Chapter 3: Artefactual evidence

THE IRON AGE AND ROMAN POTTERY by

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Introduction

The excavations along the route of the road scheme produced some 15,000 sherds of Iron Age and Roman pottery, weighing over 180kg. Pottery was collected from ten sites (Table 3.1). The largest of the site-assemblages was from Site 2, which contained over 5500 sherds. Site 7 was not far behind, however, with 3500 sherds. Site 4 (Trench 54) contained 2500 sherds, while marginally less (2000 sherds) was retrieved from Site 3. The remaining sites contained less than 500 sherds each. Together the assemblage spanned the middle Iron Age to late Roman period; pottery from Site 4 (Trench 54) and Site 4 (Trench 61) was predominantly middle to late Iron Age, that from Site 2 and Site 3 was early Roman, while Site 7 completed the sequence with mid to late Roman pottery.

An indication of the ceramic potential of these sites was given by the pottery recovered from the archaeological evaluation (OA 2009). Pottery collected from the evaluation trenches of eight sites pointed to occupation along the development route that spanned the Iron Age and Roman period, although there was a particular emphasis on the late Iron Age and early Roman phases. Relatively large assemblages were recorded from Site 3, Site 6 and Site 7, and the Berry Farm Borrow Pit site (Table 3. 2).

Recording followed methods standard to Oxford Archaeology (Booth nd). Each context-group was sorted into fabrics, individual vessels identified from rims, and any other useful grouping (for example, sherds with graffiti). Sherd groups were recorded by count, weight, vessel count (from rims only) and estimated vessel equivalents (also based

Table 3.1: Quantification of pottery by site

Site	Sherds	Weight (g)	MV	EVE
Site 2 East	5776	67798	448	52.56
Site 2 West	196	2655	28	3.78
Site 3	2268	15775	89	11.35
Site 3 (Trench 48)	335	1388	5	2.02
Site 4 (Trench 54)	2688	29390	172	13.52
Site 4 (Trench 61)	121	387	5	0.45
Site 5	183	677	1	0.05
Site 6 (Trench 105)	38	216	0	0
Site 6 (Trench 97-99)	14	32	0	0
Site 7	3485	64703	392	59.09
Wootton Pond	4	767	2	0.25
Total	15108	183788	1142	143.07

Table 3.2: Quantification of pottery from the evaluation by sherd count and weight (g). (IA – Iron Age, LIA – late Iron Age, ER – early Roman, MR – mid Roman, LR – late Roman)

Site	IA	LIA	LIA/ER	ER	E/MR	MR	M/LR	LR	Roman	Undated	Totals
Berry Farm (sherds)	1	9	25	3	2		12		22	3	77
Berry Farm (weight)	60	184	393	31	16		163		367	2	1216
Site 1 (sherds)									1	1	2
Site 1 (weight)									7	2	9
Site 3 (sherds)		6		70	255						331
Site 3 (weight)		120		315	979						1414
Site 4 (sherds)		20	10	1					5		36
Site 4 (weight)		523	50	18					28		619
Site 5 (sherds)	5		182								187
Site 5 (weight)	58		397								455
Site 6 (sherds)	8		150								158
Site 6 (weight)	126		1435								1561
Site 7 (sherds)					19	77	1	25	23		145
Site 7 (weight)					378	723	12	348	204		1665
Site 8 (sherds)									1		1
Site 8 (weight)									253		253
Total sherds	14	35	364	74	276	77	13	25	52	4	937
Total weight	244	827	2255	364	1373	723	175	348	859	4	7192

on rims and recording the surviving percentage, expressed as a fraction, of a rim), with each group being entered as a separate record in the database. Where possible, the database records were given a date-range, and the date-ranges for all the records belonging to a context-group were considered before assigning a ceramic date for the group as a whole.

Forms were given Oxford Archaeology codes, but were identified using relevant corpora, such as Dawson's Bedfordshire review (Dawson 2004), Marney's Milton Keynes volume (Marney 1989), Young's Oxford series (Young 1977), and standard samian typologies (cf. Webster 1996). Wares and fabrics were assigned codes from the Bedfordshire fabric series, which is described by Dawson (2004, 443-55) and maintained by Albion Archaeology. This allowed the data to be compared with sites along the A421 (notably Webley 2007a and Stansbie 2007) and others in Bedfordshire. The fabric series for the Milton Keynes region (Marney 1989) was routinely consulted, but no formal cross-referencing between the two series was attempted. There were three additions to the Bedfordshire series: fabric R05D (white-slipped oxidised ware), R06V (Verulamium-region grey ware), and R22D (Hadham white-slipped grey ware). These should be regarded as temporary fabric codes devised in the course of recording for use with the A421 assemblage only. In the list of fabrics below, codes from the National Roman Fabric Reference Collection (Tomber and Dore 1998) have been added in parentheses where possible.

This report describes the general composition of the site assemblages (arranged in chronological order) and identifies the main trends in pottery supply using data from well-dated ceramic groups or 'key groups', defined as groups with a relatively narrow ceramic date, which is in agreement with the stratigraphic phase given to the feature that contained the group. For example, context 15338 from Site 7, which has a ceramic date of AD 170-200 and stratigraphic date of mid Roman, is selected as a key group. Context 15202, which has a ceramic date of AD 100-410 and a stratigraphic date of mid Roman, is rejected as a key group. This helps to identify groups with low residuality and ensures that the picture of pottery supply and assemblage composition is as reliable as possible. In this report, comparison is also made between the sites to draw out similarities and differences in site status, function, and patterns of deposition, and the pottery is put into its wider context with reference to sites beyond the road scheme. Aspects of pottery use and manufacture are considered, and a catalogue of illustrated vessels is presented.

Fabrics

E/P Iron Age fabrics

- F Unidentified later prehistoric fabrics
- F01A Coarse flint-tempered fabric
- F01B Fine flint-tempered fabric
- F01C Quartz and flint-tempered fabric

- F02 Grog and flint-tempered fabric
- F03 Grog and sand-tempered fabric
- F04 Organic-tempered fabric
- F05 Grog and shell-tempered fabric
- F06A Grog-tempered fabrics (SOB GT)
- F06C Coarse grog-tempered fabrics (SOB GT)
- F08 Shell and grog-tempered fabric
- F09 Sand and grog-tempered ware
- F14 Fine mixed temper (sand, shell, grog, organic, occasional ironstone)
- F15 Coarse mixed temper (sand, shell, grog, organic, occasional ironstone)
- F16 Coarse shelly fabric (Iron Age)
- F16A Vesicular shelly fabric
- F16B Fine shelly fabric (Iron Age)
- F18 Fine sand and shell-tempered fabric
- F19 Sand and organic-tempered fabric
- F20 Calcareous- (limestone/chalk) tempered fabric
- F21 Shell and organic-tempered fabric
- F22 Grog and organic-tempered fabric
- F28 Fine sand-tempered fabric
- F29 Coarse sandy fabric
- F30 Sand and calcareous-tempered fabric
- F32 Sand and flint-tempered fabric
- F34 'Belgic' sandy ware
- F38 Glauconitic fabrics
- F40 Black mineral inclusions

A Amphorae

R19A South Spanish (Dressel 20) amphorae (BAT AM 1)

S Samian wares

- R01 Samian ware, not identified to source
- R01A Central Gaulish samian ware (LEZ SA 2)
- R01B South Gaulish samian ware (LGF SA)
- R01C East Gaulish samian ware (includes RHZ SA)
- R01D British samian ware (exclusively PUL SA)

W White wares

- R03 White ware (source unknown)
- R03A Verulamium-region white ware (VER WH)
- R03B Gritty white ware
- R12C Nene Valley parchment ware (LNV PA)

F Fine wares

- R02 Mica-dusted ware
- R04A Rhenish ware (exclusively CNG BS)
- R04E Colchester colour-coated ware (COL CC 2)
- R11D Oxford red colour-coated ware (OXF RS)
- R12B Nene Valley colour-coated ware (LNV CC)

O Oxidised wares

- R05A Sandy orange ware
- R05B Fine orange ware

- R09A Pink-grogged ware (PNK GT)
- R11 Oxford oxidised ware
- R18B Fine pink ware
- R22A Hadham oxidised ware (HAD OX)
- R36 Orange gritty ware

Q White-slipped wares

- R05D White-slipped oxidised ware
- R06H White-slipped grey ware
- R22D Hadham white-slipped grey ware

R Reduced coarse wares

R06A	Nene Valley grey ware
R06B	Sandy grey ware
R06C	Fine grey ware
R06E	Calcareous grey ware
R06V	Verulamium-region grey ware
R07B	Sandy black ware
R07E	Coarse black ware
R22B	Hadham grey ware (HAD RE 1)
R22C	Hadham reduced (burnished) ware (HAD
	RE 2)
R30	Fine sandy micaceous ware

B Black-burnished wares

R07A	Black-burnished ware, category 1 (DOR
	BB 1)

R07G Black-burnished ware, category 2

M Mortaria

- R11E Oxford white ware mortaria (OXF WH)
- R11F Oxford red colour-coated mortaria (OXF RS)
- R12A Nene Valley white ware mortaria
- R20 Mancetter/Hartshill mortaria (MAH WS)
 R33 Verulamium-region white ware mortaria (VER WH)

C Shelly wares

R13 Shelly fabrics (late Iron Age/early Roman and later Roman) (includes ROB SH)

Z Post-Roman wares

- C Miscellaneous medieval wares
- P Miscellaneous post-medieval wares

Site 4 (Trench 54) (middle Iron Age)

Assemblage composition

Seventy per cent of pottery recovered from Site 4 (Trench 54; Table 3.3), quantified by EVE, belonged to groups dated between 400-100 BC and from features dated to the middle Iron Age (c 400-100 BC; Table 3.4). Shelly fabrics (F16, F16A-B) took a 21% share of the phased assemblage by EVE and were present as jars. The commonest types in the fabric

were ovoid jars (CO) and slack-shouldered jars (CS). The former were usually characterised by bead- or short everted-rims, while the latter had plain upright or slightly everted rims which sometimes barely overhung the shoulder, giving the vessels the appearance of bowls, rather than jars. A single example of a tripartite-angled jar (CT) recalls jar types typical of the early Iron Age, although no conclusively earlier Iron Age material was identified. Other jar types include a barrel-shaped jar (CB), which was probably a variant of CO type, a bucket-shaped jar (CA), and storage jars (CN). Scoring, a characteristically middle Iron Age trait (Webley 2007a, 226), was recorded on body sherds, while the rim of a slack-shouldered jar was notched.

A number of otherwise disparate fabrics were united by the inclusion of grog. The introduction of grog to the region is conventionally dated to the late 1st century BC or early 1st century AD (Marney 1989, 89; Webley 2007a, 231; Wells 2008b, 231), and its earlier appearance here and at other sites, such as Biddenham Loop (Wells 2008a, 181), may be better attributed to the use of argillaceous sediments.

Table 3.3: Site 4 (Trench 54), quantification of fabrics

Fabric	Sherds	Weight (g)	MV	EVE
F	2	27		
F01A	25	200	1	0.06
F01B	1	11		
F01C	11	117	2	0.1
F02	1	12		
F03	54	718	12	0.94
F04	37	144	1	0.05
F05	179	2042	15	1.27
F06A	99	771	15	0.92
F06C	315	2425	7	0.52
F08	18	370	2	0.13
F09	19	190	1	0.08
F14	341	2678	24	1.73
F15	379	4914	9	0.64
F16	384	6662	33	2.12
F16A	17	388	3	0.25
F16B	36	298	3	0.25
F18	202	1547	6	1.05
F19	117	1272	5	1.07
F20	15	100	2	0.14
F21	27	128		
F22	16	103	2	0.18
F28	87	562	11	0.86
F29	221	2535	11	0.7
F30	28	401	4	0.31
F32	24	429	1	0.07
F34	1	11	1	0.04
F38	11	250		
Р	14	56		
R05B	1	5		
R06B	6	42	1	0.04
Total	2688	29408	172	13.52

Table 3.4: Site 4 (Trench 54), pottery from features
phased to the middle Iron Age. Quantification by EVE.
Asterisks denote fabrics that are present but have no
surviving rims

Fabric	C Jar	H Bowl	Total EVE	% EVE
F01A			*	
F01C			*	
F02			*	
F03	0.65		0.65	7%
F04		0.05	0.05	1%
F05	0.62		0.62	7%
F06A	0.2		0.2	2%
F06C	0.33		0.33	3%
F08			*	
F14	1.55		1.55	16%
F15	0.61		0.61	6%
F16	1.61		1.61	17%
F16A	0.22		0.22	2%
F16B	0.2		0.2	2%
F18	0.8		0.8	8%
F19	0.85	0.04	0.89	9%
F20	0.14		0.14	1%
F21			*	
F28	0.38	0.27	0.65	7%
F29	0.7		0.7	7%
F30	0.18		0.18	2%
F32	0.07		0.07	1%
F38			*	
R05B			*	
Total EVE	9.11	0.36	9.47	
% EVE	96%	4%		

However, in some fabrics, such as F05, F14 and F15, the grog was deliberately added to the clay. Mixed tempered fabrics (F14 and F15), which contributed 22% to the assemblage, usually contained sand, shell and grog in varying proportions. The grog was identified as the crushed fragments of shelly vessels. Slack-shouldered jars were well represented in this fabric, and better so than they were in fabric F16. Three other jar types in the fabric - constricted necked jars (CC), barrel-shaped jars and ovoid jars could be regarded as variants of the same basic ovalbodied jar with bead or short everted rim. Scoring and notched-rim decoration was noted on these types. A globular jar (CG) was also recorded. Forms recorded in fabric F03 (grog and sand), which accounted for 7% by EVE, were similar to those encountered in shelly and mixed-tempered fabrics slack-shouldered and ovoid/barrel-shaped jars. Scored decoration was recorded on body sherds. Standard middle Iron Age types (ovoid and slackshouldered jars) were also seen in fabric F05 (grog and shell), which contributed 7% to the assemblage. As with F14/F15, the grog contained shell fragments, indicating that it had derived from shelly vessels. Fabrics F06A and F06C, which contained grog exclusively or predominantly, similarly comprised ovoid and slack-shouldered jars (some examples showing scored decoration), although other forms, such as the constricted necked jar, were present. Given the forms and surface treatments, and the use of shelly pottery to create grog, the grog-based fabrics F05, F06 and F14/F15 appear to have their origins in the middle Iron Age and have no obvious connection with late Iron Age or 'Belgic' ceramic traditions.

Fabrics in which sand was the principal inclusion type accounted for 34% of the phased assemblage. Ovoid jars were recorded in sand and shell fabric F18. One vessel was scored, while another had a frilled rim. An ovoid jar and barrel-shaped jar were seen in fabric F19 (sand and organic (possibly shell)), and were joined by a curving-sided bowl (HC). Body sherds in the fabric were scored. A wider range of forms was evident in fine and coarse sandy fabrics F28 and F29. Ovoid or barrel-shaped jars (occasionally with scoring and frilled- or notched rims) and slack-shouldered jars were present as usual, but they were joined by globular jars and bowls and a storage jar. Fabric F30 (sand and calcareous) and F32 (sand and flint) were minor contributors to the assemblage. A slack-shouldered jar was recorded in the former; an unidentified jar in the latter.

The remaining 30% of pottery by EVE not assigned to key groups was generally consistent with that described above. It included a curvingsided neckless bowl (cf. Webley 2007a, fig. 8.3.12) and a slack-shouldered jar in flint-tempered fabrics F01A and F01C. A small amount of pottery was recovered from contexts assigned a late Iron Age ceramic date. Forms includes necked jars with everted rims (CD) in mixed-tempered, sandy, and grog-tempered fabrics. One such jar in fabric F06A had a corrugated shoulder reminiscent of *Camulodunum* type 229 (Hawkes and Hull 1947). A wheel-thrown platter (JC) in a sandy fabric (F34) was also recorded.

A variety of decorative styles and techniques were recorded. Impressed decoration on the rim, recorded on 19 vessels, was achieved with a finger, fingernail or thin tool to create notches or a frilled, pie-crust or twist-like pattern. The rims of ovoid and slack-shouldered jars - and to a lesser extent barrel-shaped jars, constricted necked jars and storage jars - were modified in this way. The technique was applied to vessels in shelly fabrics (F16 and F16a) and mixed-tempered fabrics (F14), but grog-tempered fabrics (F05 and F06C) and sandy fabrics (F18 and F29) were also represented. Scoring was characterised by thin, lightly-incised lines drawn diagonally or horizontally across the body or vertically down the wall. The technique was largely restricted to ovoid jars - at least four examples were recorded - but it was also recorded on one slack-shouldered jar. Scoring was not an especially prolific technique at Site 4 (Trench 54), but it is known within the region. Other sites that have produced scored pottery include Biddenham Loop (Wells 2008a, 181) and Stagsden (Slowikowski

2000, 84) to the west of Bedford, Flitwick (McSloy 1999, 70) to the south, and Site 2 near Roxton (Webley 2007a, 236) on the Great Barford Bypass to the east of Bedford. Other decorative techniques included burnishing, particularly on the shoulder, neck and rim, and combing (rather than scoring). Combed decoration was recorded on pottery recovered from Phase 2 enclosure ditch 17718 and phase 3 enclosure ditch 17343. On one vessel, a necked bowl (Fig. 3.1, no. 2), the burnished zone was combined with a combed-chevron pattern.

It is worth highlighting the pottery recovered from contexts associated with radiocarbon dates at Site 4 (Trench 54; Table 3.5). Overall, there is a good correlation between the pottery and the scientific dates. The pottery groups were dated on ceramic grounds to 400-100 BC, with the exception of 17187, part of burnt clay layer 17255 in ditch 17343, which had a spot-date of 400 BC-AD 43. The radiocarbon dates match the ceramic dates rather well. They generally span the 4th to 2nd centuries BC, and the date from the horse skull on the base of ditch 17496 suggests that deposition may have occurred in the 1st century BC. This suggests that the ceramic dating across the site can be considered to be reliable. The radiocarbon dates also provide a point of chronological reference for a range of fabrics (sand-and-grog (F09), mixed temper (F14/F15), shelly (F16), sand-and-shell (F18), and sandy (F28/F29)), slack-shouldered, ovoid, and barrelshaped jars, and scored decoration.

Pattern of pottery deposition

The site comprised a concentric arrangement of enclosure ditches in the western half of the excavation area, an antenna ditch (17721 and 17722), which joined an outer entrance and extended away from it, a number of east-west-aligned post-medieval ditches (including 17723 and 17724) cutting across the enclosure, and pits within the enclosure. Unsurprisingly, most pottery (77% by EVE) was collected from the enclosure ditches, which dominated the site. Nine per cent was recovered from pits, with the remaining pottery coming from the antenna ditches, other linear features, surfaces and tree-throw holes. The pottery deposited in and around the enclosure ditches was generally better preserved than that recovered from features beyond the enclosure. The mean sherd weight (weight divided by sherd count) of pottery from the enclosure ditches was 57g. Pits, which were located inside the enclosure or cut into its ditches, contained a relatively small proportion of the pottery from the site. However, the pottery was similar to that from the enclosure ditches, having a mean sherd weight of 49g. These values compare with 9g from the antenna ditch, and 9g from a hollow-way (17712) recorded towards the eastern extent of the site. The obvious conclusion to draw from this is that the enclosure was the focus for pottery discard, while outlying areas remained marginal in terms of settlement and deposition activity. The pottery from the enclosure had undergone relatively few episodes of disturbance and redeposition, and in some cases had been deposited whole or soon after initial breakage. Such material included a near-complete slack-shouldered jar (SF 12023) from outer enclosure ditch 17719, a jar perforated through the base for use as a strainer and two near-complete or substantially surviving barrelshaped jars from inner ditch 17716, and a largely complete vessel (probably a jar or bowl) from outer ditch 17345. These vessels can potentially be seen as structured deposits, especially vessel 12023, which was recovered from the terminal of ditch 17719, although given that the enclosure was in any case the focus of pottery deposition, it is reasonable to suggest that the pottery was domestic waste which was deposited soon after breakage.

Pottery use

Forms were almost exclusively confined to jars and bowls (the only other type represented being a

Context	¹⁴ C date	Fabric	Sherds	Weight (g)	EVE	Form	Decoration
17181	380-110 cal BC / 400-200 cal BC	F16	37	633			
		F28	3	20			Scored
17187	390-160 cal BC	F09	3	41			
		F29	1	8			
17200	370-90 cal BC / 380-120 cal BC	F16	6	42			
		F18	28	138	0.14	CO	Scored
17255	380-120 cal BC	F03	2	21			
		F14	2	33	0.08	CB	
		F16	1	7			
		F28	1	4			
17293	200 cal BC-cal AD 10	F15	7	102			Scored
		F16	5	69	0.1	CS	
		F28	2	3			

Table 3.5: Site 4 (Trench 54), pottery from contexts with associated radiocarbon dates

single example of a platter). The narrow repertoire suggests that all the uses to which pottery was put including storage, dining and cooking – were fulfilled by the jar and bowl. Within the two classes, however, analysis of vessel diameters offers some evidence for functional differentiation. With a mean diameter of 310 mm (and a mean sherd weight of 62g), vessels identified as storage jars (CN) were large, voluminous vessels with a wide opening that would allow convenient storage of, and access to, items such as grain. Looking at the more common types, the mean diameter of barrel-shaped jars (CB) was 150 mm. Values ranged from 110 to 180 mm, but generally there were relatively few small versions; the diameters of just four out of 13 vessels (31%) fell below the average. Ovoid jars (CO) were on average 163 mm in diameter, but this figure encompassed a wider spread of values (from 100 to 250 mm). Slackshouldered jars (CS) were wider still, with a mean diameter of 172 mm. The range here was 100 to 310 mm. For both CO and CS types, over 60% of diameters fell below the average. Slack-shouldered and ovoid jars were made in a variety of sizes and therefore were suitable for a variety of functions, from individual dining vessels requiring small jars to drink or eat out of, to deep and wide cooking or serving vessels (one slack-shouldered jar was burnt on the external surface of the rim and neck, probably from its placement on a hearth). Barrel-shaped jars were more restricted in size and presumably function. These vessels may have been regarded principally as a single-function vessel, perhaps, for example, used for cooking. It should be noted that the variation in diameters may be as much or more related to gradual change or evolution over time (for example, from small to large vessels or vice versa), than to the vessels serving multiple functions. That is not to say that any changes through time could not be driven by changes in pottery use, but rather, that we cannot detect such changes because close dating of pottery within the period is not possible using the conventional battery of recording and analytical techniques.

