

Iron Age and Roman features at Eastfield House, Brasenose Driftway, Oxford

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SUMMARY

The evaluation and subsequent excavation at Eastfield House off Brasenose Driftway in Oxford revealed evidence of Roman and Iron Age ditches and gullies dating from the 1st century BC to the 4th century AD.

A proposal for residential development by Oxfordshire County Council at Eastfield House, Oxford, prompted a field evaluation by Thames Valley Archaeological Services in September 2002 followed by a small excavation in July 2003. The development occupied a triangular parcel of land of approximately 0.32 hectares located to the east of Oxford city centre in Cowley, adjacent to the eastern by-pass and off Brasenose Driftway (SP 5552 0486) (Figs. 1 and 2). The site lies at 85 m. above Ordnance Datum and is fairly level throughout. Prior to development it was occupied by a large house, gardens and a car park. According to the British Geological Survey¹ the underlying geology is Coral Rag and Oolitic limestone and this was confirmed during fieldwork.

The site lies within 200 m. of the Roman road from Alchester to Dorchester² and close to areas engaged in industrial pottery production throughout much of the Roman period (Fig. 2). To the north in Barton, excavation alongside the projected line of the Roman road revealed 3rd-century AD settlement and a metalled road from the 4th century.³ To the south, in Blackbird Leys, occupation dating from the 2nd century seems to have continued into the 3rd and 4th centuries. The large quantity and poor quality of pottery recovered from this site may relate to under-firing in pottery kilns.⁴ Other finds in the immediate locality of the site include late Roman pottery and two possible inhumation burials.

The evaluation and excavation followed written schemes of investigation based on design briefs produced by Mr Paul Smith of Oxfordshire County Archaeological Service, and were required in accordance with 'Archaeology and Planning'⁵ and the City Council's policies on archaeology. The site code is EHO02/80 and the archive will be deposited with Oxfordshire Museum Service (accession number OXCMS:2003.16).

¹ British Geological Survey, 1:50000 Sheet 237, Solid and Drift Edition (1994)

² I.D. Margary, *Roman Roads in Britain* (3rd edn, 1973).

³ J. Pine, 'Excavation of part of a 3rd-century Roman settlement and later Roman road at Stowford Road, Barton, Oxford', *Oxoniensia*, lxxviii (2003), 263–77.

⁴ S. Ford, 'Fry's Hill Gas Trench, Guelder Road, Blackbird Leys, Oxford; an archaeological excavation', unpub. Thames Valley Archaeological Services report.

⁵ PPG16, *Archaeology and Planning* (Dept of Environment Planning Policy Guidance 16, 1990).

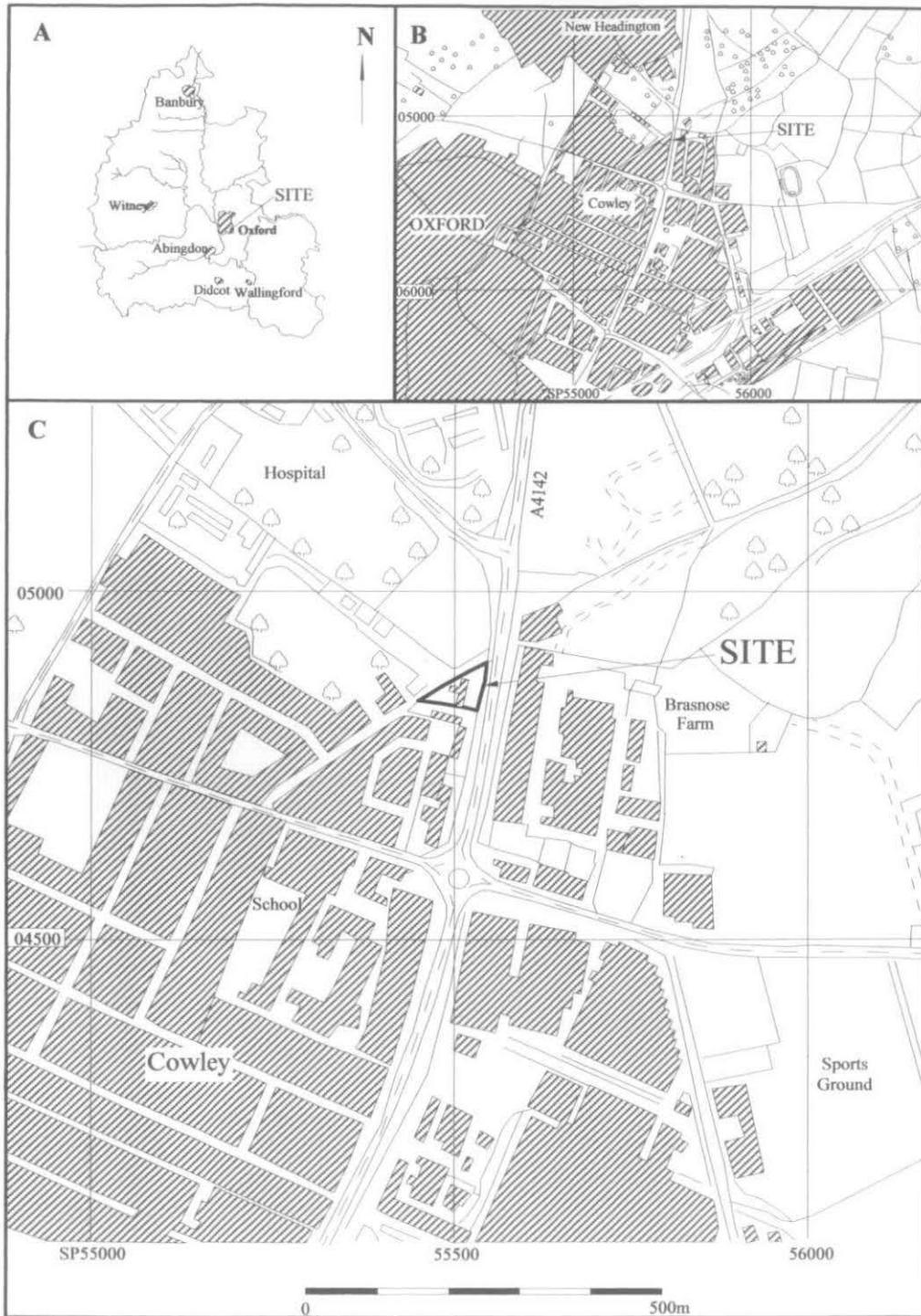


Fig. 1. Eastfield House, Oxford. Location of site within Oxford

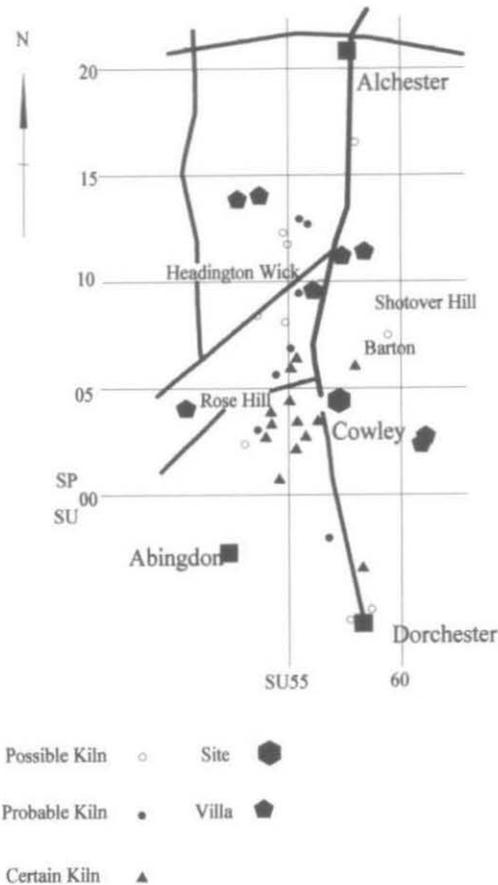


Fig. 2. The site and nearby Roman sites; based on Henig and Booth *op. cit.* note 8, figs 4.1 and 6.7 (not to scale).

