

# Early–middle Saxon settlement at The Millennium Country Park, Marston Moretaine

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with contributions by  
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## SUMMARY

*Archaeological investigations in advance of the creation of the Millennium Country Park at Marston Moretaine revealed extensive archaeological deposits in the vicinity of the Elstow Brook. Evidence for late Iron Age to early Roman occupation was encountered, but of particular interest were the artefact and ecofact assemblages recovered from the partial excavation of a c. 2.5ha early–middle Saxon settlement.*

## INTRODUCTION

Albion Archaeology was commissioned by the Marston Vale Trust to undertake a programme of archaeological investigation prior to the construction of new reed beds and an access road at the Millennium Country Park at Marston Moretaine, Bedfordshire. The investigation area was located to the east of the village (Fig. 1), immediately south-east of the Elstow Brook (Fig. 2), and was centred at (NGR) SP 9960 4110 on roughly flat land at a height of c. 40m OD. The superficial geology of the valley floor is characterised as non-calcareous gley soil overlying Oxford clay, with localised deposits of alluvium and river gravels associated with the Elstow Brook.

Archaeological evaluation in May and June 1998 identified a concentration of late prehistoric to medieval features in the western part of the investigation area, while the rest of the area was largely devoid of archaeological remains (Steadman and Edmondson 1998). Other than the furrows of relict field systems, archaeological features were discovered in six of the sixty-three trial trenches, defining a 3.6ha area of archaeological survival in the north-west corner of the park. The layout of the reed beds in this area was consequently redesigned, in order to preserve most of the archaeological remains in situ. This was not possible on the line of the access road, however, where a 260m long and <6m wide strip was excavated between June and August 1998 prior to construction works. A further 230m strip was excavated in October 1999 to accommodate a revision to the road layout.

The excavation archive can be found at Bedford Museum under Accession No. 1999/68.

The text in this report was substantially completed by 2009, and no systematic attempt has been made to update it.

## ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A moderate quantity of archaeological fieldwork has been undertaken in this part of the Marston Vale (Fig. 2). Immediately to the north of the investigation area is a large and complex crop-mark (HER 15321), which

aerial photographic analysis and trial trenching have shown to represent a series of six late Iron Age ditched enclosures (Albion Archaeology 2006). On the northern edge of Marston Moretaine, at Beancroft Road, another small, late Iron Age agricultural settlement has also been identified (HER 16140; Shotliff and Crick 1999). On the western edge of the village (HER17713) at least six timber structures have been found, as well as enclosure ditches, pits and a possible cremation burial. The remains date principally to the late Iron Age, with a small amount of early Roman material (Conner 2000).

Domesday Book records a settlement at Marston Moretaine (Morris 1977, 16.3 and 24.8), and a reference in the Aspley Guise charter indicates that the township of Marston was already in existence before AD969 (Fowler 1920). Excavations at Church End Lower School (HER16356), adjacent to the Church of St Mary (HER8106), found evidence for a Saxo-Norman hall and associated buildings (Edmondson and Steadman 2001). Approximately 250m north-west of the church, evidence has been found for early medieval settlement and subsequent arable cultivation (Crick 1999). The right to hold a market was granted to Sir John Morteyne in AD1324 (Page 1912, 311) and evidence for high medieval activity includes the church tower and three moated sites (HER 53, 54 and 8317). Excavations at the latter have confirmed the presence of one arm of a moat (Nicholson and Scaife 2000).

## THE ARCHAEOLOGICAL SEQUENCE

The restricted spatial view afforded by the trial trenching and the footprint of the access road can in no way form the basis for a detailed excavation report. However, it does provide a tantalising glimpse of the archaeological potential of the area. To present this most effectively, archaeological features have been grouped into three broad chronological phases, based principally on the artefactual evidence: late Iron Age and Roman occupation (Phase 1); early–middle Saxon settlement (Phase 2); and medieval and later field systems (Phase 3).

The contextual evidence has been organised into hierarchical units comprising Groups, indicated by a 'G' prefix, and Land-use areas (L). Groups typically comprise

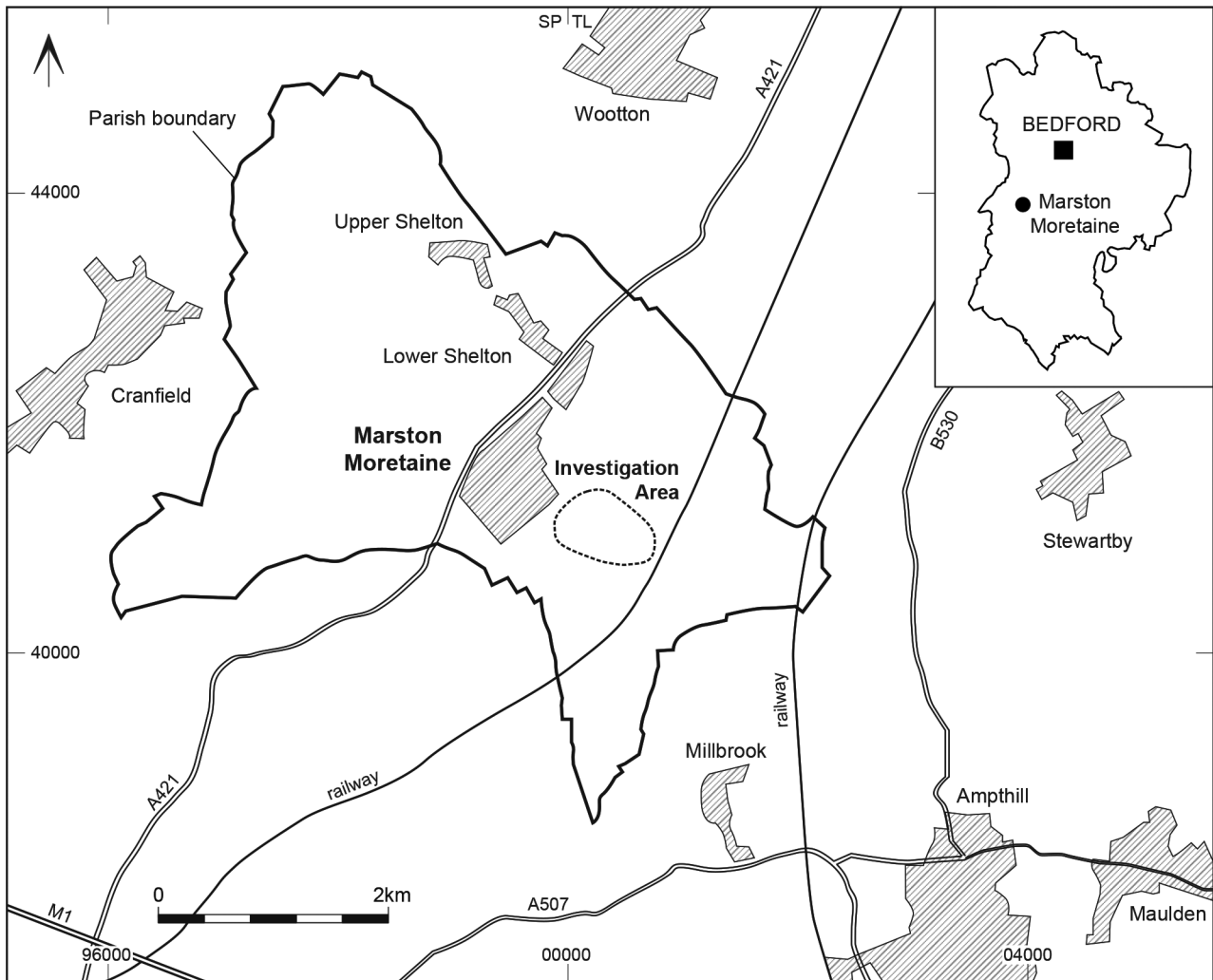


Figure 1: Site location

a length of ditch or a cluster of pits, and Land-use areas a collection of broadly contemporary and spatially coherent Groups.

Each phase is briefly outlined below, with a summary of its constituent land-use areas. Of more significance are the artefactual, environmental and faunal assemblages. The Phase 2 early–middle Saxon artefacts represent the largest site-assemblage recovered from the Marston Vale, and accordingly it is fully described and illustrated, whereas the artefacts from Phases 1 and 3 are presented in summary form. The results of the analysis of the significant early–middle Saxon environmental and faunal assemblages are also included.

#### PHASE 1: LATE IRON AGE AND ROMAN OCCUPATION

Two settlement foci were recorded that date to the late Iron Age or late Iron Age/early Roman transition (Fig. 2). The northern focus (Fig. 3) comprised a series of boundary and enclosure ditches (L7), while the southern focus (Fig. 4) was characterised by settlement evidence in the form of a roundhouse drip gully, pits, enclosures and a gravel surface (L8 and L9). More isolated features, generally pits and segments of ditches, were identified to the south-east (L10) and north-west (L11) of the road corridor.

#### *L7: settlement focus*

L7 comprised boundary and enclosure ditches, located towards the north-east end of the road corridor (Figs 3 and 5). The ditch systems are not contemporary and represent successive changes in layout (e.g. Fig. 3: a).

#### *L8: settlement focus*

Part of a roundhouse drip gully (G36), boundary ditches (G24, G34 and G44) and three pits (G32 and G40) were recorded in L8 (Fig. 4). They were all located towards the south-west end of the road corridor.

#### *L9: enclosure ditch and gravel surface*

L9 was located towards the south-west end of the road corridor (Fig. 4). A large ditch G97 may represent the northern corner of an enclosure; it was re-cut on two occasions, with episodes of silting in between. Remnants of a second ditch G98, intersecting with G97 and aligned north-west to south-east, were also revealed. The ditches produced late Iron Age pottery, whereas gravel surface G104 that sealed parts of the infilled ditches contained both late Iron Age and fully Romanised wares.

#### *L10 and L11: activity foci*

These features were located within evaluation trenches near the south-west end of the road corridor (Fig. 4). The

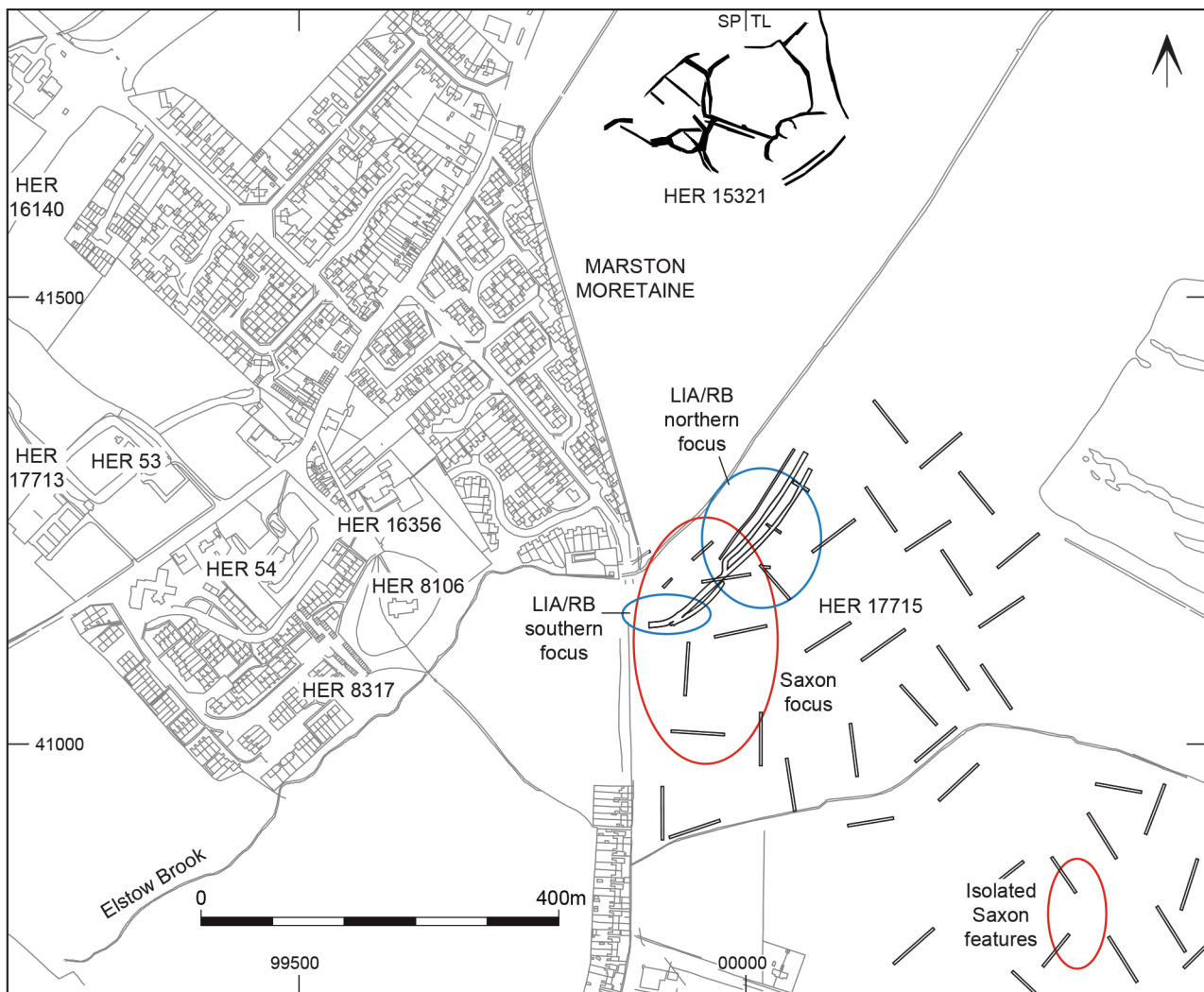


Figure 2: Plan of the excavated areas in relation to previously known archaeological sites

ones in L10 comprised a number of pits and ditches (G87 and G121), while L11 represents a single gully.