Catalogue of illustrated pottery (Fig. 3.1)

Enclosure ditch 17343, middle Iron Age

- 1 Slack-shouldered jar (CS), fabric F06A. Ctx 17311, ditch 17309
- 2 Necked bowl (HD) or wide-mouthed jar, fabric F03. Oxidised surfaces; combed decoration on shoulder. Ctx 17529, ditch 17527

Enclosure ditch 17496, middle Iron Age

- 3 Ovoid jar (CO), fabric F28. Scoring on body. Ctx 17296, ditch 17292
- 4 Curving-sided bowl (HC), fabric F19. Ctx 17296, ditch 17292
- 5 Globular bowl (HG), fabric F28. Scoring on body. Ctx 17333, ditch 17160
- 6 Globular bowl (HG), fabric F28. Scoring on body. Ctx 17333, ditch 17160

Enclosure ditch 17715, middle Iron Age

- 7 Ovoid jar (CO), fabric F15. Scoring on body. Ctx 17221, ditch 17220
- 8 Ovoid jar (CO), fabric F16. Ctx 17221, ditch 17220
- 9 Slack-shouldered jar (CS), fabric F14. Ctx 17221, ditch 17220
- 10 Slack-shouldered jar (CS), fabric F14. Ctx 17221, ditch 17220
- 11 Slack-shouldered jar (CS), fabric F29. Ctx 17221, ditch 17220

Enclosure ditch 17716, middle Iron Age

- 12 Barrel-shaped jar (CB), fabric F19. Ctx 17387, ditch 17388
- 13 Barrel-shaped jar (CB), fabric F28. Ctx 17387, ditch 17388
- 14 Constricted necked jar (CC), fabric F06C. Ctx 17387, ditch 17388
- 15 Constricted necked jar (CC), fabric F14. Ctx 17387, ditch 17388
- 16 Slack-shouldered jar (CS), fabric F15. Shell fragments visible in grog; taken from crushed shelly vessel. Ctx 17387, ditch 17388
- 17 Slack-shouldered jar (CS), fabric F15. Shell and sand fragments visible in grog; taken from crushed shelly and sandy vessels. Ctx 17387, ditch 17388
- 18 Slack-shouldered jar (CS) or bowl, fabric F16. Ctx 17387, ditch 17388
- 19 Slack-shouldered jar (CS), fabric F16A. Ctx 17387, ditch 17388
- 21 Jar base perforated by at least four holes after firing. Fabric (F16) includes occasional black glassy fragments – ?sand. Ctx 17387, ditch 17388

Enclosure ditch 17719, middle Iron Age

21 Storage jar (CN), fabric F29. Ctx 17319, ditch 17304

Site 4 (Trench 61) (Iron Age)

Approximately half the pottery recovered from Site 4 (Trench 61) by sherd count was recovered from contexts attributed to the Iron Age (Table 3.6). The remainder was found as residual occurrences in medieval and post-medieval features. The pottery from Iron Age contexts was consistent with a middle or late Iron Age date. Sandy fabrics (F19, F20, F28, F29 and F30) dominated, although shelly fabric F16 was

Table 3.6: Site 4 (Trench 61), quantification of fabrics

Fabric	Sherds	Weight (g)	MV	EVE
F06C	3	17		
F16	6	26		
F19	1	7	1	0.05
F20	4	9		
F28	44	131	1	0.1
F29	4	23		
F30	58	165	3	0.3
Р	1	9		
Total	121	387	5	0.45

also present. Slack-shouldered jars (CS) were recorded in a sand and organic fabric (F19) and a fine sandy fabric (F28). The pottery was recovered from pits 5023, 5030, 5043, 5044 and 5084, while 12 sherds of fine sandy fabric F28 were collected from ring-gully 5092. The pottery from medieval

and post-medieval features, largely hollowway 5099, ditches 5097 and 5098, and furrow 5026, was dominated again by sandy fabrics (mainly sand and calcareous fabric, F30). A bucket-shaped jar (CA) and slack-shouldered jar were recorded.



Fig. 3.1 Pottery from Site 4 (Trench 54), catalogue nos 1-21

Fabric	Sherds	Weight (g)	
F03	1	1	
F06A	19	105	
F09	3	5	
F14	3	18	
F16	5	21	
F28	3	2	
F29	4	64	
F06A	2	4	
F09	1	1	
F16B	1	3	
F22	1	7	
R06B	1	2	
Total	44	233	

Table 3.7: Site 6 (Trench 105), quantification of Iron Age and Roman pottery

Site 6 (Trench 105) (Iron Age)

A total of 44 sherds, weighing 233g, was recovered from Trench 105 (Table 3.7). Thirty-four sherds were recovered from pits (7507, 7510, 7512, and 7525) dated to the middle to late Iron Age. The pottery is consistent with this date range. Grog-tempered ware (F06A) took the largest share. Smaller quantities of sandy fabrics (F28 and F29), shelly ware (F16), and a mixed-tempered fabric (F14) were also recovered. No forms were identified. A further ten sherds of pottery, which included a sherd of Roman sandy grey ware (fabric R06B), were collected from unphased tree-throw holes or post-Roman deposits.

Site 5 (late Iron Age/early Roman)

A total of 183 sherds of pottery were recovered from Site 5 (Table 3.8). Most belonged to context groups dated to the late Iron Age or early Roman period. Grog-tempered pottery (fabrics F03, F06A, F09 and F22), took the largest share of the assemblage – 81% by weight – and was responsible for the only form, a beaker, to be identified by rim. In addition, handle scars were recorded on sherds in fabrics F06A and F22. Pottery dating after AD 43 was represented by a fragment of South Gaulish samian ware (R01B), four sherds of sandy oxidised ware (R05A), and two sherds of black-surfaced ware (R07B). Overall, the assemblage can be attributed to the period spanning the end of the 1st century BC to the late 1st century AD (cf. Marney 1989, 89; Wells 2008b, 231).

The few features from which the pottery was collected included ring-gully 6021. This feature contained 40 sherds of mainly grog-tempered pottery, suggesting a late Iron Age date for deposition. Almost 60 sherds of pottery (similarly grog-tempered) were recovered from pits 6009, 6050 and 6052. Ditch 6137 contained a sherd of South Gaulish samian ware, which dates from the second half of the 1st century AD. Early Iron Age cremation burial

Table 3.8:	Site 5	5, q	uantifica	tion (of fabrics

Fabric	Sherds	Weight (g)	MV	EVE
F	9	5		
F03	9	81		
F06A	109	326	1	0.05
F09	41	125		
F22	7	16		
F29	1	56		
R01B	1	5		
R05A	4	50		
R07B	2	13		
Total	183	677	1	0.05

6070 contained a single fragment of pottery that was undiagnostic and can be dated no closer than to the Iron Age.

Berry Farm Borrow Pit (late Iron Age/early Roman) *by Dan Stansbie*

A total of 77 sherds, weighing 1216g, was recovered from evaluation trenches that targeted areas of enclosures and settlement across the site. The mean sherd weight of the assemblage was 16g, and the assemblage included some large sherds with wellpreserved surfaces. Overall, then, the general condition of the assemblage was good.

The assemblage consists almost exclusively of late Iron Age to early Roman material, although there are several groups comprising body sherds only, which have been assigned a broadly Roman date, and single groups dating to the early Roman period and the late Roman period. The late Iron Age to early Roman assemblage is dominated by body and base sherds in medium grog-tempered fabric F06B, although two jar rims are also present in this fabric. Supplementing this material are body sherds and a barrel-shaped jar in a grog-and-shelltempered fabric (F05), and two bead-rimmed jars, a lid-seated jar, and a barrel-shaped jar with finger tip impressions on the rim in late Iron Age or Roman shelly fabric F16/R13. The early Roman group, dating to between AD 70 and AD 130, comprises body sherds of grog-and-shell-tempered fabric F05 and part of a plain rimmed carinated bowl in fine grey ware (R06C). The late Roman group comprises sherds of Roman shelly fabric R13, including a fingertip decorated rim sherd from a jar, body sherds of sandy grey ware (R06B), body sherds of medium grog-tempered fabric F06B and a flanged dish or bowl in sandy black fabric R07B dating to between AD 180 and AD410. In addition there is a barrel-shaped jar in a fine sand and shelly fabric (F18). The barrel-shaped jar probably dates to the middle Iron Age and the grog-tempered material dates to the late Iron Age; both must be residual. The groups dated broadly to the Roman period largely comprise body sherds of Roman shelly

Fabric	Sherds	Weight (g)	MV	EVE
F	1	2		
F05	104	1722	12	1.3
F06A	2044	18309	145	15.08
F06C	322	12431	21	2.98
F09	729	7832	68	7.55
F16	33	322	2	0.13
F16B	72	108		
F29	14	85		
F30	38	316	4	0.49
F34	583	5639	45	6.23
F38	5	55		
F40	3	7		
R01A	2	7	1	0.05
R01B	4	45	1	0.1
R03	4	13		
R03A	22	355	2	0.92
R03B	1	19		
R05A	96	555	7	0.86
R05B	17	29		
R06B	392	3953	48	5.38
R06C	22	118	2	0.21
R06E	2	7		
R07B	1	31	1	0.05
R09A	3	94		
R11E	1	74	1	0.1
R13	1244	15534	86	10.66
R22A	8	30	1	0.18
R30	1	6		
R33	1	34	1	0.08
R36	2	37		
С	5	29		
Total	5776	67798	448	52.35

Table 3.9: Site 2, north-eastern complex, quantification of fabrics

Table 3.10: Site 2, north-eastern complex, pottery from features phased to the late Iron Age or late Iron Age/ early Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

Fabric	C Jar	E Beaker	H Bowl	L Lid	Total	%
					EVE	EVE
F05	0.19				0.19	6%
F06A	0.37	0.1	0.16	0.08	0.71	22%
F06C	0.03				0.03	1%
F09	0.1	0.23	0.06		0.39	12%
F16			0.13		0.13	4%
F29					*	
F30					*	
F34	0.05				0.05	2%
F40					*	
R13	1.35		0.4		1.75	53%
Total E	VE2.09	0.33	0.75	0.08	3.25	
% EVE	64%	10%	23%	3%		

fabric, but there are also some sherds in sandy grey ware (R06B)

The material indicates the presence of a settlement in the late Iron Age to early Roman period. Some activity is also indicated in the late Roman period, although the late Roman pottery is in relatively poor condition and is mixed with material of earlier date; it may therefore derive from episodes of redeposition, possibly through agricultural activities.

Site 2 north-eastern complex (late Iron Age-mid Roman)

Assemblage composition

Some 5700 sherds, representing almost 450 vessels or 52 EVEs, were recovered (Table 3.9). Pottery groups dated to the late Iron Age or late Iron Age/early Roman period and belonging to contexts phased to the same period accounted for 6% of the Site 2 northeastern complex assemblage by EVE (Table 3.10). Jars dominated the phase, contributing 64% to it by EVE. The remainder was taken up by bowls and lids. In terms of fabrics, almost 60% of the assemblage by EVE consisted of shelly fabrics (R13/F16). These were available mainly as lid-seated or channelrimmed jars (CJ). Other forms recorded in the ware included a jar with an everted rim (CI), and a beadrimmed bowl or dish. Another shelly fabric, F16, was recorded, but this is likely to have been residual; curving-sided bowls with everted or flat rims (HC) that were seen in the fabric were middle Iron Age forms. Fine or medium-coarse grog-tempered fabrics (F06A/F06C) took a relatively large share of the assemblage, over 20% by EVE. The range of vessels was limited, though different to that offered by shelly fabrics. Instead of the shelly ware channelrimmed jars, grog-tempered ware provided necked jars. One example had oxidised surfaces. A necked bowl (HD) and a domed lid were also recorded. A coarser grog-tempered ware (F06C) was present, and was reserved for storage jars. Grog was also present in fabrics F05 and F09. However, in these cases, the grog was combined with other tempering agents, shell and sand respectively. Together the fabrics accounted for almost 20% of the assemblage by EVE. Just one form was recorded in fabric F05 – a barrel-shaped jar (CB) with impressed- or notchedrim decoration. Fabric F09 was a fine fabric usually with oxidised surfaces. A carinated bowl (HA) and a high-shouldered necked jar (CE), or possibly a buttbeaker, were recorded. Sand was used exclusively in fabric F34. Two globular jars (CG), both with notched-rim decoration, were made in this fabric.

Some 35% of the Site 2 north-eastern complex assemblage by EVE belonged to contexts dated by both ceramic and stratigraphic means to the early Roman period (*c* AD 43-120; Table 3.11). Compared with the late Iron Age, this phase was more diverse in terms of both form and fabric. Jars still dominated, but a wider range of vessel types was

Fabric	B Flagon	C Jar	E Beaker	H Bowl	J Platter	L Lid	Total EVE	% EVE
F05		0.17					0.17	1%
F06A		3.92	1.08	0.41	0.05	0.16	5.62	30%
F06C		0.65					0.65	3%
F09		1.51	0.22	0.14		0.1	1.97	11%
F29							*	
F30			0.1				0.1	1%
F34		2.49		0.53	0.09		3.11	17%
F38							*	
R01B							*	
R03							*	
R03A	0.82						0.82	5%
R03B							*	
R05A			0.14				0.14	1%
R05B							*	
R06B	0.09	2.64	0.36	0.19	0.17		3.45	19%
R06C							*	
R13		1.96		0.33			2.29	12%
Total EVE	0.91	13.34	1.9	1.6	0.31	0.26	18.32	
% EVE	5%	73%	10%	9%	2%	1%		

Table 3.11: Site 2, north-eastern complex, pottery from features phased to the early Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

now available, and a decline in the proportion of bowls was met by a rise in the proportion of dining forms – beakers, platters and flagons. Shelly fabrics became less important, with grog-tempered fabrics and wheel-thrown post-conquest sandy grey wares taking their place. Grog-tempered fabrics (mainly F06A) contributed 45% of the phased assemblage by EVE. They were largely available as jars, and a much wider range than was seen in the late Iron Age assemblage was recorded. Necked, highshouldered jars (CE) and narrow-necked jars with cordoned or corrugated shoulders (CC) were well represented in finer grog-tempered fabrics (F03, F06A and F09). The storage jar (CN) was the principal type in the coarser fabric (F06C). Other jars recorded included necked jars (CD), globular jars (CG) and bead-rimmed jars (CH). Beakers, seen mainly in fabric F06A, largely comprised buttbeakers (EA), but globular beakers (ED) and beaker-sized jars (EH) were also present. Bowls consisted mainly of carinated bowls (HA), necked bowls (HD) and curving-sided bowls (HC). Carinated bowls are attested in the Milton Keynes area (eg Marney 1989, fig. 36.71-73), and derive from samian prototypes, probably via Gallo-Belgic copies (eg Hawkes and Hull 1947, type *Cam* 68). Types HC and HD are perhaps better regarded as wide-mouthed or squatter versions of standard jar forms. Shelly ware R13 made a relatively large contribution of 12% of the assemblage by EVE, but this was considerably smaller than the proportion recorded for the late Iron Age phase. The lid-seated jar (CJ) remained the principal form, though necked jars (CD) and curving-sided bowls (HC) were also recorded.

Post-conquest, wheel-thrown, sandy wares were recorded alongside the late Iron Age fabrics. Of these, grey wares (R06B) were commonest, taking a 19% share of the entire phase assemblage by EVE. The forms – high-shouldered necked jars (CE), globular jars (CG), lid-seated jars (CJ) and necked bowls (HD) among them – largely replicated those in grog-tempered and shelly fabrics. It is likely that the potters responsible for the late Iron Age-style fabrics gradually adopted the new fabrics and used them for existing repertoires, although the potters no doubt saw new forms in the wider cultural environment, and began to make these too. One of these was the necked jar (CD), which was better represented in grey ware R06B than in grog-tempered or shelly fabrics (the versions in which were presumably imitations of the sandy ware versions). Another was the platter (JC), which may in part have met the decline in the proportion of bowls. Jar-shaped beakers (EH) were recorded in grey wares, while butt-beakers (EA) were recorded in sandy oxidised fabrics (R05A). Pottery arrived from the Verulamium region in the form of flagons. A small amount of South Gaulish samian ware also reached the site. Fragments from a Drag. 15/17 platter, Drag. 27 cup and a decorated bowl were recorded.

The level of activity – and therefore the level of deposition – dropped at the north-eastern complex at Site 2 in the 2nd century AD onwards (Table 3.12). Consequently, just 2% of pottery from the entire assemblage by EVE was recovered from contexts dated ceramically and stratigraphically to the mid Roman period (2nd and 3rd centuries AD). Given the small amount present and the obviously residual material (F fabrics), the pottery in this

Fabric	C Jar	H Bowl	J Dish	K Mortarium	L Lid	Total EVE	% EVE
F05						*	
F06A	0.05					0.05	5%
F06C						*	
F34		0.05				0.05	5%
R01A						*	
R05A			0.05			0.05	5%
R06B	0.1		0.03		0.05	0.18	18%
R11E				0.1		0.1	10%
R13	0.49					0.49	49%
R33				0.08		0.08	8%
Total EVE	0.64	0.05	0.08	0.18	0.05	1	
% EVE	64%	5%	8%	18%	5%		

Table 3.12: Site 2, north-eastern complex, pottery from features phased to the middle Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

phase group is not necessarily representative of supply to the site. It nevertheless indicates the ubiquity of shelly ware jars – necked (CD) and, inevitably, lid-seated (CJ) – and sandy grey wares, in which a lid-seated jar, dish and lid were recorded. In addition, the group shows that pottery was reaching the site from regional or continental sources, including Central Gaulish samian ware (a sherd from a dish was noted), and white-ware mortaria from the Oxford (Young 1977, type M6) and Verulamium regions.

Decoration typically seen on the middle Iron Age pottery of Site 4 (Trench 54) was evident on the late Îron Áge and early Roman pottery of the northeastern complex at Site 2. Scored decoration was not seen on any late Iron Age or early Roman pottery of the north-eastern complex at Site 2, but diagonal notches cut into the rim, creating a twist-like pattern, were recorded on 17 vessels. The decoration was applied to barrel-shaped jars, which closely resembled middle Iron Age ovoid types (vessels that commonly carried the decoration), but forms introduced in the late Iron Age – bead-rimmed jars (CH), globular jars (CG) and lid-seated jars (CJ) – were also decorated in this way, demonstrating continuity of the decorative style beyond the middle Iron Age. These forms, however, had been made in fabrics whose origins lay in the later Iron Age (fabrics F05, F06A, F09 F34 and R13), and overall the style of decoration did not survive far into the second half of the 1st century AD. Apart from notched decoration, the commonest types of motifs were grooves and cordons. Of the 30-odd cordoned vessels recorded, most had a single cordon at the base of the neck. These were applied mainly to high-shouldered necked jars (CE) and narrow-necked jars (CC), but storage jars (CN) and butt-beakers (EA) were cordoned too. Grooves were recorded on highshouldered necked jars, but more usually on narrow-necked jars, globular jars and storage jars. Thirty-nine examples of grooved vessels were recorded. Other types of decoration included rilling,

applied with a comb dragged horizontally around the shoulder. Four of the six rilled vessels recorded were lid-seated jars. A grog-tempered butt-beaker had rouletted decoration around its body in between cordons in imitation of Gallo-Belgic prototypes, and impressed decoration was recorded on a storage jar and narrow-necked jar.

Pattern of pottery deposition

Few features received pottery during the late Iron Age. A relatively large group of pottery (over 200 sherds) was recovered from ditch 2617, while some 60 sherds of pottery were collected from roundhouse ditch 2907. Smaller quantities were recovered from ditches 2710 and 2732. In the early Roman period, pottery deposition was concentrated in the ditches of roundhouse 2708/9 and its enclosure (ditches 2476, 2477, 2732 and 2766). Each of these ditch groups contained over 300 sherds of pottery. Other ditches dated to the early Roman period saw little deposition, with each group containing fewer than 100 sherds. Relatively large assemblages (over 100 sherds) were recovered from two pits (2430 and 2457) located in a group of pits north-east of roundhouse 2708/9.

Overall, 57% of the Site 2 north-eastern complex assemblage by sherd count was recovered from ditches. Pits contained 30% of pottery, while gullies contained 7%. The remaining feature types – among them beamslots, postholes, layers and surfaces, and tree-throws – each held less than 2%. The mean sherd weight for the entire assemblage was 11.7g. There was little difference in mean sherd weight across the feature types. The value for ditches was 12.2g, while that for pits was 11.2g. The lowest values were recorded in structural features – postholes (10.7g) and beamslots (9.8g) – while relatively high values (up to 16.9g) were recorded for pottery from furrow, land-drains and tree-throw fills, although as noted the proportions of pottery from these features were very small.



Fig. 3.2 Site 2 north-eastern complex: regression analysis showing decrease of mean sherd weight with increased distance from roundhouse 2708/9

Values for the volumes of soil taken from interventions through ditches, pits and other features have not been calculated. The figures would help to provide standardised data on pottery deposition across the site, reducing biases introduced by different features types (for instance, more pottery may have been recovered from a pit compared with a segment of a ditch, but overall the ditch may have seen more deposition, with a greater amount of pottery being distributed thinly across its entire length). However, other measures context groups size and mean sherd weight nevertheless provide a useful indication of pottery deposition. It is clear that the largest groups of pottery – that is, groups of over 100 sherds – were generally found in the vicinity of roundhouse 2708/2709 and its enclosure. Over 900 sherds were recovered from the roundhouse itself, while a further 1000 fragments were collected from the enclosure ditches. Some 350 sherds were recovered from the pits and other features within the enclosure. Groups of between 10 and 100 sherds were also recovered from this area, but were also found outside the enclosure, particularly in ditches and pits towards the north-east. The smallest groups (each containing fewer than 10 sherds) were scattered across the site.

Turning to mean sherd weight (weight divided by sherd count), pottery from the roundhouse and features near the roundhouse generally had higher means than pottery from more distant features (that is, sherds were larger and had undergone fewer episodes of disturbance and deposition, and by implication were deposited closer to the area of original use and discard). Thus, the mean sherd weight of the pottery from ditch 2672, 200m northeast of the roundhouse, was 2g, while the mean for ditch 2479, 150m away, was 3.7g. Ditch 2475, 70m north-east of the roundhouse, contained pottery with a mean sherd weight of 20.8g, and 2766, one of the enclosure ditches surrounding the roundhouse, contained pottery with a mean of 23.8g. Pottery from the roundhouse itself had a mean sherd weight of 16.2g. The drop in mean sherd weight

with distance from the roundhouse enclosure is clear from Figure 3.2. Over 50 points are shown on the scattergram, with each representing the value from a ditch or pit and the feature's distance from the centre of the roundhouse. In general, pottery sherds from the roundhouse and surrounding features were larger and better preserved than those recovered further away. However, the fall in weight with increased distance was not a steady one (applying regression analysis, the coefficient of determination (r^2) suggests that just 24% of the variation in means is explained by distance alone), and for features up to c 70m away from the roundhouse, the trend is much flatter (indeed, the mean weight appears to rise slightly with distance). It is only after *c* 70m that the mean sherd weight falls sharply. This extends the focus of pottery deposition - and the centre of activity - wider than the roundhouse and its enclosure, but also provides a reasonably well-defined settlement boundary. Land east of ditch 2475 appears to have been marginal in terms of settlement activity, and the pottery argues against there having been domestic occupation immediately beyond this area of excavation.

Comparison of pottery groups from the roundhouse (2708/9), enclosing ditches, and other features inside the enclosure hints at differences between them (Table 3.13). The roundhouse ditches contained comparatively more flagons, beakers, bowls and platters, and conversely fewer jars, than the other feature types. The differences are small, but overall, the roundhouse assemblage has a greater emphasis on dining compared with the enclosure ditch assemblage, which has a stronger cooking or storage element. The internal features sit spatially and functionally between the two. The composition of the three assemblages identifies the roundhouse, somewhat obviously, as the location for a range of domestic functions, but given also that ditches 2708/9 contained the largest single pottery group from the entire site, the possibility that pottery in the roundhouse ditches was deliberately selected and deposited cannot be dismissed.