OVERVIEW AND DISCUSSION

This small excavation has produced evidence of Iron Age and Roman activity that began around the 2nd–1st century BC and continued, perhaps without a significant break, through to the 4th century AD, although it is clear that the site layout was remodelled during this time. A small quantity of Bronze Age pottery recovered might indicate occupation of this period in the near vicinity also.

A single pit belongs to the 2nd–1st centuries BC. Pottery of this date was also recovered from several Roman features on the site but no other deposits of unambiguously Iron Age date were identified. The nature of this middle Iron Age activity cannot be explored further other than to note that cereal crops were being processed.

The earlier Roman features comprise short lengths of gully. Two of these (104, 105) lie perpendicular to each other with a short gap between and are likely to form part of a paddock or a field system; these features (and gully 101, which parallels 105) also contained Iron Age pottery and it is possible these reflect Iron Age boundaries that were recut and/or filled in the early Roman period (late 1st century). Gully 5 looks most like an Iron Age

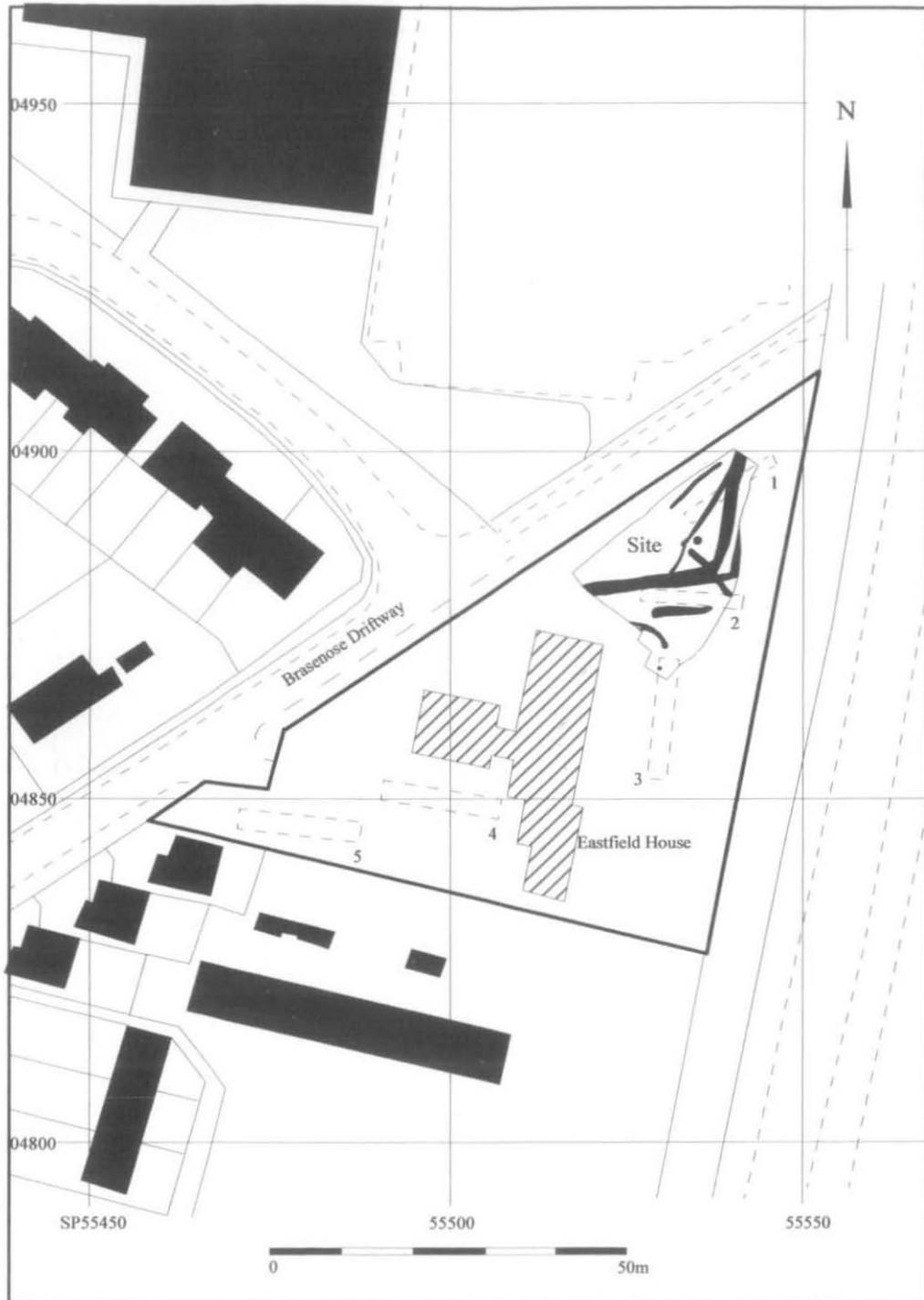


Fig. 3. Eastfield House, Oxford. The immediate environs of the site

roundhouse gully, but it contained late Roman pottery. It is possible that this was originally an Iron Age feature with some unrecognized later Roman recut or intrusive disturbance, but a genuinely late Roman date is not impossible. However, by later Roman times the paddock had certainly gone out of use as the site area was redefined on a different alignment by a more substantial feature (103). This also appears to define a rectilinear enclosure probably laid out in the 3rd century, which was subsequently redefined (100, 24) before finally passing out of use in the later 4th century. Human infant remains had been buried in both gully 5 and ditch 103.

Findings from the site suggest that occupation is present very close by. The animal bone assemblage indicates the usual domesticated species of cattle, sheep, goat and pig and shows both butchery and consumption; there is also evidence of use of animals for secondary products (eg traction). Presumably the enclosure ditches identified relate to the management of this stock.

The site lies less than 200 m. to the west of the probable line of the Roman road⁶ between Alchester and Dorchester, and may represent the backland of a flourishing 'roadside' settlement. The area of Cowley, and Rose Hill in particular, is notable for the presence of Roman pottery kilns (Fig. 2), which produced specialist wares including *mortaria* amongst other products, from the 2nd century onwards.⁷ Relatively large quantities of pottery were encountered on the site, especially in ditches 100 and 103 which date to the 3rd and 4th centuries AD, however no evidence here suggests production close to the site.