#### *Phase 1 artefactual evidence*

The restricted nature of the investigations has made it difficult to interpret the layout and sequence of the Phase 1 features, particularly those in L7. However, the ceramic assemblage does suggest domestic occupation. Pottery from Phase 1 deposits accounts for 42% of the total ceramic assemblage and comprises 408 sherds (5.5kg), representing 241 vessels.

The overwhelming majority (87% by weight) of the Phase 1 assemblage comprises pottery in the late 'Belgic' Iron Age tradition. The assemblage comprises locally produced vessels in predominantly grog- and/or sand- or shell-tempered fabrics. Diagnostic forms represent a standard range of domestic vessels, including storage, kitchen and table wares characteristic of the region (Thompson's Zones 7 and 8: 1982, 15–17). Most of the fully Romanised wares are represented by single vessels, with the exception of twenty-four grey-ware and six shell-tempered examples.

The majority of the assemblage (208 vessels) derives from settlement focus L7 and the gravel surface and associated ditches L9. A further thirty-three vessels were associated with L8, L10 and L11. Although the assemblage firmly dates the deposits in Phase 1 to the late Iron

Age and Roman periods, more refined dating is not possible. The most prolific Roman fabric types are not closely dated, their use spanning the 2nd and 3rd centuries. Only four sherds could be dated to the later Roman period, comprising Oxford Colour-coat (three sherds) and Nene Valley colour-coat wares. This could suggest that there was a break in occupation before the establishment of the early-middle Saxon settlement, although the restricted size of the excavation precludes certainty.

A limited range of non-ceramic artefacts were recovered from settlement focus L7. The assemblage comprises a small quantity of undiagnostic ferrous slag (46g) and vitrified clay (92g) and the partial remains of a Manning type 2 socketed axe, a type which could have been used for either felling trees or shaping timber (Manning 1985, 15–16). Although the presence of ferrous slag and an axe do suggest at least craft-level activity, the limited quantity of these items, added to the limited range of artefact types, does not suggest intensive activity. The paucity of the assemblage and the absence of personal and household items may well be the result of the restricted nature of the investigations and deposition patterns, rather than a true reflection of the nature of occupation.

**Socketed axe-head.** Iron. Incomplete. Only one edge of socket surviving, no lugs present on eye of socket. Blade narrow (width 60.4mm). Manning type 2? Length 168mm. RA23; G19; L7 (not illustrated).

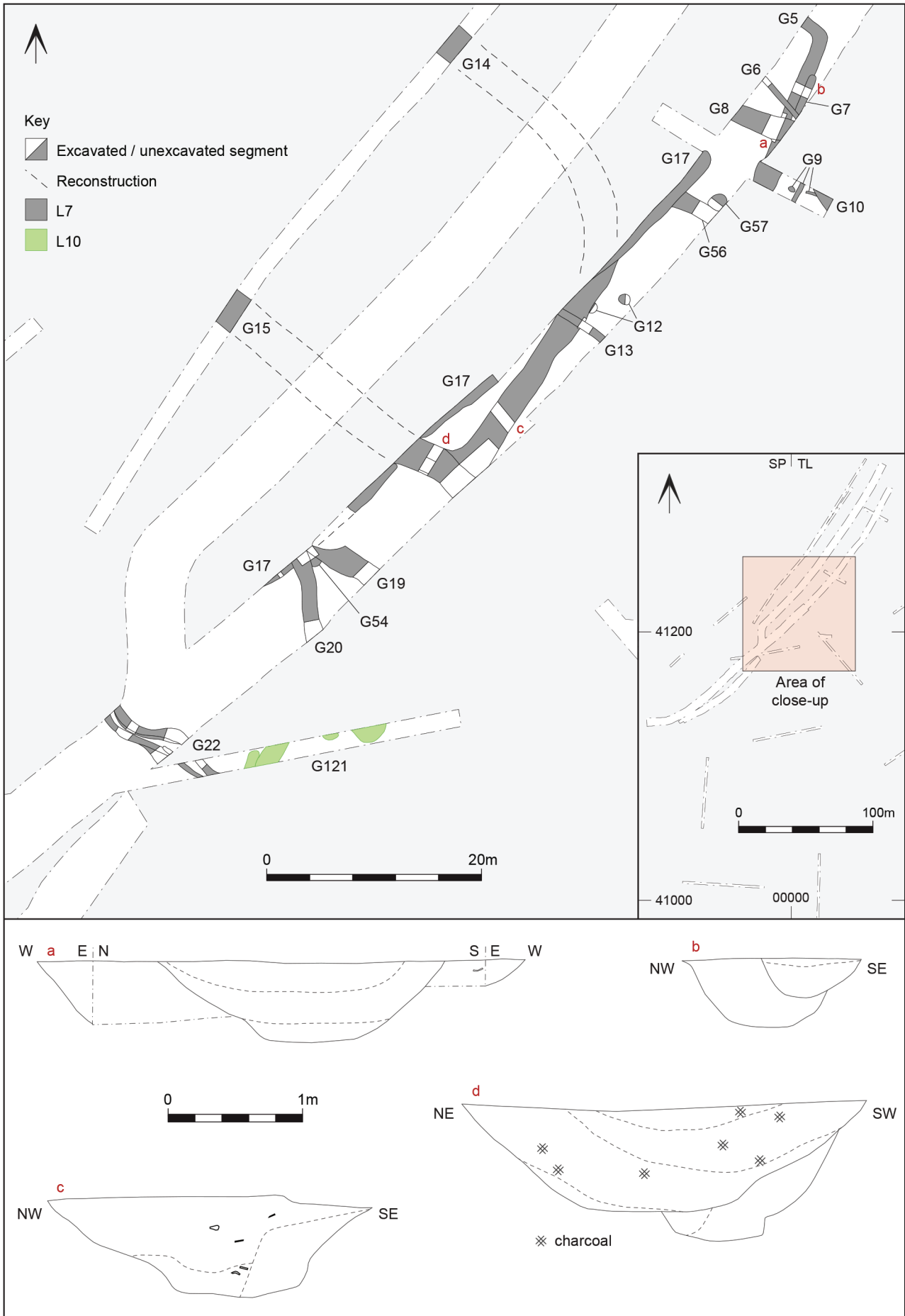


Figure 3: Plan of northern extent of Phase 1 activity, with selected section drawings

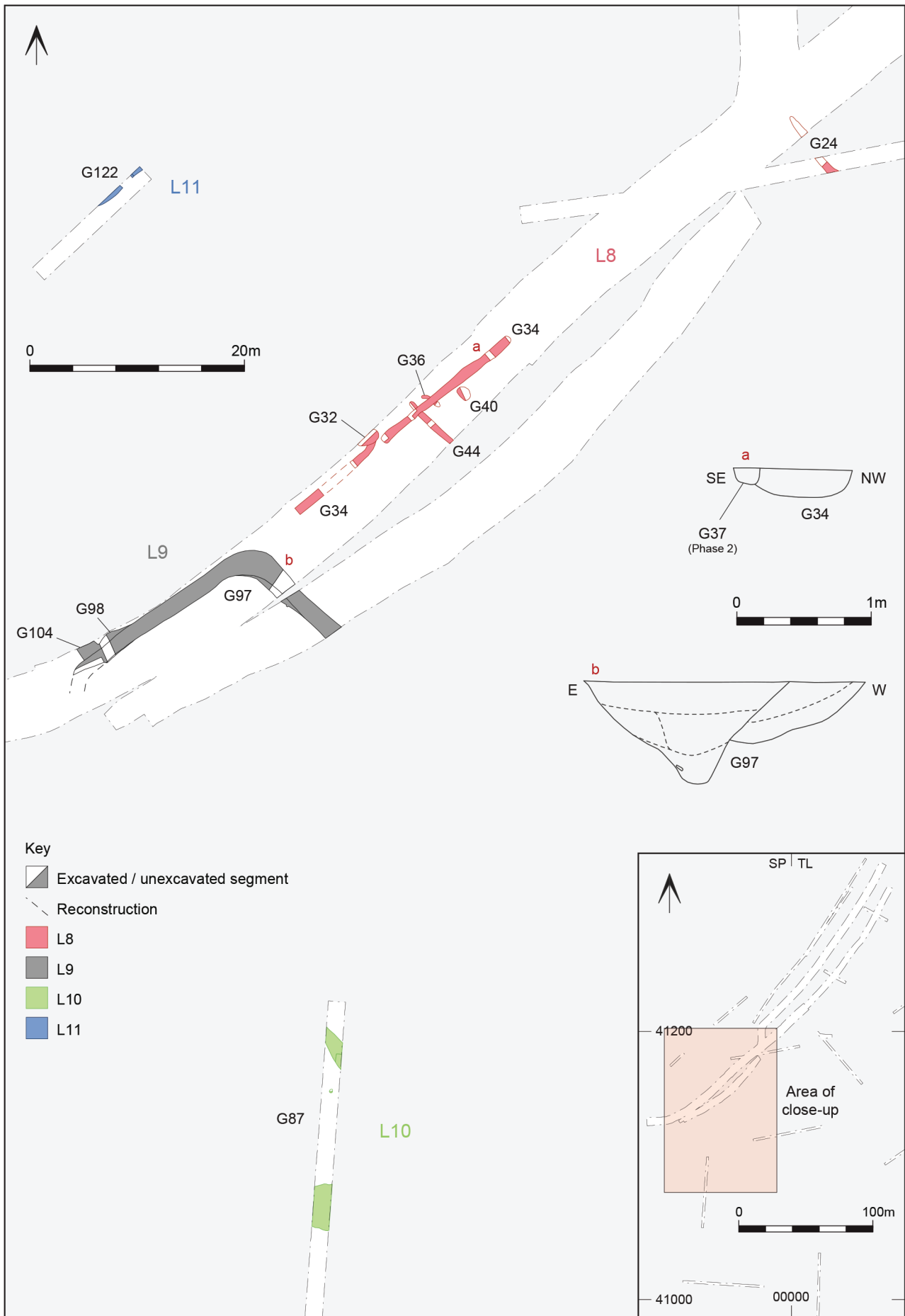


Figure 4: Plan of southern extent of Phase 1 activity, with selected section drawings

## PHASE 2: EARLY–MIDDLE SAXON SETTLEMENT

Evidence was revealed for a settlement covering an area of c. 2.5ha (Fig. 2). The two main foci within the excavation area comprised large groups of intercutting pits, close to the southern Iron Age / early Roman focus (L8). The pits, which did not penetrate the underlying gravel terrace, may have been dug to extract the clay subsoil. However, they were re-used for the disposal of rubbish and cess. A gravel surface was also recorded to the west of the main foci, on the limit of the excavation area, while further activity was located in trial trenches to the north and south.

*L1: north-eastern pit group G21 and associated features*  
G21 comprises a concentration of pits (Fig. 5). The high degree of intercutting is perhaps suggestive of quarrying, presumably of the clay subsoil. Individual pits were generally circular to oval in shape, with steep or

vertical sides and flattish bases, and ranged in size from c. 0.3m × 0.2m × 0.2m to c. 2.75m × 1.85m × 0.85m. The deeper pits bottomed out on the underlying gravel terrace.

The character of most of the lower fills suggests that they accumulated in water, or were at least subject to periodic waterlogging as ground water levels fluctuated. The upper fills tended to be darker, and in some cases had capping layers above or between darker fills (Fig. 5: a). Domestic waste, occasionally visible as distinct tips, had also been incorporated into these darker fills, suggesting a secondary function as rubbish pits or cesspits. In the stratigraphically later pits, these fills contained middle Saxon Maxey-type-ware pottery.

Three groups of post-holes (G18, G28 and G25) were associated with the pits. They may represent the remains of structures or fences that demarcated the area of pitting.

