

EXCAVATION OF AN EARLY SAXON SETTLEMENT AT PITSTONE

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An archaeological investigation was undertaken at the former Castle Cement Works in Pitstone in advance of housing development. Slight evidence for late Bronze Age / early Iron Age activity and a series of ditched boundary features dated to the Roman period were found. However, the majority of the evidence related to early Saxon settlement activity. It comprised a number of sunken-featured buildings, pits and a refuse deposit in the upper fill of a Roman boundary ditch. One building, slightly different in size and shape to the others, was almost certainly used for weaving. Analysis of animal bone, molluscan remains and charred plant remains provided information on the economy and environment of the site. During the medieval and post-medieval periods the site probably lay within the open fields associated with the township of Pitstone. Traces of strip cultivation and a hollow way dating to this period were found.

INTRODUCTION

During 2000 and 2002 Albion Archaeology undertook an archaeological investigation at the former Castle Cement Works, Pitstone, on behalf of CgMs Consulting, in advance of housing development by Wilcon Homes. The village of Pitstone is located at the foot of the Chiltern scarp, approximately 13km east of Aylesbury and 8km south of Leighton Buzzard (Fig. 1). The site investigated was situated immediately to the SW of properties fronting onto Vicarage Road, Church End (SP 9382 1507). It occupied gently sloping ground at c.120m OD, dipping down towards the NE. The geology of the area consists of chalky head deposits above Lower Chalk bedrock. Prior to the archaeological investigation, the site was covered by recently planted trees, which formed a screening belt along the border of the former cement works to the west. The archive of archaeological records and finds is deposited at Buckinghamshire County Museum, accession number 2002/123.

ARCHAEOLOGICAL BACKGROUND

There is evidence for significant human impact on the landscape of Pitstone parish dating from before the Iron Age, in the form of woodland clearance and colluviation in the dry valleys at the edge of the Chiltern scarp (Evans and Valentine 1974). Earlier investigations approximately 1km to the east of the site demonstrated the presence of late pre-Roman Iron Age and Roman occupation (Dungworth 1991). There is also evidence of clearance and settlement on the clay plateau to the east of Pitstone. A round barrow and Roman and medieval earthworks are located in what is now a densely wooded landscape in the Ashridge Estate.

During quarrying over the last hundred years, a number of Saxon inhumations have come to light approximately 1km to the east of the present site at SP 947 147. In 1900 one skeleton, accompanied by a shield and sword, was found in a small chalk pit (VCH Bucks IV, 521). Based on the recorded description, the shield boss is likely to be of the sugar-loaf or Dickinson and Härke Group 7 type, dating it to between c. AD 625 and 700 (Evison 1963) (Dickinson and Härke 1992). A second grave was found in 1936 (Parrott 1938). At least nine

