at the opposite end. Incomplete. Cu alloy. L extent: 24 mm; W: 13mm. Context 5556, furrow, SF 3008.
39. **Strap end**, small forked composite strap end with collar knop terminal of lozenge section. 14th-century. Cu alloy. L: 33mm; W: 8.5mm. Context 1001, subsoil, SF 1009.

Late medieval and post-medieval finds

A number of late medieval or early post-medieval finds were recovered. These include a badly damaged Tudor silver groat (Cat. no. 40), halfpenny of William III dated 1695 (Cat. no. 41) and a halfpenny of George III (Cat. no. 42).

The most obvious finds are a number of horseshoes or fragment of horseshoes (Cat. nos 44-50) together with two horseshoe nails (Cat. nos 51-2), one of which is probably medieval, and part of a harness (or crotal) bell (Cat. no. 53). Some of the horseshoes are very poorly preserved. Goodall (2011, 363) commented on the difficulty of dating horseshoes closely and outlined a broad typological scheme. The published archaeologically-dated horseshoes from London (Clark 1995, 75-123) largely supports Goodall's view while refining and adding more dating evidence. The more complete horseshoes include one small example with tapered heels (Cat. no. 44) and two examples with broad branches and square heels (Cat. nos 45 and 46). All three horseshoes have rectangular nail holes and are probably medieval in date, with the broader shoes being later medieval in date. The one other complete shoe (Cat. no. 47) has angled heels and almost certainly dates to the later 17th or 18th century. Two of the horseshoe fragments (Cat. nos 48 and 49) have broad branches and rectangular nail holes and are probably medieval. The third fragment (Cat. no. 50) is poorly preserved and has no surviving evidence of nail holes. The presence of the horseshoes and horseshoe nails and the harness bell can perhaps be explained as losses by the roadside.

Catalogue of post-medieval objects (not illustrated)

40. **Groat** (?), silver. Cut, bent and folded. Obverse worn, no clear image, a few individual letters of the legend are visible // reverse has royal arms in shield with cross, few letters of the legend are visible. The royal arms in shield with a cross indicate a Tudor monarch and the size suggests that it was a groat and originally would have been c 23mm in diameter. D extant: 22mm. Context 9001, subsoil, SF 9014.
41. **Halfpenny**, William III, very worn. Bust facing R, legend GVLIELMVS TERTIVS // figure of Britannia legend BRITANNIA, date probably 1695. Cu alloy. D: 27mm. Unstratified, SF 2559.
42. **Halfpenny**, George III. Very worn. Bust facing R, legend '... I I I . REX ...' // figure of Britannia obscured by corrosion. Cu alloy. D: 28mm. Unstratified, SF 2790.
43. **Double oval buckle**, with decorative or offset outer

edge on one oval only. Usually either both ovals are decorated or both are plain. A pin is attached to central bar. The form suggests later medieval or early post medieval (broadly mid 14th to mid-17th century). Cu alloy. L: 37.5mm; W: 22.5mm. Context 7168, furrow 7167, Phase 8.

44. **Horseshoe**, quite small and narrow. One branch tapers to a narrow heel with a thickened ('upset') calkin. The other branch tapers to a heel which has partly eroded away. Both branches have four closely spaced rectangular nail holes. Fe. L: 123mm; W: 103mm. Context 5135, spread.
45. **Horseshoe** with broad branches ending in square heels. Serious surface lamination has left thin metal and the form of the heels is unclear. X-ray shows three evenly spaced rectangular nail holes with countersinking close to outer edge of each branch. No evidence for calkins. Fe. L: 121mm; D: 110mm. Context 9001, subsoil.
46. **Horseshoe** with broad branches ending in square heels. Serious surface lamination has left the metal thin. X-ray shows four evenly spaced rectangular nail holes close to outer edge of each branch. No evidence for countersinking of nails and no evidence for calkins. Fe. L: 122mm; W: 112mm. Context 9001, subsoil, Phase 9.
47. **Horseshoe** with broad branches and angled heels. Each branch has four regularly spaced rectangular nail holes. Later 17th or 18th century. Fe. L: 123mm; W: 114mm. Context 1001, subsoil, SF 1003.
48. **Horseshoe** fragment, broad branch. Serious surface lamination has left only thin metal fragment. X-ray shows five, possibly six rectangular nail holes close to outer edge. No evidence of countersinking. Possible square heel. No evidence for calkins. Fe. L: 112mm. Context 5051, fill of ditch 5050.
49. **Horseshoe** fragment comprising one wide branch tapering to pointed heel with probable calkin. Two extant rectangular nail holes towards toe. Fe. Not measured. Context 7002, subsoil.
50. Probable **horseshoe** fragment, laminated and reduced. No surviving nail holes. Fe. L extant: 93mm. Context 9057, fill of ditch or furrow 9047, Phase 8.
51. **Horseshoe nail**. Goodall Type B (Goodall 2011, 364). 13th to 14th century. Fe. Not measured. Context 7002, subsoil.
52. **Horseshoe nail head**. Goodall Type C or D (Goodall 2011, 364). Fe. Not measured. Context 7166, fill of pit 7165, Phase 8.
53. **Harness bell** (crotal bell), cast cu alloy. Almost spherical with raised horizontal band around the middle, and small square loop at the top. Incomplete. About two thirds extant. Post-medieval. Cu alloy. Ht extant: 40mm; D: 36mm. Context 7006, ditch 7004, SF 7001, Phase 9.

Metal objects from Aylesbury Vale Parkway

Composition of the assemblage

The small metalwork assemblage consists of 69 objects comprising 15 pieces of copper alloy, 47 pieces of iron and seven pieces of lead. In addition, there are four small unidentified fragments of iron and a small unidentified piece of lead. The bulk of the assemblage (46 objects) was unstratified.

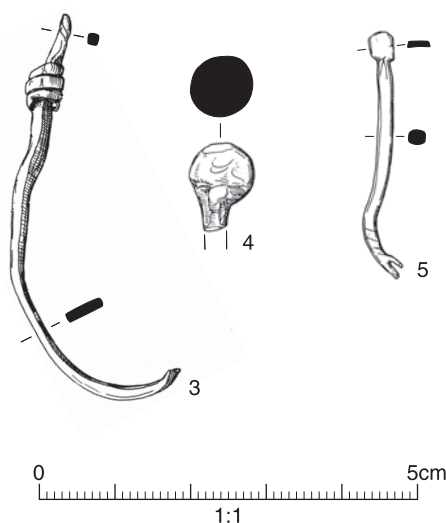
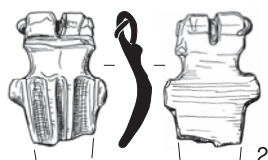
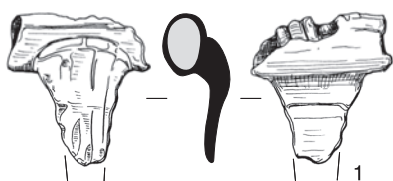
The stratified material comprises iron objects and

one piece of melted lead, and is made up largely of nails (nine objects) and miscellaneous fragments (five). There are also seven hobnails (collected from late Roman ditch 358, medieval furrows and layer 602) and an iron hook from a furrow. The hobnails are almost certainly of Roman date, but the hook is probably medieval or post-medieval.