The reorganization of site layout attested in the middle Roman period follows a commonly observed pattern: very few Roman sites continue through the 2nd and 3rd centuries without major change, although Oxfordshire sites seem to exhibit more continuity than many other parts of the country.⁸ While the middle Iron Age evidence from this site is limited, any possibility of continuity from this period through the 1st century AD and into the middle Roman period would be of some importance, as this degree of continuity is exceptionally rare. The evidence here is too patchy to offer any firm conclusion on this question. While there are no features covering the transitional (1st century AD) period, pottery of this date is present in later features. Given the scale of the site, the problem would in any case merely be deflected onto whether any 'break' was discontinuity or merely a localized shift within a much larger site.

THE EVALUATION

Five trenches, each 15 m. long and 1.6 m. wide, were excavated mechanically across the development area (Fig. 3). Only Trenches 1 and 2 revealed archaeological features. Both of the features encountered in the evaluation were subsequently included within the excavation areas and are discussed below. As the archaeological activity appeared to be concentrated in the north of the site, this area was targeted for investigation.

⁶ I.D. Margary, *op. cit.* note 2, route 160b.

⁷ V.G. Swan, *The Pottery Kilns of Roman Britain* (RCHM Suppl. Ser. 5. 1984).

⁸ M. Henig and P. Booth, *Roman Oxfordshire* (2000), 106–10.

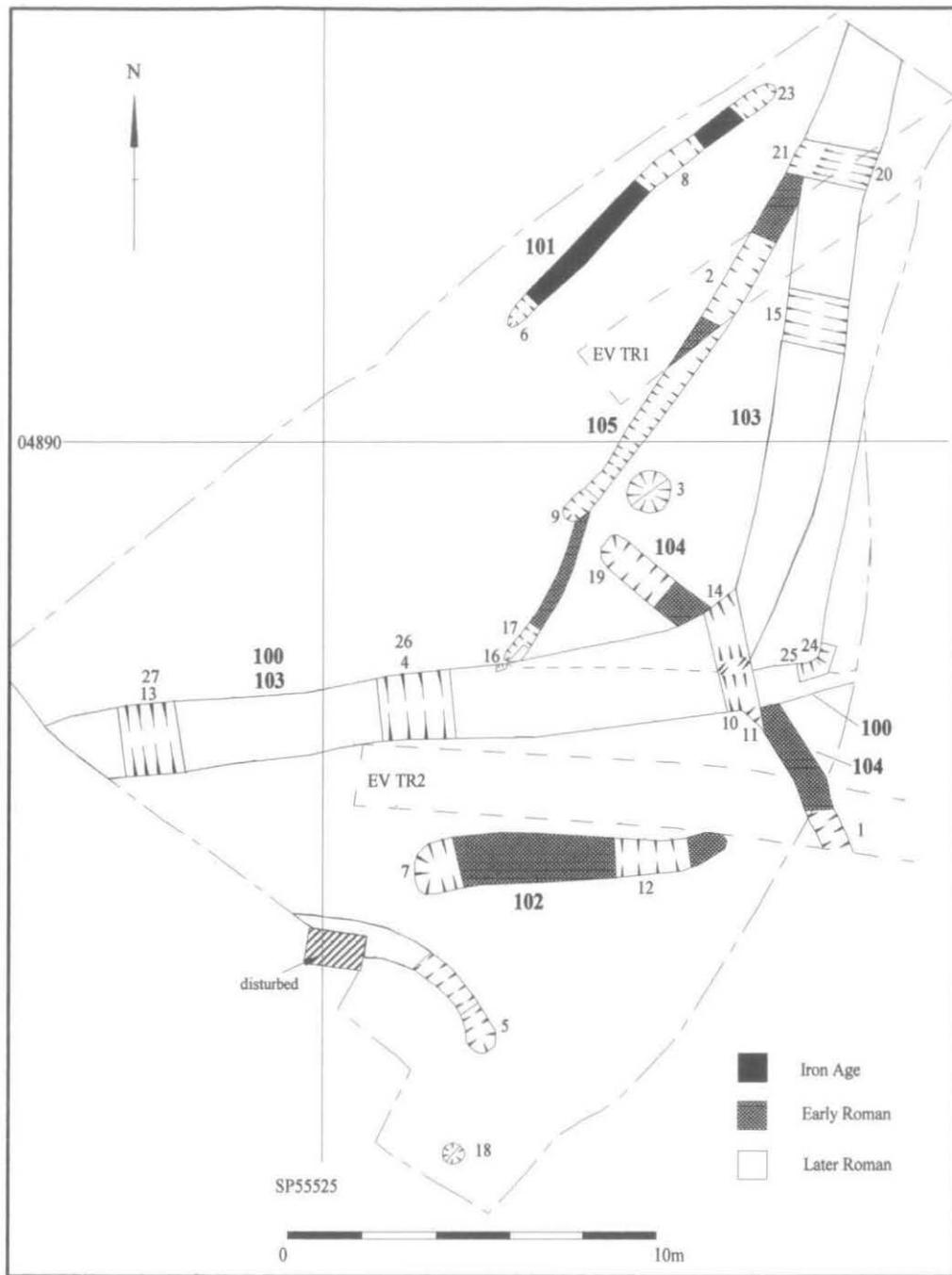


Fig. 4. Eastfield House, Oxford. Plan of all excavated features.

THE EXCAVATION

Topsoil and overburden were removed from an area of approximately 500 sq m. by mechanical excavator under constant archaeological supervision. This revealed several ditches and gullies generally oriented NE–SW and east–west crossing the site along with an isolated pit and a post hole. Slots totalling at least 20% of the length were excavated across the linear features, and the pit and post hole were fully excavated (Figs 4 and 5). Six bulk soil samples were taken for the recovery of charred plant remains and finds.

Later Bronze Age

Seven very abraded sherds of later Bronze Age pottery, which appear to come from one vessel, were recovered from the surface of late Roman ditch 103. This suggests that a feature of this date had been disturbed by the later ditch.

Iron Age

The small pottery assemblage from this period probably dates to the 2nd–1st century BC. Pit 3 contained 14 sherds of pottery from the Iron Age and is the only feature that can be certainly dated to this period. It measured 1.10 m. in diameter and was 0.20 m. deep. Gully 101, aligned SW–NE, lay to the north of the site. Three slots placed across this feature produced both Iron Age and Roman pottery. Slot 8 contained sherds of pottery solely from the Iron Age while slot 6 contained no pottery. Slot 23 produced 33 sherds of pottery of both Iron Age and Roman dates, including 29 sherds from a single Roman disc-necked bottle. The presence of Roman pottery within this feature should indicate that the Iron Age component to the assemblage is residual. However, the Roman pottery was all derived from a single fragmented vessel and it seems possible that there may be a separate Roman feature not recognized in excavation cut into an Iron Age gully.

Early Roman

Ditch 104 was aligned SE–NW. Three slots excavated through this feature all contained sherds of later Iron Age and Roman wares: the terminal (19) had been recut (22), which, containing pottery of the same date, need not have been dug much later than the original feature.