Feature	B Flagon	C Jar	E Beaker	H Bowl	J Platter	L Lid	Total EVE
Enclosure		91	4	4		1	100%
Internal features	3	79	13		2	3	100%
Roundhouse	9	61	15	10	4	2	100%
Total EVE	1.01	17.65	2.45	1.42	0.45	0.39	23.37

Table 3.13: Site 2, north-eastern complex, percentages of vessel types from feature groups. Quantification by EVE

With its emphasis on dining, the assemblage recalls a trend noted in late Iron Age ceramic pit groups in south-eastern Britain for the deposition of 'ceramic consumption refuse' and the commemoration of feasting and communal social practices (Pitts 2005, 157).

There appears to have been more deliberate deposition in pit 2444. The feature contained the lower body and footring base of a jar in an oxidised grog-tempered ware. A complete or near-complete shelly-ware lid-seated jar (grey or black in colour) was placed inside it. The vessels were broadly dated, but generally suggest a range for deposition within the 1st century AD. Other pottery was recovered, but all represented little more than unremarkable fragments.

Pottery use

As was noted in the discussion of assemblage composition, the late Iron Age dominance of jars and bowls gave way to a more diverse assemblage in the early Roman period (Tables 3.10-11). This may reflect a change in dining and cooking habits. The bowl bore the brunt of this change. The proportion of jars was little reduced after AD 43 compared with the late Iron Age, whereas bowls declined from 20% of vessels in the late Iron Age to 9% in the early Roman period, with the gap being filled by flagons, beakers and platters. The inhabitants of the north-eastern complex at Site 2 still needed jars to cook with (and store goods), but were using bowls less frequently for dining. Changes in eating and drinking habits affected jars too. In the late Iron Age phase, the mean diameter of jars was 148.7 mm. In the early Roman period, the mean had increased to 164.4 mm. Also, the jars with the smallest average diameter in the late Iron Age barrel-shaped jars (CB, mean 110 mm), high-shouldered necked jars (CE, 125 mm), and jars with everted rims (CI, 120 mm) - all made comparatively smaller contributions to the early Roman assemblage. This suggests that there were fewer small jars, which may have been used for drinking in the later Iron Age, available in the early Roman period. What is more, the emergence of beakers suggests that small jars were being replaced by specialist drinking vessels.

Most jars were presumably used for cooking, but it was only in five vessels that evidence for cooking in the form of external or internal burning was recorded. Two lid-seated jars (CJ), an evertedrimmed jar (CI) and a narrow-necked jar (CC) were burnt on their exterior surfaces, a result, perhaps, of being placed on the hearth. Another lid-seated jar contains a burnt deposit, which may be food residue. A number of vessels show evidence of reuse or adaptation. The bases of six jars – in shelly ware, grog-tempered fabrics or grey ware – had been perforated multiple times, allowing the vessels to be used as strainers. As a reflection of their being well used, their intrinsic value, or the vagaries of supply, some vessels had been repaired. A repair hole was noted under the rim of a South Gaulish Drag. 27 cup. A sherd in a fine oxidised ware had a repair hole, and like the samian, the vessel it belonged to was presumably of some value to the owner. However, a rivet hole under the rim of a 'Belgic' sandy fabric jar shows that coarse wares were also repaired.

Catalogue of illustrated pottery (Figs 3.3-3.4)

Ditch group 2907, context 2300, late Iron Age

- 22 Narrow-necked jar (CC), fabric F06C. Decorated with small semicircles impressed in two parallel horizontal bands below a shoulder groove
- 23 Lid-seated jar (CJ), fabric F34. Burnt externally around the neck
- 24 Lid-seated jar (CJ), fabric R13. As Marney 1989, fig. 5, nos 1 and 3
- 25 Storage jar (CN), fabric R13, oxidised surfaces
- 26 Dome-like lid, fabric F06C, oxidised surfaces

Ditch group 2454, context 2338, early Roman

- 27 Narrow-necked jar (CC), fabric F09
- 28 Globular jar (CG) or large beaker, fabric F09. Decorated with chevron motifs made with the points of a comb, as Marney 1989, fig. 31, nos 26 to 30
- 29 Lid-seated jar (CJ), fabric R13
- 30 Carinated bowl (HA), fabric F34. Cordoned or rippled neck, as Marney 1989, fig. 37, no. 79

Ditch group 2477, early Roman

- 31 Barrel-shaped jar (CB), fabric F05. Notched decoration on the rim. Ctx 2287, ditch 2335
- 32 Globular jar (CG), fabric F09. Ctx 2443, ditch 2442
- 33 Lid-seated jar (CJ), fabric R13. Ctx 2287, ditch 2235
- 34 Lid-seated jar (CJ), fabric R13. Ctx 2287, ditch 2235
- 35 Lid-seated jar (CJ), fabric R13. Ctx 2443, ditch 2442
- 36 Carinated bowl (HA), fabric F34. Ctx 2442, ditch 2442
- 37 Necked bowl (HD), fabric F06A, oxidised surfaces. Ctx 2442, ditch 2442



Fig. 3.3 Pottery from Site 2 north-eastern complex, catalogue nos 22-45

Chapter 3



Fig. 3.4 Pottery from Site 2 north-eastern complex, catalogue nos 46-70

Ditch of roundhouse 2708, early Roman

- 38 Ring-necked flagon (BA), fabric R03A. Ctx 2511, ditch 2510
- 39 ?Cup-mouthed flagon (BB), fabric R06B. Ctx 2511, ditch 2510
- Globular jar (CG), fabric F06A. Ctx 2377, ditch 2365
 Globular jar (CG), fabric F06A, oxidised surfaces. Ctx 2609, ditch 2608
- 42 Necked jar (CD), fabric F06A. Ctx 2511, ditch 2510
- 43 Lid-seated jar (CJ), fabric F34. Ctx 2511, ditch 2510
- Lid-seated jar (CJ), fabric F34. Ctx 2511, ditch 2510
 Lid-seated jar (CJ), fabric R13, oxidised surfaces.
- Ctx 2511, ditch 2510
- 46 Lid-seated jar (CJ), fabric R13. Ctx 2511, ditch 2510
- 47 Lid-seated jar (CJ), fabric R13. Ctx 2511, ditch 2510
- 48 Lid-seated jar (CJ), fabric R13. Ctx 2511, ditch 2510
- 49 Lid-seated jar (CJ), fabric R13. Ctx 2511, ditch 2510
- 50 Lid-seated jar (CJ), fabric R13. Ctx 2609, ditch 2608
- Lid-seated jar (CJ), fabric R13. Ctx 2609, ditch 2608
 Lid-seated jar (CJ), notched rim, fabric R13. Ctx
- 2609, ditch 2608
 53 Wide-mouthed jar (CM), as Marney 1989, fig. 30, no. 4. Fabric R06B. Ctx 2609, ditch 2608
- 54 Storage jar (CN), fabric F06C. Decorated with a band of impressed chevrons around the girth below a body groove. Ctx 2377, ditch 2365
- 55 Butt-beaker (EA), fabric R05A. Ctx 2377, ditch 2365
- Butt-beaker (EA), fabric F06A, oxidised surfaces.
 Decorated with incised lattice between cordons.
 Ctx 2609, ditch 2608
- 57 Globular beaker (ED), fabric F06A, oxidised surfaces. Ctx 2377, ditch 2365
- 58 Carinated bowl (HA), fabric F09. Ctx 2609, ditch 2608
- 59 Platter (JC), fabric R06B. Reminiscent of Going 1987, type A4. Ctx 2511, ditch 2510
- 60 Platter (JC), fabric R06B. Ctx 2511, ditch 2510

Ditch group 2766, context 2754, fill of ditch 2753, early Roman

- 61 Necked jar (CD), fabric F00, oxidised surfaces
- 62 Bead-rimmed jar (CH), fabric F06A
- 63 Bead-rimmed jar (CH), fabric F06A
- 64 Bead-rimmed jar (CH), fabric F06A
- 65 Bead-rimmed jar (CH), fabric F06A
- 66 Lid-seated jar (CJ), fabric R13
- 67 Storage jar (CN), fabric F06C
- 68 Storage jar (CN), fabric F06C, oxidised surfaces. Decorated with a cordoned shoulder, and combed decoration on the body
- 69 Beaker, fabric F06A, oxidised surfaces
- 70 Bowl, fabric F05

Site 3 (Late Iron Age-early Roman)

Assemblage composition

Pottery recovered from contexts dated to the late Iron Age on ceramic and stratigraphic grounds accounted for 27% of the Site 3 assemblage by EVE (Tables 3.14 and 3.15). The phase assemblage was dominated by grog-tempered fabrics, which took a 67% share by EVE. Most fragments contained grog exclusively (fabrics F06A/C). A smaller proportion of grog-tempered fabrics also contained shell and sand (fabrics F05 and F09). The fabrics were available mainly as jars. Ovoid jars with everted rims (CO/CI) were best represented in fabrics F06A and F05, followed by slack-shouldered jars (CS). Both types were strongly associated with the middle Iron Age, but remained current into the late Iron Age. Two bowls recorded in fabrics F06A and F09 were related to type CS, as they had a slack shoulders. Bead-rimmed jars (CH) were present in fabric F06A, and single examples of a pedestal jar (CP) and lid-seated jar (CJ) were also recorded. Storage jars (CN) were seen only in coarse grog-tempered ware (F06C), while a necked medium-mouthed jar was recorded in a sand and grog-tempered fabric (F09).

Shelly ware (R13) made a significant contribution to the late Iron Age assemblage, taking a 30% share by EVE. Jars only were made in the fabric, and of these lid-seated jars (CJ) dominated. The form was variable, though, and included versions with very slight or narrow grooves at the top of the rim. Bead-

Table 3.14: Site 3, quantification of fabrics

Fabric	Sherds	Weight (g)	MV	EVE
F05	66	790	6	0.47
F06A	631	5446	28	2.89
F06C	68	1143	2	0.1
F09	43	498	6	0.4
F16	2	77		
F29	5	95		
F30	8	142		
F34	143	1075	8	0.87
R01B	10	100	2	0.54
R05B	135	59	1	0.09
R06B	752	2137	5	1.93
R06C	25	148	2	0.58
R07B	5	31		
R13	347	3850	28	3.08
R18B	28	184	1	0.4
Total	2268	15775	89	11.35

Table 3.15: Site 3, pottery from features phased to the late Iron Age. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

Fabric	C Jar	H Bowl	Total EVE	% EVE
F05	0.3		0.3	10%
F06A	1.34	0.08	1.42	46%
F06C	0.05		0.05	2%
F09	0.22	0.07	0.29	9%
F16			*	
F29			*	
F30			*	
F34	0.07		0.07	2%
R13	0.93		0.93	30%
Total EVE	2.91	0.15	3.06	
% EVE	95%	5%		

rimmed jars (CH) were present in the fabric, and were similar to the CJ type in terms of shape and rim decoration, but lacked the groove or indentation at the top of the rim. An oval-bodied jar with an everted rim (CI) was also encountered. A beadrimmed jar was recorded in 'Belgic' sandy ware (F34). Other sandy fabrics were recorded as F29 and F30, but no vessels were identified.

Another 27% of the Site 3 assemblage by EVE comprised pottery from contexts dated ceramically and stratigraphically to the early Roman period (c AD 43-120; Table 3.16). Grog-tempered fabrics, so important in the late Iron Age, declined significantly after the mid 1st century AD to take a 28% share of the phase assemblage. Just two forms were recorded: the bead-rimmed jar (CH) and highshouldered necked jars (CE). The decline of grogtempered fabrics was met by a rise in sandy fabrics, which contributed 27% of the early Roman phase. A jar (form uncertain) was present in 'Belgic' sandy ware, although outside the phased assemblage a high-shouldered necked jar (CE), bead-rimmed jar (CH), globular beaker (ED) and lid were recorded. A necked bowl or wide-mouthed jar (HD) and

Table 3.16: Site 3, pottery from features phased to the early Roman period (excluding funerary pottery). Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

Fabric	C Jar	H Bowl	J Dish	Total EVE	% EVE
F05				*	
F06A	0.85			0.85	28%
F06C				*	
F09				*	
F30				*	
F34	0.1			0.1	3%
R01B			0.1	0.1	3%
R06B		0.14		0.14	5%
R06C		0.21	0.37	0.58	19%
R07B				*	
R13	0.79	0.09		0.88	29%
R18B		0.4		0.4	13%
Total EVE	1.74	0.84	0.47	3.05	-
% EVE	57%	28%	15%	-	

curving-sided bowl (HC) were available in postconquest sandy grey ware (R06B), while fine sandy grey ware (F06C) provided a bowl and a plainrimmed dish or platter (JB). Shelly ware (R13) remained important after the conquest period. Its principal product continued to be lid-seated jars (CJ), and these were joined by a curving-sided bowl with a grooved rim.

Fine oxidised ware R18B appeared in this phase. A hemispherical bowl (HC) with compass-inscribed decoration imitating a London-ware prototype (which imitated the samian decorated bowl, Drag. 37) was recorded. Samian itself reached the site. A Drag. 36 dish arrived from South Gaul during the later 1st century AD.

The use of notches or frilling to decorate rims, applied to the middle Iron Age pottery of Site 4 (Trench 54), was evident on the late Iron Age and early Roman pottery of Site 3. The decoration was recorded on bead-rimmed jars (CH) and lid-seated jars (CJ) only, all examples being in shelly ware (R13). The bead-rimmed jar may be regarded as a development of the constricted-neck or ovoid jar, which was typically given a frilled rim, as recorded in the Site 4 (Trench 54) assemblage.

Funerary pottery

Two vessels from enclosure ditch 3351 were associated with a small amount of cremated human bone and therefore may represent the pottery from a disturbed cremation burial. One vessel (SF 3008) was a curving-sided bowl. The second vessel (SF 3009) was a jar, the base of which had been perforated to form a strainer. Both vessels were in a grog-tempered fabric and dated to the late Iron Age.

Eleven vessels had been placed deliberate into four graves (Table 3.17). Grave 3030 contained a sandy grey ware globular jar, which served as the cinerary urn. Two ancillary vessels were deposited: a globular beaker in a sandy fabric, and a sandy grey war platter. Grave 3031 contained three vessels. A large globular beaker in sandy grey ware was used as the cinerary urn. A South Gaulish samian ware platter and a fine oxidised globular beaker were deposited as ancillary vessels. Two vessels were recovered from grave 3050: a sandy

Table 3.17: Site 3, pottery ancillary and cinerary vessels from cremation burials. Quantification by vessel count based on all sherds

Ware	Beaker	Bowl	Flagon	Platter	Unident.	Urn (beaker)	Urn (jar)	Total vessels
Е	1							1
0	1							1
R		1		1	1	2	2	7
S				1				1
W			1					1
Total vessels	2	1	1	2	1	2	2	11

grey ware narrow-necked jar, which contained cremated bone, and fragments from an unidentified ancillary vessel in grog-tempered ware. Grave 104802, recorded in Trench 48 of the evaluation, contained three vessels. The cinerary urn was a jarsized poppyhead beaker in fine grey ware. A ringnecked flagon in Verulamium-region white ware and a fine grey ware necked bowl or small jar were deposited as ancillary vessels.

All the pottery is consistent with the early Roman phase ascribed to the graves. The samian platter in grave 3031, the globular beaker in grave 3030, and the grog-tempered vessel, in conjunction with the Roman-period pottery in grave 3050 suggest that the pottery groups were deposited in the second half of the 1st century AD. The group from grave 104802 may have been placed there during the later part of that period, or possibly during the early 2nd century. The flagon and poppyhead beaker are unlikely to date earlier than *c* AD 70 (cf. Davies *et al.* 1994, 42, 159).

Catalogue of funerary pottery

Enclosure ditch 3351, ditch cut 3124 (Fig. 2.40)

SF 3008. Curving-sided bowl (HC), fabric F06A. Ctx 3126. SF 3009. Body and base sherds from a large jar, fabric F06A. The base was perforated after firing with three or more holes. Ctx 3127.

Grave 3030 (Fig. 2.49)

SF 3000. Globular jar (CG), cinerary urn. Fabric R06B. Ctx 3005 SF 3001. Globular beaker (ED). Fabric F34, black surfaces. Ctx 3014 SF 3002. Platter with convex profile (JC). Fabric R06B. Ctx 3015

Group date: Mid-late 1st century AD

Grave 3031 (Fig. 2.50)

SF 3003. Large globular beaker (ED), cinerary urn. Fabric R06B. Ctx 3009

SF 3004. Platter (Drag. 18), fabric R01B. Edge of name stamp present but not legible. The excavator noted that vessel was not found in situ, and speculated that it was used as lid. Ctx 3010

SF 3005. Small globular beaker (ED). Fabric R05B. Ctx 3016

Group date: Mid-late 1st century AD

Grave 3050 (Fig. 2.51)

SF 3006. Narrow-necked jar (CC), cinerary urn. Fabric R06B. Ctx 3045

No SF number. Unidentified vessel, fabric F06A. Ctx 3044 (not illustrated) Group date: Mid-late 1st century AD

Grave 104802 (Fig. 2.52)

No SF number. Large poppyhead beaker (EF), cinerary urn. Fabric R06C. Ctx 104804 No SF number. Ring-necked flagon (BA). Fabric R03A. Ctx 104805 No SF number. Globular-bodied necked bowl or small jar (HD). Fabric R06C. Ctx 104806 Group date: Late 1st-mid 2nd century AD

Pattern of pottery deposition

Pottery was largely recovered from ditches and graves. Ditches contained 54% of the entire Site 3 assemblage by EVE, while 38% of pottery by EVE was attributed to graves. The remainder was recovered from pits. Some 330 sherds were collected from the late Iron Age ditch 3350-2/3359, with most pottery being concentrated in the central and northern parts of the feature; just 30 sherds came from interventions through the southern part of the ditch group (3359). Relatively large quantities of pottery were recovered from late Iron Age ditches 3362 and 3358/3361; c 100 sherds were collected from each. Deposition in the early Roman period was focused on enclosure ditch 3346/3364/3365, from which 450 sherds were recovered. The cemetery enclosure ditch 3344-5 produced a fairly small assemblage of 70 sherds.

The pottery recovered from the ditches is likely to have been domestic waste. Reduced coarse ware jars were dominant in the assemblages from ditches 3346/3364-5, 3350-2/3359, 3362, 3353/3357 and 3358/3361, contributing over 80% to those groups by EVE. The mean sherd weight of the pottery from the groups was relatively high, exceeding 10g in most cases. The best preserved pottery was from ditch 3353/3357, which had a mean sherd weight of 14.3g, which compares to an overall site average of 6.9g. The value, sufficiently low to suggest a degree of redeposition and fragmentation after initial discard, but high enough to point to domestic activity close by, reflects the absence of domestic structures on Site 3.

That said, mean sherd weight values should be treated with caution, as is demonstrated by comparison with the funerary pottery. The overall value obtained for the pottery from the graves is very low, 2.8g, despite the grave groups comprising vessels deposited whole in the ground and remaining, essentially, in situ until excavation. On lifting, the pottery, which had cracked in the stiff clay soil and been disturbed by ploughing, fragmented, resulting in very small sherds. A fairer way of comparing pottery condition across feature types is to use the EVE values, which are not affected by fragmentation, whether caused by the soil or episodes of redeposition; a complete rim has the same value of 1 EVE whether it is broken into two pieces or ten. The EVE value divided by the number of vessels represented (MV) gives us an average EVE per rim or 'completeness' value; the closer the value is to 1, the more complete is the pottery (Orton et al. 1993, 178). On this basis, the overall value for the site assemblage is 0.13 EVE (or 13% of a complete rim). The pottery from features which received much of the pottery have values reasonably close to the site average. For example, the value for ditch 3346/3364-5 is 0.10 EVE; that for ditch 3350-2/3359 is 0.08 EVE, while ditch 3353/3357 has a value of 0.13 EVE. In contrast, the value for the funerary pottery is 0.49 EVE, which is

Chapter 3

Site 3

much more in keeping with the deposition of whole vessels and a degree of post-depositional truncation. Relatively high values of 0.21 EVE and 0.40 EVE are also recorded for ditches 3344/45 and 3355 respectively. For the former, the value can be attributed to the deposition of a substantially complete hemispherical bowl (imitating samian form Drag. 37) in a fine oxidised ware. In the latter, with the exception of a single sherd of grogtempered pottery, deposition was restricted to a near-complete lid-seated jar in shelly ware. Both vessels stand in contrast to the more usual small fragments of mixed forms and fabrics recovered from most features, and it is possible that they represent deposits made in a more deliberate and careful manner on the abandonment of the feature.

Pottery use

The range of forms available in the late Iron Age was restricted to jars and bowls, and it is likely that the vessels served a variety of functions. Jars may have served as drinking vessels, in addition to cooking and storage, with bowls being used for cooking and dining. Taking diameter as representative of vessel size, oval-bodied or barrel-shaped jars



Fig. 3.5 Pottery from Site 3, catalogue nos 71-89

with everted rims (type CI) were among the smallest vessels. Their mean diameter was 163 mm, but the range started at 130 mm. A slack-shouldered jar (type CS) had a diameter of 120 mm, and the mean for the type as a whole was 140 mm. Type CI may have been used for drinking, but its overall mean points to larger vessels and other functions, such as cooking. Type CS, being more usually small, is likely to have been more restricted in function, probably serving as a small bowl or cup. The lidseated jar (type CJ) tended towards the higher end of the diameter range, and its mean was 172 mm. Bead-rimmed jars, another relatively common type in the phase, were on average 163 mm in diameter, but were no less than 140 mm. Both CI and CH seem less likely to have served the same functions as the small CI and CS types, and could have been used exclusively for cooking and storage. The second half of the 1st century AD saw diversification of pottery forms and the introduction of specialised dining forms - beakers, platters, and flagons. Lid-seated jars and bead-rimmed jars continued to be made and used, and were joined by globular (CG) and high-shouldered necked (CE) jars, which had average diameters of 133 mm and 210 mm respectively. Slack-shouldered jars and oval-bodied jars with everted rims virtually disappeared; the emergence of beakers had rendered drinking-jars obsolete. The use of lid-seated jars (type CJ) as cooking vessels is demonstrated by the evidence of burning and charred deposits on the surfaces of the jars. One vessel, from early Roman ditch 3346, had a burnt deposit under the rim.

Catalogue of illustrated pottery (Fig. 3.5)

Ditch group 3358, context 3107, ditch 3105, late Iron Age

- 71 Bead-rimmed jar (CH), fabric R13. Fingertip impressions on the top of the rim
- 72 Bead-rimmed jar (CH), fabric F06A. Possibly decorated with rusticated decoration

Ditch group 3352, late Iron Age

- 73 Lid-seated jar (CJ), with notched or frilly rim, fabric R13. Ctx 3235, ditch 3233
- 74 Slack-shouldered jar (CS), fabric F06A. Ctx 3235, ditch 3233

Ditch group 3346, early Roman

- 75 Necked jar (CE), fabric F06A, oxidised surfaces. Ctx 3082, ditch 3081
- 76 Necked jar (CE), fabric F06A. Ctx 3084, ditch 3086
- 77 Bead-rimmed jar (CH), fabric F06A. Decoration: combed body and stabbed dots on the rim. Ctx 3082, ditch 3081
- 78 Lid-seated jar (CJ), fabric R13. Ctx 3083, ditch 3086
- 79 Lid-seated jar (CJ), fabric R13. Ctx 3084, ditch 3086
- 80 Lid-seated jar (CJ), fabric R13. Ctx 3084, ditch 3086
- 81 Lid-seated jar (CJ), fabric R13. Ctx 3084, ditch 3086
- 82 Curving-sided bowl (HC), fabric R13. Ctx 3082, ditch 3081
- 83 Necked bowl (HD), fabric R06B. Ctx 3083, ditch 3086
- 84 Plain-rimmed dish (JB), fabric R06C. Ctx 3083, ditch 3086

Ditch group 3364, context 3266, ditch 3260, early Roman

- 85 Globular jar (CG), fabric F05
- 86 Bead-rimmed jar (CH) with notched rim, fabric R13
- 87 Butt-beaker (EA), fabric F09, oxidised surfaces
- 88 Lid, fabric F06C

Ditch group 3344, context 3054, ditch 3051, early Roman

89 Hemispherical bowl (HC), fabric R18B. Decorated with a thin band of rouletting under a plain zone below the rim, a deeper band of rouletting on the lower wall, and incised roundels. Imitating samian form Drag. 37

Wootton Pond (middle-late Roman)

Four sherds of pottery, weighing 767g, were recovered from context 21003. The small collection comprised two storage jars in shelly ware (R13), a sherd of grog-tempered pottery (F06A) and a sherd of sandy grey ware (R06B). The group as a whole has been assigned to the 2nd century or later.