The unstratified finds include four possible lead weights: one biconical, two crudely formed cone-shaped weights, and the fourth formed from a pierced flattish irregular lump. Personal items consist of three hobnails, fragments of two 1st-century brooches, a possible bracelet fragment, a hair pin head and a small object that may be a nail cleaner. Household objects comprise a whittle tang knife (probably modern) and a lead rivet used to repair a ceramic vessel. Structural items consist of two stout joiner's dogs and a T-staple. There are eight nails, eight miscellaneous fragments and three objects of uncertain identification. Finally, there are nine pieces of waste comprising either broken fragments, or melted pieces, of copper alloy.

Catalogue of illustrated material (Fig. 3.17)

1. **Langton Down brooch** fragment with non-reeded bow. The spring is held inside a cylindrical enclosure.



2. **Hod Hill brooch** fragment with hinged pin. Mid 1st-century AD. Cu alloy. L: 17 mm; W: 15 mm. Unstratified. Hod Hill brooches occur in the early 1st century AD on the continent and are often associated with military sites (Olivier 1996, 248). In Britain they date to the period of the Claudian conquest and immediately after. They are absent from King Harry Lane, but occur at Hod Hill and at Colchester in Claudio-Neronian contexts (Bayley and Butcher 2004, 152-53).
3. Possible **bracelet** fragment. Formed from plain narrow strip with a thin extension at one end, around which a coil of thin wire is wrapped. The coil is probably part of an adjustable clasp. The strip is bent into a curve. Cu alloy. L: 50 mm. Unstratified. A good example of an almost complete sliding clasp on a bracelet with a circular section band comes from a late Roman inhumation at Colchester (Crummey 1983, 38, fig. 41: 1601). The majority of bracelets date to the 3rd and 4th centuries AD.
4. **Hair pin** fragment with knob head (Type 2, Cool 1990, 154, fig. 1: 7-9; fig. 2: 1-2), with most of the stem lost. Round pin head with stepped collar or moulding to stem. Cu alloy. L extant: 11 mm; D: 8 mm. SF 108, unstratified.
5. Possible **nail cleaner**. Small object comprising thin sinuous slightly tapering stem of sub-rectangular section. It ends at one end in a terminal that looks like an open-mouthed snake head. The wide end has a flat expanded terminal. Dating uncertain. Cu alloy. L: 32 mm. SF 60, unstratified.

IRON SLAG AND RELATED HIGH-TEMPERATURE METALWORKING DEBRIS

by Lynne Keys, with a contribution by Edward Biddulph

The amount of slag recovered was small: just 2.3kg of which 1.7kg is represented by two smithing hearth bottoms, one from roadside ditch SG8016 (G15, Phase 4), the other from medieval ditch 5581 (G22, Phase 8). The rest of the material is heat-magnetised grit, small stones, sand and occasional fired clay, all of which had been recovered from soil samples. Fragments of suspected iron ore were recovered from the fills of Phase 2 posthole 1424 and an unphased posthole (1553), but on examination were found almost certainly to be accidentally burnt natural iron-rich grains, probably deriving from the Upper Greensand that outcrops just to the south-east of Aylesbury (T Young, pers. comm.). It is in Phase 4 that small quantities of slag appear, with some 245g from SG8016 (G15). No focus of activity is represented by the material and it was probably generated by one-off activity. Phase 8, the medieval period, is of more interest. The evidence from ditch

Fig. 3.17 Metal objects from Aylesbury Vale Parkway

5581 is diagnostic evidence of smithing and all 1.6kg of the slag probably originated from the same forge.

Metalworking debris from Aylesbury Vale Parkway by Edward Biddulph

A total of 1172 fragments of iron slag, weighing 664g, was recovered from the excavation area. The majority of this was micro-slag and identified as hammerscale, which consists of fish-scale-like fragments of iron dislodged during working, or spheroidal droplets of liquid slag expelled during hot working. It is important in interpretation of activity on sites, because it is highly diagnostic of smithing and tends to build up in the immediate vicinity of the smithing hearth and anvil. The slag was collected from tree-throw holes, graves, and a ditch. All the material was redeposited, and there was no evidence of anvil settings, hearths, or other indications of metalworking within the excavated area itself. Nevertheless, given the nature of material, the micro-slag suggests metalworking activity close to the site, probably to the west of the concentration in the southern-eastern part of the excavated area and towards the Fleet Marston

settlement. In such a roadside settlement, it is expected that smithing would be one of the activities carried out.

LEATHER SHOES by Quita Mould

The remains of two shoes of nailed construction were found in the lower fills of pit 3067 (Phase 6). A basic record of the material was made and is summarised below. The shoe terms employed are those in common use in the archaeological literature; seams, constructions and nailing patterns are fully described by van Driel-Murray (2001) and constructional thonging by Mould (1997, 328-31).

A shoe (Fig. 3.18, SF 2616), possibly worn on the right foot, was found in fill 3073. Another shoe (Fig. 3.18, SF 2628), for the left foot, was found in context 3074. The shoes were incomplete, being represented primarily by their bottom units. The shoes were not a pair, though of similar size, estimated as small adult size, since they had differing constructional features and so were clearly of different styles. Shoe SF 2616 was more heavily nailed (type 2B) with a double row of hobnails around the edge of the sole and no constructional thonging. Shoe SF 2628 was more