Three slots through ditch 105 contained a total of 32 sherds of both Iron Age and early Roman wares giving a date at the end of the 1st century AD at the earliest. Ditches 104 and 105 appear to form two sides of an enclosed area, a field or paddock, with an entrance at the south-western corner.

Gully 17, extending south-west from the end of 105, posthole 18 and ditch 102 all contained pottery suggesting a 2nd century or later date.

Later Roman

Later features on the site consisted of ditches 100, 103 and gully 5. Ditch 103 extended from the northern limit of excavation southwards before curving westwards and disappearing beyond the western baulk. This V-shaped ditch was the deepest feature on site and the most dominant, reaching a maximum depth of 0.98 m. This ditch cut both ditches 104 and 105 and lay parallel to ditch 102. The five slots (4, 13, 14, 15 and 20) across ditch 103 contained a diverse range of pottery. The majority of sherds gave a likely *terminus post quem* of the 3rd century, however 2nd century wares were also present, possibly suggesting a long life for the open ditch.

Gully 5 curved from the south-western site edge and came to a south-east facing terminal. This feature contained 27 sherds of Iron Age pottery but also an equal quantity of Roman wares dating to the 3rd century, along with a disarticulated perinatal burial. It is possible that this feature belonged to an Iron Age roundhouse, but the later date has been taken at face value.

Ditch 100 produced the largest single assemblage of pottery, 1,207 sherds, in a generally fresh condition. From this assemblage, a mid-4th century coin (see below), and the stratigraphy, it can be established that this and ditch 24 are the latest features on the site, finally infilling in the second half of the 4th century. The fill of ditch 100 was a very dark brown/black, very distinctive from the lighter brown fills of ditch 103. Ditch 100 unambiguously cut ditch 103 towards the east (Fig. 4) but petered out to the west (27) such that it was only represented as a shallow depression (27) within slot 13.

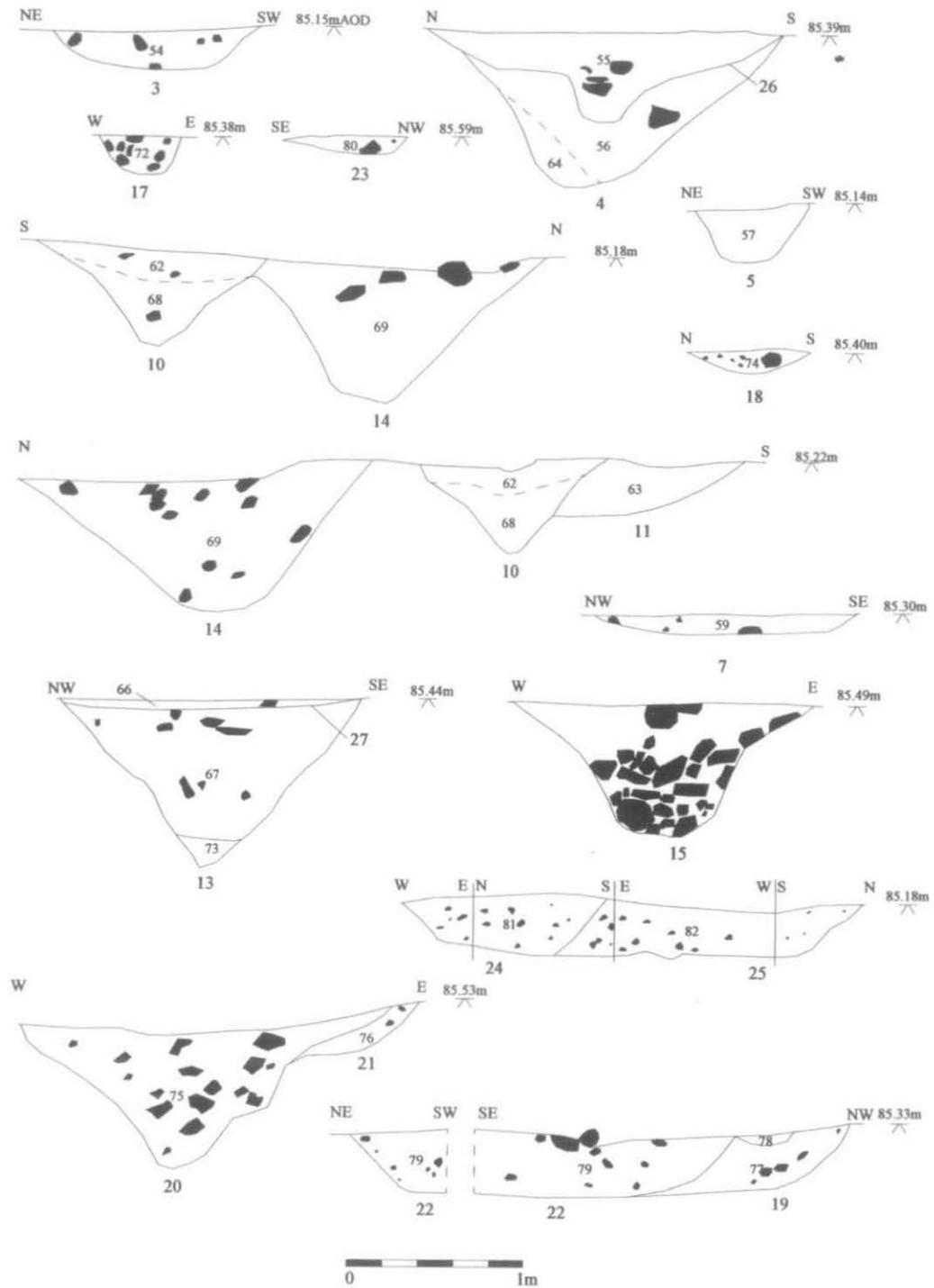


Fig. 5. Eastfield House, Oxford. Selected sections.

The terminal of ditch 24 cut the fill of ditch 100 (Fig. 4) but was probably contemporary with it. Ditch 24 mostly lay beyond the eastern baulk. It was aligned north-south and, with ditch 100, can be considered to be a redefinition of ditch 103, maintaining the same basic layout. Ditch 24 produced 40 sherds of 4th-century pottery.

THE FINDS

POTTERY by JANE TIMBY

The archaeological work resulted in the recovery of 2080 sherds of pottery weighing 25.5 kg, dating to the later prehistoric and Roman periods. The assemblage was in generally good condition with a number of joining sherds within the Roman assemblage. Seven very fragmentary sherds from one vessel of possibly later Bronze Age date were recovered from the surface of Roman ditch 103. The remaining later prehistoric sherds all appear to date to the middle Iron Age. The prehistoric assemblage was sorted into fabric types based on the principal inclusions present following the guidelines recommended by the PCRG.⁹ The Roman assemblage was sorted into fabric types following the Oxford Archaeology fabric series.¹⁰ Where relevant these were cross-referenced with the National Roman fabric reference collection codes.¹¹ As these wares are extensively documented elsewhere, full descriptions have been omitted. The assemblage was quantified by sherd count, weight and estimated vessel equivalents (rim) (Tables 1 and 2). The Roman form types for the Oxfordshire products are all based on Young.¹²

?Later Bronze Age

Seven very abraded bodysherds weighing 42 g. were recovered from the surface of ditch 103. All appear to derive from a single vessel and are characterized by a light brown soft fabric with a black core. The fine matrix included occasional rounded fragments of limestone. One sherd appears to show part of a projecting cordon. The wall thickness is around 7 mm. The lack of temper in the sherds suggests that it is unlikely to be urn material and it is tentatively dated to the later Bronze Age.