Four further pits G26 lay to the north-west of G21. They were not fully excavated, although surface fills

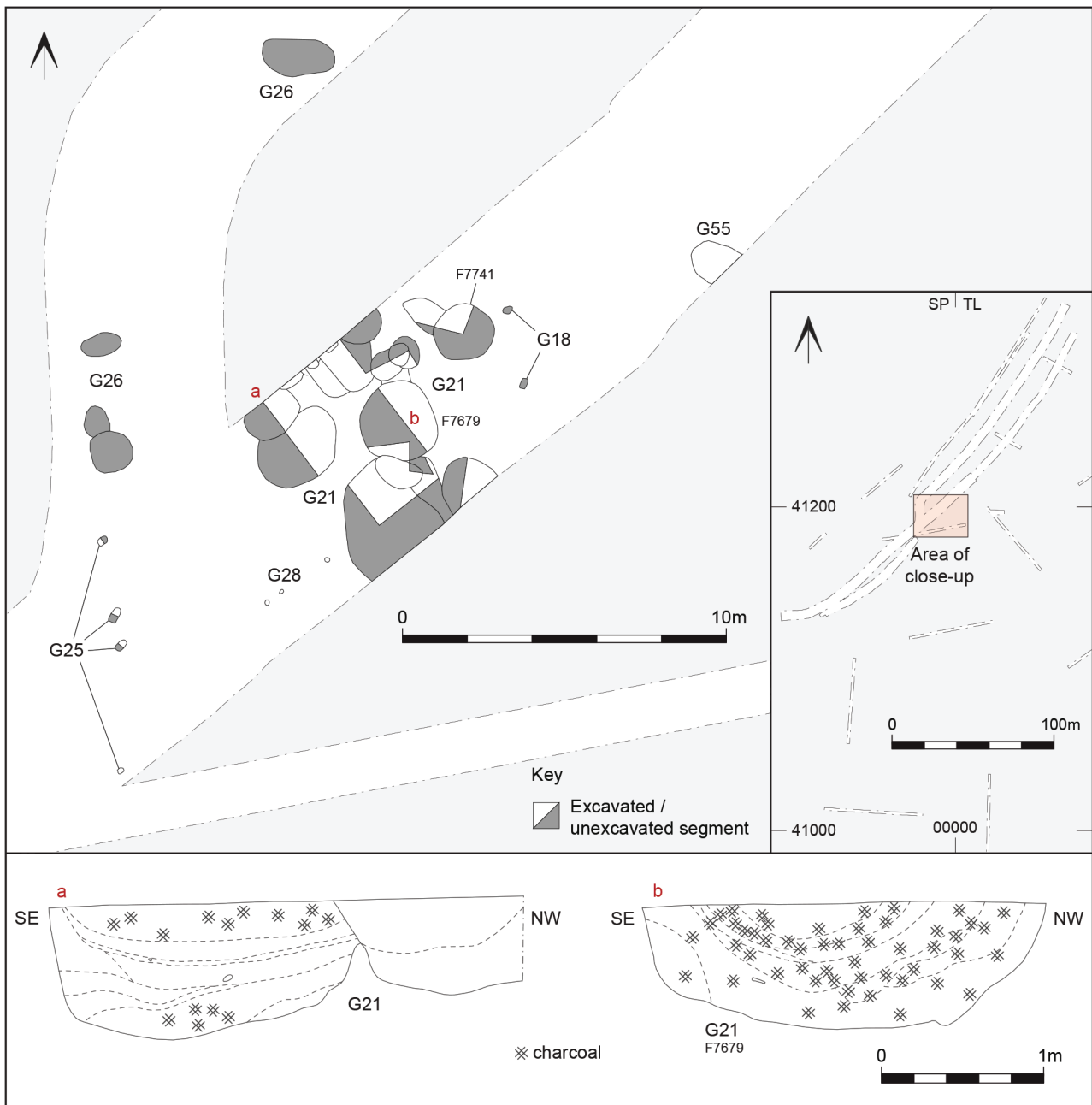


Figure 5: Plan of Phase 2 activity within Land-use area L1, with selected section drawings

produced Maxey-type wares. A shallow scoop G55, to the north-east of G21, featured *in situ* burning and may represent the remains of a hearth.

**L2: south-western pit group G30 and associated features**  
The individual pits in G30 were similar in form to those of pit group G21 (L1), although their intercutting was denser (Fig. 6). They were also slightly larger, ranging in size from c. 0.65m × 0.4m × 0.2m to c. 3.4m × 3.2m × 0.85m. Again, the deeper pits were dug to the top of the underlying terrace gravels. In some cases, the infilling sequence

was similar to that of pit group G21 (Fig. 7: b), perhaps indicating a similar use, although the absence of Maxey-type ware suggests that G30 may have been the earlier of the two pit groups.

Three further pits G31 lay to the south-west of pit group G30 (Fig. 6). Measuring c. 1m in diameter, their original function is unclear, although their final stage of use was for the disposal of domestic waste.

An undated fence line G29 to the north-east of pit group G30 may have been related, but the relationship between the two is uncertain. A large number of post-holes

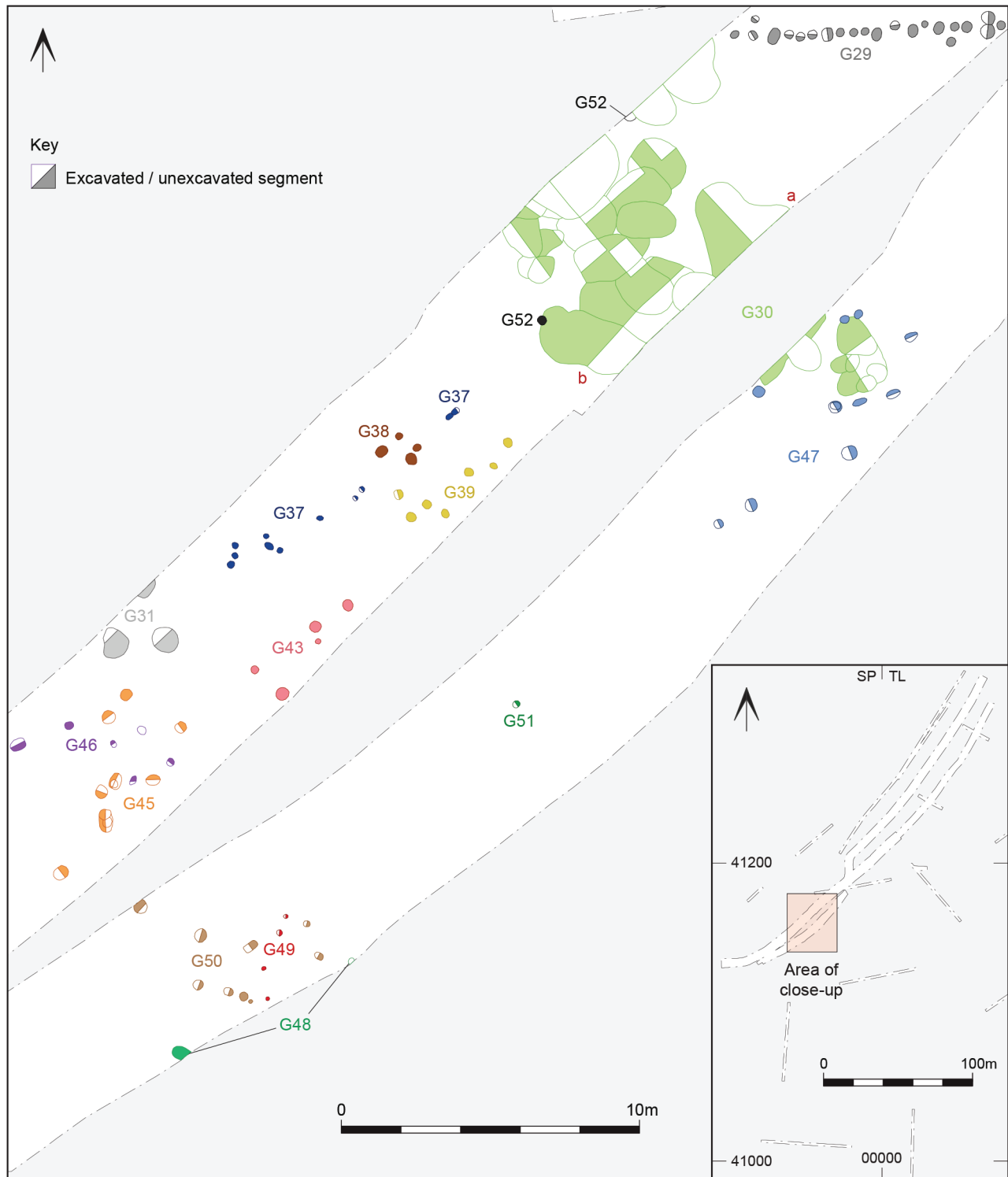


Figure 6: Plan of Phase 2 activity within Land-use area L2

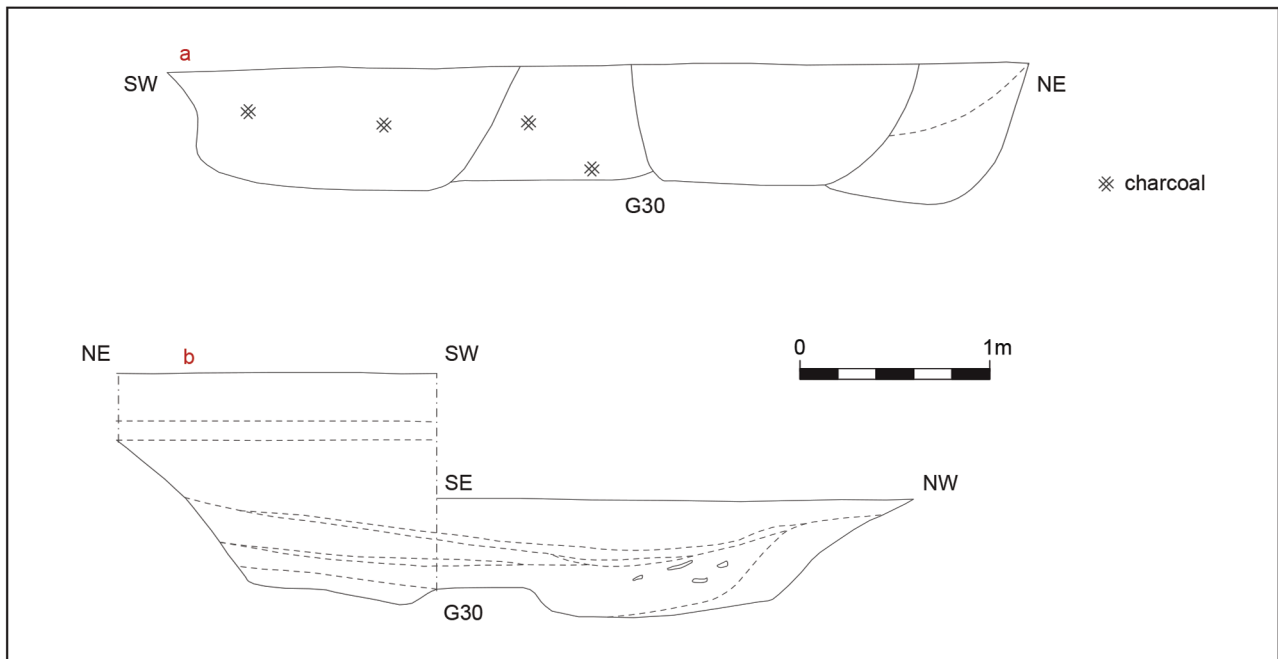


Figure 7: Selected section drawings from L2 (Fig. 6)

(G37–G39, G43, and G45–G52) were also recorded elsewhere, mainly to the south-west of pit group G30; these produced small quantities of Saxon pottery and may have formed part of the settlement, but it is unclear whether they represent the remains of buildings or fence lines, or a combination of both.

#### *L3: surface*

A gravel surface G105 of unknown function was located in immediate proximity to a re-cut boundary ditch and two post holes G106 (Fig. 8). It is unclear whether all these features were contemporary.

#### *L4: intercutting pits*

Two large, intercutting pits G107 were located on the site of the late Iron Age / early Roman settlement focus L7. They measured 2.9–3.3m long, 1.8–2.7m wide and 0.6m deep (Fig. 8; the stratigraphically earlier pit was the larger of the two). They lay some distance from the Saxon settlement and shared none of the characteristics of the features in pit groups L1 and L2, perhaps serving as watering holes for livestock.

#### *L5: activity to the north of the road corridor*

L5 comprised a number of intercutting pits within an evaluation trench (Fig. 8). They produced early–middle Saxon pottery, but no further interpretation is possible.