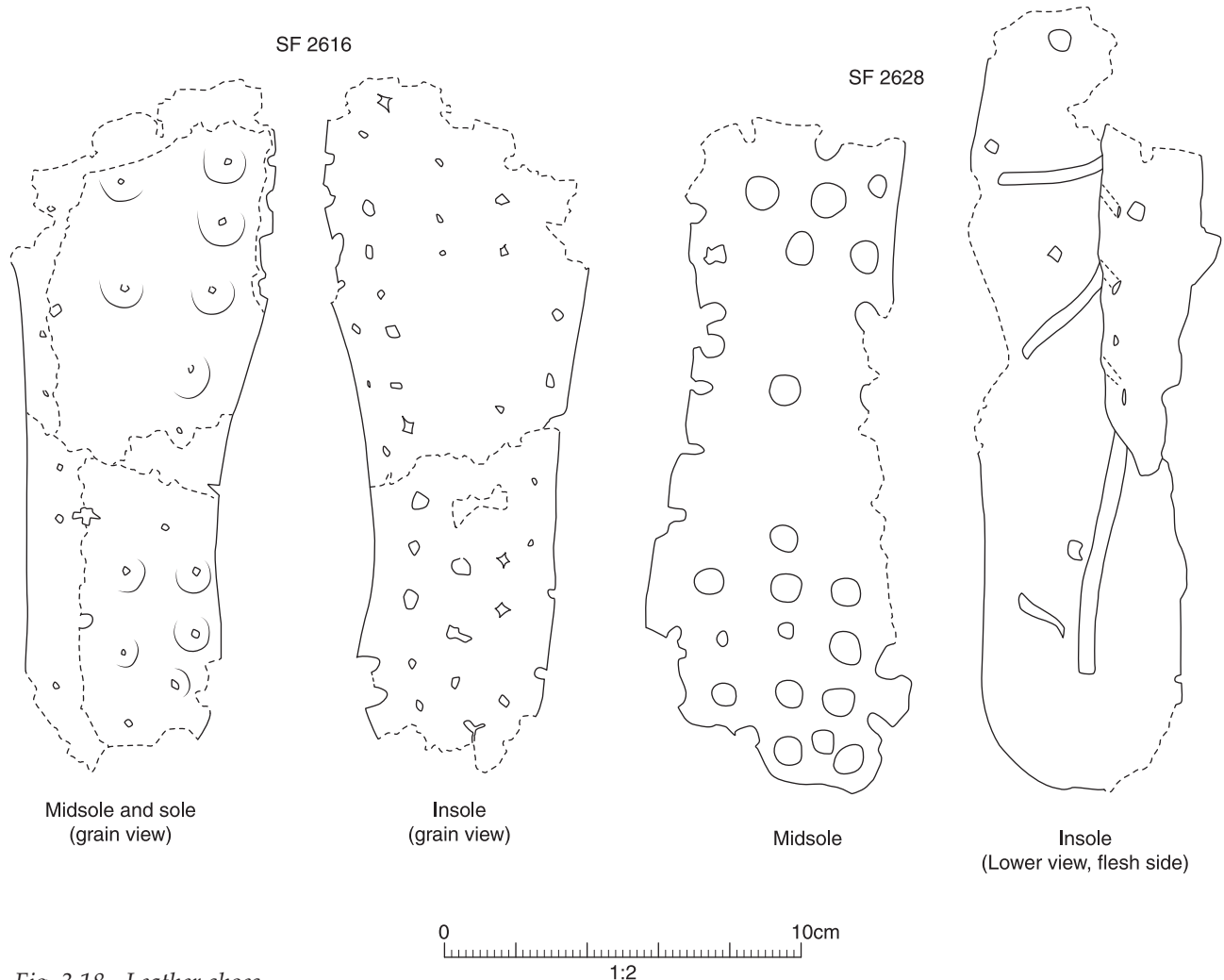


Fig. 3.18 Leather shoes

lightly nailed with a single row around the edge (type 1C) and had constructional thonging (type 2) holding the bottom components in place. This more lightly nailed shoe had a small heel stiffener, 30mm high, and an area of the lasting margin of its upper of sheep/goatskin, likely to be goatskin, preserved between the lower face of the insole and the upper face of the midsole. As the shoe bottom units were incomplete and they lacked well preserved uppers, more precise dating is not possible.

The array of contents in the pit (including coins, complete or near-complete pottery vessels, eggs and a basket) may suggest a ritual deposit, and the two shoes may have been deliberately placed in the pit as part of this ritual assemblage, rather than simply being the result of domestic rubbish disposal.

WOODWORK by *Damian M Goodburn*

Introduction

This report sets out to summarise the range and character of the Roman-period woodwork found at the site and assess its wider importance both for the site and its surrounding area and for the light it shines on several little known areas of Roman-period woodworking technology. Nearly all the woodwork derived from the waterlogged fill (3074) of a large pit (3067) and was deposited from the mid-3rd century onwards (Phase 6). In addition, two large, roughly square-sectioned, oak piles (5667, 5668) were salvaged from an area on the south-eastern edge of the main site on the east bank of the River Thames. These were found on the line of Akeman Street and owing to their blackened condition were immediately thought to have been possible Roman bridge timbers. These timbers were subject to further recording and sampling.

In total, 56 items of worked wood were examined by this writer for detailed recording. These had been carefully lifted and wrapped on-site by the OA field team. The best preserved and most diagnostic material (15 items including the basket and two large pile timbers) was drawn to scale on gridded film, and pro-forma 'timber sheets' were filled out for all the structural material. The small fragments and repetitive items were more rapidly recorded in an annotated list with basic features and dimensions noted. This is commensurate with the procedures outlined in Historic England's waterlogged wood guidelines (Brunning 1996).

Two tree-ring sample slices were taken from stakes 2657 and 2658 from pit fill 3074 and the large oak piles, but unfortunately none could be dated (D Miles, pers. comm.). The piles were subsequently submitted for radiocarbon dating, from which determinations were obtained. Seventeen wood species identification samples were also taken for microscopic identification, some to confirm visual identifications.

Summary of the woodwork

The waterlogged lower fills of pit 3067 contained a range of dumped and washed-in woodwork, together with woodwork deliberately deposited, and other items seemingly of a light structural nature were found slumped into the pit. The largest item was a partially worked, oak saw baulk comprising two thin planks joined at the 'felled end' of a relatively small oak stem (SF 2685). This timber is unique evidence of Roman sawyer's work in Britain and was probably abandoned owing to defects in the timber. It was reused as a horizontal duck board in the eastern end of the partially silted up feature. Another rare find found in the same fill, also at the east end, was a large basketry tray made of split oak combined with willow in a currently unique style (SF 2687). The remains of stakes were found at both the west and east ends of the feature. These may once have been part of a fence or revetment around the upper edges of the waterhole, though they were lying somewhat out of position. They included cleft oak and roundwood stakes of ash. The fills of the pit also contained many smaller waterlogged items of worked and probably unworked wood, among them a broken ash mallet head (SF 2678) and fragments of a tool and a knife handle. Smaller fragments of wood included small cut rods that may have once been part of a wattle fence and a number of woodchips, both of which may have been washed into the feature.

Objects from pit 3067

Saw baulk SF 2685

This very unusual piece of worked timber was found lying roughly horizontal on its widest face, orientated N-S across the east end of the feature. It appeared initially to be one plank 1.88m long and c 200mm wide. It was covered in a combination of sticky clay and concretion, but after cleaning off-site, it could be seen that rather than being one plank with an irregular lump on the end, it was in fact two, unusually thin, sawn oak boards, still joined together at one thicker end (Fig. 3.19). A fragment of the end of a third board was also attached to this thicker 'felled end' of the parent log. The parent log had been hewn (axe-shaped) to a regular rectangular section 200mm or 8 *unciae* across, but the axe-cut felled end had not been sawn off before hewing. The other end had also been axecrosscut rather than sawn across, and the baulk may originally have been a little longer. What had been the felled base with a torn 'hinge' of the parent tree was still left largely untrimmed over a length of up to c 0.35m (Fig. 3.20A). This deeper felled end was up to 70mm thick and 215mm wide.