Middle Iron Age

The Iron Age assemblage comprised 48 sherds weighing 555 g, in eleven fabric types:

Ferruginous wares

FE1: A brown moderately hard sandy textured fabric with a dark brown to black core. The matrix contains a sparse to common frequency of fine, rounded, quartz visible at x20 magnification and a sparse frequency of red-brown, rounded, grains of iron up to 2 mm. in size. No featured sherds.

FECA1: A moderately hard brown ware with a black core. The sherds are quite thick walled (10 mm) and have a striated surface. The matrix contains sparse iron ooliths (less than 0.5 mm), sparse fossil shell and limestone with inclusions up to 7 mm. but mainly finer. Some of the latter appear as surface voids where the calcareous content has leached out. At x20 the paste contains a sparse to moderate frequency of iron-stained rounded to sub-angular quartz of less than 0.5 mm. No featured sherds.

FECA2: A brown ware with a black core, moderately hard with smooth surfaces. The paste contains a sparse, well-sorted, temper of glauconitic sand accompanied by sparse larger grains of iron and fine fossil shell and limestone up to 2 mm. in size. No featured sherds.

⁹ Prehistoric Ceramics Research Group, *The Study of later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication* (Occas Paps 1 and 2, revised 1997).

¹⁰ P. Booth, 'Oxford Archaeology Unit Roman pottery recording system' (unpub MS.).

¹¹ R. Tomber and J. Dore, *The National Roman Fabric Reference Collection: a handbook* (1998).

¹² C.J. Young, *The Roman Pottery Industry of the Oxford Region* (BAR Brit Ser 43, 1977); C.J. Young, *The Roman Pottery Industry of the Oxford Region* (BAR Brit Ser 43, revised 2000).

FESH: Light reddish-brown surfaces with a black core and slightly laminar fracture. The paste contains a common frequency of irregularly shaped, ill-sorted iron up to 3–4 mm. in size, a sparse scatter of fine quartz sand and a sparse scatter of fossil shell fragments 3–4 mm. in size. No featured sherds.

TABLE 1: POTTERY QUANTIFICATION BY FABRIC

	<i>Fabric</i>	<i>Description</i>	<i>NRFC</i>	<i>No</i>	<i>% No</i>	<i>Wt</i>	<i>% Wt</i>	<i>EVE</i>	<i>% EVE</i>
IRON AGE	FE1	iron inclusions		1	2.2	10	1.9	0	0.0
	FECA1	iron oolites and limestone		1	2.2	23	4.3	0	0.0
	FECA2	glaucanitic sand/ shell		7	15.2	89	16.7	0	0.0
	FECA3	fossil shell and iron		2	4.3	50	9.4	0	0.0
	SA1	glaucanitic sand		10	21.7	132	24.8	5	27.8
	SA2	medium sandy		6	13.0	42	7.9	10	55.6
	SACA	sandy with calcareous		3	6.5	10	1.9	0	0.0
	SH1	alluvial shell		6	13.0	68	12.8	3	16.7
	SH2	fossil shell		11	23.9	119	22.3	0	0.0
	SAOR	sandy with organic		1	2.2	12	2.3	0	0.0
Sub-total				46	100.0	533	100.0	18	100.0
ROMAN									
Imports	S30	Central Gaulish samian		2	0.1	2	0.0	0	0.0
	B11	Dorset black burnished ware	DOR BB1	16	0.8	166	0.7	26	1.3
	O81	Midlands pink grogged ware	PNK GT	3	0.1	197	0.8	0	0.0
	F52	Lower Nene Valley colour-coat	LNV CC	17	0.8	126	0.5	22	1.1
Native	E30	medium sand-tempered		10	0.5	69	0.3	0	0.0
	E60	flint-tempered		3	0.1	14	0.1	0	0.0
	E80	grog-tempered		72	3.5	1081	4.3	37	1.9
Local	C10	shelly		51	2.5	486	1.9	5	0.3
	W23	Oxon burnt whiteware		58	2.9	405	1.6	104	5.4
	R91	Oxon grog-tempered jar		108	5.3	1437	5.7	72	3.7
	O10	Oxon fine oxidized	OXF OX	26	1.3	138	0.6	10	0.5
	O20	Oxon medium sandy oxidized	OXF OX	57	2.8	565	2.3	119	6.2
	W11	Oxon parchment ware	OXF PA	41	2.0	611	2.4	58	3.0
	W10	Oxon fine whiteware	OXF WH	8	0.4	38	0.2	0	0.0
	W20	Oxon medium sandy whiteware	OXF WH	125	6.2	1218	4.9	107	5.6
	Q21	Oxon white-slipped ware	OXF WS	2	0.1	42	0.2	0	0.0
	R10	Oxon fine sandy greyware	OXF REF	253	12.5	2150	8.6	128	6.6
	R20	Oxon medium sandy greyware	OXF RE	548	27.0	6452	25.8	509	26.4
	R50	black sandy ware	OXF RE	140	6.9	1612	6.4	94	4.9
	F51	Oxon colour-coated ware	OXF RS	331	16.3	2727	10.9	234	12.1
	M41	Oxon colour-coated mortaria	OXF RS	24	1.2	342	1.4	51	2.6
	M22	Oxon whiteware mortaria	OXF WH	135	6.6	5109	20.4	350	18.2
	M31	Oxon white-slipped mortaria	OXF WS	2	0.1	20	0.1	0	0.0
Sub-total				2032	100.0	25007	100.0	1926	100.0

Sandy wares

SA1: Glaucanitic sandy ware. A red-brown fabric with a black core distinguished by a medium density of fine, rounded, grains of glauconite, a common frequency of well-sorted, rounded, quartz and rare large ferruginous inclusions up to 7 mm. in size. A single simple everted jar came from gully 101 (8).

SA2: A black-brown, moderately hard sandy ware with slightly sparkling surfaces. The paste contains a common to moderate frequency of well-sorted, rounded to sub-angular quartz sand, rare rounded fragments of fine quartz sandstone up to 6 mm. in size and occasional iron. Two simple everted jar rims came from gully 101 (8).

Calcareous wares

SACA: As fabric SA2 but with additional sparse fragments of fine fossil shell and limestone up to 2 mm. in size. No featured sherds.

SH1: Orange-brown to brown ware with a dark grey core. The slightly friable sandy fabric contains a common frequency of largely fine fossil shell and limestone with occasional larger shell fragments up to 10 mm. and a sparse scatter of fine, rounded, quartz sand.

SH2: A dark orange-brown ware with a black core. The paste is fine textured with a sparse to common scatter of very fine shell (less than 1 mm.) of alluvial origin alongside rare visible grains of quartz sand and iron. Represented by a single thickened rolled rim jar from gully 5.