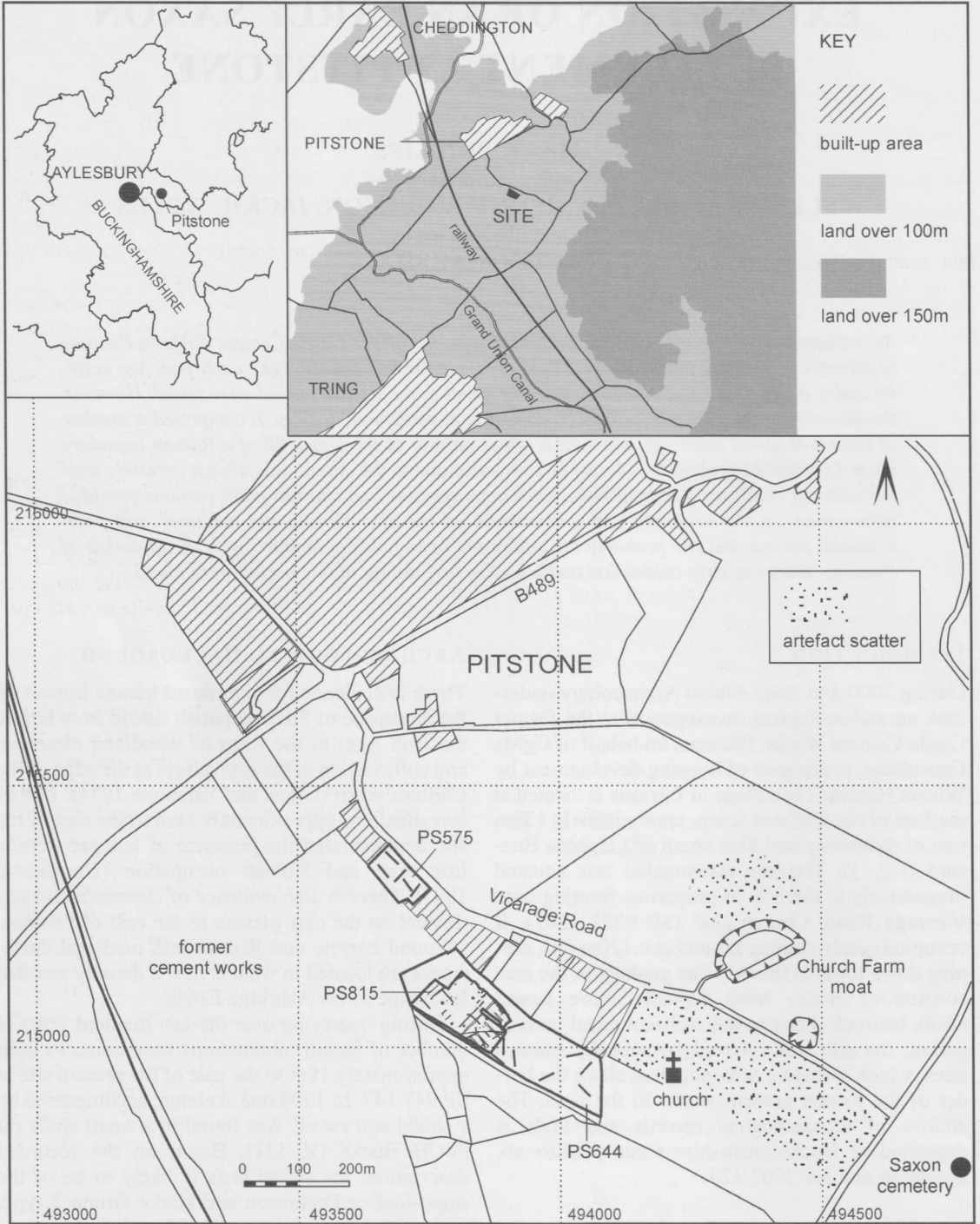


FIGURE 1 Location of archaeological evaluation areas at Pitstone and excavated area (PS815).

more were excavated in 1961 when the area became part of a quarry extension (Mathews 1961). The evidence for the provenance of the earlier burials and details of the 1960s' excavation are summarised by Dungworth (1991).

Field artefact collection in fields adjacent to the church approximately 500m to the east of the present site produced close to a hundred sherds of early medieval St Neots ware and two or three sherds of Saxon pottery (Fig. 1) (Bull 1980). Another artefact scatter (Buckinghamshire Sites and Monuments Record No. 0253200000) located to the north of Church Farm Moat, also produced St Neots ware, together with Romano-British pottery.

In 1999 an archaeological evaluation on land adjacent to Vicarage Road, to the north of the site described here, identified cultivation furrows and boundary ditches dated to the post-medieval or modern period. See Fig. 1, project code PS575, (Albion Archaeology 1999).

NATURE OF THE INVESTIGATIONS

In July 2000 an archaeological evaluation of the proposed housing development (Fig. 1, project code PS644) was undertaken in accordance with a PPG16 condition. It consisted of the trial trenching of an area of approximately 4.5ha, centred on SP 9390 1503. Archaeological features were identified in six of the fifteen trenches, all within the NW part of the study area. The features ranged in date from early-middle Iron Age to post-medieval.