It is clear that this timber was an abandoned section of a baulk that had been marked out and sawn lengthways into many thin planks or boards c

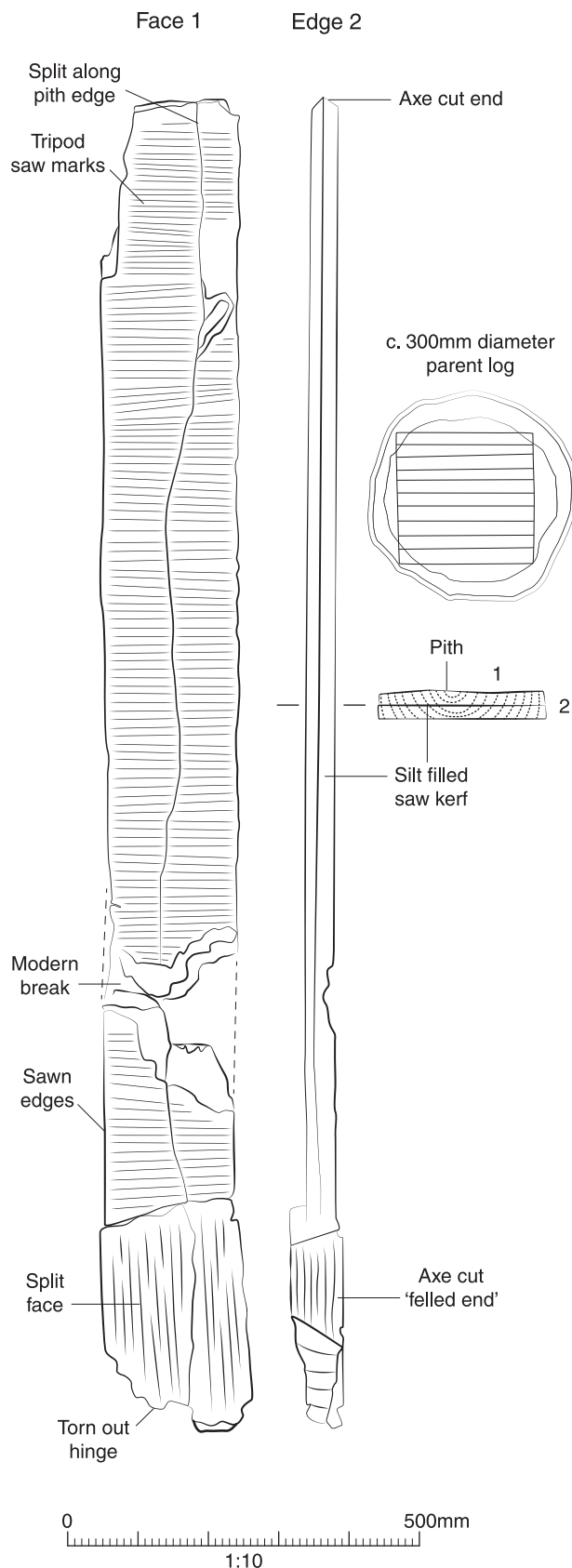


Fig. 3.19 Abandoned oak saw baulk (timber 2685), with two planks still joined at the axe cut 'felled end'

15-19mm thick or possibly 1 *digiti* thick (c five-eighths to three-quarters of a modern imperial inch). The remaining saw cuts or 'kerfs' were c 4mm wide. If an average thickness of c 17mm was aimed for in the boards, and the baulk was hewn square, as seems typical (Fig. 3.20B), then ten boards could have been sawn from the baulk. The outside two would have been more irregular and hewn on one face and sawn on the other (Goodburn 1995, 44). The ends of the saw kerfs were split with a wedge to complete them. The central area of the baulk included the pith of the parent log, which had split badly, and this may have been the defect that caused the saw baulk to be abandoned unfinished.

The Romans introduced sawing technology to Britain and by careful observation of the tool marks of axes and saws on many examples of sawn Roman planks found in London, it has been shown that three different sawing methods were used (Goodburn 2000, 193). The most common method involved using a large saw set in a frame and the saw baulk set horizontal over two trestles. The saw was moved up and down by at least two sawyers (Goodburn 1995, 44). The second involved the use of just one trestle, with the saw cuts made to the pivot point. The baulk was then 'see-sawed', with the cuts made from the other end crossing in the middle. This method was readopted in the later medieval period. The third, apparently less common, method involved strongly securing the marked out saw baulk to a beam resting on a tripod. All the saw cuts were then made in one direction to this secured base and then finished by splitting the last section. This third method was widely used in France, Switzerland and elsewhere until recently, well into the age of photography (Arnould 1996), but not in Britain where the 'pit-saw' was dominant from the 16th century AD.

The saw baulk from Berryfields therefore provides a tremendously informative example of the work of Roman sawyers or *sectores materiam* (Meiggs 1982, 355) using the tripod method (Fig. 3.20C). It is also sawing set in a later Roman-period rural setting, using a relatively small oak originally only c 350mm in diameter at c 2m up. It is unlikely that this abandoned low-value timber was moved any great distance, so the sawyers would have worked close by. Most Roman sawn planks found in London and elsewhere have been much thicker and wider, commonly either c 0.45m wide and 45mm thick or c 0.3m wide and 30mm thick (Goodburn 1995, 42). The tripod method was not the most common type of sawing method used in Roman Britain, but examples of its use have also been found at Regis House in London, Whitehall Farm villa in Northamptonshire and another site in Nottinghamshire (C Salisbury, pers comm.; Goodburn 1997). All the Roman sawing methods involved lifting heavy, freshly hewn oak baulks up to at least chest height. In the case of this small baulk it could have been manhandled by two to three adults, as it would have weighed only c 0.12 tonnes if originally 3m long. By contrast, the typical



Fig. 3.20 Diagrams showing three stages in making the late Roman saw baulk (timber 2685): A) felling the small parent oak, B) axe-squaring (hewing) the parent log, C) the saw baulk set up for the 'tripod sawing' method to make planks

larger saw baulks used for 0.45m or cubit-wide oak planks up to 6m long would have weighed over 1.2 tonnes (Goodburn 1995, 42).

We cannot know with certainty for what purpose boards c 190-200mm wide by c 17mm thick would have been sawn, but their lightness suggests either a furniture or possibly building cladding use. On many Roman sites, such thin boards were produced by the older method of controlled radial splitting, or cleaving from large straight logs of oak which produces stronger, less split-prone material (Goodburn *et al.* 2011, 422). Perhaps large, straight, oak logs were in short supply in the area at the time, or some form of property right prevented access to them, so that the inhabitants were forced to use small, less straight trees. The parent oak for the Berryfields saw baulk could have grown as a small

'standard' in managed woodland or possibly even in a farmland hedge.