Organic-tempered wares

SAOR: Orange-brown ware with a black core. The moderately hard fabric has a rough texture. The paste contains a sparse to common frequency of linear organic matter accompanied by sparse, very fine quartz sand and rounded red-orange iron. No featured sherds.

The Iron Age material was specifically associated with just two features, pit 3 and gully 101 (slot 8), which account for 14 of the 48 sherds. A further 27 sherds came from gully 5, associated with Roman material, and the remaining sherds were redeposited in later features. There were just four rimsherds, all from necked jars. A sherd from gully 5 showed the remains of an internal burnt residue. The range of fabrics is typical of the middle Iron Age in this locality, in particular the glauconitic sandy wares and the ferruginous-rich fabrics. The presence of iron oolites has been documented at Abingdon¹³ and a source from the Lower Jurassic limestone in the Banbury area is likely. It is possible that the assemblage represents the very end of the middle Iron Age extending into the later Iron Age, the latter being typified by a number of 'Belgic' type grog-tempered wares and some handmade sandy (E30) and flint (E60) wares. The same broad spectrum of fabrics was present at Whitehouse Road, Oxford¹⁴ although the absence of a strong 'Belgic' element in the assemblage from the latter site suggests it was abandoned before the 1st century AD. An earlier date is also intimated for the Whitehouse Road assemblage compared to the Eastfield House group by a higher proportion of calcareous wares. The Eastfield House assemblage, although small, has a relatively small fossil shell and limestone component and a more diverse range of material arguing for a later date. It is possible that the assemblage should be seen as dating to the 2nd–1st century BC.

Roman

Most of the assemblage dates to the later Roman period, with a small earlier Roman component. The assemblage is overwhelmingly dominated by local Oxfordshire products, not surprising as the site falls in the centre of the Oxfordshire pottery industry with kilns documented at Cowley and environs.¹⁵

In total some 2032 sherds weighing 25 kg. of later Iron Age to Roman pottery were present. Traded wares form a very small proportion of the group with just two sherds of samian, 16 sherds of Dorset black burnished ware, three sherds of Midlands pink grogged ware and 17 sherds of Lower Nene

¹³ J.R. Timby, 'The Pottery', in J. Muir and M.R. Roberts, *Excavations at Wyndyke Furlong, Abingdon, Oxfordshire*, 1994 (Oxford Archaeol. Thames Landscapes Monograph 12, 1999), 35.

¹⁴ J.R. Timby, 'The Pottery' in A. Mudd, 'Excavations at Whitehouse Road, Oxford, 1992', *Oxoniensia*, lviii (1993), 33–85, esp. 56–63.

¹⁵ C.J. Young, *The Roman Pottery Industry of the Oxford Region* (BAR Brit Ser 43, 1977); C.J. Young, *The Roman Pottery Industry of the Oxford Region* (BAR Brit Ser 43, revised 2000); S. Green, 'The Roman pottery manufacturing site at Between Towns Road, Cowley, Oxford', *Oxoniensia*, xlviii (1983), 1–12.

Valley ware. The latter all derive from a single whiteware jar with an orange-brown colour-coat from ditch 100.

The remaining sherds all derive from local sources. Of the specifically recognized Oxfordshire products the commonest were the reduced grey sandy wares (fabrics R10, R20, R50) accounting for 56% by sherd count, followed by colour-coated wares (F51, M41) contributing 21%. Whitewares including *mortaria* account for 16% whilst the remaining 7% is made of parchment ware, white slipped ware and oxidized wares. Table 2 summarizes the main Oxfordshire forms present. The high proportion of colour-coated wares emphasizes the later Roman date of the bulk of the assemblage. Fragments of colander were also noted in both a red colour-coated ware and oxidized ware from base fragments which are not classified by Young. Similarly a colour-coated lid fragment was noted; lids are generally quite rare in the Oxfordshire industry. Most of the forms have a production date in the period AD 240–400. However there are very few specifically 4th-century forms. Exceptions include sherds of impressed decorated bowl from ditch 100 along with the later bowl examples, C68 and C81, probably not made until the 4th century.

TABLE 2: POTTERY QUANTIFICATION BY VESSEL FORM (EVEx100)

<i>Fabric</i>	<i>Young form</i>	<i>Description</i>	<i>EVE</i>	<i>% EVE</i>
OXF RE	R15/23	necked jar with rolled rim	489	29.0
	R20.4	bifid rim jar	21	1.2
	R21	jar with beaded rim	3	0.2
	R22	bead rim jar	10	0.6
	R34	poppyhead beaker	37	2.2
	R47	flanged rim bowl	85	5.0
	R49	curved wall dish	65	3.9
	R64	bowl copying Dr 30	10	0.6
OXF OX	R76	lid	5	0.3
	O2	disc rim bottle	100	5.9
	O10	necked jar with rolled rim	18	1.1
OXF WH	O11	bifid rim	11	0.7
	W23v	colander	0	0.0
	W33	flanged neck flagon	7	0.4
	W37	necked jar	8	0.5
	W38	beaker	12	0.7
	W53	bag beaker	30	1.8
	W62	bowl copying Drag.30	22	1.3
	M17	bowl copying mortarium	18	1.1
OXF RS	M18	mortaria	64	3.8
	M22	mortaria	33	2.0
	C18	mortaria	236	14.0
	C22	necked jar	72	4.3
	C48	beaker	12	0.7
	C51	shallow bowl with wide rim	53	3.1
	C62	flanged bowl	15	0.9
	C68	hemispherical bowl	10	0.6
	C81	deep bead rim bowl	31	1.8
	C97	wall sided carinated bowl	25	1.5
OXF PA		mortaria	51	3.0
	P24	lid	3	0.2
		colander	0	0.0
OXF BWH	BW2	wall-sided bowl	40	2.4
	W34	everted rim jar with rolled rim	77	4.6
TOTAL		bifid/ grooved rim jar	15	0.9
			1688	100.0

The commonest form present on the basis of rim EVE is necked jars, collectively accounting for 43% of the Oxfordshire products with further examples in shelly ware (fabric C10) and grog-tempered ware (R91). *Mortaria* are also common accounting for 23%, with Young form M22 the most frequent type.

Ditches 104 and 105 appear to date to the earlier Roman period, containing a mixture of later Iron Age types in grog-tempered fabrics accompanied in one instance by more Romanized local wares. Ditch 104 produced a very small group of 11 poorly preserved small sherds with four grog-tempered sherds, one a handmade sherd with incised decoration, and seven small crumbs which could potentially suggest a pre-Roman date in the 1st century BC-AD. Ditch 105 produced slightly more material, with 29 sherds and 18 fragments of amorphous fired clay. The pottery includes sherds of grog-tempered ware E80, and Roman fabrics R10, R50, and shelly ware C10 indicating a date towards the end of the 1st century AD at the earliest.

Three features (gully 17, pit 18 and ditch 102), produced pottery that could potentially suggest a 2nd-century date but the groups are extremely small and as the sherds are unfeatured they could equally be later. Ditch 103, slot 20 also produced an assemblage that appears to comprise a mixture of Iron Age sherds (Fabrics FE1, E60, E80) and 1st-century Roman sherds (C10, O10, R10), probably derived from earlier ditch 105 (21). Other residual sherds in some of the later features, such as a poppyhead beaker (Young form R34), and bowls copying Dragendorff 30 (Young forms R64, W53) intimate some 2nd-century activity in the locality.