On the basis of the results of the evaluation, an area of approximately 1.5ha was subject to open area excavation between April and June 2002 (Fig. 1, project code PS815). Following assessment of the results of the excavation, a programme of post-excavation analysis was carried out. As part of this process, the basic units of archaeological stratigraphy recorded on site, the contexts, were organised into an interpretative hierarchy. From the highest level downwards, this comprises 'Phases' (essentially chronological periods, e.g. Saxon), 'Landscapes' (e.g. a number of related sunken-featured buildings), 'Groups' (e.g. an individual sunken-featured building) and 'Subgroups' (e.g. a number of closely related contexts within a sunken-featured building). The 'Landscape' (L) and 'Group' (G) numbers provide the structure for the following site narrative and appear on the accompanying illustrations.

RESULTS OF THE INVESTIGATIONS

PHASE 1: LATE BRONZE AGE / EARLY IRON AGE

Two intercutting pits G58 are the only features that can be assigned to this phase (Fig. 2). They were no more than 0.7m x 0.5m in extent and 0.24m deep. Both contained a thin primary fill, derived from the surrounding chalky head deposits, and an upper fill of dark grey, silty clay, which produced charcoal, daub, animal bone fragments and late Bronze Age/early Iron Age flint-tempered pottery.

The presence of small amounts of residual late Bronze Age / early Iron Age and Iron Age pottery in the fills of other features, however, hints at more extensive activity during the early prehistoric period.

PHASE 2: ROMAN FIELD SYSTEM (Fig. 2)

Boundary ditches provide the only evidence for activity during this phase. The features in the NW part of the site are more securely dated to this phase. They comprise a substantial boundary L17 / L20 with two slighter ditches L18 to the north. A further ditch L3 in the south of the site can only be tentatively assigned to this phase.

Boundary L17

This was a substantial boundary feature, aligned NE to SW. It comprised an initial ditch cut or cuts, G18, which was visible along the northern and southern margins of a final recut G20. The latter was 2.1m wide and 0.44m deep with a flat base. At the SW limit of the excavation area it had been truncated by recent quarrying operations.

Most excavated segments of the ditch contained a deposit of primary silting, derived from the chalky head deposits. The secondary fills produced approximately 1kg of animal bone and small amounts of flint, fired clay, a Roman coin (Registered Artefact (RA) 16), a loop-headed iron spike (RA 3) and pottery. It is clear that, after partially silting up, this boundary ditch remained as a visible feature in the landscape for a considerable period of time. Its uppermost excavated fill contained refuse deposited during the Saxon period (see below: Phase 3, L19). Throughout the life of this boundary ditch, its land snail assemblage was dominated by open-country species, suggesting a cleared landscape (see below, Appendix 2).