Site 2 south-western complex (middle-late Roman)

Assemblage composition

Almost 200 sherds, representing 28 vessels or 3.78 EVEs, were recovered from the south-western complex at Site 2 (Table 3.18). Some 70% of the pottery by EVE belonged to contexts assigned middle Roman ceramic dates and phased by stratigraphy to the same period (*c* AD 120-250). The

Table 3.18: Site 2, south-western complex, quantification of fabrics

Fabric	Sherds	Weight (g)	MV	EVE
F06A	4	27	1	0.03
F09	4	45		
R01A	1	2		
R01C	2	9	2	0.09
R03	1	7		
R03A	1	32	1	0.15
R04A	1	1		
R04E	1	4		
R05A	4	48	1	0.07
R05B	8	34	2	0.18
R05D	3	12		
R06B	37	571	9	1.87
R06C	10	109		
R07A	1	15	1	0.03
R07B	17	272	4	0.39
R07E	1	27		
R09A	21	270	1	0.1
R12B	16	92	1	0.2
R12C	5	47		
R13	53	1003	5	0.67
R22A	3	13		
Р	2	15		
Total	196	2655	28	3.78

Fabric	C Jar	E Beaker	F Cup	J Dish	L Lid	Total EVE	% EVE
F06A					0.03	0.03	1%
F09						*	
R01A						*	
R01C			0.03	0.06		0.09	3%
R03A	0.15					0.15	5%
R04A						*	
R04E						*	
R05B						*	
R05D						*	
R06B	1.36			0.3		1.66	60%
R06C						*	
R07A				0.03		0.03	1%
R07B				0.18		0.18	7%
R09A	0.1					0.1	4%
R12B		0.2				0.2	7%
R12C						*	
R13	0.33					0.33	12%
Total EVE	1.94	0.2	0.03	0.57	0.03	2.77	-
% EVE	70%	7%	1%	21%	1%	-	-

Table 3.19: Site 2 , south-western complex, pottery from features phased to the middle Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

assemblage was dominated by sandy grey wares (R06B). These were represented as jars and dishes. Oval-bodied necked jars (CD) and plain-rimmed and bead-rimmed dishes (JB) were slightly more numerous than wide-mouthed (CM) and narrownecked (CC) jars, which were also recorded in the fabric. The wide-mouthed jar and its fabric can be paralleled among the products of the Caldecotte kilns, Milton Keynes (Marney 1989, fig. 30.4; 193), pointing to a local source for the vessel. Shelly ware (R13) also made an important contribution to the assemblage. A necked jar (CD) and storage jar (CN) were represented in this fabric. A plain-rimmed dish in black-burnished ware (R07A) from Dorset was identified; more plain-rimmed dishes were made in black-surfaced fabrics (R07B) of local origin. Oxidised wares accounted for 9% of the assemblage by EVE. The Verulamium region (R03A) was the source of a white-ware jar with a reeded rim, which reached the site in the mid 2nd century, while storage jars in pinked-grogged ware (R09A) arrived from the Alchester-Towcester area (Taylor 2004) from the mid 2nd century onwards. Local oxidised fabrics and Nene Valley parchment ware were present, though in small quantities, and were recorded as body sherds only. The site saw greater quantities of the Nene Valley industry's colourcoated ware (R12B), which first reached the site during the late 2nd and first half of the 3rd century AD, although forms appear to have been restricted to folded beakers. Samian ware arrived from Central Gaul in the 2nd century and East Gaul between c AD 140 and 240. No forms were identified in the former, but a cup (Drag. 33) and a dish were recorded in the latter.

Table 3.20: Site 2, south-western complex, pottery from features phased to the late Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

Fabric	C Jar	E Beaker	H Bowl	J Dish	Total EVE	% EVE
F06A					*	
R05A					*	
R05B	0.05	0.13			0.18	20%
R06B	0.16				0.16	18%
R07B				0.21	0.21	24%
R13	0.18		0.16		0.34	38%
R22A					*	
Total EVE	0.39	0.13	0.16	0.21	0.89	-
% EVE	44%	15%	18%	24%	-	-

The level of pottery deposition declined in the late Roman period (*c* AD 250-410); pottery from contexts dated to this period on ceramic and stratigraphic grounds accounted for 24% of the site's assemblage by EVE (Table 3.20). Given the small quantities attributed to this period – less than 1 EVE – it is reasonable to question how representative the group is with regard to supply to the region. The group nevertheless highlights the forms and fabrics that were important during this period. These included sandy grey ware (R06B), although only a single jar was recorded. A plainrimmed dish and a dropped flanged dish were made in black-surfaced ware (R07B). Shelly ware (R13) was represented by two oval-bodied necked jars, and a dish with an incipient flange (as Going 1987, type B5.3). A funnel-necked beaker was made in a fine oxidised ware (R05B). Hadham oxidised ware (R22A) was present, but no forms were identified.

Pattern of pottery deposition

Ditch 20235 contained some of the earliest pottery groups recovered from the site. The pottery from the feature was consistent with a 1st-century date. However, the date is provided by a single sherd of a sand and grog-tempered fabric, which could well have been residual. Discounting ditch 20235, ditch 20237 was among the earliest features to be filled. Pottery from it can be attributed with greater certainty to the mid to late 2nd century AD. Pottery helps to confirm a middle Roman date for ditches 20223 and 20224, waterhole 20167, hollow 20049 and pit 20071, although ceramic groups were too broadly dated to demonstrate any changes in the level of deposition within the period. Deposition was generally concentrated inside the enclosure to the north-east and along its ditches. The largest groups of pottery belong to waterhole 20167, which contained a total of 66 sherds. Its mean sherd weight of 22g and 'completeness' value (EVE/MV) of 0.17 EVE were relatively high – the overall site average was 13.5g and 0.13 EVE - suggesting reasonably large sherds that had undergone relatively few episodes of disturbance and relocation. The next largest group of 18 sherds was recovered from hollow 20049. The condition of the pottery was consistent with the open nature of the feature; the mean sherd weight of 7.9g and completeness value of 0.09 EVE suggest that the pottery was subject to a greater degree of disturbance and weathering compared to the pottery from 20167.

Deposition in the late Roman period was concentrated along ditches 20225, 20226 and 20233. Pottery groups were broadly dated, and it is not possible to pinpoint the abandonment of the site to a date before the nominal AD 410, or detect changes in the intensity of deposition within the period. The largest group of pottery, 38 sherds, was collected from section 20014 of ditch 20026. This was somewhat anomalous as the other interventions along the length of the ditch contained a total of just 15 sherds. The mean sherd weight (14.4g) and completeness (0.11 EVE) of the pottery from the ditch is close to the overall site averages, but again reflects the relatively large group in section 20014; the remaining pottery was in poorer condition. Six sherds were collected from ditch 20225, while 11 sherds were recovered from 20233. The condition of the pottery was below the site average; for both features, the mean sherd weight was 8g and the completeness value 0.05 EVE.

In general, the assemblage from the southwestern complex at Site 2 is characterised by small context-groups of moderately to highly fragmented and abraded pottery. This is consistent with pottery deposited in marginal areas of settlement (for example, outlying fields or paddocks reserved for livestock) and away from the focus of domestic occupation.

Catalogue of illustrated pottery (Fig. 3.6)

Waterhole 20167, context 20165, middle Roman

- 90 Narrow-necked jar (CC), fabric R06B
- 91 Wide-mouthed jar (CM), fabric R06B, as Marney 1989, fig. 30.4.
- 92 Storage jar (CN), fabric R13
- 93 Folded beaker (EE), fabric R12B, as Perrin 1999, fig. 61.165-7
- 94 Plain-rimmed dish (JB), fabric R06B
- 95 Dish or bowl, fabric R01C



Site 2

Fig. 3.6 Pottery from Site 2 south-western complex, catalogue nos 90-95

Site 7 (middle-late Roman)

Table 3.21: Site 7, quantification of fabrics

Assemblage composition

Almost 3500 sherds, representing 392 vessels or 59.09 EVEs, were recovered from Site 7 (Table 3.21). The majority of the assemblage (70% of the pottery by EVE) could not be considered in the discussion of composition and pottery supply to the site. This pottery belonged to groups that had a ceramic date that was wider than the stratigraphic phase to which they were assigned, or groups whose ceramic dates were earlier than their stratigraphic phase. Some 10% of pottery by EVE belonged to contextgroups phased by pottery and stratigraphy to the middle Roman period (c AD 120-250; Table 3.22). Two fabrics dominated: sandy grey ware (R06B) and shelly ware (R13). The latter was more important, representing 35% of the phased assemblage. The fabric was mainly represented by jars, the principal types being lid-seated jars (CJ), ovalbodied necked jars (CD), and wide-mouthed jars (CM). A small jar or beaker (similar to Marney 1989, fig. 25.24) was also recorded. Another reasonably common shelly-ware form was the curving-sided bowl (HC), usually large and with lid-seated, dropped flanged or bead rims. Sandy grey ware took a 20% share of the assemblage by EVE. It was present as dishes and jars only. Dishes (JA/JB) were bead-rimmed, though plain-rimmed and grooved dishes were seen in a fine grey ware (R06C). As with shelly ware, necked jars, wide-mouthed jars and lidseated jars (type CJ, not as well represented in grey ware as in shelly ware) were recorded. One necked jar had a bifid rim, while in another the neck was very short. A small lid-seated jar, or beaker, was recorded in black-surfaced ware (R07B). Blackburnished ware arrived from Dorset, but in small quantities, and no forms were recognised.

Oxidised and white wares accounted for 18% of the phased assemblage. A cup-mouthed flagon was identified in a fine sandy white ware (R03), possibly from the Nene Valley. Certain Nene Valley products arrived in the form of a carinated bowl (HA) and hemispherical bowl with flanged rim (HC) in parchment ware (R12C). A bowl with a reeded rim and mortarium with a stubby flange and high bead (Davies *et al.* 1994, fig. 40.213) in Verulamiumregion white ware (R03A/R33), pink-grogged ware (R09A) from the Alchester-Towcester area, and a necked bowl or wide-mouthed jar (HD) in a local gritty orange fabric were also encountered. Other oxidised wares arrived from the Oxford region (R11) and local sources (R03B and R05A).

Fine wares were restricted to bag-shaped and folded beakers in Nene Valley colour-coated ware (R12B), and Hadham oxidised ware, although no form was recognised in the latter. Samian wares accounted for 12% of the phased assemblage. A Drag. 36 dish arrived from South Gaul, but, dating to the later 1st century AD, this is likely to have been residual. Two Drag. 31 dishes, a Drag. 31R

Fabric	Sherds	Weight (g)	MV	EVE	
F06A	5	30			
F16	4	99			
F18	1	24			
R	1	1			
R01	5	6			
R01A	45	1126	13	1.98	
R01B	27	154	6	0.59	
R01C	19	644	5	0.61	
R01D	1	5			
R02	4	61	1	0.16	
R03	13	405	6	2.03	
R03A	45	1152	4	2.23	
R03B	24	309	3	0.24	
R04A	4	6			
R05A	52	501	2	0.2	
R05B	105	437	8	1.52	
R05D	17	96	1	0.29	
R06A	24	355	2	0.21	
R06B	702	10674	87	12.61	
R06C	272	2348	35	5.97	
R06H	1	14			
R06V	4	71	2	0.3	
R07A	9	54	2	0.11	
R07B	257	2927	22	3.62	
R07G	24	735	6	1.42	
R09A	19	1580			
R11	1	3			
R11D	14	420	2	0.25	
R11E	9	433	2	0.26	
R11F	6	216	2	0.17	
R12A	15	141	1	0.12	
R12B	156	1351	9	2.75	
R12C	59	549	4	0.64	
R13	1448	35499	158	18.46	
R19A	1	554			
R20	4	175	2	0.3	
R22A	3	7			
R22B	15	572	2	0.7	
R22C	15	395	2	0.7	
R22D	7	26	1	0.2	
R33	1	239	1	0.1	
R36	9	132	1	0.35	
R38	12	30			
P	16	146			
Total	3485	64703	392	59.09	

rouletted dish, a Curle 11 flanged bowl, and decorated bowls Drag. 30 and 37 were recorded in Central Gaulish samian ware, which reached the site during the 2nd century. Two dishes – Drag. 31 and Drag. 32, both dating from the late 2nd to mid 3rd century – were present in East Gaulish samian ware. A body sherd from a decorated bowl, probably Drag. 37, was identified as Pulborough samian (R01D) on account of its overfired fabric (cf. Tomber and Dore 1998, 186).

Fabric	B Flagon	C Jar	E Beaker	H Bowl	J Dish	K Mortarium	Total EVE	% EVE
F06A							*	
R01A				0.18	0.17		0.35	6%
R01B					0.05		0.05	1%
R01C					0.32		0.32	5%
R03	0.21						0.21	4%
R03A				0.07			0.07	1%
R03B							*	
R05A							*	
R06B		0.96			0.24		1.2	20%
R06C					0.61		0.61	10%
R07A							*	
R07B			0.12				0.12	2%
R09A							*	
R11							*	
R12B			0.08				0.08	1%
R12C				0.41			0.41	7%
R13		1.62	0.08	0.33			2.03	35%
R22A							*	
R33						0.1	0.1	2%
R36				0.35			0.35	6%
Total EVE	0.21	2.58	0.28	1.34	1.39	0.1	5.9	-
% EVE	4%	44%	5%	22%	23%	2%	-	-

Table 3.22: Site 7, pottery from features phased to the middle Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

Pottery from context-groups dated by the ceramics and stratigraphy to the late Roman period (c AD 250-410) accounted for 20% of the entire assemblage (Table 3.23). A much wider range of forms and fabrics, compared with the middle Roman phase, is evident. Sandy grey wares continued to dominate the assemblage, contributing 30% to the group by EVE, although the fine fabric (R06C) increased its share, while that of the sandy fabric decreased (R06B). There were changes in the proportions of vessel classes, too. Dishes became more important at the expense of jars; well over half of all vessels in sandy grey ware were dishes, usually dropped flange or plain-rimmed types. In contrast, too, with the middle Roman phase, no lidseated jars were recorded, only oval-bodied necked jars and wide-mouthed jars in fabric R06B and narrow-necked jars or flasks in R06C. Other forms included carinated and curving-sided bowls in R06B, and a funnel-necked beaker and 'jar-beaker' in R06C. A sandy grey ware candlestick (MB) was also recorded. The grey wares were largely, if not totally, of local origin. Other grey wares reached the site from the Nene Valley (R06A), the Verulamium region (R06V), and Hadham (R22C/D). With the exception of a plain-rimmed dish in fabric R22C, no forms were identified.

Shelly wares (R13) contributed a significant 24% share of the phase by EVE, although this is a smaller amount than was present in the middle Roman period. Lid-seated jars remained the principal form. Oval-bodied necked jars and large curving-sided

bowls with dropped flange rims were also important. Storage jars and a 'jar-beaker' were also recorded.

Black-burnished ware from Dorset was slightly better represented in the late Roman period, compared with the middle Roman period. A plainrimmed dish was recorded. The locally-made blacksurfaced ware (R07B) also increased its proportion. Plain-rimmed dishes were available in the fabric, along with oval-bodied necked jars and a lid-seated jars. Another plain-rimmed dish was seen in fabric R07C.

Oxidised and white wares took a 13% share of the assemblage, a slight drop from the middle Roman phase. A funnel-necked beaker in a fine sandy white ware and a bowl may be attributed to the Nene Valley, but the identification is uncertain. A reed-rimmed bowl in a gritty white ware (R03B) is possibly from the Verulamium region, and is likely to have been residual. Plain-rimmed dishes and a (residual) bag-shaped beaker were available in a fine oxidised ware (R05B), and a ring-necked flagon (again probably residual) was recorded in a sandy orange fabric (R05A). A Nene Valley parchment ware flanged dish or bowl was also present. Storage jars in pink-grogged ware (R09A) continued to arrive from the Alchester-Towcester area.

In terms of fine wares, Oxford red colour-coated ware (R11D) joined Nene Valley colour-coated ware (R12B) from the late 3rd century onwards. Two forms (other than mortaria) were identified in the former: a flanged dish (Young 1977, type 47) imitating samian form Drag. 36, and a deep bead-

Fabric	B Flagon	C Jar	E Beaker	H Bowl	J Dish	K Mortarium	L Lid	M Misc.	Total EVE	% EVE
R01									*	
R01A					0.06				0.06	< 0.5%
R01B					0.05				0.05	< 0.5%
R01C			0.11		0.07				0.18	1%
R03			1.03	0.03					1.06	9%
R03A									*	
R03B				0.06					0.06	< 0.5%
R04A									*	
R05A	0.1								0.1	1%
R05B			0.1		0.08		0.04		0.22	2%
R05D									*	
R06A									*	
R06B		0.58		0.08	1.37			0.03	2.06	17%
R06C		0.55	0.67		0.29				1.51	13%
R06H									*	
R06V									*	
R07A					0.08				0.08	1%
R07B		1.2			0.18				1.38	11%
R07G					0.19				0.19	2%
R09A									*	
R11D					0.25				0.25	2%
R11E									*	
R11F						0.17			0.17	1%
R12A									*	
R12B	0.29		1.03						1.32	11%
R12C					0.05				0.05	<0.5%
R13		2.47	0.09	0.32					2.88	24%
R20						0.1			0.1	1%
R22C					0.35				0.35	3%
R22D									*	
Total EVE	0.39	4.8	3.03	0.49	3.02	0.27	0.04	0.03	12.07	-
% EVE	3%	40%	25%	4%	25%	2%	<0.5%	<0.5%	-	-

Table 3.23: Site 7, pottery from features phased to the late Roman period. Quantification by EVE. Asterisks denote fabrics that are present but have no surviving rims

rimmed dish (Young 1977, type C44/45) imitating samian form Drag. 31. Fabric R12B was available as a funnel-necked pentice beaker, a bag-shaped beaker, and as a spouted jug. The Gaulish imports, Central Gaulish 'Rhenish' ware beaker (R04A) and samian from South, Central and East Gaul, were recovered as residual occurrences. A Drag. 18/31R dish was recorded in fabric R01A, while a Drag. 36 dish was seen in fabric R01B. East Gaulish samian potters, probably from Rheinzabern, were responsible for a Drag. 31 dish and Drag. 72 beaker. Body and base sherds representing a Drag. 18/31 dish, Drag. 33 cup (a product of the Antonine potter, Quintus), and decorated bowl Drag. 30 were recorded in fabric R01A, while a Drag. 30 bowl was present in fabric R01C. The numbers of mortaria increased in the late Roman period. A bead-andflanged mortarium (Young 1977, type C100) arrived from the Oxford region (R11F). A wall-sided mortarium was available in a Nene Valley fabric (R11A), while a hammerhead mortarium reached the site from the Mancetter-Hartshill potteries (R20).

Funerary pottery

Late Roman inhumation grave 15230 contained a single deliberately deposited pot (SF 15003). This was a funnel-necked, pentice-shouldered beaker in Nene Valley colour-coated ware (fabric R12B). Single body sherds of black-burnished ware and sandy grey ware were also recovered from the grave.

Pattern of pottery deposition

In the 2nd century pottery was deposited across the site. Over half the assemblage by sherd count was recovered from ditches. Ceramic groups were, however, relatively small; on average, 29 sherds were collected from each ditch. Ditch 15366 received much of the pottery, some 180 sherds. Another large group of 89 sherds was collected from oval enclosure 15742. Pottery groups of fewer than 50 sherds were recovered from the remaining 2nd-century ditches. Some 24% by sherd count of the pottery

from features phased to the 2nd century was recovered from pits. Pit groups contained on average 18 sherds. The largest pit group was from 15333 at the eastern end of the site, which contained 118 sherds. The remaining pit groups contained fewer than 40 sherds. A relatively large group of 150 sherds was recovered from waterhole 15352; other feature types that received pottery in the 2nd century included quarry pits (a total of 52 sherds was recovered) and postholes (just eight sherds were recorded). A small amount of pottery (31 sherds) was deposited in features phased to the late 2nd-early 3rd century; much more pottery, over 2000 sherds, was deposited in features phased to the later 3rd and 4th centuries. Ditches and gullies accounted for 9% of this pottery by sherd count, with the bulk (198 sherds) coming from gully 15731. Pottery from pits contributed 2% to the late Roman assemblage. However, most of the pottery (85% by count) was recovered from three waterholes, 15185, 15735 and 15958, although 15735 was responsible for the largest proportion of this, with 1400 sherds being recovered.

The condition of the pottery was good on the whole. Pottery from ditches and waterholes was characterised by large sherds; the mean sherd weight (weight / sherd count) was 23.6g for both feature types, which compares with the mean for the entire Site 7 assemblage of 18.5g. Pottery sherds from pits and quarry pits was slightly above the site average, with a mean of 19g, while that from gullies was below average at 15.2g, as was the pottery from natural and post-Roman features (10.9g). The generally well-preserved character of the pottery suggests that it had not undergone repeated episodes of disturbance and deposition, but had been deposited in its ultimate locations reasonably close to areas of original discard and settlement activity. The smaller means from natural and post-Roman features are to be expected, as the pottery is likely to have lain exposed to the elements and subsequent disturbance for longer periods of time, or had been ultimately deposited and sealed some considerable time after original discard.

That said, analysis of the completeness statistic (EVE / vessel count; 1 EVE representing a complete vessel or assemblage) across feature types reveals a greater degree of difference between them. The pottery from ditches and waterholes remains the best preserved, with completeness values of 0.17 EVE and 0.18 EVE respectively (comparing with an overall site mean of 0.15 EVE). As with the mean sherd weight, these values suggest that the pottery derived from a similar process or sequence of deposition from original to final disposal. The pottery from pits and quarry pits was, in contrast, rather more poorly preserved, having a completeness value of 0.11 and 0.07 EVE respectively. These point to relatively small sherds, each around 10% of the whole rim, and potentially a sequence of deposition after original breakage different from that of ditches and waterholes. Gullies, too, contained

pottery with a small completeness value – 0.09 EVE. In some cases of deposition in pits and gullies, the pottery may have been fairly incidental to the act of deposition, being carried accidentally in soil or other material to be dumped. The condition of the pottery from ditches and waterholes suggests that deposition in those features was more deliberate, possibly involving the deposition of freshly-broken pottery from household dumps or a form of structured deposition. All complete or near-complete vessels were from ditches and waterholes. Two jars, two beakers and a bowl, all complete or nearcomplete, were collected from waterhole 15735. Waterhole 15185 contained two more near-complete beakers, while a fourth near-complete beaker was recovered from enclosure ditch 15742. In addition, these features contained the complete bases of dishes, beakers and jars, each representing a substantial proportion of the vessel. These factors reinforce the suggestion that areas of pottery use and original discard were located very close to features from which pottery was recovered.