Amongst the later features on the site are ditches 100, 101, 103 and gully 5. Ditch 100 produced the largest single assemblage, some 1207 sherds weighing 16,921 g. Although the sherds are quite well broken with an overall mean sherd weight (msw) of 14 g, they are in relatively fresh condition. Most of the fabrics recorded from the site are present and vessel forms include examples of most of the forms documented in Table 2. This would appear to be the latest pottery group on the site, dating to the second half of the 4th century. Ditch 101 produced a slightly enigmatic group of material: seven sherds of MIA material from 8 (see above) and 33 sherds from 23 with both Iron Age and Roman material. In particular this includes 29 sherds from a disc-necked bottle, Young form O2, dated to the period AD240-300. Ditch 103 also produced a sizeable assemblage, some 685 sherds weighing 7189 g. This material was slightly more fragmented compared to ditch 100 with an msw of 10.5 g, and contains a more chronologically diverse range of material with a likely *terminus post quem* in the later 3rd century but with a number of 2nd century and earlier vessels also present. Gully 5 produced 56 sherds, 428 g, amongst which were 13 Iron Age pieces, 14 very small crumbs and 29 Roman wares. The latest, a large piece of Oxfordshire burnt whiteware gives a *terminus post quem* in the 3rd century.

ANIMAL BONE by JULIE HAMILTON

A total of 6 (23 g.) fragments of bone from one Middle Iron Age context and 668 (9435 g.) from 24 Roman contexts were recovered (including 53 fragments from sieving). Overall 40% by number of individual specimens (NISP) of hand-collected fragments were identified, and 19% of sieved fragments. Most of the material (547 fragments, 212 NISP) was from ditches 100 and 103. More detail on the bones, and full methodological description, are included in the site archive and only significant aspects of the assemblage are summarized here.

The animal bone mainly derives from butchered and discarded remains. The bone was highly fragmented, although surface condition was generally good. For the major food species (cattle, sheep/goat and pig) there is evidence for meat removal in the form of butchery marks, and also of smashing bones to obtain marrow. Elements from all parts of the skeleton were present suggesting that meat was not imported to the site as joints, but rather as whole animals (or carcasses). A single red deer metatarsal had also been chopped and perhaps smashed.

The animal economy was based on cattle, sheep/goat and pig (goat was definitely present) (Table 3). Horse, dog, cat, red deer, and probably fowl and duck were also present. Only the red deer is definitely wild; the possible duck bone could be wild mallard or domestic. No remains of very young animals were found. This could be due to poor preservation, or because this site (or this area of the site) was a 'consumer' rather than a 'producer' site.

Both cattle and sheep/goat were managed primarily for secondary products (e.g. milk, wool, traction) though some were killed at the optimum age for meat production. Pigs, in contrast, were managed primarily for meat production and were mainly killed in the 1st or 2nd year of life. Although

cattle accounted for 60% by fragment number and 80% by weight of the assemblage, the importance of sheep/goat and pig is likely to have been underestimated. As cattle are so much larger they would contribute the majority of the meat diet – perhaps as much as 80% on these figures – but if MNI is used as the basis of the calculation and the faster turnover of sheep/goat and particularly pig is taken into account, cattle, sheep/goat and pig, respectively, could have contributed 20:50:30% of the meat diet.

Butchery marks (cuts and/or chop marks) were seen on 16% of cattle fragments, 6% of sheep/goat and 8% of pig. Overall 8% of fragments had gnawing marks attributable to dog.

The few cattle measurements available were well within the usual Roman range,¹⁶ on average larger than Iron Age cattle but not as big as the particularly large cattle sometimes noted at Roman period sites.¹⁷ There were no sexable fragments. A cattle metacarpal showed lipping of the proximal articulation and a metapodial fragment showed expansion and lipping of the distal articulation. These may be related to use of cattle for traction.¹⁸ While the whole skeleton seems to be represented, the major meat-bearing (limb) bones are relatively rare. This could be because thorough processing included smashing of these bones.

All the pig was from late Roman contexts: there was no evidence of wild boar. Of the sexable pig canine teeth, 4 were male and 1 female, suggesting that males were preferentially killed, sows being kept for breeding.

TABLE 3: ANIMAL BONE SPECIES REPRESENTATION (NISIP) BY PHASE.

<i>Phase</i>	<i>MIA</i>	<i>EROM</i>	<i>LROM</i>	<i>Total</i>
Cattle	–	3	142	145
Sheep/Goat	2	7	67	76
Goat	–	–	1	1
Pig	–	–	21	21
Equid	–	1	4	5
Dog	–	–	2	2
Red Deer	–	–	1	1
Cat	–	–	2	2
Bird	–	–	4	4
Unidentified	4	11	402	417
Total	6	22	646	674

HUMAN BONE by SIÂN ANTHONY

Human remains were recovered from two contexts, the majority from gully terminal 5, of which one piece was recovered from sieving. These represent one individual. Ditch 103 (slot 4) produced a single piece of bone from a second individual. All of the assemblage is in excellent condition with little or no flaking of the cortical bone. The assemblage was recorded using standards developed by Buikstra and Ubelaker,¹⁹ ageing was calculated using an Excel package created by Snelling²⁰ based on published data.

¹⁶ ADS 1996–2003: Animal Bone Metrical Archive Project (ABMAP): <<http://ads.ahds.ac.uk/catalogue/specColl/abmap/index.cfm>>.

¹⁷ A.C. King, 'A comparative Survey of Bone Assemblages from Roman sites in Britain', *Bull. Institute Archaeol.* 15 (1978), 207–32; R.-M. Luff, *A Zooarchaeological Study of the Roman North-Western Provinces* (BAR International Series 137, 1982).

¹⁸ L. Bartosiewicz, *Draught cattle: their Osteological Identification and History* (1997).

¹⁹ J. Buikstra and D. Ubelaker, *Standards for Data Collection from Human Remains* (Arkansas Archaeol. Survey Research Series 44, 1994).

²⁰ H. Snelling, *Human Osteology Calculations, Excel Package* (2001).

Gully terminus 5 (57)

This produced almost two thirds of a complete infant skeleton, with many limb bones intact, an almost complete skull with ribs, pelvis, some vertebrae and either metacarpals or metatarsals. Analysis of the lengths of the intact limb bones gives estimates of the infant's age ranging from 37 to 42 weeks with a mean of 40 weeks.²¹ The individual reached full term and may have been still born or died within a few days of the birth.

Ditch 103 slot 4 (56)

This produced only one infant bone, a left distal humerus shaft, broken at the midshaft. It is comparable with the size of the humeri (both present) recovered from context 56, giving a similar estimation of age at c. 40 weeks.