#### *L6: activity to the south of the road corridor*

L6 represents a wide spread of features located within evaluation trenches (Fig. 8). G86 comprised four pits and three post-holes, G119 two gullies, and G117 part of a ditch. These features could not be fully understood given the restricted extent of the trenches, but they do appear to have been associated with the early–middle Saxon settlement represented by L1–L5. In contrast, the pit, two post-holes and ditch recorded in evaluation trenches some 550m south-east of the main investigation area (Fig. 2) are likely to represent isolated activity away from the main settlement.

### PHASE 3: MEDIEVAL AND LATER FIELD SYSTEMS

An isolated spread of medieval pottery (L12) was found c. 670m south-east of the excavation area. It probably derives from manuring, related to a nearby settlement or farmstead such as Pillinge Farm c. 375 to the south-east. Scattered evidence of medieval ridge and furrow cultivation (L13) was uncovered over much of the investigation area. At least five different alignments were recorded, presumably reflecting previous land divisions. Highly abraded medieval pottery, again probably derived from manuring, was recovered from many of the furrows.

### POTTERY

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#### INTRODUCTION

The presence of late Iron Age / Roman and medieval artefacts provides further evidence for activity dating to these periods within Marston Moretaine. Of greater significance, however, is the presence of a sizeable 5th–9th-century ceramic assemblage, representing the largest concentration of Saxon material recovered from the locality.

A total of 842 sherds of pottery (11.3kg) were recovered, representing 577 pottery vessels. The assemblage was quantified by minimum vessel and sherd count, and weight. Details of pre- and post-Saxon vessels are contained in the archive. Saxon fabrics identified are listed in Appendix 1, using type codes and common names in accordance with the Bedfordshire Ceramic Type Series.

A representative sample of the Saxon assemblage has been illustrated (Fig. 9). Standard drawing conventions have been used: vessels are shown at one-quarter size, with the external view on the right, and a section and internal view on the left. All illustrated vessels are handmade, and are shown with hatched sections. The pie diagram at the base of each illustration indicates the



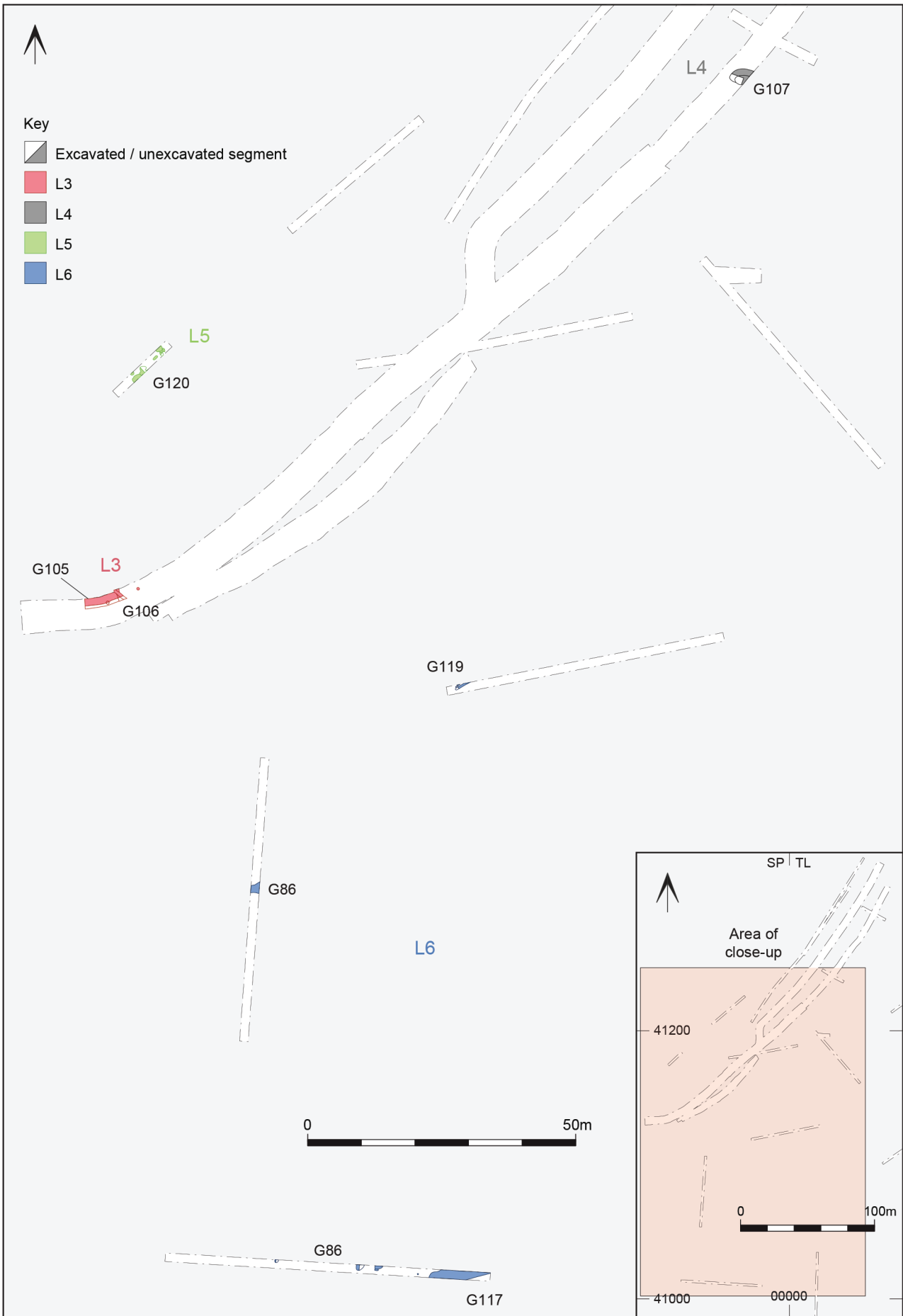


Figure 8: Plan of Phase 2 activity within L3, L4, L5 and L6

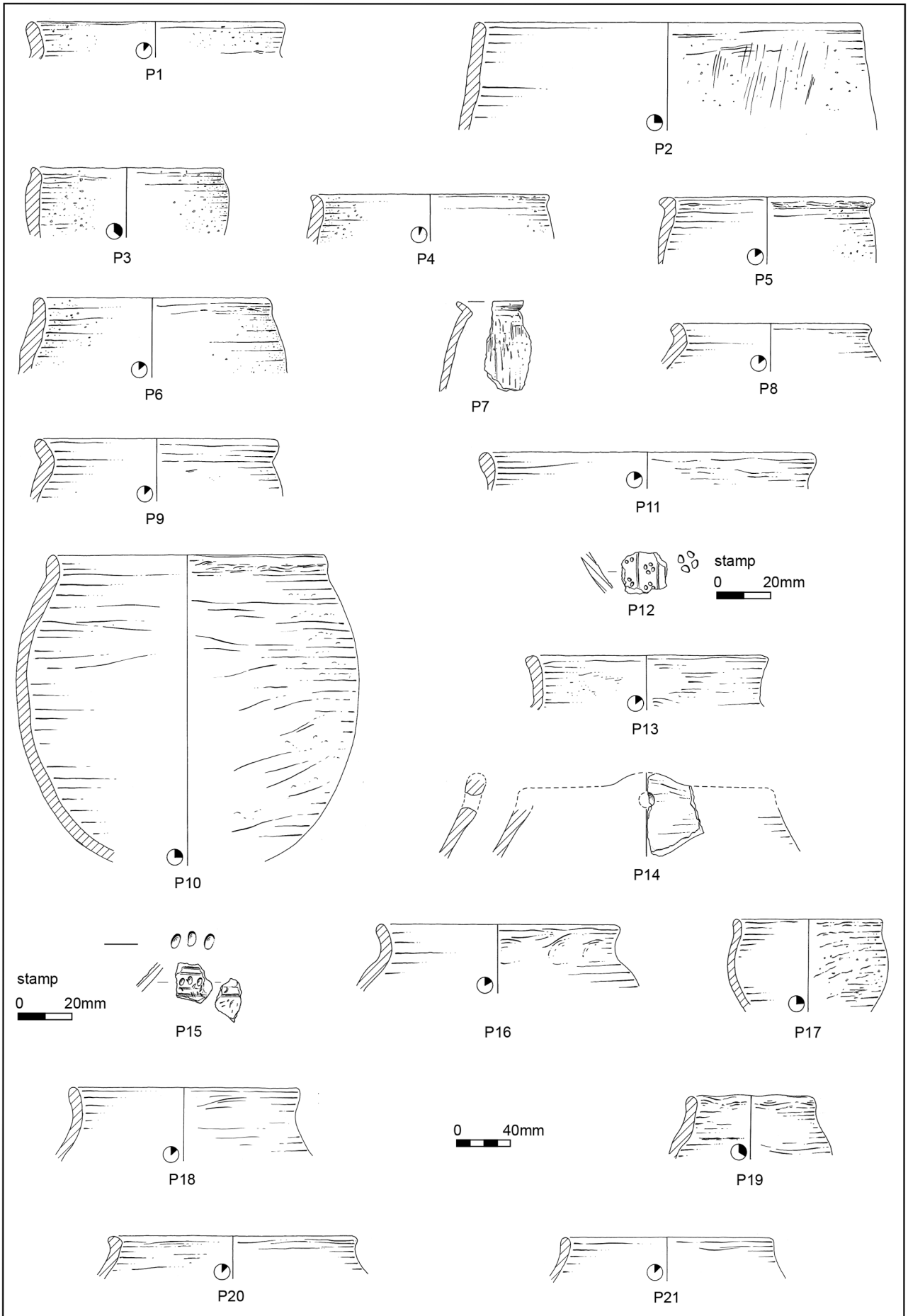


Figure 9: Pottery from Phase 2 early-middle Saxon settlement (all 1:4 except stamps on P12 and P15)

Illus. no.	Ware	Form	Common name	L	G
P1	A29	Jar	Sandstone and limestone	1	21
P2	A11	Jar	Maxey-type ware	1	21
P3	A11	Bowl	Maxey-type ware	1	21
P3	A11	Bowl	Maxey-type ware	1	21
P4	A11	Jar	Maxey-type ware	1	21
P5	A11	Jar	Maxey-type ware	1	21
P6	A11	Jar	Maxey-type ware	1	21
P7	A11	Jar	Maxey-type ware	1	21
P8	A18	Jar	Fine sand	1	21
P9	A18	Jar	Fine sand	1	21
P10	A16	Jar	Coarse sand	2	30
P11	A30	Jar	Sandstone and mica	2	30
P12	A16	Vessel	Coarse sand	2	30
P13	A16	Jar	Coarse sand	2	30
P14	A23	Jar	Sandstone	2	30
P15	A01	Vessel	Organic	3	105
P16	A32	Jar	Red quartz	4	11
P17	A32	Bowl	Red quartz	4	11
P18	A32	Jar	Red quartz	6	117
P19	A19	Jar	Organic and sand	6	117
P20	A16	Jar	Coarse sand	6	117
P21	A24	Jar	Oolitic	6	117

Table 1: Illustrated pottery

proportion of the vessel recovered. Illustrated vessels are catalogued in Table 1.

#### PHASE 2 (52% OF TOTAL ASSEMBLAGE)

##### *Quantification, fabric and form*

The majority of the assemblage (199 vessels) comprises plain ‘domestic’ wares broadly datable to the early–middle Saxon period, *c.* AD450–850. The remainder comprises thirty-two vessels of chronologically distinct middle Saxon Maxey-type ware of *c.* AD650–850.

The fabric types identified are largely consistent with those known from contemporary sites throughout the county, such as Meadway, Harrold (Shepherd *et al.* 2012), Village Farm, Elstow (Luke and Barker in prep.), Stratton, near Biggleswade (Wells in prep.), and Honey Hill Farm, Biddenham (Wells 2016). Local origin and manufacture are likely, although no sources have,

as yet, been identified. Vessels are predominantly sand-tempered, hard-fired, handmade, and in almost all cases entirely reduced. The presence of a quartz-tempered fabric (type A32) is noteworthy: thin-section analysis identified this fabric as containing red quartz as its diagnostic inclusion (Knowles 1999). As there are no detailed geological memoirs for the area around Marston Moretaine, it is uncertain whether this fabric is from a local source. The assemblage also contains a relatively high proportion of shell-tempered Maxey-type ware, suggesting continued activity into perhaps the 9th century.

Although the surfaces of most examples are untreated apart from simple hand-wiping, approximately 15% of the assemblage bears some form of decoration (Table 2). The dual decorative and functional purpose of burnishing may, in part, explain the apparent prevalence of this attribute, which occurs across a range of coarse and fine fabrics. Two stamped sherds from undiagnostic vessels were recorded. One (Fig. 9: P12) bears a stamped and incised motif broadly comparable with vessels from Luton, Bedfordshire (Myres 1977, vol. 2 fig. 99/2941) and Lackford, Suffolk (Myres 1977, vol. 2 fig. 109/924) (see also Wavendon Gate: Blinkhorn 1996, 199 and fig. 116/15), dated to the 6th century. The second (Fig. 9: P15) bears stamped, plain ovals and an incised linear design similar to a vessel from Mucking, Essex (Hamerow 1993, fig. 98/13).