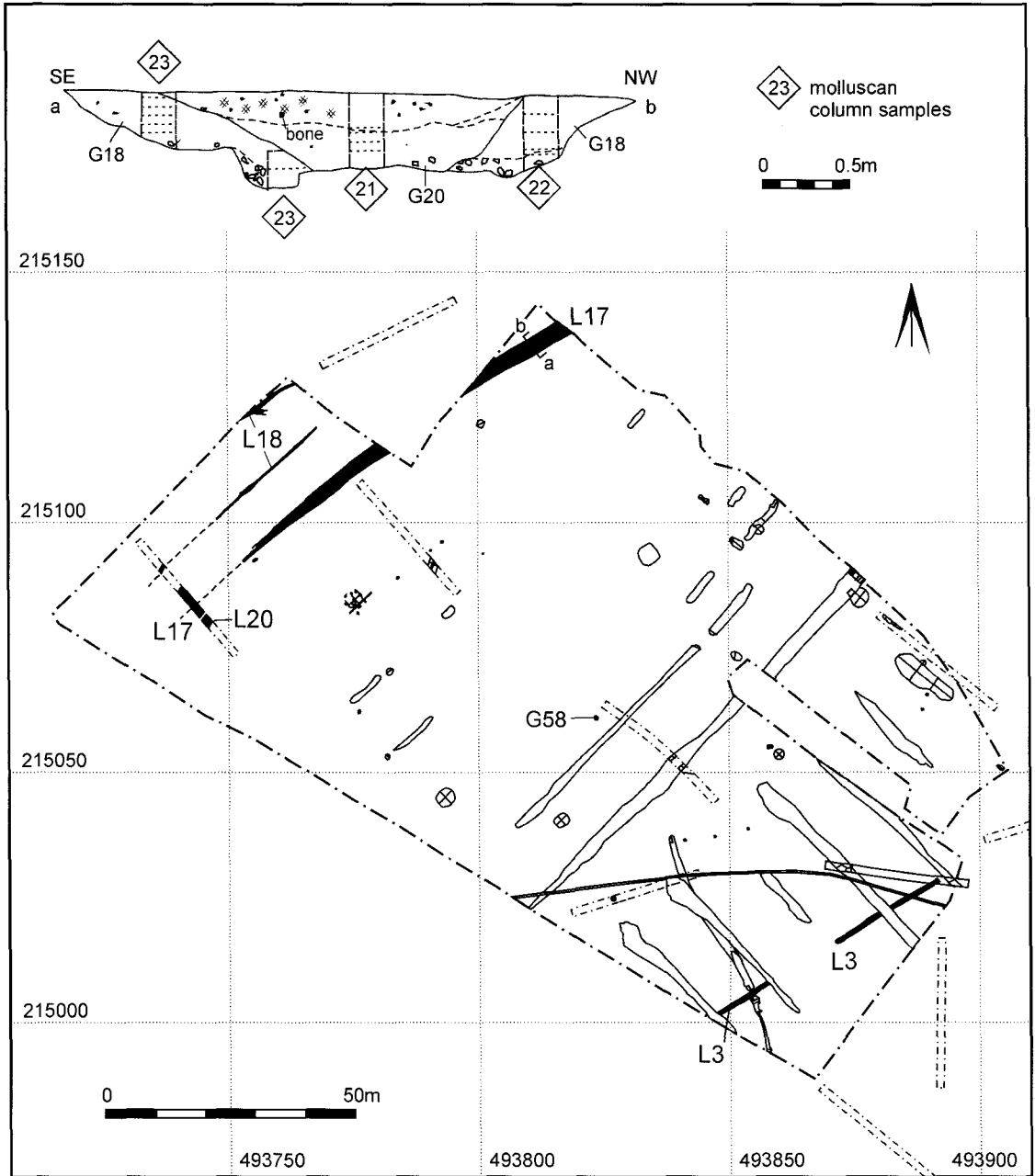


FIGURE 2 Excavated area – Phases 1 and 2: Iron Age and Roman features and section of boundary L17.

Ditch L20

At the SW end of boundary L17, two smaller ditch cuts L20 were recorded in a trial trench during the archaeological evaluation. They lay on the SE side of L17 but it was not possible to determine whether they were precursors or recuts of this substantial boundary feature. The earlier of the two ditch cuts was at least 1.25m wide and 0.52m deep with a shallow, V-shaped profile; the later one was 1m wide and 0.24m deep with a flat base and shallow sloping sides.

Ditches L18

Two ditches L18, 10m apart, lay to the NW of and parallel to boundary L17. The more northerly of the two was 0.56m wide and 0.19m deep with a shallow concave profile and a single fill. The southern ditch was 0.8m wide and 0.4m deep, with a flat base and steep convex sides, near vertical in the lower part. The upper of two fills contained small quantities of animal bone, flint and pottery.

Ditch L3

This single ENE to WSW aligned ditch was 1m wide with a flat base, 0.15m deep. A break in its course is likely to be the result of truncation rather than a deliberate opening. Its single fill produced no artefacts. It is, therefore, only tentatively assigned to this phase, on the basis of its orientation, which is similar to that of ditches L17 and L18.