Like the funerary pottery from Site 3, the pottery from grave 15230 in Site 7 was highly fragmented, having the lowest low mean sherd weight among Site 7 features of 5.25g, but, due to being deposited as a whole vessel, the highest completeness value of 0.9 EVE.

Pottery use

A comparison of vessel classes shown in Tables 3.22 and 3.23 reveal that jars were dominant throughout the middle and late Roman periods, suggesting that they remained critical to important domestic functions, such as cooking and storage. However, jars were challenged as the dominant form by the emergence of dishes and mortaria, which also found a place in the kitchen as food preparation vessels. Additionally, dishes could be used as dining vessels. There are two main points of difference between the middle and late Roman assemblages. Firstly, beakers, used as drinking vessels, are better represented in the late Roman period. This reflects the rise of the Nene Valley pottery industry in the 3rd and 4th centuries, the chief product of which was the colour-coated beaker. This reached the Milton Keynes/Bedford region in quantity, and was also imitated by local potters. In contrast, bowls were better represented in the middle Roman period. These included vessels in shelly ware, which was present in higher quantities in the middle Roman period compared with the late Roman period, and vessels in samian wares, which were not imported after the mid 3rd century.

Evidence for cooking in the form of external or internal burning was recorded on 18 vessels. These included eight shelly ware (R13) vessels, which were exclusively lid-seated (CJ) or necked (CD) jars. The burning affected all parts of the external surfaces, but was usually concentrated on the shoulder, neck or rim. On one jar (no form identified), there was a thickly-encrusted deposit of charcoal or other burnt matter around the upper part of the vessel. A near-complete necked jar in black-surfaced ware (R07B) had been heavily used as a cooking pot, possibly for boiling water. It had a thick burnt deposit on its external surface, and a limescale-like deposit across its internal surface. Three plain-rimmed dishes (JB) in locally-produced grey ware (R06C/B) and Hadham reduced ware (R22C) were also burnt. In two vessels, the burnt deposit was on the external surface of the base. A Drag. 36 dish in Central Gaulish samian ware (R01A) had been burnt before breakage, but the piece was small and the precise pattern of burning could not be discerned. A funnel-necked globular beaker in a sandy white ware (R03) had been burnt externally around its girth, and a bead-rimmed bowl, also in fabric R03 was burnt extensively across the base and lower wall both externally and internally. A burnt deposit was recorded around the lower half of a bowl (reminiscent of Marney 1989, fig. 29.1) in fabric R06B. Two white-ware mortaria, one from the Verulamium region (R33) and the other (Young 1977, type M18) from Oxford (R11E), were both burnt across the flange and rim, as if inverted over cooking vessels set on the hearth in the manner of a testum. In this form of cooking, reconstructed by experimental cooking from descriptions in Apicius, an oven is created by heaping hot embers on top of and around a vessel inverted and placed over an upright vessel (Grocock and Grainger 2006, 77-82).

Internal wear from use was evident on three vessels, all in samian ware. A dish (Drag. 36) in Central Gaulish samian ware (R01A) was worn across the base. The wear extended up the side, terminating around the vessel neatly and level with the bottom of the flange. A small flanged bowl, probably Ritterling 1, in South Gaulish samian ware (R01B) was worn across the centre of the base. A third vessel, from Central Gaul, was worn across the base and vessel wall. The vessel was not identified to type, but it is likely to be a bowl. Something of the longevity of use or value of the pottery is hinted at by repairs made to the vessel. Two vessels, both in samian ware, have evidence of repair. One, a Drag. 18 platter from South Gaul, has a small perforation, which was probably a repair hole to take a lead rivet. The base of a Drag. 18/31 dish, from Central Gaul, has a repair hole near its footring. A third vessel, a beaker or small jar in sandy grey ware (R06B) had a single perforation, made after firing, through the centre of the base. This is unlikely to relate to repair, but rather a change of function from a containing vessel to a use requiring drainage.

Returning to shelly ware R13, an interesting aspect of the fabric is its surface colour. Some vessels are oxidised or a yellow-brown colour, while other vessels are reduced or black. Examining the entire assemblage, it is possible to detect an association between surface colour and form. Although most vessels were available in both oxidised or reduced versions, necked jars (CD) and lid-seated jars (CJ), as well as the minor forms of 'jar-beaker' and dish, tend to be more strongly associated with black surfaces, while all wide-mouthed jars (CM), storage jars (CN), and large curving-sided bowls (HC), usually with dropped-flange rims, are yellowbrown (Table 3.24). The association is statistically significant (the χ^2 value obtained from the counts in Table 3.24 – excluding unspecified jars and bowls and types J and M – exceeds the critical value of the χ^2 -distribution at the 5% level with 9 degrees of freedom). This suggests that surface colour was not an accidental product of firing, and that potters were to a large extent choosing the surface colour of their vessels on the basis of form. Potters deemed a reduced surface appropriate for some vessels; for other forms an oxidised surface was preferred. The reason for this choice appears to relate to function. The evidence of burning and scorching identifies shelly ware necked jars and lid-seated jars as cooking vessels. The tradition of using reduced fabrics (whether sandy, grog-tempered or shelly) for jars was long-established. The jars of the middle Iron Age assemblage from Site 4 (Trench 54) were generally grey or black, as were the jars from the late Iron Age to early Roman assemblage from the north-eastern complex at Site 2. In contrast, oxidised surfaces tended to be reserved for finer vessels, such as beakers and bowls. Potters making shelly-ware cooking jars were likely to maintain this distinction, as the cooking pots they saw around them and used were usually grey or black, while the dining forms were orange or white. Shelly ware with reduced surfaces was equivalent to sandy grey ware. And with each new batch of predominantly reduced-ware jars, the association between surface colour and function was in turn reinforced. Conversely, storage jars, wide-mouthed jars, and bowls were generally not used for cooking, but were instead vessels meant for display (for example, in the corner of a room holding grain, or on the table for communal dining). The oxidised

Table 3.24: Comparison of the proportions of vessels in shelly ware (fabric R13) by surface colour, expressed as percentage of the number of vessels (MV) per type

Туре	Oxidised	Reduced	No. vessels
C Jar (unspecified)	60%	40%	10
CD Oval-bodied necked jar	36%	64%	33
CJ Lid-seated jar	24%	76%	29
CM Wide-mouthed jar	100%		3
CN Storage jar	83%	17%	23
EH Jar-beaker		100%	2
H Bowl	100%		1
HC Curving-sided bowl	50%	50%	8
JA Dish		100%	1
M Misc.		100%	1
No. vessels	52	59	111

shelly fabric was the equivalent to other oxidised fabrics in which display vessels (including flagons, beakers, bowls and dishes) were typically made.

Catalogue of illustrated pottery (Figs 3.7-3.11 and 2.127)

Pit 15710, context 15653, mid Roman (2nd century)

96 Bowl (Drag. 37), fabric R01A. The two fragments show, on the left-hand side, a pipe-playing satyr, and, facing him, a probable Hercules figure (what appears to be a lion skin, an attribute of Hercules, is draped over his right arm). A charioteer is shown to his right Waterhole 15735, late Roman (3rd-early 4th century)

- 97 Amphora or large flagon, fabric R03A. Ctx 15556, cut 15553
- 98 Disk-necked flagon (BA), fabric R05B. Ctx 15740
- 99 Jug (BC), fabric R12B. Ctx 15556, cut 15553
- 100 Flagon or jug (BC), fabric R12B. Ctx 15478, cut 15476
- 101 Base and body of flagon. Fabric R06C; very fine grey ware, with dark grey core and internal surface, and lighter blue-grey external surface. Slightly powdery to the touch. Possibly Marney 1989, fabric 25/30. Ctx 15740
- 102 Necked, oval-bodied jar (CD), fabric R06B. Ctx 15740
- 103 Necked, oval-bodied jar (CD), fabric R13, reduced external surfaces. Ctx 15556, cut 15553



Fig. 3.7 Pottery from Site 7, decorated samian bowl (Drag. 37), catalogue no. 96

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Fig. 3.8 Pottery from Site 7, catalogue nos 97-126

- 104 Necked, oval-bodied jar (CD), fabric R13, reduced external surfaces. Ctx 15478, cut 15476
- 105 Necked, oval-bodied jar (CD), fabric R13, oxidised surfaces. Ctx 15478, cut 15476
- 106 Necked, oval-bodied jar (CD), fabric R13, reduced external surfaces. Ctx 15478, cut 15476
- 107 Necked, oval-bodied jar (CD), fabric R13, reduced external surfaces. Ctx 15740
- 108 Necked, oval-bodied jar (CD) with bifid rim. Fabric R07B; gritty off-white fabric with smoky-black external surface. Ctx 15740
- 109 Lid-seated jar (CJ), fabric R13. Reduced external surfaces. Ctx 15556, cut 15553
- 110 Lid-seated jar (CJ), fabric R13. Reduced external surfaces. External burnt deposit under rim. Ctx 15478, cut 15476
- 111 Lid-seated jar (CJ), fabric R13. Reduced external surfaces. Ctx 15740
- 112 Lid-seated jar (CJ), fabric R13. Reduced external surfaces. Ctx 15740
- 113 Wide-mouthed jar (CM), fabric R06B. Ctx 15556, cut 15553
- 114 Storage jar (CN), fabric R13. Oxidised surfaces. Ctx 15556, cut 15553
- 115 Storage jar (CN), fabric R13. Oxidised surfaces. Ctx 15478, cut 15476
- 116 Storage jar (CN), fabric R13. Oxidised surfaces. Ctx

15478, cut 15476

- 117 Storage jar (CN), fabric R13. Oxidised surfaces. Ctx 15740
- 118 Storage jar (CN), fabric R13. Oxidised surfaces. Ctx 15740
- 119 Bag-shaped beaker (EC), fabric R05B. Ctx 15478, cut 15476
- 120 Bag-shaped beaker (EC), fabric R05B. Ctx 15740
- 121 Bag-shaped beaker (EC), fabric R05B. Ctx 15740
- 122 Bag-shaped beaker (EC), fabric R12B. Nearcomplete vessel. Ctx 15740
- 123 'Jar-beaker' (EH). Beaker-sized high-shouldered necked jar. Complete vessel. Fabric R06C. Ctx 15740
- 124 Beaker (Drag. 72) with cut-glass decoration. Fabric R01C (Rheinzabern). Ctx 15556, cut 15553
- 125 Carinated bowl (HA) with impressed-boss decoration and mica-dusting. Fabric R02. Ctx 15556, cut 15553
- 126 Carinated bowl (HA) with reeded rim. Fabric R03B. Ctx 15556, cut 15553
- 127 Carinated bowl (HA), fabric R06B. Ctx 15478, cut 15476
- 128 Near-complete curving-sided bowl (HC) with bead rim, fabric R03. Burnt externally and internally across the base and lower wall. Ctx 15556, cut 15553

Site 7



Fig. 3.9 Pottery from Site 7, catalogue nos 127-134

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Site 7







Fig. 3.10 Pottery from Site 7, decorated samian bowl (Drag. 30), catalogue no. 135



Fig. 3.11 Pottery from Site 7, catalogue nos 136-158

- 129 Curving-sided bowl (HC), fabric R13. Reduced surfaces. Ctx 15478, cut 15476
- 130 Curving-sided bowl (HC), fabric R06B. Form and fabric recalls Marney 1989, fig. 29.1. ?Caldecotte product. Near-complete vessel. Burnt deposit on external surface of lower wall. Three notches scored after firing on external junction of wall and base. Ctx 15844, cut 15755
- 131 Necked bowl (HD), fabric R06B. Rim warped before or during firing; probably a local product. Ctx 15740
- 132 Necked bowl (HD), fabric R06B. Ctx 15740
- 133 Necked bowl (HD), with grooved globular body. Fabric R06B. Ctx 15556, cut 15553
- 134 Flanged bowl (Curle 11), fabric R01C. Ctx 15740
- 135 Decorated bowl (Drag. 30) from Les Martres-de-Veyre, fabric R01A. Four warrior figures are extant. On the far left, only the edge of a shield and tip of a spear survive. A figure holding a similarly positioned spear and shield has been recorded on a bowl by Donnaucus (Terrisse 1968, plate 32, no. 1056). To the right of this figure is a nude warrior holding a sword and shield. The type (Oswald 1936-7, O.210) is used by a number of potters, including X-2 and Ioenalis (Stanfield and Simpson 1958, plate 38, no. 443; Terrisse 1968, plate 38, nos 1504 and 1012). The figure of a man felled by a spear is depicted to the right. He wears a kilt and arm and neck ornaments, and recalls a figure, lacking the spear, on an Ioenalis-style bowl (Terisse 1968, plate 38, no. 802). To his right is a little naked figure (O.688) that has also been recorded on bowls in the style of Ioenalis (Terrisse 1968, plate 38, no. 1019). The ornamentation includes a pelta, which is used on bowls by Donnaucus (Stanfield and Simpson 1958, plate 44, no. 513), those decorated in the Ranto-Medetus style (potters X8-9; Stanfield and Simpson 1958, plate 29, no. 345), and bowls in the style of Ioenalis (Terrisse 1968, plate 38, no. 1019). The basal wreath is similar to those of Ioenalis style (Terrisse 1968, plate 38, no. 354). Date: c AD 100-130. Ctxs 15556, 15478 and 15740
- 136 Body sherd from Drag. 37 decorated bowl made at Lezoux, fabric R01A. The figure of Venus is shown, and attested on bowls of Cinnamus ii (eg Stanfield and Simpson 1958, plate 160, no. 35). Date: *c* AD 150-180. Ctx 15740
- 137 Bead-rimmed dish (JA), fabric R06B. Ctx 15740
- 138 Bead-rimmed dish (JA), fabric R22B. Ctx 15740
- 139 Bead-rimmed dish (JA), fabric R13. Reduced surfaces. Ctx 15740
- 140 Bead-rimmed dish (JA), fabric R06B. Ctx 15478, cut 15476
- 141 Bead-rimmed dish (Drag. 31), fabric R01C. Ctx 15478, cut 15476
- 142 Dropped-flange dish (JA), fabric R06B. Ctx 15478, cut 15476
- 143 Dropped-flange dish (JA), fabric R06B. Ctx 15478, cut 15476
- 144 Plain-rimmed dish (JB), fabric R06C. Ctx 15740
- 145 Plain-rimmed dish (JB), fabric R06C. Ctx 15740
- 146 Flanged dish (Drag. 36), fabric R01A. Worn internally through use. Ctx 15740
- 147 Flanged dish (JB), Young 1977, type C47. Fabric R11D, a little sandier than is typical of Oxford red colour-coated ware. Ctx 15748, cut 15476
- 148 Plain-rimmed dish (JB), fabric R06C. Burnt deposit on external surface. Ctx 15556, cut 15553

- 149 Plain-rimmed dish (JB), fabric R22C. Ctx 15740
- 150 Footring base from dish, fabric R01A. Stamped CELSIAN[..] – Celsianus, a Lezoux potter working c AD 160-200+. X-graffito next to stamp. Ctx 15699, cut 15703
- 151 Hammerhead mortarium (KC), fabric R20. Ctx 15478, cut 15476
- 152 Mortarium with bead rim and stubby flange (KE), probably Young 1977, type M17. Fabric R11E. Ctx 15556, cut 15553
- 153 Mortarium with bead rim and stubby flange (KE), Young 1977, type C100. Fabric R11F. Ctx 15478, cut 15476
- 154 Ring with L-shaped cross-section. ?Triple vase ring. Fabric R13, oxidised surfaces. Ctx 15740
- 155 Candlestick (MB). Fabric R06B, with distinctive dark grey core, medium/fine sandy fabric, lighter grey surfaces and white/grey margins. Ctx 15479, cut 15476

Waterhole 15352, context 15516, mid Roman (2nd century)

156 Bowl, fabric R01A. Worn internally across the base and wall. X-graffito scored after firing on the wall of the vessel

Waterhole 15185, context 15189, late Roman (3rd-early 4th century)

157 Plain-rimmed dish (JB), fabric R07G. Graffito incised after firing on the wall of the vessel. [...]A or complex X-graffito

Enclosure ditch 15745, context 15648. cut 15647, late Roman (3rd-early 4th century)

158 Small globular beaker (ED), complete. Fabric R03, fine sandy white ware

Fig. 2.127

Inhumation grave 15230, late Roman (3rd-early 4th century) 159 SF15003. Grave good. Funnel-necked, pentice-

shouldered beaker (ED), fabric R12B.

Site 6 (Trench 97-99)

Fourteen sherds, weighing 32g, were recovered from Site 6 (Trench 97-99). With the exception of three post-medieval sherds, all the pottery was Iron Age or Roman and collected as incidental or residual occurrences from unphased natural features or deposits dated to the 18th or 19th century. The small assemblage included body sherds in grog-tempered fabrics (F06A, F09 and F22), a fine shelly fabric (F16B), and a fragment of Roman-period sandy grey ware (R06B), which, taken as a whole, spans the middle Iron Age to Roman period. The very low mean sherd weight of 2g is consistent with pottery that has been subject to a high degree of weathering and redeposition.

Discussion: the pottery in its wider context

Summary of ceramic phasing

The pottery indicated occupation along the A421 Improvements that spanned the middle Iron Age to the end of the Roman period. The earliest sites

within this broad period - Site 4 (Trench 54), Site 4 (Trench 61) and Site 6 (Trench 105) – were grouped together in the central part of the scheme. Pottery was deposited here in the middle Iron Age (c 400-100 BC). It is not possible to determine when in the middle Iron Age the pottery was deposited, but the presence at Site 4 (Trench 54) of a tripartite-angled jar in a coarse shell fabric (F16), and flint-tempered fabric, both typical of the early Iron Age (cf. Wells 2008a, 181), potentially takes occupation to the period of the early-middle Iron Age transition. However, such material is rare, and the pottery otherwise fits more comfortably within the middle Iron Age. The pottery suggests that occupation at Site 4 (Trench 54) was abandoned by c 100 BC, although a relatively small number of bead-rimmed and necked jars, necked and globular bowls, and a platter suggest that the site saw limited deposition in the later 1st century BC or 1st century AD. The pottery from Site 4 (Trench 61) and Site 6 (Trench 105) potentially extended into the late Iron Age (c 100 BC-AD 43), but the low quantities and poor condition of the pottery offered by those sites prevented a late Iron Age phase from being identified. There was, however, pottery deposition in the late Iron Age at Site 5, with activity continuing there until the late 1st century AD. Contemporaneous activity was recorded at the north-eastern complex at Site 2 at the southern end of the improvement scheme route. Middle Iron Age bowls were recorded here, too, but these suggest only minor activity before the 1st century BC. The level of pottery deposition at Site 2 increased during the second half of the 1st century AD, falling sharply after *c* AD 100. Pottery continued to be deposited as late as the 4th century AD, but this material is likely to have derived from the later Roman settlement at the neighbouring the south-western complex at Site 2. The ceramic dating suggests that the main period of activity at the north-eastern complex at Site 2 was contemporary with Berry Farm Borrow Pit, located towards the north end of the route, and Site 3, some 2.5 km north-east of the north-eastern complex at Site 2; all saw deposition in the late Iron Age and early Roman period. There was some deposition in the mid or late 2nd century at the north-eastern complex at Site 2, but otherwise the focus of occupation had shifted again by this time to the southwestern complex at Site 2 and to Site 7, at the northern end of the scheme route. The earliest context group at the south-western complex at Site 2 dates to the period AD 100-160, but this amounts to just three sherds, which cannot reliably be used to indicate deposition in the first half of the 2nd century. It is more likely that the earliest deposition dates to the second half of the 2nd century, when much more pottery was deposited. The level of pottery deposition declined at the south-western complex at Site 2 in the late Roman period (c AD 250-400), but increased at Site 7, relative to the amount of pottery assigned to the mid Roman period at the site. The latest pottery at Site 7 pointed

to 4th-century deposition, although it has not been possible to determine how late in the 4th century this occurred. The latest pottery included bead-andflanged mortaria in Oxford red colour-coated ware, which have a 4th-century date (Young 1977, 174).

Sources of pottery and local production

Throughout the period of Iron Age and Roman occupation along the A421 improvement scheme route, the majority of the pottery used and discarded by the inhabitants was likely to have been largely of local manufacture. That is, the pottery was made in the vicinity of the sites in which it was found. Potters could exploit the mudstone of the Oxford Clay that lies under much of the A421 improvement scheme route. Local areas of sandbearing and occasionally argillaceous head or river terrace deposits and alluvium also provided clay suitable for pottery manufacture. Fossiliferous clays were available locally, too. Production of shelly fabrics have been attested at Stagsden (Dawson 2000c) and Bromham (Tilson 1973), both situated some 10 km north-west of the northern end of the scheme. The nearest source of greensand, used for the small amount of glauconitic pottery (fabric F38) recovered from the scheme lies about 5 km southeast of Marston Moretaine (and of Site 2 and Site 4 (Trench 54), where the pottery was found).

Given the availability of resources, and the fact that no pottery certainly originating from regional or continental sources was identified, the source of most, if not all, the middle and late Iron Age pottery can reasonably be seen as local. The dominance of local pottery continued into the early Roman period. As much as 97% of the early Roman groups from the north-eastern complex at Site 2 and Site 3 by EVE was local. The small amount of non-local material arrived from Verulamium and South Gaul (Tables 3.11 and 3.16). In the 2nd and earlier 3rd centuries, inhabitants were becoming less dependent on local sources, which now accounted for up to 80% of mid Roman groups from the southwestern complex at Site 2 and Site 7 by EVE (Tables 3.19 and 3.22). Pottery continued to be supplied from the Verulamium region, but towards the end of the middle Roman period, sites along the scheme started to receive pottery from the Nene Valley and the Alchester-Towcester area. Central and East Gaulish factories replaced South Gaul as suppliers of samian. The late Roman period saw little change in the quantity of local pottery - up to 79% at Site 7 by EVE (Table 3.23) – but the sources of regional pottery were more diverse. Nene Valley and Alchester/Towcester products were joined by those from the Oxford region, Dorset, Hadham (east Hertfordshire), and Mancetter-Hartshill (Warwickshire). Imports from Gaul were recorded, but these were residual. One uncertain aspect is the proportion of shelly-tempered pottery from Harrold in the assemblage. The Bedfordshire workshops, some 15 km north-west of Site 7, expanded and exported

widely in the 3rd and 4th centuries (Brown 1994). Some of their products, for example lid-seated jars and necked jars, were standard types in the region and were produced at other kiln sites, among them Site 8 on the Great Barford Bypass (Stansbie 2007, 251-2). This makes it difficult to identify Harrold products with certainty. Harrold pottery was no doubt an important component of the A421 assemblage, and it is possible that the proportion of local wares in the mid and late Roman groups of the south-western complex at Site 2 and Site 7 can be reduced to around 40-50% by EVE. However, a more realistic proportion of local wares probably lies somewhere in the 40/50%-80% range.