Diagnostic forms constitute 23% of the assemblage, comprising jars and bowls with either upright, everted, or inturred rims (twenty-two, thirteen and five vessels respectively), and an upright-rimmed vessel with a pierced lug (Fig. 9: P14). Bases are represented by a single flat-angled example.

Recognisable forms are indicative of a domestic assemblage, comprising tableware and cooking pots. Use of the latter for this purpose is indicated by the presence of sooting on the exterior of several vessels. A number of sherds bear traces of thick internal black residues, probably resulting from accidental burning of the vessels’ contents. Wear marks were noted on the rim interior of a single vessel, possibly resulting from prolonged stirring or scraping (Table 3).

Attribute	Fabric type						Total
	A01	A16	A18	A19	A26	A30	
Burnished (incl. interior & exterior)	2	9	15	5	1	1	33
Incised horizontal grooves				1			1
Incised vertical grooves		1					1
Stamped	1	1					2
Deliberate oxidisation		5	2	1			8
<b>Total</b>	<b>3</b>	<b>16</b>	<b>17</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>45</b>

Table 2: Decorative Attributes

Attribute Description	Fabric type							Total
	A11	A16	A18	A19	A23	A29	A32	
Overfired (brittle, cracking)		2						2
Internal black residue	2	8	5	3			2	20
Sooting/burning on breaks	2							2
Sooted exterior & interior (body sherd only)	3	3				1		7
Sooted exterior (body sherd only)	1	3	1	1	1			7
Sooted interior (body sherd only)	8	4			1		1	14
Wear mark (rim interior)		1						1
<b>Total</b>	<b>16</b>	<b>20</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>53</b>

Table 3: Functional Attributes

L	1			2								3				4	5	6		Total		
	G	21	26	55	30	31	37	38	43	45	47	50	52	102	105	106	107	11	120		86	117
Fabric																						
F03							1								2							3
F05											1											1
F06		1					1											4				6
F07															3	3		3				9
F09		2												1	2			4			1	10
R03C																					1	1
R06		2		1	5	1									6		1	7	1			24
R05A															1							1
R13					1										3						2	6
R14					1																	1
R12B					1																	1
R11D		1																				1
A01															1	1					1	3
A05																						2
A16		12		1	40			1							1	3		5	1	2	8	74
A18		14			14				1						2	1		3	3	1	14	55
A19		3		1	15	2										1		1	2		9	34
A23		2			5					1									1		3	12
A24		1																			5	6
A26					1																	1
A29		1																				1
A30					1																	1
A32				1	1					1					1			5			1	10
A11		31	1																			32
<b>Total</b>	<b>70</b>	<b>1</b>	<b>4</b>	<b>85</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>22</b>	<b>9</b>	<b>1</b>	<b>32</b>	<b>8</b>	<b>4</b>	<b>46</b>	<b>295</b>

Table 4: Distribution of Phase 2 pottery by fabric type and Land-use area

Firing faults are rare. Only two vessels (type A16) are brittle and distorted due to overfiring, and there is no evidence of spalling or patchy/variegated surfaces, suggesting well controlled firing conditions. None of the vessels show evidence of repair, which may indicate a readily available supply of new material.

#### Distribution

The composition of the Saxon assemblage suggests some degree of post-depositional disturbance, attested by the incidence of abrasion, residuality, vessel:sherd ratio (1:3) and average sherd weight (14g). The latter is directly comparable with other contemporary sites in the region, such as Pennyland, Buckinghamshire (Blinkhorn 1993, 247). Residual vessels comprise 22% of the Phase 2 assemblage. The majority date to the early Roman period, and most occurred within gravel surface L3 and the fills of two intercutting pits L4 (Table 4), located within an area that had previously been used in the late Iron Age / early Roman period.

#### Pit groups

Pottery deriving from the disuse fills of various rubbish and/or quarry pits constitutes 70% of the Phase 2 assemblage. Significant among these features were the two large groups of intercutting pits in L1 and L2, which yielded seventy vessels (1.5kg) and eighty-five vessels (2.1kg) respectively (Fig. 11). The occurrence of Maxey-type ware in the north-eastern pit group G21 and the associated features of L1 may suggest a chronological distinction between this land-use area and the rest of the settlement (see Table 4).

#### Structures

The association of pottery with structural features is poorly evidenced, accounting for only 4% of the assemblage. Putative post-built structures and/or post-hole alignments within L2 yielded sherds from nine vessels,

weighing 88g. All vessels are of sand-tempered, early-middle Saxon date. It is unclear whether this material relates to the use or disuse of each structure.

#### Boundaries and associated features

The boundary ditches within L3 and L6 accounted for 26% of the Phase 2 material. The L3 assemblage is small (total weight 65g), with a low average sherd weight (7g) and vessel:sherd ratio of 1:1. This is consistent with the gradual accumulation of material through the natural silting of the features. In contrast, the more robust nature of the vessels from L6 (average sherd weight 10g; vessel:sherd ratio 1:3) may suggest the deliberate deposition of refuse material.

The gravel surface associated with the boundary ditches of L3 yielded sherds from twenty-two vessels. Most of these are residual, and are likely to derive from underlying features of pre-Saxon date.

#### PHASE 3 (6% OF TOTAL ASSEMBLAGE)

Post-Saxon pottery has a fairly restricted distribution, associated with field system L12 at the eastern end of the investigation area, and with furrows L13. Forty sherds weighing 173g were recovered, representing thirty-five small and abraded vessels. The majority of the assemblage dates to the 12th–13th century and comprises shell-tempered vessels of developed St Neots-type, Hertfordshire-type grey wares, and locally manufactured sand-tempered fabrics. Diagnostic forms are limited to jars with everted rims. Later medieval wares comprise regional imports of Brill/Boarstall-type and Potterspury ware from Buckinghamshire and Northamptonshire respectively, and a small number of locally manufactured vessels of the East Midlands reduced-ware tradition, dating from the 14th–15th centuries.

**DAUB AND FIRED CLAY**

J. Wells

A small quantity of daub and fired clay (623g) was recovered from Phase 2 features. The majority (382g) derives from the pits within L1, while negligible quantities were redeposited in the pits within L2, the two large intercutting pits in L4, and the re-cut ditch within L3. Eight shaped pieces of fired clay from the pits within L2 and the two large intercutting pits of L5 may represent degraded fragments of loom weights.

**NON-CERAMIC ARTEFACTS**

J. Wells

## INTRODUCTION

Thirty-five non-ceramic artefacts were recovered, with over half (nineteen) comprising residual worked flint. Bulk finds comprise 106.9g of vitrified clay and 279.3g of ferrous slag. Ten objects (nine iron and one copper alloy) were submitted for assessment to the conservator, Adrian Tribe (Institute of Archaeology, University College London). The artefacts were assessed by visual examination and x-radiography; the x-ray plates form part of the site archive. Unstratified finds deriving from the ploughsoil are not discussed, nor are those artefacts whose date range places them outside the scope of this study. Full details of these objects are contained in the site archive.

## PHASE 2

Saxon features yielded a greater quantity and range of finds than those in Phase 1 (Table 5). The vast majority of this material derived from the fills of features in L1, in particular pit group G21.

Unlike the ceramic assemblage from G21, which occurred in the fills of most of the intercutting pits, the non-ceramic assemblage was concentrated in the fills of only two pits (F7679 and F7741). The final fill of pit F7741 produced a small quantity of vitrified clay, indicative of a high-temperature fire but not necessarily craft-related, and a simple, cast disc brooch (Fig. 11: RA13). This class of brooch is a long-lived one, with a large number of examples datable to the 5th century, continuing in use in the 6th century (MacGregor and Bolick 1993, 65). The

brooch was found in association with a sherd of middle Saxon Maxey-type ware (c. AD650–850), suggesting that it was either a curated item or residual.

The assemblage from the fills of pit F7679 is larger and more wide-ranging in function. The lower fill yielded an iron spearhead of Swanton's type C1 — small leaf-shaped spearheads with blades longer than the sockets (Swanton 1974, 8–10). Swanton places this form in the 5th–mid-6th centuries but Dickinson argues that the overwhelming majority date to the 7th century (Dickinson 1976, 297–8; Geake 1997, 68). The assemblage from the middle fills of the pit would appear to corroborate this later date: they contained a loom weight of Dunning *et al.*'s intermediate type (Fig. 11: RA17), thought to date to the 7th–8th centuries (Dunning *et al.* 1959, 23–4). The handled antler comb (Fig. 10: RA10) is also of middle to late Saxon date (*cf.* Rogers 1993, 1388–94) and, in common with many combs of this type, is only decorated on one side. The iron oval buckle frame has inlaid decoration in the form of crosses and upright strokes (Fig. 11: RA19). Hines has commented that inlay technique on buckles with oval loops flourished around the beginning of the 7th century (Hines 1998, 214). A well used primary whetstone, with sharpening grooves, was also found within the middle fills (Fig. 11: RA4). The final fills of F7679 contained a fibre (wool or flax)-processing spike. Similar items have been recovered from middle to late Saxon contexts at Fishergate (Rogers 1993, 1266 fig. 625 nos 4967 and 4975).

The assemblage of non-ceramic artefacts from G21 (Table 5), in addition to providing a complementary date range to the middle Saxon Maxey-type ware, also provides an insight into the range of activities carried out within the settlement and, to a lesser extent, its socio-economic basis. Textile production is attested by the clay loom weight, and the iron fibre-processing spike is confirmation of the processing of either flax or wool. The bone offcut suggests small-scale working of this material, and it is possible that the handled comb may have been manufactured within the settlement. The brooch and buckle with inlaid decoration are unlikely to have been manufactured on site, however, and indicate a degree of contact with an external market.

A very limited number of non-ceramic artefacts were found within the remaining Phase 2 land-use areas (Table 5). A sawn antler beam suggests that further small-scale production of antler and bone objects was occurring in L3. The presence of redeposited ferrous slag from features in L3, L5 and L6 indicates at least small-scale

Object	L1: G21		L2: G30	L3: G105	L3: G106	L5: G120	L6: G86
	SG 74–77	SG94–97					
Spearhead	1						
Comb	1						
Brooch		1					
Buckle	1						
Bone and antler off-cut/ waste	1				1		
Fibre processing spike	1						
Loom weight	1						
Whetstone	1						
Fragment (iron)	1		1				
<b>Object total</b>	<b>8</b>	<b>1</b>	<b>1</b>		<b>1</b>		
Vitrified clay		9g					
Ferrous slag				82g		73g	49

Table 5: Other artefacts from Phase 2 deposits

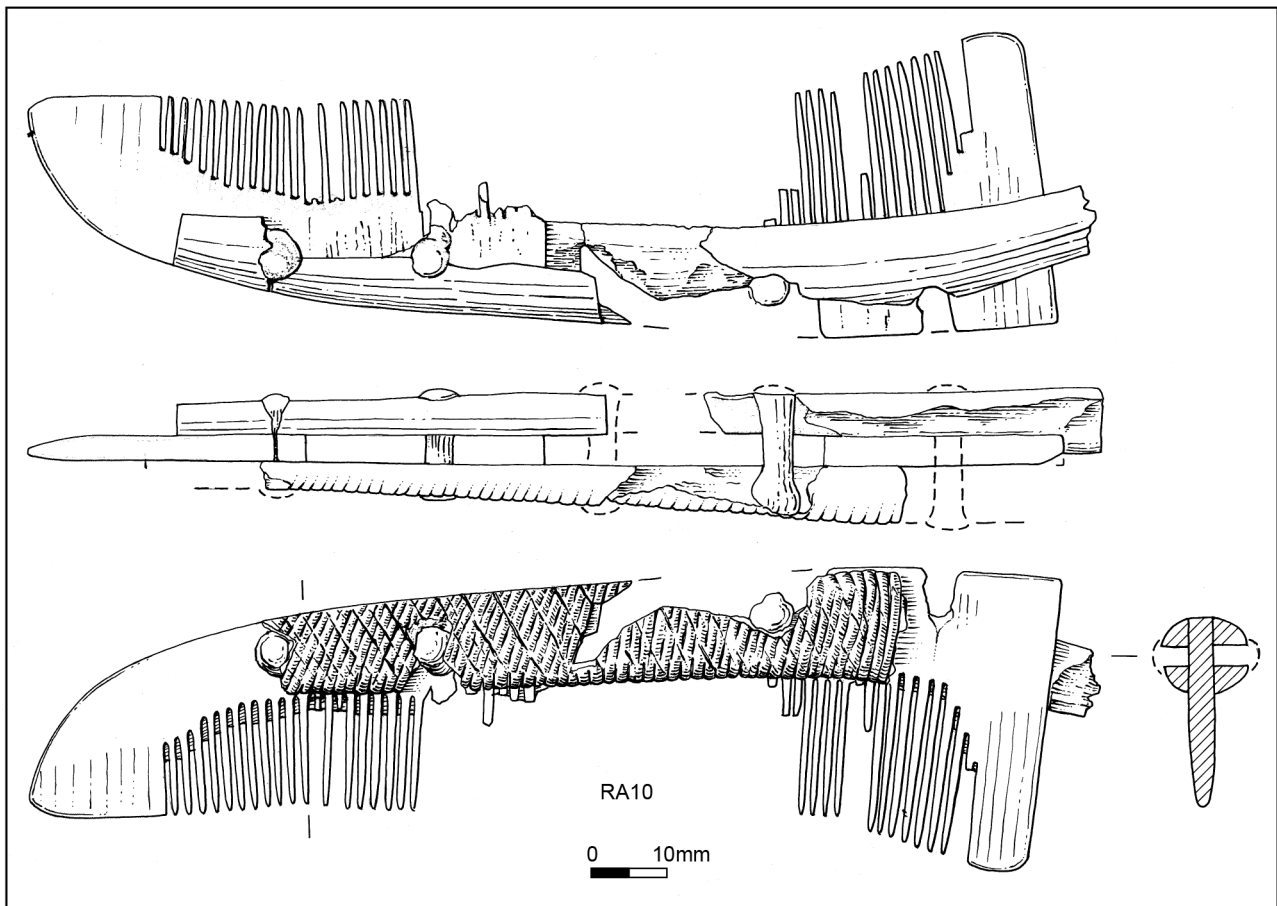


Figure 10: Antler comb RA10 (1:1)