PHASE 3: SAXON SETTLEMENT(Figs. 3 and 4)
In the Saxon period an unenclosed settlement was established on the site (Fig. 3). It is uncertain exactly when it was established or how long it lasted. However, the composition of the pottery assemblage points to occupation at some time prior to the mid-seventh century (see below) and this is not contradicted by the dating of the non-ceramic artefacts. The evidence for the settlement comprises four sunken-featured buildings L10, two possible sunken-featured buildings L21, dispersed pits L11 and refuse material L19, deposited in the upper part of a Roman boundary ditch.

Sunken-featured Buildings

Four sunken-featured buildings, grouped for the purpose of analysis as Landscape L10, were identified. Buildings G23, G26 and G29 were rectangu-

lar in plan, while building G32 was approximately square in plan and slightly larger. The deposits within each building have been assigned to separate groups:

- the lower fills of the construction hollow, which are interpreted as material possibly derived from both the final use and initial disuse of the building;
- the upper fills of the construction hollow and the fills of the structural postholes, which are interpreted as material dumped into the buildings after they had gone out of use.

Building G23

Building G23 had been partially truncated on its NW side. It comprised a hollow (3.2m long, 2.4m wide and 0.17m deep) with the main structural postholes at its NE and SW ends. The SW posthole appeared to lie just outside the hollow but this is almost certainly due to the effects of truncation. The NE posthole was 0.40m by 0.48m and 0.54m deep; its SE counterpart was 0.34m by 0.40m and 0.43m deep. Five further possible postholes were found within or just beyond the edges of the hollow. They were 0.2m to 0.25m in diameter and 0.1m to 0.29m deep.

The lower fills G24 were dark grey-brown silty clays with moderate charcoal inclusions. They contained animal bone, fragments of chalky clay, Saxon pottery and an iron knife (RA 4).

The upper fills G25 consisted of mid grey-brown silty clays with moderate charcoal inclusions. They contained animal bone, fragments of chalky clay, ceramic building material (CBM), and pottery (both Saxon and a small quantity of Roman). Some of the fragments of chalky clay derived from a slab, one flat surface of which had apparently been lightly fired or blackened. The surface of the slab displayed a number of cereal grain impressions (see below).

The fragmentary animal bone assemblage recovered from the fills of G23 was dominated by cattle.

Building G26

The structural elements of Building G26 comprised a hollow (3.6m long, 3.1m wide and 0.27m deep) with postholes situated in the centre of its NE and SW ends. The NE posthole was 0.45m by 0.36m and 0.39m deep; its SW counterpart was 0.26m by 0.20m and 0.30m deep.