The part of the saw baulk represented here was relegated for use as a duckboard to stand on and laid across the partially silted pit. It is tempting to see this duckboard as a simple way of providing access across the shallow wet pool to allow the ritual deposition of some of the material found within it.

Radially cleft oak stake timber SF 2684

This was the largest and best preserved radially cleft oak stake, being one of five lifted from the feature. It survived 1.64m long, 75mm wide and 50mm thick and was just under a cleft quarter of a small, fairly straight oak log c 140mm in diameter at

the mid-length (Fig. 3.21A). The parent tree was a small tree of about 30 years old when felled, of medium growth rate, probably a managed woodland tree. Indeed, it may even have been of old coppice origin, as this has been shown to have been a common source of small structural timber in

south-eastern Britain (Goodburn 1995, 34). Such 'rustic' workmanship would not have been out of keeping with pre-Roman woodworking traditions, and continued in use for some purposes through the Roman period and beyond.

The sapwood and bark had been left on, as it had in the other stakes made this way. Most of the other stakes were cleft down to smaller sections, such as one-eighths or one-sixteenths. They may originally have been used in wattle fencing to enclose the feature (or part of it) to prevent stock and unwary folk stepping into it. The roundwood weavers would have become dislodged as the stakes slumped into the fill of the feature. Though two stakes of this form were sampled with complete sapwood they had too few annual rings for tree-ring dating.

Ash pole stakes partially excavated and one more complete example, SF 2715

A quite different way of making small stakes was also evidenced in woodwork from pit 3067. Several sections of small ash poles cleft in half or trimmed 'boxed heart' were found broken at both ends, showing that they had not been fully excavated owing to the waterlogged conditions. However, one was rather more complete (SF 2715). This was made from a small ash pole by splitting the wood in half and axe-trimming the pole tip (Fig. 3.21B). It was 0.79m long, 65mm wide and 35mm thick. The tree stem it derived from was a relatively slow growing, small tree, 30 years old when felled. The slow growth rate may suggest that it grew in a rather dark parcel of woodland on relatively poor soil. Again, these are likely to have been elements from a fence around the feature.

Small roundwood 'stakes' SF 2661 and SF 2617

A small number of very small roundwood cut ends were found and labelled 'stakes', such as SF 2661, which was 0.16 m long with a smooth chisel form end but only 15mm in diameter. It may be that this item was actually a horizontal 'rod' or weaver end in wattle work, as it is of such a small diameter. Item SF 2617 was of a similar length, but with a diameter of 35mm would have been a stronger stake, perhaps from a section of disturbed wattle fence.

Cleft oak and willow basketry tray SF 2687

As might be expected, comparatively fragile basketry very rarely survives from the Roman period in Britain, and even when it has occasionally been found it can be very difficult to recognise and lift intact. This is particularly true in this case in the difficult circumstances of the deep waterlogged feature where the basketry survived (Fig. 3.22). It was found in the east end of the pit, sitting the right way up for use, but slightly flattened out.

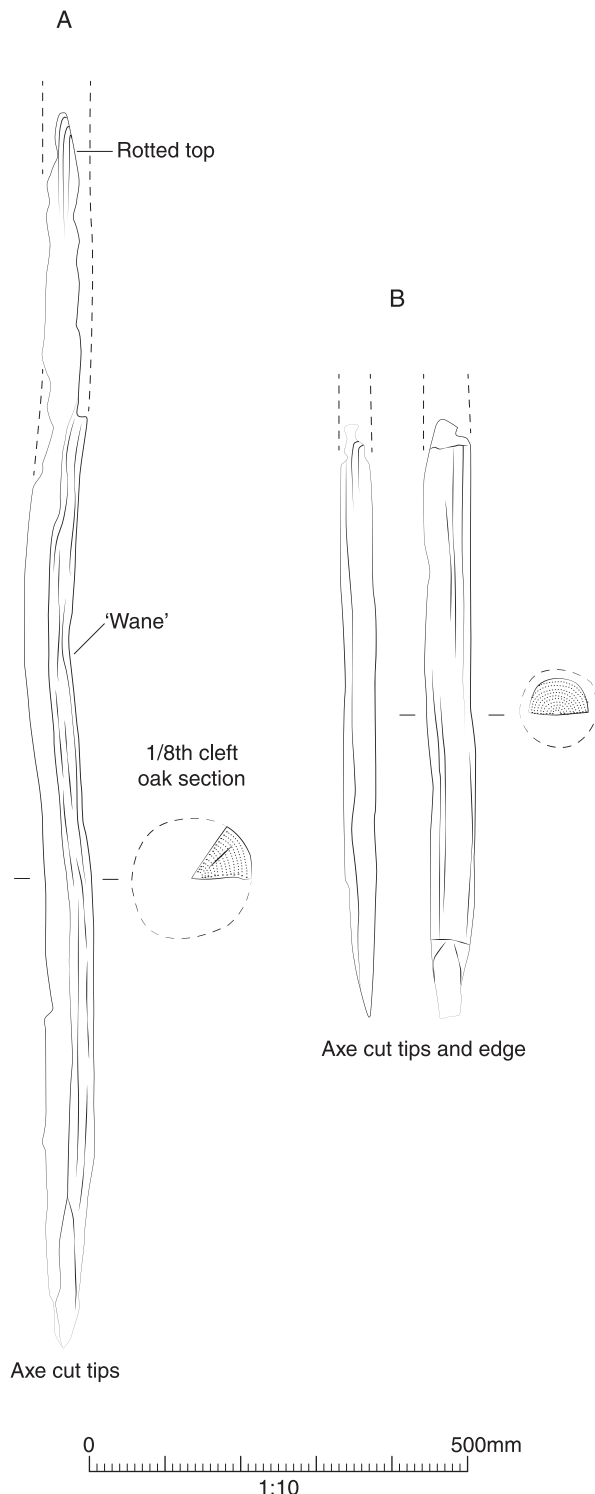


Fig. 3.21 Two representative stakes from the edge of the later Roman waterhole: A) radially cleft $\frac{1}{4}$ log stake 2684, B) cleft half ash pole stake 2715



Fig. 3.22 Late Roman basketry tray, SF 2687: A) the basket exposed in situ, B) Dana Goodburn-Brown conserving the basket, C) the basket being prepared for lifting