smithing activity, the small quantities possibly suggesting repairs to tools rather than actual fabrication of iron objects.

**Brooch.** Copper alloy. Three fragments of simple disc cast with an integral hinge and catch on the reverse. In poor condition — decoration mainly revealed by x-ray. Double ring and dot (perforation) close to centre with three similar motifs spaced around (possibly a fourth obscured by hinge on x-ray). Diameter 35.2mm (originally probably 36mm). RA13; F7741; G21; L1. Fig. 11.

**Spearhead.** Iron. Socketed spearhead with leaf-shaped blade (Swanton type C1). Length 194mm; socket length 75mm; blade length 119mm; blade width c. 28mm. RA1; F7679; G21; L1. Not illustrated.

**Loom weight.** Ceramic. Approximately half of an intermediate loom weight in hard-fired, reduced fabric type A29 (sandstone and limestone). Finger-smoothed/wiped perforation. Height 40mm; width 40mm; weight 171g. RA17; F7679; G21; L1. Fig. 11.

**Comb.** Antler. Fragments of handled composite comb comprising remains of four tooth plates (eight teeth per 10mm) and iron rivets, three of which survive *in situ*. Connecting plates are D-shaped in section. Decoration occurs on one side only, decorative elements comprising bands of incised, closely set transverse and diagonal lines. Teeth are graduated in length at both ends. Fragments of a further ten teeth survive separately. A portion of the curving end plate also survives. Reconstructed length 141.5mm. RA10; F7679; G21; L1. Fig. 10.

**Buckle.** Iron. Three joining pieces in poor condition (dimensions taken from x-ray). Oval frame with intact looped-over pin. A series of ten Xs separated by upright strokes inlaid with white metal plating decorate the outside edge of the frame, five Xs occurring either side of the pin 'rest'. There are also traces of white metal plating and hints of possible further inlaid Xs on the pin itself. Extensively mineralised. Length 26mm; width 47mm. RA19; F7679; G21; L1. Fig. 11.

**Whetstone.** Fine-grained micaceous sandstone. Primary hone, sub-rectangular with heavily dished edges and faces, and a pair of deep parallel sharpening grooves in one surface. One end damaged, the opposing end sawn off, and worn smooth. Length 102mm; max width 66.4mm; thickness 51.2mm. RA4; F7679; G21; L1. Fig. 11.

**Fibre-processing spike.** Iron. Complete. Tapering, sub-rounded shank and plain, slightly bearded head. Length 103.9mm. RA3; F7679; G21; L1. Not illustrated.

**Offcut.** Bone (large mammal rib?). Sub-rectangular fragment, one edge sawn (opposing edge damaged) and one end sawn on the diagonal. Length 44mm; width 14mm; thickness 1.7mm. RA18; F7679; G21; L1. Not illustrated.

## CHARRED PLANT REMAINS

R. Pelling

### INTRODUCTION AND METHODOLOGY

Three samples from Phase 2 deposits were selected for further analysis (Table 6). The remaining samples contained only occasional cereal remains or were from unphased contexts. Samples 8 and 9 were from the middle fills of L1 pit F7679 in G21, while sample 5 derived from L6 boundary ditch G117.

The flots were sorted under a binocular microscope at magnification of  $\times 10$  to  $\times 20$ . Any quantifiable charred seeds or chaff were extracted. Identifications were based on morphological characteristics and by reference to modern comparative material. Nomenclature and taxonomic order follow Clapham, Tutin and Moore (1989).

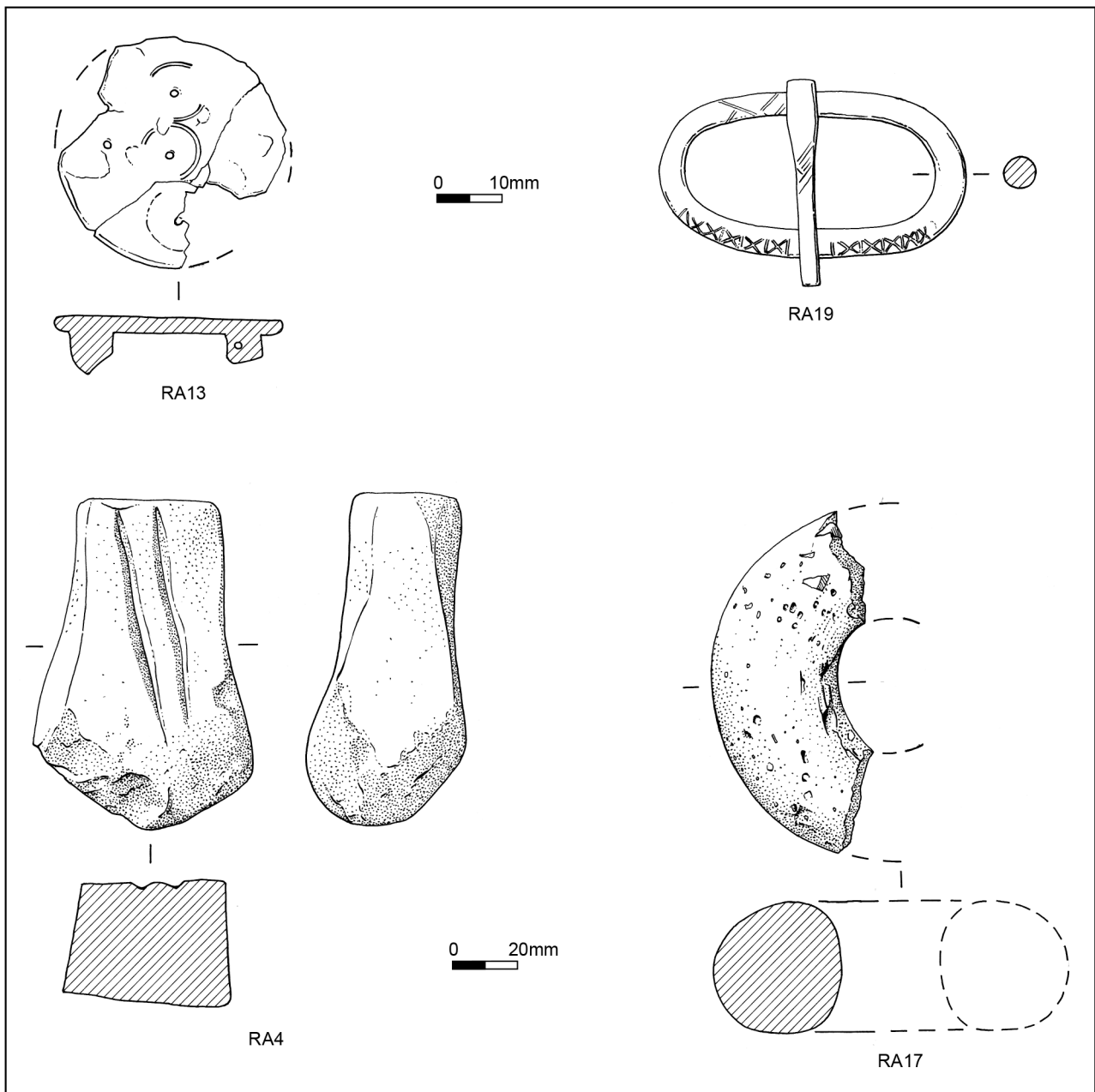


Figure 11: Non-ceramic artefacts from Phase 2 deposits

## RESULTS

Samples 5, 8 and 9 produced large flots consisting predominantly of charcoal. *Quercus* sp. (oak) was most frequently recognised, while some Pomoideae (apple/pear/hawthorn *etc.*) was also present in all three samples. In terms of seeds and chaff, all three samples were grain-rich, the grain forming over 80% of the assemblage in samples 5 and 8. Free-threshing *Triticum* sp. (wheat) grain was most frequently identified in each sample. A short-grained variety is represented, with occasional longer grains also recorded. Chaff was limited, although occasional hexaploid rachis in sample 9 does suggest that the free-threshing wheat is a *T. aestivum* (bread wheat) type. In addition, a hulled wheat is represented by occasional grains and a single glume base. Ten grains of hulled wheat in sample 8 included five grains recorded as *T. dicoccum* or *T. cf. dicoccum* (emmer wheat). The glume base was also identified as *T. dicoccum*, being

narrow and sharply angled, with a very prominent ventral keel. No evidence of *T. spelta* (spelt wheat) was found, thus it is likely that the remaining hulled wheat grains are also of *T. dicoccum*.

*Hordeum vulgare* (barley) was present in all three samples. The majority of the grains were clearly hulled with the characteristic angular shape, longitudinal ridges, and in some cases fragments of lemma still attached. One grain in sample 5 was more naked in appearance, being much more rounded in cross-section and displaying the characteristic wrinkles on the dorsal surface. It is possible that the grain merely represents genetic variation within a hulled crop rather than being derived from a naked barley crop. No asymmetrical grains, characteristic of six-row barley, were present. Occasional lemma bases displayed a horseshoe-shaped depression towards the base, a characteristic of lax-eared or two-rowed barley.

Two additional minor cereal crops are represented — *Avena* sp. (oats) and *Secale cereale* (rye). *Avena* grain

was present in each sample. A floret base identified as *Avena sativa/strigosa* confirms that a cultivated variety was present, although preservation was not sufficient to confirm the species. *Secale cereale* was present in sample 8 (and possibly sample 9) but in very low numbers. No chaff was recovered.

Cereal chaff was limited largely to those items already described. The presence of occasional rachis, including basal nodes, suggests that some processing of cereals probably took place at the site, although the scale is

impossible to judge. Free-threshing cereals are often underrepresented in charred assemblages due to the reduced chance that the chaff will come into contact with fire (no heat is needed during processing). It is also possible that the chaff was used for such things as animal feed or thatch, so would only rarely have become charred.