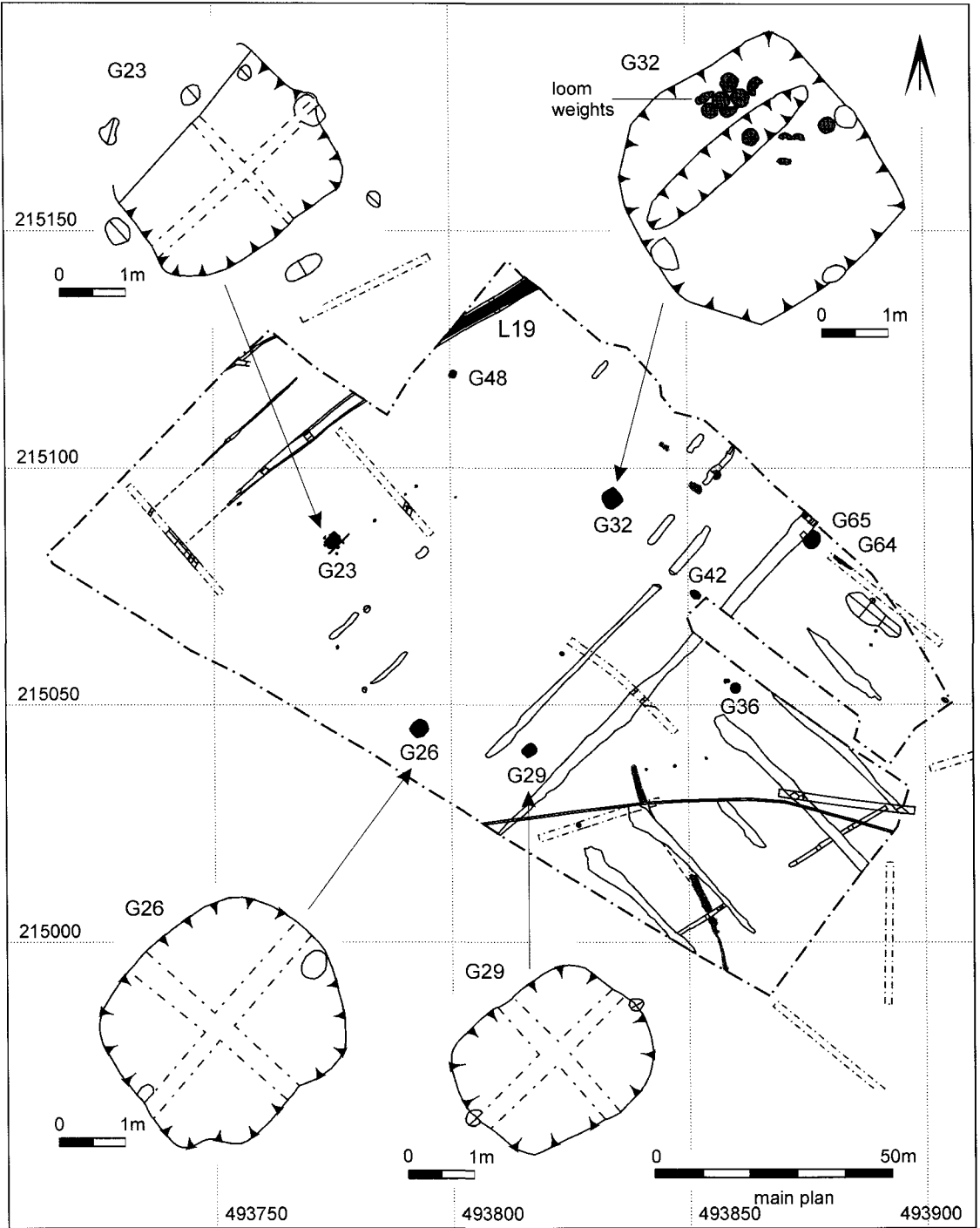


FIGURE 3 Excavated area – Phase 3: Saxon features and detailed plans of sunken-featured buildings.

The lower fills G27 consisted of mid grey-brown silty clays with moderate charcoal inclusions. Patches of concentrated charcoal were also evident. Artefacts from these fills consisted of animal bone, and Roman and Saxon pottery.

The upper fills G28 consisted of mid grey-brown silty clays with moderate charcoal inclusions. They produced Iron Age, Roman and Saxon pottery, fragments of Roman *tegulae*, an annular iron ring (RA 25) and a lead net weight (RA 24) together with both animal and bird bone.

Building G29

Building G29 comprised a hollow (2.88m long, 2.34m wide and 0.34m deep) with postholes in the centre of the NE and SW ends. The NE posthole was 0.22m by 0.18m and 0.20m deep; its SW counterpart was 0.26m by 0.22m and 0.21m deep. Another possible posthole on the southern edge of the hollow has been interpreted as natural variation in the underlying chalky head or root disturbance.

The lower fills G30 consisted of mid grey-brown silty clays with moderate charcoal inclusions. Artefacts comprised animal bone and Saxon pottery.