The bulk of the grey wares (fabrics R06B and R06C) are likely to be of local manufacture. No kilns were found along the route, although kiln bars were collected from Site 3, and three vessels, all from Site 7, displayed signs of being wasters or seconds that probably did not travel far. One vessel (form unknown) was overfired, while the other two, a necked bowl and oval-bodied necked cooking jar, had warped rims, no doubt a manufacturing or firing fault. A proportion of the pottery, however, may have arrived from production sites away from the A421. The case may be made for some of the forms which match those seen at other sites. Caldecotte, on the eastern edge of Milton Keynes, may have been the source of a bowl with a multiplebeaded rim from Site 7 (Fig. 3.9, no. 132), a narrow-necked jar, again from Site 7, and a wide-mouthed jar from the south-western complex at Site 2 (Fig. 3.6, no. 94). All can be paralleled among the vessels found at Caldecotte (Marney 1989, figs 29.1, 30.4 and 32.49). Other forms that find matches at sites around Milton Keynes, and therefore hint at production in that area, include a large poppyhead beaker from Site 3's grave 104802 (Fig. 2.52), a widemouthed jar from Site 7, and a high-shouldered necked jar from the north-eastern complex at Site 2. These are similar to vessels found in south Milton Keynes (Marney 1989, fig. 30, nos 5, 7 and 12). Similarly, a storage jar in coarse grog-tempered ware (with lesser quantities of sand and shell) from the north-eastern complex at Site 2 resembled, in both form and decoration, storage jars fired in the 1st-century kilns found along the Stagsden Bypass, west of Bedford (Slowikowski 2000, 73-84), although the curious potters' marks seen at that site (Slowikowski 2000, fig. 53) were not recorded in the A421 groups. Other known areas of pottery production close to sites along the A421 sites include Biddenham Loop, west of Bedford, responsible mainly for late Iron Age/early Roman lid-seated jars and storage jars in both sandy and shelly fabrics (Luke 2008, 201-4).

We should be careful, though, not to assume that the existence of pottery that resembles pottery found or made in Milton Keynes or the Bedford region identifies those regions as the source of that and other pottery. The movement of potters and the pots themselves through trade or as personal possessions helped to spread the shapes, and knowledge about them, wider than the original production area. The shapes were then available to be copied in the new areas and subject to further dissemination. The standard lid-seated and necked jar forms (for example) were ubiquitous finds on Roman-period settlement and kiln sites in the region. The forms were long-lived - on the A421, lid-seated jars originated in the late Iron Age and continued to be made into the late Roman period, while oval-bodied necked jars were used mainly in the mid and late Roman periods – and this raises the possibility of a mechanism, such as apprenticeships, that allowed the information about those shapes to be passed on through successive generations of potters. But in any case, by virtue of being among the commonest forms on settlement sites across the region, existing and new potters were already more likely to produce those forms, rather than others, further increasing the frequency of the forms in the region. Inevitably, the same forms appeared in different settlements and were included in the repertoires of different potters across the region.

Functional comparison and implications for site type

A comparison of the proportions of vessel class and ware groups along the route of the Improvements shows the extent to which pottery assemblages evolved in terms of composition and supply over time. In the middle Iron Age, as suggested by the Site 4 (Trench 54) assemblage, almost all the ceramic vessels were jars. Bowls took only a minor share of the assemblage, and no other vessel type was recorded. The jar was available in number of shapes and sizes and is likely to have fulfilled multiple functions, such as cooking, storage, communal food containers, and drinking. Webley (2007a, 226) makes a similar point, citing analysis of pottery from Haddenham, Cambridgeshire, with regard to the middle Iron Age pottery of the Great Barford Bypass. By the late Roman period, as shown by the assemblage from Site 7, the range of pottery available had changed utterly. Jars remained important, but were well-matched by dishes, which functioned both as food serving vessels and cooking vessels. There was a high degree of specialisation in terms of drinking and food preparation, notably with the provision of the beaker and mortarium. In the intervening time, the evolution from a ceramic culture based almost entirely on jars to one that was diverse was gradual. Despite fluctuations, the overall trend was for proportion of jars to decrease over time. The late Iron Age/early Roman period saw the introduction of new forms, among them the platter or dish and beaker, whose proportions generally increased over time. In the later Roman period, the adoption of the mortarium added to the range of specialist cooking forms. The changing proportions of ware groups over time is less marked than those of vessel class, and to a large extent reflected the

fortunes of potters or industries and what was available in any given time. A range of handmade fabrics were present during the later Iron Age, but were rapidly replaced with wheel-made grey wares in the early Roman period. Shelly fabrics were ubiquitous throughout the period of occupation along the route. There is a hint that the proportions of reduced and shelly wares increased over time, but also that they competed for market share. This is suggested by the mid Roman assemblages of the south-western complex at Site 2 and Site 7, in which a change in the proportion of one fabric was met by an opposite change in the other. This returns us to the correlation, as shown in the Site 7 assemblage, between surface colour and vessel form in shelly ware (above). Potters fired their jars black because these vessels were equivalent to sandy grey ware jars and intended to be used alongside or instead of them. Apart from a little South Gaulish samian in the early Roman period, sites did not see much more than shelly and grey wares until the mid-Roman period. Even so, low proportions of oxidised wares, white wares and fine wares were generally maintained until the end of the Roman period.

The changes in assemblage composition through time did not solely arise within the A421 sites, but to a large extent were in response to patterns evident in the wider cultural environment. It should be noted that assemblages across the region have not been quantified by means that allow for easy comparison. Few Bedfordshire pottery reports, even recent ones, use EVEs, and the favoured methods of quantification (sherd count, weight and vessel count) are not consistently presented. In addition, while the presentation of fabric quantification is reasonably standard, that for data relating to vessel form is partial, and some reports present no such information. That said, sufficient data can be obtained to give a general view of the ceramic background in which to place the A421 assemblages. The Iron Age assemblages of Biddenham Loop (Wells 2008a, table 8.12), Ruxox (Parminter 2004a, table 9.18), the Great Barford Bypass (Webley 2007a, 224) and Salford (Slowikowski 2005), among others, consisted of jars and bowls (the former dominating), just as on the A421. And, in common with the A421 pottery, the early Roman assemblages of Biddenham Loop (Wells 2008b, table 9.9), Marsh Leys, Kempston (Wells 2011a, 103-4), and the Great Barford Bypass (Stansbie 2007, tables 8.26-7, 8.29) saw the introduction of Gallo-Belgic-derived tablewares, principally the flagon, beaker and platter, and in colours other than grey or black. The mid Roman period in the region is characterised by an increase in the proportion of dishes, which is met by a decline in the proportion of jars. This continued into the late Roman period - the trend has been recorded at Kempston Church End (Parminter 2004b, 495) and the Great Barford Bypass (Stansbie 2007, table 8.29) - with sites in the region also receiving higher proportions of regional wares, such as Oxford products.

The implication of these observations is that the inhabitants of sites along the A421 were not culturally isolated. The impetus for the changes from, say, a jar-based culture to one that was more diverse and specialised, cannot be pinpointed to specific sites. There was little change in the middle to late Iron Age ('pre-Belgic' Iron Age), as a paucity of vessel types other than jars or bowls in the region meant that there was nothing other than those forms for potters to copy, though there were variations in terms of jar or bowl shape, which may be chronologically significant, but which cannot be detected at the scale of ceramic phasing presented here. In the ('Belgic') late Iron Age and early Roman period, new forms and technology (for example the potter's wheel and improved kilns), arriving from Gaul, were imitated, and these spread by trade, movement of people or other means of contact. As the forms and technology gained in popularity – possibly attributable to greater variation and consistency of shape or colour that was attractive and novel potters were increasingly likely to reproduce the forms, because those were the forms that the potters saw around them or used themselves. There were other influences, notably blackburnished ware, which arrived into eastern and south-eastern England from Dorset in the mid 2nd century onwards. Once established, the forms cooking jars, but especially dishes – were copied to the extent that the copies were themselves copied, allowing dishes to take a more significant share of the region's assemblages over time, despite the small proportions of the prototype blackburnished ware which were available.

That is not to say that all assemblages in the region were culturally uniform. We can employ a number of useful measures to highlight differences and similarities between sites. Jeremy Evans (2001, 26-31) explored the relationship between open tablewares and jars, and the use of the resulting ratio as an index of site types. 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). Urban sites tended to have higher proportions of dishes/bowls and fewer jars, while villas lay in between the two site types. On this basis, in the early Roman period (if we include platters with dishes), Site 3 (57% jars/15% dishes by EVE) is of comparable status to Great Barford Site 8 (54% jars/15% dishes by EVE), a nucleated settlement (Stansbie 2007, table 8.29). Contemporary farmsteads at Biddenham Loop offered proportions of 73% jars and 7% dishes by vessel count (Wells 2008c, table 10.5). In the mid Roman period, the south-western complex at Site 2 and Site 7 differed in terms of jars (70% jars, 21% dishes; 44% jars, 23% dishes respectively); the values for the south-western complex at Site 2 are similar to those for Great Barford Site 8 (67% jars, 16% dishes). The lower proportion of jars

in Site 7 is evident again in the late Roman period (40% jars, 25% dishes). This compares with 61% jars/19% dishes at Great Barford Site 8, and 68% jars/4% by vessel count at Kempston Church End (Parminter 2004b, table 9.21).

Corresponding ratios of vessel types cannot be calculated from the data presented in the Marsh Leys pottery report (Wells 2011a), but it is nevertheless instructive to compare the proportions of wares of the 2nd century or later assemblages from Farmsteads 4 and 5 with the middle Roman pottery from the Site 2 south-western complex and Site 7 (Table 3.25). The Site 2 assemblage is perhaps a little too small to be particularly meaningful when compared with the much larger Marsh Leys assemblage, but it may be significant that oxidised wares and fine wares provide the biggest differences; both are better represented at the Site 2 south-western complex. Conversely, shelly wares are better represented at Marsh Leys. Site 7 and Marsh Leys, on the other hand, are more closely matched. A good degree of correspondence between Site 7 and Marsh Leys is to be expected, given they are adjacent to each other. No doubt they experienced similar pottery supply patterns.

Samian is an obvious means by which site type can be assessed. The amount of decorated pottery compared with plain forms provides a useful index. Steve Willis (1998, 105-111; 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. The north-eastern complex at Site 2 and Site 7 appear to be of middling rank (Table 3.26). No decorated samian was recovered from the southwestern complex at Site 2 or Site 3, putting both in a lower rank.

The comparisons given above are not exact because of differences in quantification, and the small size of some of the assemblages, reducing

Table 3.25: Comparative proportions of ware groups from 2nd/3rd-century assemblages from Site 2 southwestern complex, Site 7 and Marsh Leys (Wells 2011, table 7.3). Quantification by sherd count.

Ware	Marsh Leys	Site 2 S-W complex	Site 7
A Amphorae	<1%		
B Black-surfaced/burnished wares	2%	9%	7%
C Shelly	52%	23%	50%
F Fine ware	<1%	14%	3%
M Mortaria	<1%		1%
O Oxidised	7%	20%	5%
R Grey wares	37%	26%	23%
S Samian	<1%	2%	3%
W White wares	2%	5%	8%
Total sherds	4029	125	1110

their statistical reliability (Dickinson 2000, 86; 2004, 503). However, the values nevertheless offer some grounds for differentiating the A421 sites in terms of site status or type. Samian potentially puts the north-eastern complex at Site 2 in a relatively highranking category, and compares well with Bancroft villa, although for a villa site, the value given for Bancroft appears to be low compared with two other villa sites (Aston Well and Stantonbury), which offered noticeably higher proportions of decorated samian. Site 7 is comparable to Marsh Leys, Ruxox and Kempston Church End. Both Ruxox and Kempston Church End may be identified as planned or focused settlements (cf. Dawson 2007, 73), and potentially, too, Site 7 can be ranked higher than basic rural settlement or farmstead; indeed, the ratio of jars to dishes obtained for Site 7 is consistent with this. That said, the similar proportions of decorated samian at the rural Marsh Leys and Site 7 suggests that the sites are of reasonably equal status, and this is supported by the overall percentage of continental imports by sherd count - 3% at Site 7 compared with 2% at Marsh Leys (Luke 2011, 166). The value for the Site 2 south-western complex is also 2%. The jar:dish ratio and the proportion of decorated samian suggest that the south-western complex at Site 2 and Site 3 were of similar status to Great Barford Site 8, from which low amounts of decorated samian were recorded.

Table 3.26: Comparative proportions of samian ware from sites in Bedfordshire and Milton Keynes. Settlement type after Dawson (2007, 73) and Radford and Zeepvat (2009, 57). Data: Pengelly 1989, tables 16-19 (MK sites); D Stansbie, unpublished archive data (Great Barford Bypass); Dickinson 2000, table 70 (Stagsden); Dickinson 2004, tables 9.23-5 (Kempston Church End, Ruxox and Aston Well); Wild 2011, 102-3 (Marsh Leys).

Site	Settlement type	% of samian that is decorated	Total no. vessels
A421 Site 2, south- western complex	Farmstead	0	3
A421 Site 3	Farmstead	0	3
Gt Barford Site 8	Nucleated	3	40
Gt Barford Site 4	Linear	11	9
MK297 Woughton	Farmstead	11	92
Ruxox	Linear row	12	308
Kempston Church End	Planned	13	617
A421 Site 7	Farmstead	14	58
Gt Barford Site 1	Farmstead	14	7
Marsh Leys	Farmstead	14	93
A421 Site 2, north- eastern complex	Farmstead	17	6
MK105 Bancroft	Villa	17	120
Stagsden		19	26
Aston Well	Villa	20	5
MK301 Stantonbury	Villa	26	95

Site and period	Beaker	Bowl	Сир	Flagon/flask	Jar	Lid	Platter	Total no. vessels
A421 Site 3 (1st/2nd C)	33	17		17			33	6
Biddenham (1st C AD)	12	36	4	4	28	4	12	25
Gt Barford Site 4 (1st/2nd C)			75				25	4
Gt Barford Site 8 (1st/2nd C)	12	22			33		33	12
Ruxox (2nd/3rd C)	53	12		12	23			17
Kempston Church End (3rd/4th C)	17	17		17	32		17	6
Dunstable (3rd/4th C)	60			20	20			5

Table 3.27: Comparison of ancillary vessels from Bedfordshire cemeteries by percentage of vessel count

Funerary pottery

Late Iron Age funerary pottery is represented by two vessels from a disturbed burial recovered from ditch 3351 in Site 3. The vessels, both grog-tempered, comprised a jar with a perforated base, and a pedestal jar. These appear to have been selected as accessory vessels, rather than urns to contain the cremated bone, though this is not certain, given that the vessels were not found in situ. Nevertheless, the pottery is consistent with ceramic grave goods found in other late Iron Age graves in the region, such as grave S357 at Biddenham Loop, where seven accessory vessels, including two pedestal jars, were recorded (Luke 2008, fig. 9.13). The tradition of selecting pedestal jars for burials also recalls the considerably larger groups in high-status late Iron Age burials, notably that from Welwyn Garden City, in which seven pedestal jars were recovered (Stead 1967, 12), and it is reasonable to suggest that pottery deposition in graves in Site 3 and Biddenham Loop and others was carried out in imitation of elite funerary practices. Interestingly, the Welwyn burial included a bronze strainer (Stead 1967, 23-5). Strainers have been recorded in other high-status burials, among them the Doctor's Burial

at Stanway, Essex (Crummy 2007, 322-6), and have been viewed as drinking equipment; Paul Sealey (1999, 122-3) suggests that they were used for mead or ale (rather than wine), although the Stanway example contained a medicinal concoction. We could regard the perforated jar in ditch 3351 as the ceramic equivalent of a metal strainer, and, as with the pedestal jar, potentially deriving from traditions expressed in elite burials.

Marston Vale and surrounding areas offer a number of funerary assemblages that bear comparison with the Roman-period grave goods from Site 3. Cinerary vessels from Site 3 comprised two beakers and two jars. The beakers are an unusual choice urns are predominantly coarse ware jars selected for utilitarian purposes – but the beakers here were both larger than usual and therefore able to hold the cremated bone just as well as the jars. Beakers have been used as urns in other cemeteries in the region (Table 3.27), including Great Barford Bypass, Sites 4 and 8 (Stansbie 2007, 244, 248), Kempston (Dawson 2004, 231), and Biddenham Loop (Duncan 2008, 213-8), although in none of these cases was the beaker a large version. Bowls, as well as the more usual jars, were also used as the urns in the Biddenham

Table 3.28: Quantification of coins

SF	Cxt	Site	Feature	Date	Denomination	Reverse	Mint
2009 2011	2577 2002	2 2	Roundhouse gully 2708 Modern topsoil	270-295 316	antoninianus 18-20mm AE3 18-20mm	IN]VICTU[S Sol advancing left SOLI INVICTO COMITI	Cologne? ? PLG Lyons
3007	3082	3	Ditch 3346, upper fill	1-2C	sestertius, 34mm	?	
15005	15539	7	Ditch 15750, upper fill	148-160?	?core of plated denarius] AUG PII FIL simpulum, lituus, ewer (handle r), sprinkler and knife	
15006	15332	7	Ditch 15750, upper fill	2C	sestertius 31mm	figure standing l, S C	
15013	15374	7	Enclosure ditch 15754, upper fill	200-201	denarius	RESTITUTOR URBIS	

cemetery. The accessory vessel assemblage at Site 3 is characterised by dining forms - platters, beakers and a flagon – as well as a bowl, which, judging by its shape, may have been accorded jar-like functions by the potter or users. The vessels were available in coarse reduced wares, a white ware, oxidised ware, and samian ware. It is striking that the profile of the funerary assemblage, in terms of form and fabric, is markedly different from that of the non-funerary early Roman assemblage (Table 3.16), which lacks the range of dining forms and oxidised or fine wares. The difference can be seen at Sites 4 and 8 on the Great Barford Bypass (Stansbie 2007, tables 8.27-30), and the 2nd- and 3rd-century phases of Ruxox (Dawson 2004, 131-43; Parminter 2004a, table 9.19). Here dining forms, such as dishes, platters, beakers, or cups are better represented in funerary assemblages than they are in contemporaneous nonfunerary groups. The phenomenon has been recognised elsewhere in eastern England, for example, at Strood Hall (Biddulph 2007, table 3.2; Biddulph et al. 2007, table 4.23) and Great Dunmow (Going and Ford 1988, fig. 52; Wickenden 1988, 12-21), both in north Essex. This suggests that the pottery selected for deposition in the grave did not represent a typical household group and was unlikely to have been available in the household to be taken out of domestic use when an individual died. Instead, the existence of a market for funerary pottery or burial clubs which acquired pottery on the behalf of subscribers is suspected (Biddulph 2005, 37). The possibility is not such a remote one. Though from a later Roman cemetery at Dunstable, a beaker inscribed 'Regillinus presented the pot of the dendrophori of Verulamium' suggests that a burial club was at work there (Hassall 1981, 47-8).

The preponderance of dining forms and what can be termed fine and specialist wares (Booth 2004) in

Obverse	Reference	Comment
VI]CTORINUS PF AUG	RIC Vii, 114	Irregular?
CONSTANTINUS AUG	?RIC VII	mm characters in
	Lyons, 56	field lost
head r	-	Extremely worn
		and corroded. Size
		suggests 1C rather
		than later
young head r,		Probably the young
legend illegible		Marcus Aurelius.
] N		The reverse legend
		here suggests.
		'Aurelius Caesar
		Aug Pii Fil', usually
		an obverse legend
?female head r		Very worn; perhaps
		Faustina I (c 138-160)
SEVERUS AUG PAR[T	RIC IV, 167	
MAX Severus standing i		

the Site 3 cemetery and other sites is, however, not shared by all sites. The cemetery at Biddenham Loop dates to the later 1st century AD and is largely contemporary with Site 3. Its ancillary vessel assemblage, though, included jars, which Site 3 lacked, and a much higher proportion of bowls: nine out of 25 ancillary vessels, compared with one out of seven at Site 3 (Duncan 2008, 213-8). Jars were also well represented in the cemetery at Great Barford Site 8, dated to the 1st and 2nd centuries (Stansbie 2007, 248-9). The difference may be a matter of separate cultural influences. The Biddenham and Great Barford Site 8 assemblages recall late Iron Age funerary assemblages – among them nearby Salford (Dawson 2005, 78-81), Allington in Kent (Thompson 1978), Westhampnett in Hampshire (Fitzpatrick 1997a), and North Shoebury in Essex (Thompson 1995) – characterised by a predominance of jars and bowls. In contrast, we must turn to the sort of assemblages seen at King Harry Lane, St Albans for the origins of the Site 3 group. These are characterised by platters, flagons and beakers and other table wares (cf. Stead and Rigby 1989). The assemblages from the later Roman cemeteries of Kempston, Ruxox and Dunstable (Matthews 1981) also have relatively high proportions of jars (Table 3.27), which suggests that the tradition of depositing jars as accessory vessels, which may have derived from late Iron Age practices, continued into the late Roman period. The cultural traits of that tradition, expressed as the pottery groups in the graves, had been transmitted through successive generations of the region's inhabitants (from, say, parent to child) with sufficient fidelity to be recognisable well into the Roman period (Biddulph 2005, 40-2). However, we must note the generally small size of all assemblages, which may not be fully representative of funerary practice at those sites.

ROMAN COINS by Paul Booth

Six Roman coins were recovered from three sites: two later Roman coins from Site 2, a single early Roman coin from Site 3 and three 2nd-3rd-century pieces from Site 7 (Table 3.27). The coins were in variable condition and consequently were identified at different levels of precision.

The two coins from Site 2 are typical later Roman issues and require no comment. The large sestertius from Site 3 was very worn. While this was probably a 1st-century piece the degree of wear makes it very likely that it was lost in the 2nd century, if not later.

The three coins from Site 7 span the period from the middle to the end of the 2nd century, though only a denarius of Septimius Severus can be identified with complete confidence. The most interesting coin in this group is a core of a plated denarius (SF 15005), probably of Marcus Aurelius as Caesar under Antoninus Pius. Unfortunately only occasional letters of the obverse legend can be read. The incomplete reverse legend clearly ends in AUG PII FIL, which suggests AURELIUS CAESAR AUG PII FIL (or less likely AURELIUS CAESAR ANTONINI AUG PII FIL). These are, however, obverse rather than reverse legends, of the period AD 148-156, used in combination with a variety of reverse types, including that present here – a group of sacrificial implements normally associated with the legend PIETAS AUG, as for example on RIC (Antoninus) 422, struck for Marcus in the period AD 140-144. The present coin seems therefore to have a hybrid reverse, but its full character is uncertain in the absence of a legible obverse. A date in the period AD 148-160 seems likely.

The absence of late Roman coins (except at Site 2) is unusual for Roman rural settlements, but is consistent with the other dating evidence for these sites. The significance of such low levels of coin loss is difficult to assess, but suggests minimal use of coinage within the settlement sites. This is characteristic of such sites where occupation is confined to the early Roman period.

METALWORK by Ian Scott

Site 2

The finds from Site 2 comprise 25 objects (29 fragments), consisting of 18 iron objects (21 fragments), 6 copper alloy objects (7 fragments) and one lead object (one fragment). The iron finds included nine miscellaneous pieces of plate, bar or strip, and four nails. There is also a late Saxon prick spur (Fig. 3.12, no. 1) and a large blade (SF 20000, context 20008) probably of modern date which was intrusive in a late Roman ditch (20226). The copper alloy finds include three brooches (Fig. 3.12, nos 2-4) and a leaf-shaped mount (Fig. 3.12, no. 5). The single lead object is a probable circular weight with a small central hole (SF 2014, context 2180). The limited number and range of finds is noteworthy, especially the absence of any significant household items – the only object in this category is a knife (SF 20000, context 20008) that is certainly neither Iron Age or Roman in form and probably much more recent in date, although it came from the top of a late Roman ditch. The very small number of nails is also unusual for a site of this date.