In addition to the cereals, there is some evidence for the cultivation of legumes and of *Linum usitatissimum* (flax), three seeds of which were identified from sample 9. The legumes present include occasional seeds identified as

	Sample	5	8	9
	Volume	16	20	20
	Group	117	21	21
	Land-use area	6	1	1
<b>Grain</b>				
<i>Triticum</i> sp.	Wheat, free-threshing short grain	23	51	17
<i>Triticum</i> sp.	Wheat, free-threshing intermediate grain		18	8
<i>Triticum</i> sp.	Wheat, free-threshing long grain			2
<i>Triticum dicoccum</i>	Emmer wheat grain		2	
<i>Triticum</i> cf. <i>dicoccum</i>	cf. emmer wheat grain		3	
<i>Triticum dicoccum/spelta</i>	Emmer/spelt grain	2	5	5
<i>Triticum</i> sp.	Wheat grain	3	18	7
<i>Hordeum vulgare</i>	Barley, hulled grain	51	10	5
<i>Hordeum vulgare</i>	Barley, naked grain	1		
<i>Hordeum vulgare</i>	Barley grain	17	7	4
<i>Secale cereale</i>	Rye grain		1	
<i>Secale cereale/Triticum</i> sp.	Rye/wheat grain		1	3
<i>Avena</i> sp.	Oats grain	19	6	5
Cerealia indet.	Indeterminate grain	30	73	32
<b>Subtotal</b>		<b>146</b>	<b>195</b>	<b>88</b>
<b>Chaff</b>				
<i>Triticum aestivum</i> type	Hexaploid, bread wheat type rachis			4
<i>Triticum</i> sp.	Wheat, free-threshing rachis		4	7
<i>Triticum dicoccum</i>	Emmer wheat glume base			1
<i>Hordeum vulgare</i>	Barley, rachis		1	
<i>Avena sativa/strigosa</i>	Oats, cultivated, floret base	1		
Cerealia indet.	Indeterminate basal rachis node			2
<b>Subtotal</b>		<b>1</b>	<b>5</b>	<b>14</b>
<b>Other cultivated plants</b>				
<i>Linum usitatissimum</i>	Flax seed			3
<i>Vicia faba</i> var. <i>minor</i>	Broad bean	3		
<i>Vicia</i> cf. <i>faba</i> var. <i>minor</i>	cf. broad bean	7		
<i>Vicia/Pisum</i> sp.	Bean/pea		2	3
<b>Subtotal</b>		<b>10</b>	<b>2</b>	<b>6</b>
<b>Weeds</b>				
Cruciferae			1	
cf. <i>Agrostemma githago</i>	Corn cockle			1
<i>Chenopodium album</i>	Fat hen		5	1
Chenopodiaceae			1	1
<i>Medicago/Trifolium</i> sp.	Medick/clover			1
<i>Vicia/Lathyrus</i> sp.	Vetch/vetchling/tare			3
Leguminosae	Legume, small seeded		1	
<i>Galium aparine</i>	Goosegrass		1	
<i>Galium</i> sp.				1
<i>Agrimonia eupatoria</i>	Agrimony	2		
<i>Rumex</i> sp.	Docks		1	2
<i>Fallopia convolvulus</i>	Black bindweed			1
Polygonaceae			1	1
<i>Stachys</i> sp.	Woundwort	2		
<i>Plantago major</i>	Plantain		2	
<i>Anthemis cotula</i>	Stinking mayweed		6	13
Compositae			1	1
<i>Eleocharis palustris</i>	Common spikerush		1	
<i>Bromus</i> subsect <i>Eubromus</i>	Brome grass			3
Gramineae	Grass, small seeded		2	2
Gramineae	Grass, large seeded	1		
Indet.	indeterminate weed seed	2	8	14
Indet.	indeterminate bud		2	
<b>Subtotal</b>		<b>7</b>	<b>33</b>	<b>45</b>
<b>Total</b>		<b>164</b>	<b>235</b>	<b>153</b>

Table 6: Phase 2 charred plant remains



*Vicia faba* var. *minor* (broad bean), based on overall size and shape and the well preserved hila visible on some examples. The remaining less well preserved legumes, with abraded testa and hila, were recorded as *Vicia/Pisum* sp. (bean/pea).

Weeds were generally scarce, particularly in sample 5. Common arable species are represented, including *Anthemis cotula* (stinking mayweed), the chenopodiaceae and polygonaceae, *Galium* sp. and *Agrostemma githago* (corn cockle). The chenopodiaceae and polygonaceae tend to be associated with spring-sown crops. *Fallopia convolvulus* (black bindweed) in particular is often associated with spring-sown barley (Silverside 1977, 179–80). *Anthemis cotula*, *Agrostemma githago* and *Galium aparine* (goosegrass) are more associated with autumn-sown wheat and rye. *Anthemis cotula* is also a species that tends to be associated with heavier soils.

## DISCUSSION

The early–middle Saxon period witnessed a change in agriculture from that practised under Roman administration, possibly associated with the arrival of new populations. While the exact nature of the new agricultural regimes are as yet little understood, and there are still many spatial and temporal gaps in the dataset, an increasing body of evidence is enabling some general trends to be observed. Most notable at this time is the shift in cultivation of hulled wheats (emmer and spelt) to the cultivation of free-threshing bread-type wheat. The present samples reflect this general trend. Evidence from the Thames Valley suggests local reintroduction of emmer wheat in the early–middle Saxon period (Pelling and Robinson 2000). While it is possible that the emmer wheat from this site represents contamination from prehistoric deposits, the Thames Valley evidence raises the possibility that it was also being cultivated in the Great Ouse Valley and its tributaries at this time.

Barley is ubiquitous on Saxon sites and its presence is therefore no surprise, while oats seem to have been cultivated quite widely by the middle Saxon period. Rye is more commonly recovered from Saxon-period deposits than previously, although its distribution is uneven. For example, it is rarely recorded from Saxon deposits in Hampshire (Green 1994), while the sandier soils of parts of East Anglia are more appropriate and produce good evidence for its cultivation from the early Saxon period onwards (Murphy 1994).

Vegetable and legume crops tend to be less well represented in archaeological deposits than the cereals, largely as a result of differential survival rates and less frequent contact with fire. However, beans and perhaps other legumes such as peas do seem to have been cultivated at the site. Both broad beans and peas were established legume crops by the Saxon period, although they tend to be better represented by the later part of the period. Flax has been found on sites from the Neolithic onwards, and the presence here of flax seeds in sample 9 may suggest its use for flavouring or possibly for oil.

Generally the assemblages seem to represent clean, redeposited grain with some processing waste. The paucity of chaff must in part be a reflection of the free-threshing nature of the bulk of the cereals. Free-threshing cereals (bread wheat, barley, oats and rye) do not require heat to enable effective threshing, unlike the hulled wheats

in which the grain is held tightly within the glumes. The use of the chaff once processing is complete must also affect the differential survival: for example, chaff can be used for such things as animal feed, thatch or fuel. The large quantities of wood charcoal present in the samples suggest that the chaff was not used as fuel, but may have been utilised elsewhere.

## ANIMAL BONES

M. Britten

### INTRODUCTION AND METHODOLOGY

Over 1,600 bones were collected from the Phase 2 early–middle Saxon deposits, 380 of which could be identified, including several from sieved samples from a ditch within L3. The bones were generally in a fair condition, although highly fragmentary, and there was some evidence of pre-deposition canine gnawing in L1–L4. Evidence of burnt bone came from L1, L3, L5 and L6.

Due to its size and nature, the assemblage cannot be expected to show major trends for any of the species present. However, it may become useful as more is learned of early–middle Saxon economies.

Due to the anatomical similarities between sheep and goat bones (Prummel and Frisch 1986), bones of this type were assigned to the category ‘sheep/goat’, unless a definite identification could be made. Several aspects of the bones were recorded, including (where appropriate) their completeness, the side of the body they came from, and the state of fusion or tooth wear. Metrical data were taken from fused bones, according to standards set by von den Driesch (1977). Species were quantified using basic fragment and epiphyses counts, as defined in Grant (1975). Fragment counts were used to help define any trends in site use. The age at death of the animals was calculated, where possible, on the basis of epiphyseal fusion (Silver 1969) and tooth wear (Grant 1982).

### *Species representation and distribution*

The main domestic species (cattle, sheep/goat and pig) dominate the assemblage, although horse, dog, cat, domestic fowl and geese were also found. Wild species included rabbits, rodents and amphibians (Table 7). Despite the nearby Elstow Brook, there were no fish remains in the assemblage.

Although the quantities are small, there are variations both between land-use areas and between the methods of quantification. The trends seen in the identified fragment count are also reflected in the relative proportions of fragments from unidentified species.

L1: north-eastern pit group G21 and associated features L1 contained the largest quantity of animal bones and the most diverse range of species. It was the only land-use area to contain dog, cat and rabbit remains, and also produced most of the remains from horses, birds and amphibians.

Sheep/goat and cattle remains dominated the domestic species in the fragment count, although in the epiphysis count cattle appeared to be more common (see Tables 7–8). This is an unusual trend, as epiphysis counts usually remove any bias that exists between the remains of larger animals — which are likely to fragment into more pieces — and those of smaller animals. Pigs are found

No. individual specimens (NISP)	Land-use area						Total
	1	2	3	4	5	6	
<b>Species</b>							
Cattle	67	42	22	3	8	14	<b>156</b>
Sheep / Goat	61	28	19		5		<b>113</b>
Sheep	6	5					<b>11</b>
Pig	35	14	2		2		<b>53</b>
Horse	4		1				<b>5</b>
Dog	2						<b>2</b>
Domestic Fowl	4						<b>4</b>
Domestic Goose	9						<b>9</b>
Cat	2						<b>2</b>
Rabbit	3						<b>3</b>
Rodent			16				<b>16</b>
Amphibian	5				1		<b>6</b>
<b>Total identified</b>	<b>198</b>	<b>89</b>	<b>60</b>	<b>3</b>	<b>16</b>	<b>14</b>	<b>380</b>
Unidentified mammal	500	63	178	7	43	85	<b>876</b>
Unidentified large mammal	99	36	24		6	9	<b>174</b>
Unidentified medium mammal	128	17	14	4	5	9	<b>177</b>
Unidentified small mammal	6		9				<b>15</b>
Unidentified bird	21	1	1				<b>23</b>
<b>Total</b>	<b>952</b>	<b>206</b>	<b>286</b>	<b>14</b>	<b>70</b>	<b>117</b>	<b>1,645</b>

Table 7: Phase 2 animal bone fragment counts

Species	Land-use area					
	1	2	3	4	5	6
Cattle	27	22	11	1	1	7
Sheep / Goat	12	12	2		1	
Pig	4	2				
Horse	2					
Dog	2					
Domestic Fowl	4					
Domestic Goose	6					
<b>Total</b>	<b>57</b>	<b>36</b>	<b>13</b>	<b>1</b>	<b>2</b>	<b>7</b>

Table 8: Phase 2 epiphysis count

in significant, although lower numbers, than cattle and sheep/goat.

Domestic geese were the best-represented bird species found, although domestic fowl were also present.

L2: south-western pit group G30 and associated features  
Only the main domestic species were found in L2. Both counts indicate that cattle bones were more common than sheep/goat; pigs accounted for the fewest numbers found.

L3: surface

L3 produced an assemblage similar to that of L1, at least where the main domesticates were concerned. Cattle and sheep/goat were found in similar numbers in the fragment count, yet cattle were more common in the epiphysis count. Pig bones accounted for a very small proportion of the assemblage, as did horse. Rodents were found in the sieved material, and were perhaps originally from one individual. Their presence reflects the usefulness of sieving as a tool to find bones which would otherwise be missed.

#### *Animal husbandry*

Despite the small quantities, trends for the three main species were similar for all land-use areas. However, the quantities are such that more information will be gained by examining the assemblage as a whole and, therefore, the results are discussed by species.

The evidence that animals were culled comes, primarily, from the fusion data. Three unfused pelvis fragments suggest that some animals were culled before they reached ten months, but apart from this, there is no evidence that animals died before reaching at least three years of age. Only three mandible wear stages were calculated; these produced wear stages of 18, 24 and 40, which indicate a relatively wide age range.

#### *Cattle*

Cattle were mostly represented by upper limb bones, *e.g.* scapula, humerus, radius, pelvis, femur and tibia. Metapodia were also well represented. Cranial fragments, vertebrae and phalanges were relatively scarce, especially when their high fragility and proportions in the body are taken into account. Long-bone fragments were also more common than cranial fragments or vertebrae in the unidentified mammal counts. There was evidence of butchery on limb, pelvis, and cranial bones. Evidence was found to indicate that at least some animals were of a shorthorn species.

#### *Sheep/Goats*

No bones were positively identified as goat, but eleven definitely originated from sheep. The fusion data indicate that, although there were two examples of animals that died before 10 months of age, most were culled from about an age of 18 months, although some apparently lived over 30 months. There were only two mandibles complete enough for the mandible wear stages to be calculated, namely 29 and 36.

The carcass parts of sheep/goat followed similar trends to those of cattle, with mostly limb bones recovered, although there did appear to be more hind-limb than fore-limb bones. No phalanges were found, and there were very few vertebrae and cranial fragments. Evidence for butchery was seen on tibia, scapula and pelvis bones. There was also evidence for a bony growth on a distal humerus, which may have formed after an injury such as a knock to the shoulder area of the animal. The presence of sheep horn-cores indicates that at least some animals were from horned species.

### Pigs

Unsurprisingly, due to the small quantity of bones, there was very little ageing data from the pig assemblage. Of those found, one was apparently culled before reaching one year of age, and another before reaching two. However, one example was found that must have died at over 42 months of age. One mandible wear stage was calculated to be 31, which is a relatively old animal.