The size and form of the basketry tray and its construction

The basket retained one end and two long sides, while the other end had been lost (Fig. 3.23), showing that it had a roughly rectangular, tray-like form with slightly rounded corners. However, as the full depth of the sides had not survived, it may

actually have been rather deeper than recorded. Its surviving length was 0.9m (originally perhaps a little over 1m), with a slightly spread width of c 0.78m and depth of c 100mm. A currently unique feature of the basket's construction is that the base was made of very thin bands or 'spells' of oak, cut to a taper and interwoven crossways and lengthways. The spells were c 2mm thick and up to 65mm

wide, tapering to *c* 25mm. The wider ends were set alternately from one side of the basket to the other. They had been radially split from small straight oak logs with great care and skill and the surfaces left with little trimming. The timber used was of fairly fast growth and included a mixture of oak heartwood and sapwood in a ratio of *c* two-thirds to one-third. The spells of the bottom had been bent upward to form the sides, around which a band of small whole willow rods was woven with a simple alternate weave. Where best preserved, this band was up to 175mm deep. These fine rods, *c* 5mm in diameter with the bark left on, were very regular and looked as if they were one-year old. Such rods must have derived from a coppice or pollard source. The weave used was a simple in-and-out weave. Unfortunately, no trace was found of how the rim was finished.

The form of the basket and its likely uses

In recent times in Europe, wide flat basketry trays have had many functions, such as containers for ripening produce, but perhaps most of all they have been used as light display and carrying racks for bakery produce that needs to be supported and

aired after baking. Perhaps this large basketry tray fulfilled this role and once contained an offering of bread deposited in the ritual pool.

A brief comparison with other Roman-period basket finds from Britain

Space does not permit a full review of Roman-period finds of basketry from Britain, but the Berryfields example can be set in context with brief reference to some other finds. Finds from sites such as a well at Roman Silchester have shown that Roman basketry could survive in protected waterlogged deposits for many years (Wright 1959, 129). That find was just under half of a small oval basket of willow that was displayed at Reading Museum for some time. A small number of fragmentary finds have also been made in Roman London over the last few decades, and just a very few other sites in England, such as at Marcham and Gill Mill (Goodburn 2018) in Oxfordshire. At the Bloomberg London site, five substantial pieces of early Roman-period basketry were found. Study of this material has shown that a wide variety of raw materials and techniques of basketry were known in Roman Britain (Stewart in prep). While one example was

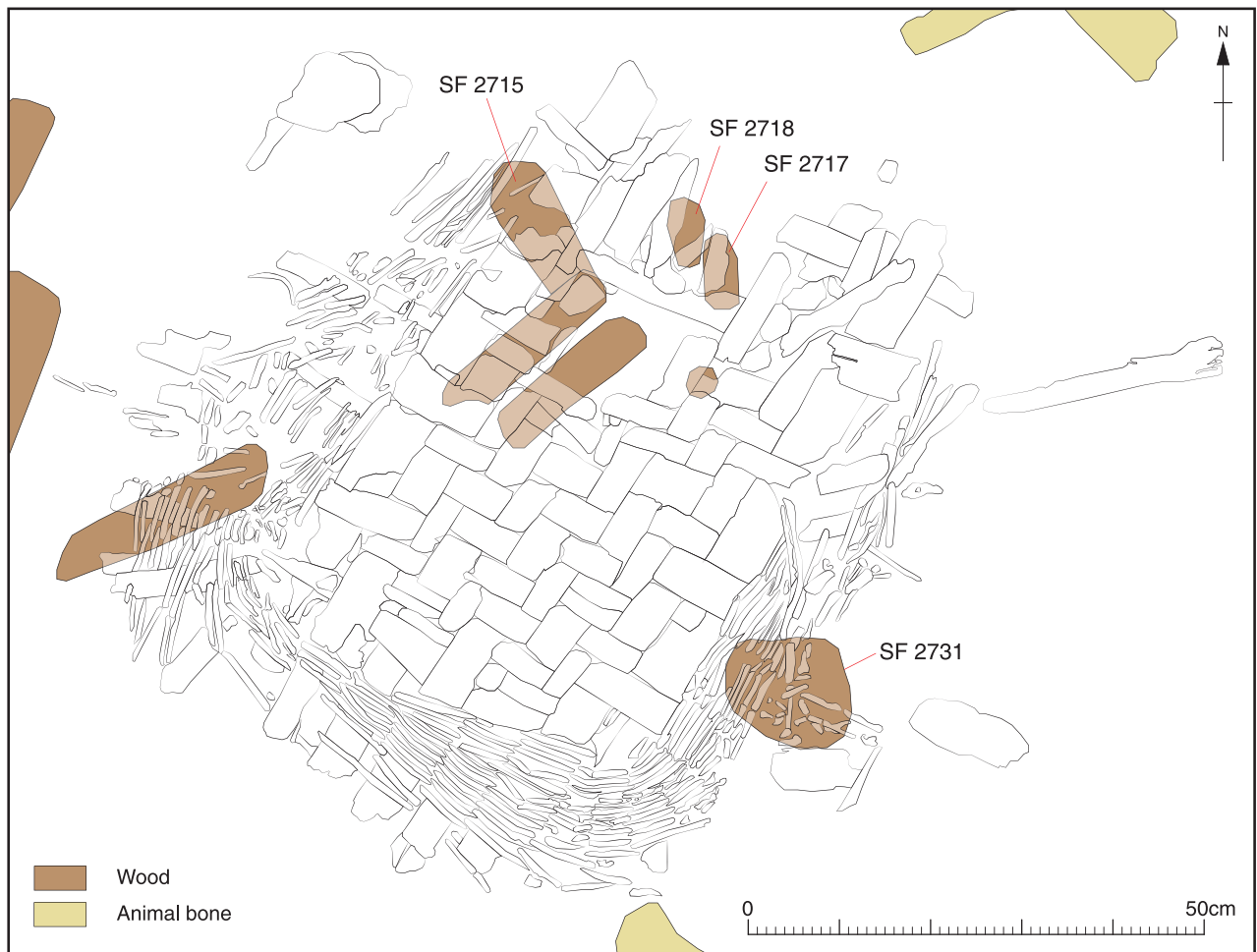


Fig. 3.23 Detailed drawing of late Roman basketry tray (SF 2687), showing the split oak or 'spelk' base and the willow rod sides, and other wooden objects

the base of a circular willow rod basket similar to examples of recent times, all others either used weaving techniques unknown in recent times in Britain, or unexpected materials such as split and shaved yew stems and clematis and pine splints. In one basket from Bloomberg London, split spell-type members, probably of willow, were combined with small round willow rods, but even in that assemblage there are no close parallels for the Berryfields example.