The presence of three mid-1st-century brooches (Fig. 3.12, nos 2-4) from contexts of late Iron Age or early Roman date is interesting. The Hod Hill brooch is a type common on the Continent and not found in Britain in pre-conquest contexts (Bayley and Butcher 2004, 153). The one-piece Colchester brooches are a British type that is found in pre-conquest contexts but is more common in slightly later mid 1st-century contexts (*ibid.*, 149). They are found mainly in the south south-east and East Anglia (Bayley and Butcher 2004, fig. 169).

The Saxon prick spur (Fig. 3.12, no. 1) is a puzzle since there is no other evidence for Saxon occupation, but there is no doubt about the dating of the object; its form is quite distinctive. The spur is a good example of a Saxon spur dating from 10th or 11th century. The straight arms and short prick on a straight expanded neck are diagnostic features (see late Saxon spurs from Thetford (Ellis 1984, 101-104, figs 140-41), and an example from Billingsgate Lorry Park (Ellis 1995, 130, fig. 90, no. 36), also examples from Winchester (Ellis 1990, 1038-39, fig.331, nos 3860-3863) and from York (Ottaway and Rogers 2002, 2956-57, fig. 1522, 12735)).

Site 3

There are only two metal finds from Site 3. These comprise one nail stem fragment (context 3099) and a fragment of decorated copper alloy bracelet (Fig. 3.13, no. 6). The almost total lack of metal finds from a site with evidence of Roman activity is of interest and suggests little or no domestic occupation. The only find of intrinsic interest is itself a puzzle since its form and decoration are unparalleled in a late Iron or early Roman context. It is highly unlikely to be an Iron bracelet or armlet. A narrow band such as this is more likely to be of late Roman date, although the form and decoration do not fit into any known style or type.

Site 4 (Trench 54)

There are 13 metal objects (26 fragments) from Site 4 (Trench 54). These include a single brooch (Fig. 3.14, no. 7), a strip of decorated copper alloy (Fig. 3.14, no. 8) and a cast copper alloy toggle (Fig. 3.14, no. 9). There are also seven fragments from a socketed sickle blade (SF 17009, context 17288), very little of which now survives. Other finds comprise a small late medieval or post-medieval dress pin with wirewound head (context 17015), a fragment of a copper alloy pin or needle (SF 17013, context 17397), and a melted fragment of copper alloy (SF 17007). The range of finds is very limited. There are also three nails (five fragments), a possible fragment of tap slag (SF 17016, context 17387), a plain iron ring (SF 17006, context 17181) and fragments of iron plate (SF 17005, context 17079).

Although the decorative strip of copper alloy is only a small fragment, it is securely stratified in the fill of a middle Iron Age enclosure ditch. The strip was presumably part of an appliqué or binding attached to a larger object, probably of wood. The geometric pattern on the strip comprises lightly incised but distinctive interlocking arcs with hatched background. Although the fragment is only small, it is clear that the pattern was produced with the aid of a compass. Abstract compass-drawn patterns form a large element of Iron Age Celtic art (Frey with Megaw 1976, 51). Although compassdrawn patterns and hatched backgrounds are associated generally with later insular Iron Age metalwork and in particular with late mirrors (Frey with Megaw 1976, 60-3), they are not found exclusively on late objects. For example, decoration of compass-drawn arcs and other elements are found on the dagger scabbard from Minster Ditch, Oxon

(Jope 2000, 21-22, pls 18-19, 20a; Cunliffe 2005, 515, fig. 18.23), which is thought to be one of the earliest examples of insular Iron Age art (Cunliffe 2005, 515; dated to the early 4th century – Harding 2007, 1070). The decoration on this sheath includes near the top a quatrefoil or star of hatched 'petals' formed by four overlapping arcs (Jope 2000, plate 19b) as well as compass drawn arcs (eg Jope 2000, plates 18a and d). The decoration on the A421 fragment is closely comparable to the decoration of a panel on the chape of a sword scabbard from Hunsbury, Northants (Stead 2006, 179, no. 89 and fig. 68; Jope 2000, plates 205h and j; Cunliffe 2005, fig. 18.32, 1; Piggott 1950, fig. 3, no.1). The Hunsbury sword scabbard is one of group dating to the middle Iron Age according to Harding (2007, 112). Jope (2000,

122-29) however dates these swords to the 1st century BC. Stead (2006, 34) includes most of the Hunsbury swords in his Group B, which he dates between the second half of the 3rd century BC and the second half of the 2nd century BC. However, he places the Hunsbury sword under consideration in his Group C, which he dates to the period from the second half of the 2nd century BC to the first half of the 1st century BC (ibid. 40-41). None of the swords from Hunsbury was securely stratified. Similar patterns of arcs are found on some Iron Age pottery types including Glastonbury ware, Stanton-Harcourt style pottery and Sleaford-Dragonby ware (Cunliffe 2005, figs A:20, A:23, A:25 and A:28). These styles range in date from the 3rd century to the 1st century BC.



Fig. 3.12 Metalwork from Site 2



Fig. 3.13 Metalwork from Site 3

The cast copper alloy toggle (Fig. 3.14, no. 9) is also a good Iron Age form. The precise purpose of these objects is uncertain, but they may have been used in harnesses.

The two-piece Colchester brooch (Fig. 3.14, no. 7) dates to the immediate post-conquest period in the mid-1st century AD. Brooches of this type are found mainly in the Midlands and eastern counties and south of the Humber (Bayley and Butcher 2004, fig. 170).

Site 7

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There are 56 small finds (84 fragments) from Site 7. These comprise 53 iron objects (87 fragments) two copper alloy objects (four fragments) and one lead object (one fragment). The iron objects include 16 nails (21 fragments) and 27 hobnails. Twenty five of the hobnails came from context 15699.

Three tools or possible tools were identified. These comprise an awl (Fig. 3.15, no. 10), a fragment of a possible whittle tang knife (context 15874), a possible iron binding (context 15695) and a probable weight (Fig. 3.15, no. 11). There are eight other pieces that are not diagnostic.

The individual buried in grave 15061 wore a bracelet or armlet on her right arm. This is an early Roman form found in mid 1st-century contexts, so if the grave is correctly attributed to the 3rd-4th century the object was of some antiquity when buried. The armlet was a little worn, but complete. The distribution of this type centres on Essex and the southern part of East Anglia with further examples across the Midlands and in the south (Crummy 2005, fig. 2). Crummy has recently studied these armlets and has argued that they were military awards for soldiers armillae - rather than jewellery for women. Crummy bases her argument in part on the dating and geographical distribution of the armlets, but more specifically on the similarities between the decorative motifs on the armlets and those found on some 1stcentury military fittings, (ibid., 96-101). The suggestion is tantalising but not completely compelling.

Catalogue of illustrated metalwork (Fig. 3.12-3.15) *Site* 2

1 **Prick spur** with plain straight sides. These have an



Fig. 3.14 Metalwork from Site 4 (Trench 54)

almost circular section which is, however, slightly flattened on the inner face. One side is incomplete and ends in a flat subsquare expansion with an apparent slot at its centre. The spur prick is straight, with a circular section. Iron. L: 150mm; W: 75mm. Ctx 2193, pit 2192, SF 2001. 10th-11th century.

- 2 Small one-piece Colchester brooch, incomplete. This brooch is very small. The brooch has small wings, but the catch plate is largely missing. The pin and much of the spring survive displaced but still secured by the hook at the top of the bow. Cu alloy. L: 24mm. Ctx 2303, SF 2005. Metal detector find. Mid 1st century AD.
- 3 One-piece Colchester brooch, poorly preserved. Cu alloy. L: 76mm. Ctx 2725, pit 2896, SF 2008. Mid 1st century AD.
- 4 **Hod Hill brooch**, with hinged pin. Poorly preserved. Cu alloy. L: 45mm. Ctx 2427, pit 2426, SF 2007. Mid-late 1st century AD.
- 5 **Binding** formed from sheet. One possible nail or rivet. Cu alloy. L: 69mm; W: 20mm. Ctx 2217, ditch 2475, SF 2010. Early Roman.

Site 3

6 Penannular bracelet, comprising narrow band with two parallel grooves running around the band. Inside the grooves are transverse punched markings. The bracelet is broken and only one decorated terminal survives. Cu alloy. L: 56mm. W: 3mm. Ctx 3265, ditch 3362, SF 3010. Late Iron Age.

Site 4 (Trench 54)

- 7 Large two-piece Colchester brooch, catch plate with three triangular cut outs. Cu alloy. Form of brooch with crest at the top of an otherwise plain bow, openings in the catch plate and no foot knob. L: 69mm. W: 38mm. Ctx 17398, enclosure ditch 17496, SF 17012. Mid 1st century
- 8 **Decorative strip** with narrow plain border. The decoration comprises interlocking arcs forming a band of leaf-shapes with traces of hatched



Fig. 3.15 Metalwork from Site 7

background pattern. The fragment has two small nail or pin holes. Cu alloy. L: 37mm. W: 8mm. Ctx 17161, enclosure ditch 17496, SF 17003. Middle Iron Age.

9 Cast toggle, with knobbed ends and fattened centre. There is a rectangular hole or eye at the centre. Cu alloy. L: 38mm. W: 11mm. Ctx 17217, enclosure ditch 17716, SF 17002. Middle iron Age.

Site 7

- 10 Awl. Probable small awl or bradawl. One end has a tapering square section point; the other end a tapering circular section point. May have been mounted in a wooden handle. Possibly Bronze Age (L Webley pers. comm.). Cu alloy. L: 45mm. Ctx 15734, tree-throw hole 15733, SF 15012.
- 11 Probable weight, formed from lead disc with chamfered edge, crudely pierced with off-centre hole for suspension. Possibly a loom or net weight. Lead. Dia: 35mm. Ctx 15516, quarry pit 15352, SF 15009. Middle Roman.

Fig 2.128

Broad penannular bracelet or **armlet** with decorative grooves running along its length. The band is lightly broader at each terminal. Cu alloy. Dia: 69mm x 57mm: Th: 12mm. W of terminals: 13mm. Ctx 15062, grave 15061, SF 15001. Late Roman.

BONE AND ANTLER by Ian Scott

The head of a rake cut from an antler and a bone point were recovered from Site 7. The rake (Fig. 3.16, no. 1) is remarkably well preserved. It was presumably used as an horticultural tool for raking between plants to remove weeds. There is some polishing or wear at the tips of each tine. It would have been mounted on a wooden handle. The square eye would have help to prevent the head twisting or turning on the handle when in use. The bone point (Fig. 3.16, no. 2), cut from a long bone, is not well preserved. The precise use of this object is uncertain. It is certainly not a bone needle, and is probably best thought of as bone point or awl.

Catalogue of illustrated bone and antler (Fig. 3.16)

- 1 Two tined rake cut from antler. The tips of the tines are polished through use. The head shows some slight cutting to shape. Neat rectangular eye. Extremely well preserved. L: 203mm. B: 125mm. Context 15765, waterhole 15735, SF 15016. Middle Roman.
- 2 Point cut from small long bone. Rough end of bone forms head of tool. Bone. L: 108mm. Context 15221, pit 15220, Sf 15002. Middle Roman.

GLASS by Ian Scott

The glass assemblage comprises ten sherds, all from Site 7. The glass is largely modern or undiagnostic, with the exception of three small sherds of a square blue green bottle from fill 15552 of late Roman waterhole 15735.



Fig. 3.16 Bone and antler objects from Site 7

FIRED CLAY AND CERAMIC BUILDING MATERIAL by Dan Stansbie

Fired clay

Introduction

A total of 1272 fragments of fired clay, weighing 18,201g, were recovered from seven sites: 2, 3, 4 (Trench 54), 5, 6 (Trenches 97-99), 6 (Trench 105) and 7. The largest concentrations of fired clay occurred at the north-eastern enclosure complex at Site 2 and at Site 4 (Trench 54), with smaller amounts from the south-western complex at Site 2 and Site 3. The remaining sites produced negligible quantities (Table 3.28). The sites are dated to the Iron Age and Roman period and the bulk of the fired clay belongs to these periods. All of the material was recovered from secondary contexts, with the majority coming from the fills of ditches and pits.

Fabrics

The fired clay was rapidly scanned and three broad fabric types were noted. The majority of the material was made in one of two sandy fabrics, the first containing only sand and the second also containing inclusions of chalk and flint. The third fabric contained frequent inclusions of plate-like fossil shell, and some of this material may derive from the Harrold area of Bedfordshire, which is known to have produced fabrics of this type. Where necessary, the fired clay was examined under a binocular microscope at x20 magnification to aid in identification of the fabric. Objects were assigned to a type where they were identifiable. All other material was assigned to one of two categories: structural, deriving from oven superstructures or wall daub and unidentified. Preservation was relatively poor, with no complete objects being preserved.

Table 3.29: Summary of fired clay

The assemblages

Site 2

The two enclosure complexes at Site 2 produced a total of 633 fragments of fired clay weighing 8149g.

Fired clay from the north-eastern complex, dating from the late Iron Age-early Roman period, consists of 483 fragments weighing 5043g. The assemblage is dominated by structural material. In addition there are several non-structural objects, including fragments of a triangular loomweight or oven brick and fragments from six oven plates, four of which are made in a shelly fabric.

The fired clay from the south-western complex, dating from the middle and late Roman period, comprises 150 fragments weighing 3106g. The assemblage largely consists of structural material. Several large fragments that may be parts of either triangular loomweights or oven bricks or pieces of wall daub came from fill 20165 of pit 20167.

Site 3

The fired clay assemblage from Site 3 comprises 37 fragments, weighing 1876g. The assemblage is dominated by structural clay, with some unidentifiable material. Objects include fragments of two kiln bars (Fig. 3.17) and two fragments of plate, one of which was made in a shelly fabric.

Site 4 (Trench 54)

Fired clay from Site 4 (Trench 54) comprises 504 fragments weighing 6588g and is the largest assemblage from the A421 Improvements. The assemblage is overwhelmingly dominated by structural material in a shelly fabric, several pieces of which show wattle impressions, with one fragment having finger marks. In addition, there are small amounts of structural clay in sandy fabrics. The objects from this assemblage are in many ways the most interesting from the entire scheme. They consist of a single fragment of triangular loomweight or oven brick, two fragments of

	Structural/ Unid.	Triangular oven brick/ loomweight	Oven plates	Perforated oven plates	Kiln bars	Perforated oven/kiln floor	Wall daub or Triangular oven brick/ loomweight	Total
Site 2 (SWC)	60 (340g)						90 (2766g)	150 (3106g)
Site 2 (NEC)	467 (3864g)	3 (390)	13 (789g)					483 (5043g)
Site 3	29 (172g)		6 (173g)		2 (1531g)			37 (1876g)
Site 4 (Trench 54)	494 (6066g)	1 (253g)	4 (89g)	3 (118g)				504 (6588g)
Site 5	12 (65g)							12 (65g)
Site 6 (Trenches 97-99)	7 (7g)							7 (7g)
Site 6 (Trench 105)	26 (112g)							26 (112g)
Site 7	47 (793g)		5 (442g)			1 (169g)		53 (1404g)
Total	1142 (11419g) 4 (643g)	28 (1095g)	3 (118g)	2 (1531g)	1 (169g)	90 (2766g)	1272 (18201g)



Fig. 3.17 Kiln bars from Site 3

perforated plate and a fragment of plate, all in a shelly fabric.

Site 5

The fired clay assemblage from Site 5 consists of 12 fragments of structural material weighing 65g.

Site 6 (Trenches 97-99)

Fired clay from Site 6 (Trenches 97-99), consists of seven fragments of unidentifiable material weighing 7g.

Site 6 (Trench 105)

Fired clay from Site 6 (Trench 105) consists of 26 fragments weighing 112g. The material comprises small abraded fragments.

Site 7

The fired clay assemblage from Site 7 comprises 53 fragments weighing 1404g. The assemblage is dominated by structural clay. Objects consist of four plates, one of which was made in a shelly fabric, along with a fragment of perforated kiln or oven floor.

Discussion

Although the assemblage is relatively large it consists predominantly of broken up and heavily abraded structural material, which provides relatively little insight into aspects of everyday life such as cooking, craft activities or building. Having said this, the structural fragments from all the sites could be interpreted as base, floor lining or superstructure from ovens. Some material with larger wattle impressions from the southern enclosure complex at Site 2 may represent wall daub, although some of this material might be from triangular loomweights or oven bricks. The objects, including fragments of plate, perforated plates and triangular bricks or loomweights, are typical of later prehistoric/Roman assemblages of this type and could also be interpreted as relating to food preparation if an interpretation of oven brick is preferred over that of loomweight for the triangular objects. The presence of perforated plates made in a fossil shell fabric is notable, as such objects are known to have been produced in the Harrold area during the

indie 0.00. Duniniung of itoniun cerunite bulluing muteriut	Table 3.30:	Summary	of Roman	ceramic	building	material
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Roman period and traded over much of Bedfordshire (Brown 1994, 90). The fragment of oven or kiln floor and the fragmentary kiln bars are interesting in indicating potential pottery manufacture, although elaboration of this theme is limited by the secondary context of the material. Fired clay objects of a similar type, including perforated plates and a bar, have been found near to the A421 Improvements at Keeley Lane, Wootton (Pollard and Baker 1999, 95). Perforated plates were also found at Ursula Taylor Lower School, Clapham (Dawson 1988, 18) and plates, both perforated and unperforated, were recovered from late Iron Age and early Roman contexts at Biddenham Loop (Slowikowski 2008, 235-6). Similar material was also recovered during excavations at Marsh Leys, Kempston (Wells 2011b, 112).

Ceramic building material

Introduction

A total of 82 fragments of ceramic building material, weighing 5174g was recovered. This comprised 69 fragments (3778g) of Roman material, as well as some fragments of post-medieval brick and floor tiles from Site 3 and fragments of modern field drain from Site 4 (Trench 54). Medieval and postmedieval material is not discussed The largest concentrations of ceramic building material occurred on Sites 2 and 7, with negligible quantities from Sites 3, 4 (Trench 54), 5 and 9 (Table 3.29). The tegula was identified by the presence of part or all of the flange or the groove at the base of the flange. 'Tile' refers to all other flat, plain fragments, although it is likely that many of these pieces are from tegulae.

Fabrics

The majority of the Roman ceramic building material (60% by weight) was made in sandy fabrics, which also occasionally included fragments of chalk or limestone. The remainder was made in a fabric containing frequent inclusions of fossil shell. It is likely that the sandy fabrics derive from the boulder clay of the uplands around the Vale, while the shelly fabric is consistent with an origin at the

	Imbrex	Tegula	Flat tile	Brick	Tile/brick	Unid.	Total
Site 2	2 (221g)	2 (405g)	19 (625g)		2 (100g)	5 (27g)	30 (1378g)
Site 3	0	U	0		4 (32g)	4 (32g)	0
Site 4 (Trench 54)		3 (68g)	1 (12g)		0	4 (80g)	
Site 5		3 (78g)	1 (73g)			4 (151g)	
Site 7		6 (549g)	15 (775g)	4 (795g)		1 (5g)	26 (2124g)
Site 9					1 (13g)	1 (13g)	
Total	2 (221g)	8 (954g)	40 (1546g)	6 (880g)	2 (100g)	11 (77g)	69 (3778g)

Harrold tile kilns, which supplied much of the northern part of the county (Brown 1994), although a source elsewhere on the Lias clay is also possible (C Poole pers. comm.).

The assemblages

Site 2

The assemblage from Site 2 comprised 30 fragments of Roman material, weighing 1378g. A total of 21 fragments (1086g) came from late Iron Age/Roman contexts in the north-eastern enclosure complex of the site. The assemblage is dominated by fragments of tile. There are also fragments of brick along with two fragments of imbrex and a fragment of tegula.

The middle-late Roman assemblage, from the south-western enclosure complex, consisted of a total of nine fragments (292g), most of which were fragments of tile. A single fragment of tegula was also present.

Site 7

The assemblage from Site 7 comprises 26 fragments weighing 2124 g. The assemblage consists mainly of fragments of Roman tile, supplemented by small quantities of brick. In addition there are three fragments of tegula.

Discussion

The quantities of ceramic building material were too small to suggest the presence of buildings roofed with tile at any of the sites. Only a single imbrex was recovered, in the form of two re-fitting fragments from Site 2, reflecting a clear preference for tegula and other flat tile, which were presumably used in the construction of structures such as ovens, kilns and corndriers.

WORKED AND UTILISED STONE by Ruth Shaffrey

Worked and utilised stone was recovered from Site 2, Site 3, Site 4 (Trench 54) and Site 7. It came from contexts ranging in date from middle Iron Age to late Roman.

Site 2

The only worked stone from Site 2 is 250g of small weathered lava quern fragments from fill 2826 of late Iron Age pit 2808.

Site 3

Site 3 produced two pieces of worked stone, both with surviving worked surfaces. One fragment of heavily burnt and blackened quartz sandstone was recovered from fill 3093 of ditch 3346 and a second sandstone fragment was found in fill 3266 of ditch 3364. Both ditches date from the early Roman period. Both fragments of stone are likely to be from saddle querns and thus represent domestic activity but are not individually catalogued here due to their fragmentary state.

Site 4 (Trench 54)

Excavations at Site 4 (Trench 54) produced a small assemblage of worked and utilised stone of a disparate nature. Domestic activity is represented by two items. A single quartzite processor/ hammerstone could have been used for flint knapping or for processing other materials such as food stuffs, while a burnt flat stone is possibly related to cooking. Other items of stone are unworked but may have been used in a domestic or other setting. These include a flint sphere that could have been used either as a slingshot or as a domestic 'toy' and a naturally perforated flint that could have been used as a weight. In addition, nearly 14kg of heat affected stone - both heat-cracked stones (used for cooking) and burnt/blackened stones (exposed to direct heat in the form of flames) were also recovered. This is a significant quantity of burnt stone and indicates that cooking and other fire related activities were taking place nearby.

One other piece of stone resembles a pointed roof-stone although it does not have a perforation (the area where a perforation would be is missing). Its presence in a middle Iron Age ditch fill is intriguing as it is a shelly limestone that is not local to the site. It contains, amongst other fossils, unusual star-shaped crinoid fragments as well as crinoid stems. It is slightly worn on one side, which may be through wear, perhaps in a floor, but how and why it ended up in a middle Iron Age enclosure ditch is uncertain.

The worked and utilised stone from this site is small and varied. Some of the stone derives from domestic occupation, particularly the burnt stone, whilst others could be incidental losses.

Site 7

Four pieces of worked stone were recovered from fills of waterhole 15735, comprising two rotary quern fragments, one millstone fragment and a possible rubber. Both rotary quern fragments and the millstone fragment are types of Millstone Grit. Two fragments have been reused as sharpening stones or other processors, the millstone extensively, indicating that their original used as querns occurred much earlier than the middle Roman fills in which they were deposited. The fourth stone item retrieved from the well is a quartzite pebble that has been so extensively used as a rubber that the form of the pebble has been modified. Quartzite pebbles were ideally suited for use as processors and are common finds on sites of Roman date, although it is often difficult to determine their precise function. Millstone Grit querns were imported to the area and although a detailed survey of their provenance and distribution has not been published, they are

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usually thought to have originated in and around Derbyshire, where there are known millstone sources. They are common finds in this region during the Roman period, particularly north of the site (Shaffrey 2007, fig 8.17). Some of these finds will be of mechanically operated millstones of the type found here and, although few are recorded in the immediate vicinity, a possible example was found 18 km to the north-east during excavations on the route of the Great Barford Bypass (Shaffrey 2007, 281). Millstone Grit millstones are relatively frequent finds in the wider local area with finds to the east at Great Staughton and St Neots, Love's Farm (Greenfield et al. 1994; Percival and Shaffrey forthcoming) and to the west at Broughton Manor Farm, Milton Keynes (Shaffrey forthcoming). As only one millstone fragment was found, which had been heavily reused, it is likely that it was collected as a fragment elsewhere and used here only for its secondary purpose.