Of the fragments making up the pig assemblage, skull fragments accounted for a higher proportion than was seen in the cattle and sheep/goat populations. A few fore-limb bones were found in L1 (humerus, radius and metacarpal). A complete skull found in L2 suggested that the animal had been poleaxed, as a circular hole was apparent in the right frontal bone. There was also evidence for butchery on a lumbar vertebra from L1. Pig canines and mandibles can be used as an indication of the sex of an individual animal: in L1 two canines and a mandible were found from sows, and a canine from a boar was found in L2.

### Other mammals

Dog remains included a humerus and scapula; the latter also showed signs of butchery and canine chewing. Horses were represented by fore-limb bones and a tooth, while a radius also showed butchery marks.

### Birds

The bones found in the bird assemblage came from all parts of the carcass. Domestic fowl were represented only by long bones, and a spurred tarsometatarsus, which suggests that it was male (West 1982). The bones from domestic geese came from the torso and limbs.

## DISCUSSION

The size of the assemblage, although not conducive to detailed analysis, does show some general trends. The high proportion of high-meat-content bones (*i.e.* upper limbs) in the sheep/goat and cattle assemblages, as well as the presence of butchery marks, suggests that the excavated bones were originally deposited as food waste. Feet, heads and vertebrae may have been disposed of elsewhere, probably at the primary butchery stage.

The relative quantities of species within the assemblage suggest that cattle and sheep/goats would have been kept in the highest quantities. If the assemblage is taken as a typical food refuse deposit for the site, beef would have dominated the diet, although mutton would also have been important, and pork would probably have been less common. It appears that domestic birds would have been eaten, as at Thetford and Sedgeford, Norfolk (Clutton-Brock 1976), although the faunal remains at this site imply that this occurrence would have been relatively rare. It is also possible that the occasional horse or dog was eaten. The general scarcity in wild species is not uncommon on Anglo-Saxon sites, and is also seen at West Stow (Crabtree 1994) and York (O'Connor 1994).

Despite the small size of the assemblage, a little may be inferred of animal husbandry within the settlement. Despite the evidence that some cattle died at less than one year old, most were mature at death. This implies their use for secondary purposes of some kind, such as milk production or traction. The evidence for on-site cereal processing indicates that the latter, at least, would have

been the case, as cattle would have been necessary for ploughing and carting.

Unlike cattle, sheep/goats were more likely to be culled between the ages of 1½ and 2 years. This suggests that these animals were old enough to have produced one or two fleeces before being culled for meat. The presence of wool-processing artefacts within the refuse deposits implies that these animals were likely to have been used for wool production, which was a trend that became more common throughout the Anglo-Saxon period, *e.g.* Wicken Bonhunt, Cambridgeshire (Crabtree 1994) and Wraybury, Berkshire.

Cats were probably used to keep down rodent numbers, as rat or mouse remains are present within the assemblage. Dogs were not uncommon on Anglo-Saxon sites, and were probably used for guarding and hunting. Horses were probably also used for traction and carting. The presence of worked antler among the assemblage of non-ceramic artefacts may suggest that deer were hunted, although the antler may have been brought in from elsewhere.

It is worth noting that there was no evidence of neonatal animals, although given the small size of the assemblage, it is possible that, as with the primary butchery waste, such material was deposited elsewhere on the site.

## SYNTHESIS AND DISCUSSION

The archaeological investigations at the Millennium Park were limited to an arbitrary slice through the landscape. However, they have served to complement evidence from other investigations for extensive later Iron Age and early Romano-British settlement in the Marston Vale, in particular in the area surrounding Marston Moretaine (Shotliff and Crick 1999; Connor 2000; Albion Archaeology 2006). The evidence for successive re-cutting and realignment of a series of enclosures suggests that the settlement was not short-lived, although the exact nature and duration of activity remains unknown. In common with the evidence found at both Beancroft Road (Shotliff and Crick 1999) and land off Woburn Road (Connor 2000), there is limited evidence of later Roman activity. Whether this was a result of shifting settlement and/or a change in land ownership following the Roman conquest is a question that future investigations may be able to address. Certainly there appears to have been later Roman activity to the north-east at HER15321 (Albion Archaeology 2006).

Documentary evidence attests to the existence of the township of Marston before AD969 (Fowler 1920), and excavations at Church End Lower School have provided tangible evidence of Saxo-Norman settlement (Edmondson and Steadman 2001). However, prior to the Millennium Park excavations, no evidence for early-middle Saxon activity had been found in the area. The excavations have only provided a small sample of the *c.* 2.5ha settlement, but analysis of the recorded remains, artefacts and ecofacts has enabled an impression of its character to be pieced together.

Most of the evidence for the early-middle Saxon activity derived from two groups of intercutting pits L1 and L2, interpreted as possible quarry pits. The artefacts and ecofacts in these pits suggest that some of them were re-used for the disposal of domestic waste, implying settlement in the vicinity. The presence of middle Saxon Maxey-type

ware in the pits in L1, and its absence from the pits in L2, suggests a chronological distinction, hinting at a shift in occupation to the north-east. No pottery dating to the late Saxon period was recovered from the excavations, suggesting that occupation of this area ceased before then. It is possible that this cessation of activity may have coincided with what has been termed the 'middle Saxon shuffle' (Taylor 1983), which witnessed a move from dispersed to nucleated settlement, thought to be as a result of the reorganisation of large estate holdings concomitant with a whole series of social, economic and political changes that took place (Hinton 1990, 35). Whether this postulated shift resulted in the beginnings of the nucleated settlement of Marston is a question for future research.

Although it is perhaps unwise to draw too many conclusions from the limited evidence recovered, there are some general trends noted in the assemblages which suggest that the early–middle Saxon settlement's economy was based around a mixed arable/pastoral regime, in common with many sites of this period. The presence of wheat, barley and rye, with some legumes and flax, is indicated, although it cannot be proved that all these crops were cultivated on site. Cattle and sheep/goat were kept in the highest quantities, and beef appears to have dominated the diet, a trend noted at other Saxon settlements in Bedfordshire such as Harrold Meadway (Shepherd *et al.* 2012), Odell and Puddlehill (Wingfield 1995, 37). Analysis of the animal bone indicates that livestock was not just kept for meat but also provided traction (cattle) or raw materials for textiles (sheep/goat). It may be presumed that dairy products were also obtained from these animals. Small-scale craft activities, including processing and production of textiles, and bone and antler working, are also attested by the artefact assemblage. The presence of a white metal inlaid buckle and a cast disc brooch suggests access to externally traded goods.

The investigations at the Millennium Park, while perhaps raising more questions than answers, have provided tantalising glimpses of hitherto unknown early–middle Saxon settlement within the Marston Vale, and what may be the beginnings of the formation of the village of Marston. Although the evidence appears to be from the periphery of the settlement, and as such can only give a partial picture, it is hoped that it will provide comparative data for future discoveries.

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BAR: British Archaeological Reports

BCAS: Bedfordshire County Archaeology Service

CBA: Council for British Archaeology

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## APPENDIX 1: POTTERY TYPE SERIES

Saxon fabrics are listed below, using type codes and common names in the Bedfordshire Ceramic Type Series. Bracketed figures after each fabric type denote a percentage of the Saxon assemblage. All illustrated sherds are depicted on Figure 9.

### A01 Organic (1.3%)

Fabric: fairly hard, 'soapy' fabric with variable orange-brown to grey-black surfaces, and black core. Characterised by abundant elongated voids where organic temper has burnt out during firing. Sherds also contain sparse, ill-sorted, sub-angular quartz 0.1–0.3mm, which may occur naturally in the clay.  
Forms: undiagnostic vessel with stamped plain ovals and incised linear design (*cf.* Hamerow 1993, fig. 98/13).  
Illustration: P15

### A05 Shelly limestone and sand (0.9%)

Fabric: fairly hard, variable orange-brown to dark grey-black fabric, containing abundant fossil shell 0.6–1.2mm and frequent sub-angular quartz 0.3–0.6mm. Occasional examples of oolites occur. The nature of the inclusions suggests that the temper is a crushed, shelly limestone, possibly from the Cornbrash deposits situated close to Bedford.  
Forms: undiagnostic body sherds.

### A16 Coarse sand (32%)

Fabric: hard-fired, fairly rough fabric, usually dark grey or black throughout, although surfaces can be light brown. Contains abundant, ill-sorted, sub-rounded to rounded quartz 0.3–0.6mm, probably derived from the Greensand Ridge. Also occasional coarse flint inclusions up to 1.3mm. Organic impressions are often visible on the surfaces.  
Forms: handmade jars with plain, upright rims and everted rims; vessels with incurving rims; flat-rounded bases; and a single footing base. Most vessels have burnished exteriors. Decoration comprises horizontal grooves, a vertical boss, and pinched and impressed sherds. A single stamped jar bears an incised linear decorative zone within which is a rosette of six cruciform circle stamps surrounding a circular thumb-print depression (*cf.* Myres 1977, vol. 2, fig. 167/2391).  
Illustrations: P10, P12, P14 and P21

### A18 Fine sand (23.8%)

Fabric: hard, fairly smooth, occasionally sandy in texture. Reduced dark grey to black throughout, with occasional brown exterior surfaces. Contains abundant, well sorted, fine, sub-rounded to sub-angular quartz 0.1–0.2mm.  
Forms: handmade burnished jars with plain, everted rims and upright rims; vessels with incurving rims; and a vessel with a ladle handle (*cf.* Myres 1977, vol. 2, fig. 74/3133).  
Illustrations: P8 and P9

### A19 Organic and sand (14.7%)

Fabric: hard, fairly smooth, dark grey to black throughout. Contains abundant sub-rounded to sub-angular quartz 0.2–0.6mm. Abundant, coarse organic matter and/or frequent elongated voids where organic matter has burnt out, visible on surfaces and in breaks. Inclusion of Greensand quartz suggests this fabric is related to type A16.  
Forms: handmade, burnished jars with plain, upright rims and everted rims; vessels with incurving rims and flat-rounded bases.  
Illustration: P19

### A23 Sandstone (5.2%)

Fabric: fine, hard, dark grey-brown to black fabric throughout. Characterised by large clusters of sub-rounded quartz crystals, 0.6–1mm+. Also contains abundant, sub-rounded quartz 0.3–1mm and rare red iron ore. Surfaces are often smoothed.  
Forms: handmade, burnished jars with plain upright rims and everted rims; vessels with incurving rims and flat-rounded bases.  
Illustration: P13

### A24 Oolitic (2.6%)

Fabric: fairly hard-fired, coarse textured, variable light–mid-grey to orange-buff fabric with a mid-grey core. Surfaces are often smoothed, with a slightly soapy feel. Contains frequent white, rounded oolitic limestone, moderately sorted 0.5–1mm and sparse, clear, poorly sorted, sub-rounded to rounded quartz 0.3–1mm. Also fine white mica <0.1mm, visible particularly on the surfaces.  
Forms: undiagnostic burnished body sherds.  
Illustration: P21

### A26 Mica, sand and organic (0.4%)

Fabric: fairly hard, variable orange-brown to dark grey-black fabric, often with smoothed surfaces. Contains common to abundant sub-angular quartz up to 1.2mm and moderate to common blackened, elongated and occasional rounded voids where organic material has burnt out. Also occasional to moderate white mica 0.1mm.  
Form: handmade jar with everted rim.

### A29 Sandstone and limestone (0.4%)

Fabric: hard-fired, dark grey-black throughout, sometimes with smoothed surfaces. Contains moderate to common sub-angular quartz 0.1–0.6mm, moderate sub-angular sandstone fragments 0.2–1.9mm, and sub-rounded to sub-angular limestone fragments 0.1–2mm. Also occasional blackened, elongated voids 0.6–1.2mm where organic material has burnt out, and flecks of white mica 0.1mm.  
Forms: handmade, burnished jars with plain, upright or everted rims and flat-rounded bases.  
Illustration: P1

### A30 Sandstone and mica (0.4%)

Fabric: hard-fired fabric with variable orange-brown surfaces and buff-grey core. Contains abundant sub-angular quartz 0.1–0.5mm; moderate, sub-angular sandstone fragments 0.3–1mm; and moderate, angular, gold mica 0.4mm. Also rare, sub-rounded limestone fragments 0.1–0.9mm, and rare elongated, blackened voids up to 3mm where organic material has burnt out.

Forms: undiagnostic body sherds.  
Illustration: P11

**A32 Red Quartz (4.3%)**

Fabric: hard-fired fabric with variable buff-grey-black surfaces and core. Characterised by the presence of abundant, rounded to sub-angular red quartz 0.1–1.3mm. Also contains rare, sub-rounded red and brown iron ore 0.1mm; and rare, rounded to sub-rounded blackened voids and irregular thin streaks <2mm, representing burnt-out organic matter.

Forms: handmade, carinated bowl and globular jar.  
Illustrations: P16–18

**A11 Maxey type (13.9%)**

Fabric: described by Addyman (1964).  
Forms: jar with inturned rim, and everted rim; bowl with upright rim.  
Illustrations: P2–7