Some parallels in recent traditional British basketry

While it is clear that many techniques used by Roman-period basket makers did not survive to recent times in Britain, some echoes of the materials and techniques used by the maker of the Berryfields tray can be seen. The closest parallels for the use of oak spells are in the 'spelk' or 'swill' basketry of Cumbria and once also in the West Midlands and northern counties (Edlin 1949, 86-87). There, mostly oval forms of robust working baskets were made with fine oak spells attached to a bent hazel rim. The last regular maker of this form of basket is Owen Jones, who also manages the oak coppice from which the spells are made. These are made from the straighter, less knotty poles by splitting along the grain and removing the small amount of heartwood present. These billets are then boiled and further split and shaved with a strong knife worked over the knee (O Jones, pers. comm.). Owen Jones is very particular about not using the heartwood, and in Cumbria's cool wet climate it is likely that the young oak has more sapwood than is typical in the south-east of England and further south and east in Europe in any case. However, in Cumbria the split flat spells are not combined with round willow rods. In Wales, there was also a tradition of making round or oval-frame baskets with split and shaved hazel ribs and round willow woven round them (Heseltine 1982, frontispiece). It may be, perhaps unsurprisingly, that the closest parallels are to be found in rural parts of Italy, where Wright noted 50 years ago that 'the Italians in particular are alive to using traditional spale and willow shapes in new ways' (Wright 1959, 79).

Ash mallet head SF 2678

Although broken during the very difficult excavation of the feature, this object was clearly recognisable as a carefully made and balanced mallet head (Fig. 3.24). It was made of a box quartered section of fast-grown ash, shaped to a roughly rectangular block 130mm long by 120mm wide and 90mm thick, but with a slightly tapering form designed to place more bulk and weight of wood on the outside of the swinging arc. This would have maximised the impact delivered in use. Dense, fast-grown ash is a tough timber suited to use as a mallet head.

The mallet head showed wear from use, weathering and also charring, as well as casual knife cut marks. It had a comparatively light roundwood

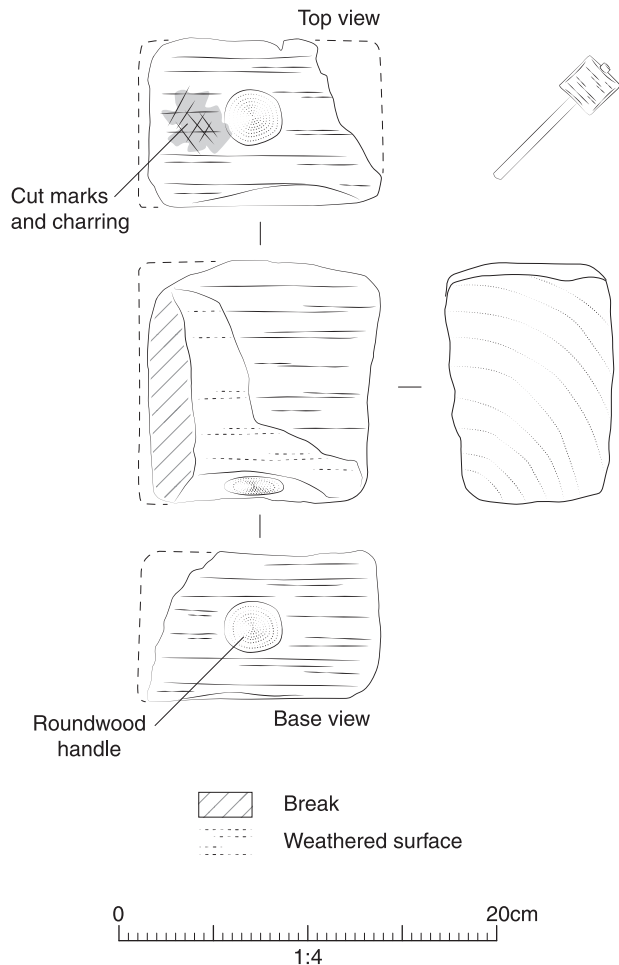


Fig. 3.24 Drawing of small Roman ash mallet head (SF 2678)

handle 25mm in diameter, suggesting that it would have suited prolonged but gentle use where the transfer of shock to the woodworker's wrist was moderated. Several typical forms of Roman joint, such as small mortices and lap dovetails, required the use of chisels, and so a mallet would have been an essential tool for carpenters and joiners. Another subtlety was that the handle appears to have been neatly shaved down so that it could be driven in from the head end, as this was of larger diameter.

Some other Roman period mallets have been found in Britain. These include one of broadly similar form, but nearly twice the dimensions and an oak head from Gill Mill (Goodburn 2018). In that case, the handle was also of roundwood and of modest diameter, but c 0.7m long. Clearly this was a tool for much heavier, less precise work than the mallet from Berryfields.

Carved wooden vessel fragment SF 2731

Two small fragments of a rounded, carved wooden vessel were found and lifted. The two pieces refitted along the lines of an old split, which also had three small nail holes either side and a strip of unabraded

surface, showing that the split had once been covered by a repair patch that had disappeared. The nails were of iron and the repair sheet may have been of iron or possibly lead. The vessel was c 28mm thick, 110mm wide and over 125mm deep. It could have been part of a rounded bowl or scoop to collect water, or possibly a container for some form of offering.

Simple ash tool handle

A pointed roundwood stake end was identified as a small handle. It had been cleft and shaved from an ash billet. The tapered end had been trimmed to fit a socketed small tool of some kind. It was 140mm long and up to 28mm in diameter. In recent times, such short handles were fitted to socketed chisels so they could be hit with a mallet without damaging the mallet or chisel. As Roman chisels were usually socketed forms, this might be a plausible function for this item.

Small worn broken handle SF 228

This is a broken handle with one intact pierced end, as if for suspension. The other end has a recent break. The total surviving length is 104mm with an irregular cross section of c 18 x 18mm. The surface of the object is very polished, as if from long use, and there is a hard black deposit on part of one face. The object was clearly made from a small section of a log, but the grain is hard to see clearly, as is the species. The wood may be unusual, such as a fruit-wood. It is tempting to see the object as the handle of a small knife.

Miscellaneous worked wood

Apart from the items specifically noted above, other material included several small fragments of cut roundwood, including some oak lath-like fragments that could have been lath fragments or wood-chips from fine axe hewing. Some material may have been simply domestic debris, such as a partially burnt fragment of cleft oak (SF 2732), which must have been leftover firewood. Small amounts of woodworking debris are to be expected in the vicinity of occupation, carried by wind, the play of children and adhesion to muddy feet.

Oak piles 5667 and 5668

The circumstances of their exposure and recovery meant that the timbers could not be recorded *in situ*. Tree-ring dating samples were taken, but unfortunately they could not be matched to reference chronologies. The outer rings and sapwood of both piles were subsequently sampled for radiocarbon dating, and the following determinations were obtained: timber 5667, cal AD 80-250 (95.4% confidence, SUERC-75478; 1834±30BP) or cal AD 130-220 (68.2% confidence); timber 5668, cal AD 80-320

(95.4%, SUERC 75477; 1826±30BP) or cal AD 130-230 (68.2% confidence).