Two other large pieces of stone may well have been used as building stone although neither has been shaped. One is a large slab of Totternhoe stone (similar to chalk), and the other a block of oolitic limestone.

Assuming that the millstone was brought onto site as a fragment, the worked stone from Site 7 is generally indicative of domestic activity with some possible evidence for the use of stone structurally.

Catalogue of worked stone

Site 4 (Trench 54)

Possible hotplate. Slice of quartzitic sandstone cobble with clear bedding planes along which it has broken. Circular blackened and burnt mark on one face suggesting it was exposed to a fire while something was sat on it. L: 94mm. B: >85. Th: 24 mm. Wt 426g. Ctx 17318, enclosure ditch 17719. Middle Iron Age.

Possible processor/hammerstone. Quartzitic sandstone. Cobble with some percussion wear on one side and damaged on another. Its shape has not been modified. L: 120mm. B: 98mm. Th: 65mm. Wt: 900g. Ctx 17413, enclosure ditch17496. Middle Iron Age.

Ball. Flint. Slightly pointed sphere. Dia: 37-39mm. Wt: 84g. Ctx 17244, enclosure ditch 17715. SF 17008. Middle Roman.

Shaped stone. Shelly limestone. One pointed end survives and two straight edges. L: >240mm. B: >210mm. Th: 20mm. Wt: 1200g. Ctx 17019, enclosure ditch 17343. Middle Iron Age

Natural, possibly used as weight. Flint with a natural perforation. Not obviously worn inside perforation but could have been used as any sort of natural weight. Angled perforation measures 15mm on one wide and 36mm on the other. L: 98-110mm. Th: 40mm. Wt: 435g. Ctx 17094, enclosure ditch 17714. Middle Iron Age.

Site 7

Upper rotary quern fragment. Millstone Grit. Thick

fragment, tapered to centre with grinding surface worn into concentric grooves. The upper surface has a slight, poorly defined rim round the circumference measuring 50mm wide x 8mm high. Dia: 440mm. Th: 76mm on edge. Wt: 1537g. Ctx 15552, waterhole 15735, SF 15011. Late Roman.

Rotary quern, reused as hone. Quartz sandstone, probably Millstone Grit. Part of original curved edge and pecking on grinding surface survives. Both main faces have been heavily used for subsequent grinding/smoothing and are dished and worn. Dia: 900mm. Th: 50mm. Wt: 1653. Ctx 15697, waterhole 15735. Late Roman.

Rubber. Quartzite. Very uniform pebble, circular with one flat face and one slightly convex, both worn smooth through use. Bevelled arrises. Heavily burnt/blackened. Dia: 80mm. Th: 54mm. Wt: 533g. Ctx 15738, waterhole 15735. Late Roman.

Upper rotary quern fragment reused as hone. Probably Millstone Grit. Slightly tapered to edges. Grinding surface is worn smooth and has a deep groove where it has been reused as a hone. Top is also worn smooth. Th: 48mm max thickness towards edge. Wt: 290g. Ctx 15782, waterhole 15735. Late Roman.

WORKED WOOD by Damian Goodburn,

with roundwood species identifications by Dana Challinor and dendrochronological dating by Dr Daniel Miles (Oxford Dendrochronology Laboratory)

Introduction

This report is intended to provide a summary description of the key features of the assemblage of waterlogged worked wood excavated from waterhole 15735 on Site 7 and provide a brief discussion of what can be inferred from the material. None of the woodwork appeared to be securely *in situ*, performing a structural function such as revetting the sides of the cut. The waterlogging of some of the sticky clay/silt deposits within the feature preserved the ancient woodwork. These conditions of preservation of ancient woodwork, whilst not unique, are still relatively unusual in the region. Although moderately well preserved, the material had suffered some weathering in antiquity.

Iron Age and Roman woodworking

Other assemblages of waterlogged woodwork found in Iron Age and Roman wells and waterholes are known from a number of sites in south east England (eg Tongham in the Blackwater Valley, Surrey; Brockley Hill, Herts). Excavations in London have also provided much evidence of formal and rustic Roman period woodwork (eg Goodburn 2006; 2011a; 2011b, 124-9). Outside the strict limits of what has been found in such contexts, detailed recording of late Iron Age woodwork in the Severn Estuary and Roman woodwork in the London region have provided us with an overview of typical techniques of woodworking in both periods (Brunning *et al.* 2000; Brigham *et al.* 1995). While some working methods remained the same after the Romans arrived many radically new ways of working timber were introduced by them, as were a range of new types of tools such as crosswise and long-wise saws. Other changes included the use of large iron nails, and standardised straight timber. All in all this constituted a revolution in woodworking technology in fully Romanised settlements, but one that effected the more rustic areas less significantly.

Methodology

In total 20 labelled bags of material were salvaged from the waterhole fills, containing 45 separate items of roundwood or converted timber and some fragments of charcoal (which are not discussed further here). The sticky grey clay adhering to the items was gently removed with water. Despite this, a combination of ancient weathering, slight decay and some damage incurred during excavation was found to have abraded most of the tool marks. All the material was examined in good raking light, and pro-forma timber sheets were completed for all but the smallest, most fragmentary items. A representative selection of the material was selected for drawing to scale on gridded film. The processes summarised here are commensurate with the national standards for recording waterlogged wood (Brunning 1996).

A total of five tree-ring samples were taken but only plank 15789 produced a datable sequence of rings. A total of 25 samples was also taken for microscopic species identification.

The assemblage

Technological dating

After careful cleaning, three technological features of this woodwork assemblage could be seen which indicated a Roman date. Firstly, there was clear evidence of the use of both cross-cut and long-wise sawing in the clear saw marks on the oak block off-cut 15780a. Secondly, iron nails were found remaining in some of the timbers, such as plank 15790. Finally, the very thin but regularly edge-trimmed, cleft oak pales are well known from a number of Roman waterlogged sites in London and at St Albans, where they were most commonly used for overlapping, vertically set, pale fencing (Goodburn *et al.* 2011, 432-3). This basic dating conclusion was confirmed by the tree-ring date obtained for plank 15790.

Plank from a box-like structure

The most substantial piece of structural woodwork lifted was plank 15790 (Fig. 3.18). This measured 1.11m x 215mm x 35mm, in three parts. The plank

was not sawn out but was a radially cleft 1/32nd section from a large, oak log at least 0.65m in diameter. The narrow tree-rings and straight grain suggests that the log probably derived from a tree growing in wildwood conditions. It had the remains of broken bridle joints at each end and a pair of square iron nail shanks. These fastenings and joints suggested that it had been nailed to a pair of thicker planks or beams set at right angles to it. That is, it was part of a fairly crude box frame of some kind, such as have been found in some of the more rustic well linings in the suburbs and hinterland of Roman London (Wilmott 1982, 29; Goodburn 2006; 2011a; 2011b, 124-129). It is also possible that the nails are derived from another phase of use. Thus, it could be that it was one last remnant of a largely robbed out well lining, perhaps abandoned because the joints were broken.

The plank had a last measured ring date of AD 87. As it did not have any obvious sapwood or heart-wood/sapwood boundary, this provides only a *terminus post quem* or felled-after date. The earliest it could have been felled is AD 96, and a date sometime in the early 2nd century AD is more likely.

Fence pales

With the excavation and systematic recording of quite large quantities of woodwork from Roman sites in Britain, many finds of regular, trimmed, very fine cleft pales have now been made (Goodburn 2011c and 2012). These narrow boards were less than 2m long between c 100-175mm wide with maximum thicknesses of c 8-15mm. The edges were axe-trimmed straight and sapwood was sometimes removed. Most commonly they were used for vertically set pale fencing, not totally unlike that seen in some suburban areas today. The oak used had to be very straight grained and the radial cleaving process ensured that the fibres of timber ran the whole length of the pale, providing strength with light weight and minimal material use. Radial conversion also ensured that they expanded and contracted less with the weather than sawn oak. They were also much more rot resistant than wattlework made of roundwood. These qualities made the material much used for higher quality fences, particularly where privacy and windproofing were required, but in this case it may have originally been used for fencing or roofing the well opening.

Fine, radially split oak pale fragments from the A421 site include 15780b, 15789 (Fig. 3.19a), 15794, 15798 and several slightly charred fragments (15801). The thickness varied between c 9-15mm and the width between c 100-120mm, ignoring what look like broken edges. The easiest explanation as to how this particular material ended up in the waterhole is that it had formed part of a fence around the top, but it may have derived from other fences close by. The material was cleft from medium growth parent oaks and was 1/64th or even 1/128th split

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Fig. 3.18 Reused cleft oak plank 15790 with broken bridle joints at each end, possibly once part of a well lining

sections. The very thin boards were slightly wedgeshaped in cross-section and could only have been made with specialised tools called most commonly in modern English a 'froe' and a 'break'. The froe is a cleaver-like tool with a handle set at 90° to the blade, known from at least one Roman tool hoard (Goodburn 2011c). The break is a simple holding device used to hold the poles or billets to be cleft, in which they can be subject to pressure on one side which directs the line of the split.

The woodland exploited to make these pales would have been moderately open, probably managed to produce a mix of timber and underwood for fuel. In such a woodland the pale maker would have to have selected only the straightest and largest oaks.

Woodworking off-cuts

Other diagnostic material included two oak woodworking off-cuts (15806 and 15780a) that had

been sawn to length. Off-cut 15780a (Fig. 3.19b) was particularly diagnostic, measuring 90 x 95mm and 35mm thick. It had been cross-cut with a saw at each end and both faces also bore saw marks. It is likely that it was an off-cut from a sawn plank of oak *c* 35mm thick that had been used for producing a piece of joinery or simple furniture. This material is typical of Roman, but not Iron Age, woodworking debris. Some very small, broken and abraded oak wood chips were also retained but provide little information and are not discussed further here.

Trimmed log

Another fairly substantial timber was a slightly knotty, trimmed oak log (15791; Fig. 3.20a). It measured 2.02m long and up to 120mm in diameter and the axe-cut branch removals showed that it was the 'top' log from a small, fast-grown oak. Such trees would have been common in managed woodland where small timber and



a) Radially cleft pale 15789

b) Sawn oak offcut 15780



Fig. 3.19 a) Radially cleft oak fence pale fragment 15789; b) Sawn plank off-cut with saw marks from fill 15780





Fig. 3.20 a) Oak log 15791 with axe trimmed ends and branch stubs from the crown of a young tree; b) Possible coppice stem 15796

firewood was regularly cut. This log must have been at the lowest quality end of what might have been considered usable for structural purposes, being mainly knotty sapwood. Alternatively the log may have been cordwood, firewood cut to standard lengths, commonly from 'top' and larger side branches. In historic times cordwood was cut to standard lengths of around 3-4 ft (1-1.3m) depending on the region. This log seems a little long for the Roman equivalent so another possibility is that it was intended for low quality fencing work.

Assorted cut roundwood

The waterhole contained fill deposits in which several spreads of small diameter roundwood with cut ends were deposited. None of it formed a clearly woven section of wattle work, as might have been the case with a wattle fence or well lining revetment. However, most of it lay in loose groups in a rough circle around the centre of the partially silted feature. Therefore the material may have been the disturbed remains of some form of casually made 'dead hedge'. In a dead hedge stakes are driven in to clasp prunings of assorted, light material between them. They are currently still used to protect seedlings from grazing deer.

Microscopic examination of the roundwood confirmed the use of a mix of species, principally willow/poplar (Salix/Populus) and ash (Fraxinus) but including one stem of field maple. One of the items was a weathered stake of ash (15797) but the rest was mainly small, fairly regular material closely similar in age. A group of rods (15796) comprised a mix of willow/poplar and ash with 4-8 annual rings. This close scatter of ages and the form of the rod ends with a sweep suggest that a coppice or pollard origin is likely (Fig. 3.20b). The same features occurred in willow/poplar group 15799. Group 15800, also composed of willow/poplar, included more branched material possibly suggesting an origin in less formally managed willow pollard or scrub. The use of managed woodland close to the farmstead seems very likely, for the convenience of the farmers, with supplies of large timber set further away. This roundwood study together with the study of the larger timbers, charcoal and pollen provides a snapshot of parts of the local landscape around the settlement.

LEATHER by Quita Mould

A very small amount of leather was recovered from late Roman waterhole 15735 at Site 7. The leather came from one of the waterlogged lower fills (15758/15781) of the waterhole. It comprises highly fragmentary remains of a shoe, or possibly shoes, of nailed construction, and a single piece of waste leather. Shoes of this type are the most commonly found type throughout the Roman period. All the leather was bovine in origin.

Seven fragments of shoe were recovered, the largest of which measured 108mm x 43mm and was 1.4mm thick. This piece appears to come from the nailed lasting margin from the left seat area of the shoe upper, with nail holes and torn bracing thread holes present along the surviving edge. Five fragments broken from bottom unit components were also recovered, the largest of which comes from the edge of the insole and has two tunnel stitches running parallel to the edge on the flesh side (under side). A further fragment was the left side of a small low heel stiffener with remains of the broken lasting margin, worn grain side inward to the foot. Eight very small fragments broken from a shoe of nailed construction were also present, including one with a single original edge from the side of the component surviving and three holes worn by nailing.

The waste leather comprised a roughly triangular-shaped piece of waste, now torn into two pieces, with two tapering cut edges, all other edges torn. A marking-out line is present running 2mm from one of the cut edges. A second faint linear mark runs parallel to the opposite cut edge, 17mm from it. This is not a marking out line.

The highly fragmentary nature of the shoe remains suggests that it had not been thrown away directly into the waterhole but had been incorporated into the feature with other material when it was backfilled. The recovery of a shoe of nailed construction and a piece of waste leather, deriving from the cutting out of pattern pieces during the manufacture or repair of leather goods, does provides evidence, however limited, that the occupants of the farmstead were able to access such typical Roman goods and material.

IRON SLAG AND OTHER HIGH-TEMPERATURE DEBRIS by Lynne Keys

Introduction and methodology

Material that had been initially identified as slag was recovered from Sites 2, 3, 4 (Trench 54) and 7. Each object was examined by eye and categorised on the basis of morphology. Each material type was weighed by context, except smithing hearth bottoms, which were weighed individually and measured for statistical purposes.

The assemblages

Site 2

A small assemblage weighing just over 3.3kg was recovered from Site 2 by hand and from soil samples. A total of 3280g of material was recovered from early Roman features in the north-eastern enclosure complex and 944g from late Roman features in the south-western complex.

The material from the north-eastern complex was recovered from the upper fill (2206) of ditch 2475

and from pit 2207, which cut the ditch. Context 2006 contained two smithing hearth bottoms, a piece of what might be another, as well as some undiagnostic slag. Pit 2207 also contained two smithing hearth bottoms, but nothing else beyond a little vitrified hearth lining.

The late Roman material came from two interventions in enclosure ditch 20233, and comprised three smithing hearth bottoms and a tiny amount of undiagnostic slag. No hammerscale was recovered from either period, so the focus of smithing cannot be ascertained.

Site 3

A very small amount of material (228g) was recovered from Site 3, mostly by hand (although 2g came from a soil sample). The assemblage cannot be assigned to either iron smelting or iron smithing processes. The one small fragment that has been tentatively identified as very weathered iron slag could alternatively be a natural iron deposit and so is of no great significance. Other types of debris in the assemblage may derive from a variety of high temperature activities, including domestic fires, and cannot be taken on their own to indicate that ironworking was taking place. These include fired clay and fuel ash slag.

Site 4 (Trench 54)

A small amount of material (678g) was recovered from Site 4, including 2g from two soil samples. Only 10g of this material proved to be iron slag, from a medieval furrow, and this could not be assigned to either smelting or smithing activities because it had been broken up during deposition, re-deposition or excavation. The rest of the material was fuel ash slag.

Site 7

A very small assemblage (184g) was recovered by hand on site. Small quantities of iron slag were recovered from late Roman waterhole 15735 and from two tree-throw holes, but could not be assigned specifically to either smelting or smithing because it had been broken up during deposition, re-deposition or excavation. Other types of debris in the assemblage may derive from a variety of high temperature activities, including domestic fires, and include vitrified hearth lining and fuel ash slag. The assemblage appears to be Roman in date but is likely to be redeposited material. No hammerscale was recovered from the bulk samples so it is highly unlikely that the iron slag was produced on or near the site.

WORKED FLINT by David Mullin

A total of 142 lithic items were recovered. In addition 147 burnt unworked flints were recovered

and a further 133 flint chips from sieving. The material was dominated by undiagnostic waste flakes and was largely residual within later features, but it was possible to identify a late Mesolithic/ early Neolithic element in the assemblage.

Raw materials

A variety of raw materials were exploited at the site, including good quality chalk flint and what appears to be a gravel flint, which may occur locally. Chalk flint occurs in the south of Bedfordshire in the area around Luton, roughly 30km to the south of the A421 sites.

The assemblage

The evaluations

In addition to the material recovered from the excavations, seven pieces of worked flint were recovered from areas which were evaluated but did not go on to be excavated and a further three pieces from the evaluation at Berry Farm Borrow Area. None of the material was particularly diagnostic, but the assemblage included three core trimming flakes and two utilised flakes.

Site 2

A total of 47 pieces of worked flint were recovered from Site 2, with an additional 100 chips and 25 pieces of burnt unworked flint retrieved from sieving. The flints were recovered in small numbers from a variety of contexts, the largest amount from a single feature being three flakes from context 2630, part of early Roman soil spread 2743. The majority of the material from the site consists of undiagnostic waste flakes, but a small number of narrow blades were recovered, as well as a microblade of Mesolithic date from fill 2337 of ditch 2454. Virtually no formal tools were present in the assemblage, but three miscellaneous retouched flakes, as well as a broken retouched flake which is possibly a scraper, were present. A large, discoidal flake from fill 2757 of enclosure ditch 2766 is notably different from the rest of the assemblage and may be a flake from a flint axe.

Site 3

A total of eight worked flints, four chips and 28 burnt, unworked flints were recovered from Site 3. This comprises undiagnostic waste flakes recovered as residual material from a variety of features.

Site 4 (Trench 54)

A total of 56 worked flints were recovered from Site 4, along with 13 chips and 58 burnt flints. A distinctive element of the assemblage from this site was the presence of 23 tested nodules of chalk flint, most of which have flake removals. A total of ten tested nodules were recovered from context 17427 and a further ten from context 17429, both fills of enclosure ditch 17496. In addition, a tested nodule with a long, blade-like flake scar was recovered as a surface find.

A large single-platform core and two non-refitting flakes were recovered from context 17434, a fill of a pit (17317) within the enclosure. This is of good quality flint similar to the tested nodules recovered from the site, but the core has been more formally flaked in a more controlled manner.

Although much of the material is undiagnostic, two end and side scrapers, one from enclosure ditch 17345 (Fig. 3.21, no. 1) and the other unstratified (Fig. 3.21, no. 2), are Neolithic. Blades of probable Mesolithic date were recovered from three features: fill 17101 of ditch 17240, fill 17269 of cobble-filled hollow 17262 and fill 17387 of inner ditch circuit 17716 (Fig. 3.21, no. 3). A blade-like flake was recovered from fill 17104 of antenna ditch 17721 (Fig. 3.21, no. 4).

Site 4 (Trench 61)

A total of seven flints were recovered from Site 4, including a narrow blade and a core trimming flake with narrow blade scars, both of probable

Mesolithic date. A flake from subsoil layer 5002 was removed with a soft hammer and may also be of this date.

Site 5

A total of three flakes and four chips were recovered from Site 5. Two of the flakes are blade-like and may date to the late Mesolithic or early Neolithic period.

Site 6 (Trenches 97-99)

A single serrated narrow blade of probable early Neolithic date was recovered from context 7048 and two chips from context 7004, both from fills of postmedieval ditches.

Site 7

A total of 20 worked flints, 10 chips and 36 burnt flints were recovered from Site 7. Although the majority of the material is undiagnostic waste flakes, a Neolithic end and side scraper was recovered from fill 15005 of ditch 15989 (Fig. 3.21, no. 5) and a narrow blade from fill 15184 of tree-throw hole 15183. A piece from a narrow blade core was also recovered from fill 15539 of boundary ditch 15750.



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Discussion

The total quantity of Mesolithic material from the A421 Improvements was relatively small and difficult to distinguish from early Neolithic material, especially the narrow blades and blade cores. The topographical situations of the sites within the low-lying Marston Vale does not fit easily into the pattern observed by Dawson (2000a, fig. 6.1) that Mesolithic sites in Bedfordshire generally occupy the major river valleys or locations with good views. The only exception to this was Site 2, which was located on the southern slope of Brogborough Hill, but even this location does not have particularly long-reaching views.

While it is difficult to distinguish between late Mesolithic and early Neolithic narrow blades and the cores from which they were struck, distinctively Neolithic scrapers were recovered from Site 4 (Trench 54) and Site 7. A serrated blade that is probably Neolithic came from Site 6 (Trenches 97-99) and the miscellaneous retouched flakes from Site 2 may also be of this date. The modest amount of material from the A421 Improvements adds a small part to the larger picture of activity in this part of the Great Ouse Valley which includes a major Neolithic and later monument complex located to the east of Bedford in the Cardington-Cople-Willington area (Malim 2000, 75-9) and Neolithic activity from the Biddenham Loop (Luke 2008).

The tested nodules from Site 4 (Trench 54) are from secure Iron Age contexts and may date from this period. It is notable that large tested nodules do not occur on any of the other sites along the line of the A421 excavations, and the technology used here is distinctive and different from the carefully controlled flaking and conservation of raw materials utilised in the Mesolithic and Neolithic. The material is in a fresh condition, does not appear to have been lying on the surface for an extended period of time and was probably deposited relatively soon after being utilised. It is, however, difficult to be certain about the precise character of the use of these nodules. Flint-tempered pottery occurred in the region in the early Iron Age, but was largely replaced by grog-tempered wares during the middle Iron Age, and it is difficult to directly relate the nodules to pottery manufacture. It is also difficult to reconcile this material with the expedient use of flint for the manufacture of tools, as the material must have been imported from at least 30km away. The same applies to the large core and flakes from context 17434, a fill of pit 17317, located within the middle Iron Age enclosure. Although the flaking here is more controlled, the size of the core, which was discarded well before it was worked-out, suggests a lack of regard for the conservation of raw materials. As such, the technology of the flint from these contexts conforms to other examples of Iron Age flint use in southern Britain (Young and Humphrey 1999).

Catalogue of illustrated flint (Fig. 3.21)

- 1 End and side scraper. Ctx 17171, ditch 17345. SF 17004.
- 2 End and side scraper. Ctx 17001, ploughsoil.
- 3 Blade. Ctx 17387, ditch 17716. SF 17015.
- 4 Blade-like flake. Ctx 17104, ditch 17721.
- 5 End and side scraper. Ctx 15005, ditch 15989.