Discussion

Disposal of perinatal infants seems not to have followed the common patterns of adults. Cemetery excavations at Frilford, Oxon²² did not include infants and neither did the sample excavated at Queensford Mill, Dorchester-upon-Thames, Oxon.²³ Finds of infant burials in or associated with structures are common²⁴ and although some have been identified as 'shrines' or ritual places, many are simply domestic structures such as those at Winnall Down, Hampshire. Disposal in domestic structures may also be interpreted in some cases as foundation deposits, certainly the disposal of four infants (two decapitated) in the internal corners of a ritual structure in Springhead, Kent²⁵ would seem to be an example. However, they may also just represent the normal practice for disposal of infants too young to be regarded as requiring full burial. This may be the case here.

CHARRED PLANT REMAINS by MARK ROBINSON

Samples were floated from the Iron Age and Roman contexts onto a 0.25 mm. mesh to recover charred plant remains which were identified and the results listed in Table 4. Iron Age pit 3 contained cereal grain and chaff, arable weed seeds and a little charcoal of *Quercus* sp. (oak). Two cereals were identified: *Triticum spelta* (spelt wheat) and *Hordeum* sp. – hulled (hulled barley). The most numerous weed seeds were from *Galium aparine* (goosegrass), which is characteristic of autumn-sown crops. Five samples from the Roman ditches likewise contained remains of spelt wheat and hulled barley, arable weed seeds and some charcoal, including oak. The remains probably represented debris from the processing of cereal crops along with wood charcoal from the fuel used on a domestic hearth. These results suggest that the Jurassic geology of the Cowley area had a similar agricultural economy to that shown by Jones²⁶ for the gravel terraces of the Upper Thames Valley in the Iron Age and Roman periods.

²¹ J.L. Scheuer, J.H. Musgrave and S.P. Evans, 'The estimation of late fetal and perinatal age from limb bone length by linear and logarithmic regression', *Annals of Human Biology*, 7/3 (1980), 257–65.

²² P. H. W. Bristow, *Attitudes to the Disposal of the Dead in Southern Britain, 3500BC-43AD* (BAR 274, 1998)

²³ D.J. Watts, 'Infant burials and Romano-British Christianity' (*Archaeol. Jnl.* 146, 1989), 372–83.

²⁴ G.A. Wait, *Ritual and Religion in Iron Age Britain* (BAR 149, 1985).

²⁵ R. Whimster, *Burial practices in Iron Age Britain* (BAR 90, 1981).

²⁶ M.K. Jones, 'The Plant Remains', in M. Parrington, *The Excavation of an Iron Age settlement, Bronze Age Ring-ditches and Roman Features at Ashville Trading Estate, Abingdon, Oxon, 1974-76* (CBA Research Report 28, 1978), 93–110.

TABLE 4: CHARRED PLANT REMAINS

Phase		MIA	MIA	MIA/ ERom?	ERom	LRom	LRom
Feature		3	22	23	5	13	26
Context		54	79	80	57	67	55
Sample		5	4	3	1	2	6
Sample Volume (litres)		45	15	45	45	45	45
CEREAL GRAIN							
<i>Triticum spelta</i>	spelt wheat	1	-	-	-	-	-
<i>T. dicoccum</i> or <i>spelta</i>	emmer or spelt wheat	1	-	2	4	-	1
<i>Hordeum vulgare</i> - hulled	six-row hulled barley	-	-	-	-	1	-
<i>Hordeum</i> sp. - hulled	hulled barley	3	-	1	4	-	1
Cereal indet.		4	-	6	26	-	1
CEREAL CHAFF							
<i>Triticum spelta</i>	spelt wheat	3	-	-	-	-	-
<i>T. dicoccum</i> or <i>spelta</i>	emmer or spelt wheat	-	-	-	2	-	-
WEED SEEDS							
<i>Montia fontana</i>	blinks	-	-	-	1	-	-
<i>Atriplex</i> sp.	orache	1	-	-	-	-	-
<i>Fallopia convolvulus</i>	black bindweed	-	-	-	1	-	-
<i>Galium aparine</i>	goosegrass	4	-	-	-	-	-
<i>Carex</i> sp.	sedge	2	-	-	-	-	-
<i>Bromus</i> cf. <i>secalinus</i>	brome grass	1	-	1	1	-	-
Gramineae indet.	grass	-	-	-	1	-	-
weed indet.		2	1	-	1	-	-
CHARCOAL							
Pomoideae indet.	hawthorn, apple etc	-	-	+	-	-	-
<i>Quercus</i> sp.	oak	+	-	+	+	+	++

METALWORK by JENNIFER LOWE

Two objects of copper alloy and 26 of iron were recovered. All were from ditch 100, except the copper alloy fragments and a single iron nail, from ditch 103. A full catalogue is in the site archive.

Copper Alloy objects

Two fragments (from ditch 103 slot 13) are most likely part of the same copper alloy pin or possibly a sewing needle. Similar objects have been retrieved from Caldecotte²⁷ and Bancroft, Milton Keynes.²⁸

²⁷ R.J. Zeepvat, J.S. Roberts and N.A. King, *Caldecotte, Milton Keynes, Excavation and Fieldwork 1966-91* (Buckinghamshire Archaeol. Soc. Monograph 9, 1994).

²⁸ R.J. Williams and R.J. Zeepvat, *Bancroft: A late Bronze Age/Iron Age Settlement Roman Villa and Temple Mausoleum 2* (Buckinghamshire Archaeol. Soc. Monograph 7, 1994).

Iron Objects

Of the remaining 26 objects, 20 are nails of varying size and condition. Of note is a chain retrieved from slot 26. This consists of three simple oval links still intact and a fourth now broken. This was one of the more common forms of Roman chain.²⁹ An incomplete knife, or perhaps more likely, one of a pair of shears was retrieved from slot 10. The blade is incomplete but the handle and part of the wide spring are present. A similar example is known from Baldock.³⁰ A second blade was also retrieved from slot 10, its tang broken but present in the same context.

ROMAN COIN by FIONA SEELEY

From ditch 100 (slot 26), AE2 of Magnentius, AD 350–3. There is an A to the left of the obverse portrait, possibly a denomination mark. REV: two victories holding a shield inscribed VOT V MVL. The lower part of the coin is damaged so no mint mark can be read. The surviving legend reads ----RIAEDDN--VGETCAE.

OTHER FINDS

A small assemblage of fragmented tile, amongst which only roof tiles (*tegulae* and *imbrices*) are identifiable, was recovered mostly from ditch 100 but with additional pieces from ditches 103 and 104. Three fragments of burnt clay (14 g.) were recovered from gully 5. Five fragments of oyster shell (70 g.) and seven fragments (248 g.) of iron slag came from ditch 103.

ACKNOWLEDGEMENTS

The archaeological works were funded throughout by Oxfordshire County Council and commissioned by Ms Gail Wilkins of WS Atkins. Andy Taylor supervised the evaluation, assisted by Andy Mundin. The author is indebted to Simon Cass and Sean Wallis for their assistance on site. Steve Ford and Steve Preston commented on the text in draft. The works were monitored by Mr Brian Durham on behalf of Oxford City Council.

²⁹ W. H. Manning, *Romano-British Iron Tools, Fittings and Weapons in the British Museum* (1985).

³⁰ I. Stead and V. Rigby, *Baldock. The Excavation of Roman and pre-Roman settlement 1968-72* (Britannia Monograph 7, 1986).