Both piles were clearly of oak and were rather machine damaged, though some original tool marks and fragile sapwood had still survived. They had both been fairly accurately hewn to rectangular sections from whole logs using axes.

The larger pile (5667) survived to a length of c 2.6m from its near-complete tip to its machine-broken top. The tip had a well-preserved square section and was also axe hewn. The widest axe stop marks were up to 80mm wide, mirroring the blade of the tool used for the work and within the wide range of axe sizes known in Roman woodwork. In cross section the pile was originally c 450mm by 400mm, the 450mm dimension being close to the Roman cubit, a common dimension for large Roman civil engineering timbers found in Britain, including those associated with bridge structures (Jackson *et al.* 1976, 45; Stephenson 2008, 48; Kaye 2015). The oak log used for the pile was rather knotty, suggesting that it came from either the upper parts of a tall tree or the lower parts of a fairly large, open-grown oak at least 0.6m in diameter. The knots imply many heavy branches. This type of parent tree might be found in a fairly open farmed landscape in managed woodland or even a hedgerow or wood pasture setting.

The less well preserved smaller oak pile (5668) survived to a length of 1.85m from its broken tip to its machine-scraped top. It was much damaged by the machine excavation but was near-complete; soft sapwood survived on one corner and part of one face. In cross-section it was c 430 by c 370mm, but was originally larger. The parent log was a little knotty but less so than that used for 5667.

The large squared form of the piles and the location on the line of Akeman Street suggest that they were probably piles used to support a bridge trestle of some type, robust enough to support a metallised timber decking structure for the roadway. A lesser possibility might be that they were driven uprights for a large gateway structure on the eastern bridge approach.

In size they slightly resemble the largest piles used in the Roman trestle bridge found partially surviving at Aldwinckle, Northamptonshire (Jackson *et al.* 1976). The piles are larger than those used in several of the smaller Roman road bridges known from the inner London area in Southwark and the City. These include the remains of a mid-1st-century pile-supported trestle bridge excavated recently crossing the Walbrook on the Bloomberg London site (Goodburn in prep). In the Bloomberg example the regular rows of oak piles were of log form, with an average diameter of only c 250mm.

Alternatively, the timbers might instead form part of a gateway structure on the approach to the bridge, rather than part of the bridge itself. A parallel here might be the similar-sized gateway uprights found at the Roman River Lea crossing excavated at Crown Wharf, Tower Hamlets (Stephenson 2008, fig. 4). It

seems that the exaction of general road and bridge tolls was a Roman practice often located at route points, such as where a road crossed a river. However, the lack of a close provenance for the location of the Berryfields uprights renders this

speculation difficult. Whatever the timbers' function, felling, converting and moving rather knotty oak timber of this size is a considerable effort, as these piles would have weighed at least 0.65 tonnes each after hewing, if c 3m long originally.

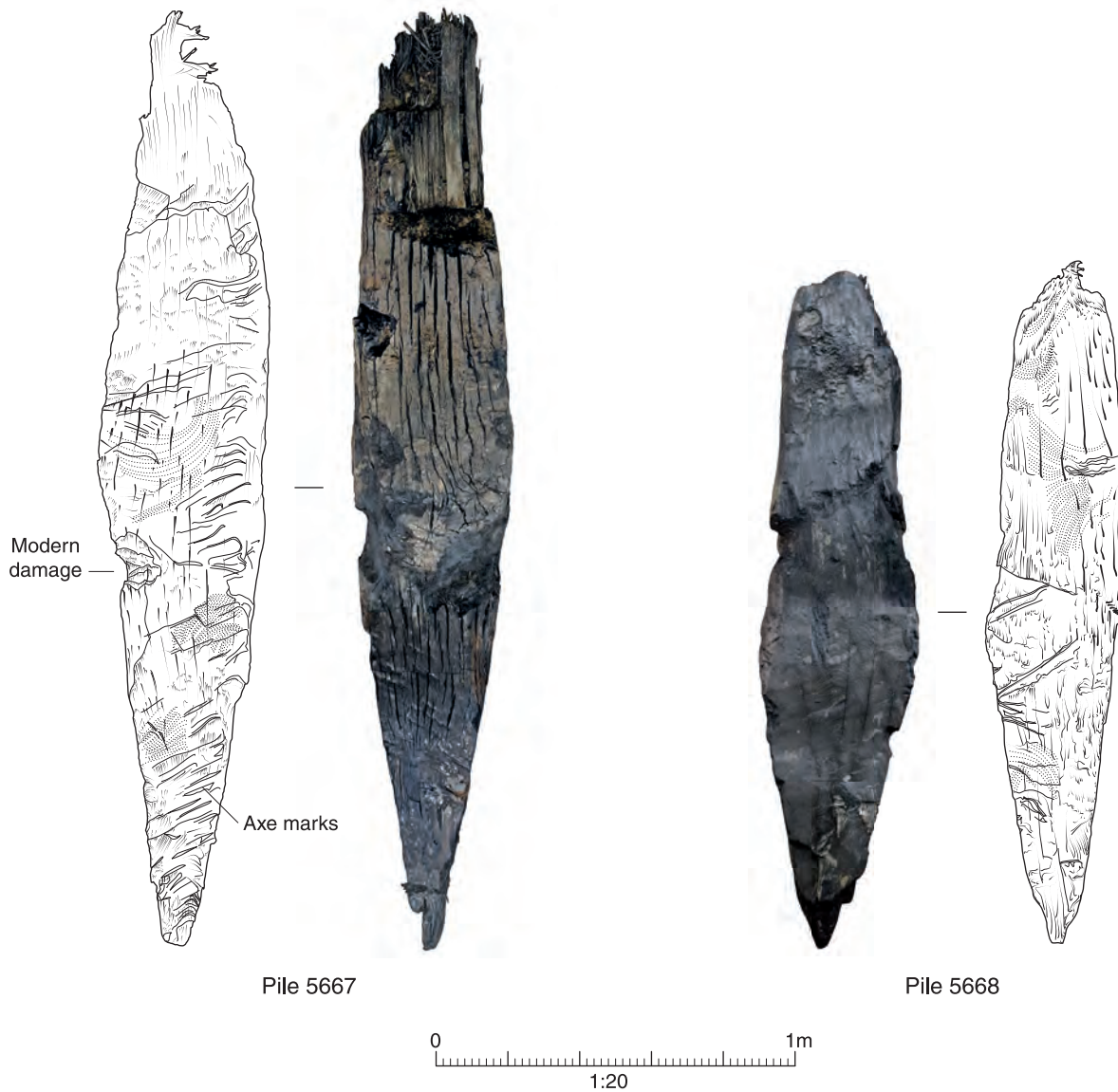


Fig. 3.25 Oak piles 5667 and 5668, probably once part of a bridge carrying Akeman Street across the River Thame