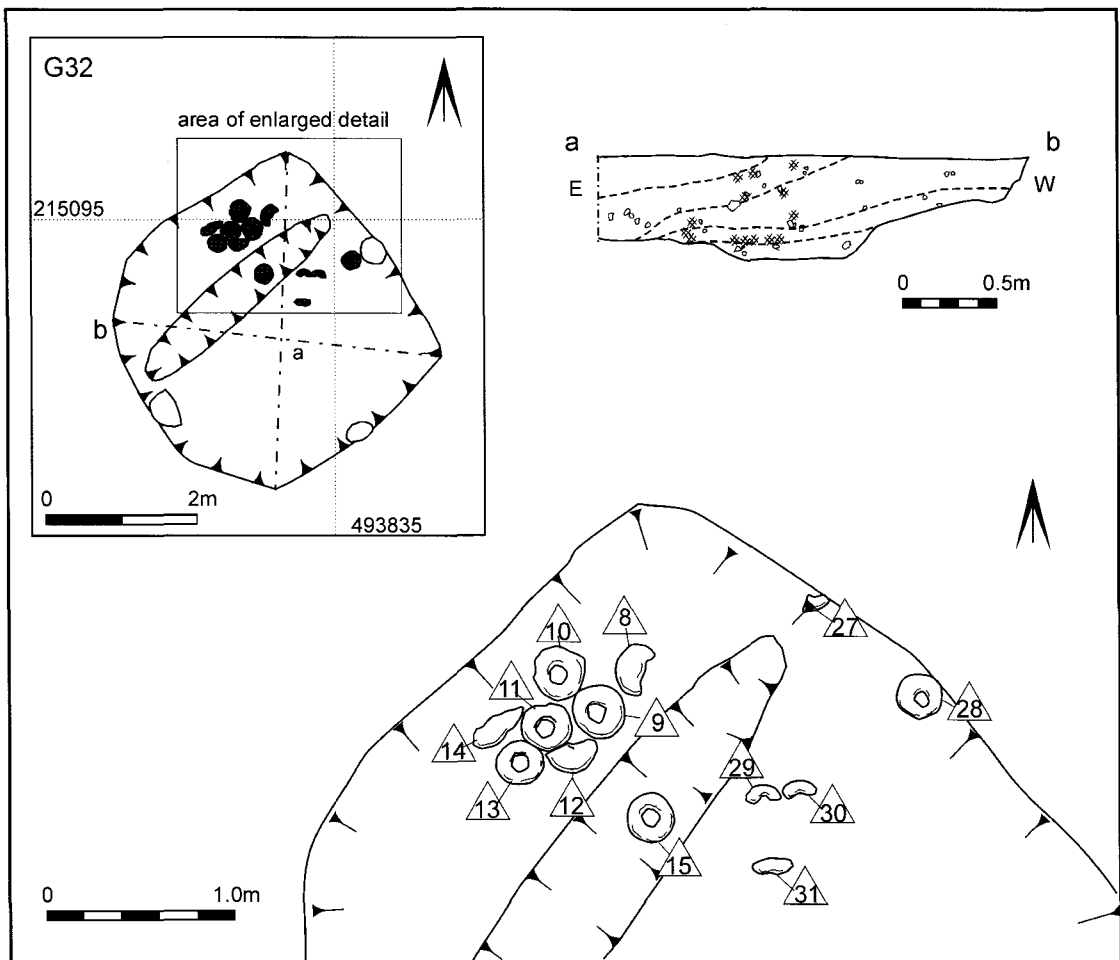


FIGURE 4 Detail of building G32 and loomweights.

The upper fills G31 consisted of mid grey-brown silty clays with moderate charcoal inclusions. Artefacts included animal bone and a variety of pottery (late Bronze Age / early Iron Age, late Iron Age and Saxon). Three registered artefacts were recovered, a copper alloy Roman coin (RA 17), a bone comb (RA 19) and an iron strip fragment (RA 23).

The fragmentary bone assemblage from building G29 was dominated by sheep/goat.

Building G32

Building G32 was roughly square in plan (Fig. 4), its hollow measuring 4.44m by 4.38m and 0.42m deep. The NE end of the hollow was straight with well-defined corners, contrasting with the curved side and rounded corners to the SW. A shallow slot (3.18m by 0.60m and 0.10m deep), aligned NE-SW, parallel to the central axis of the building, was cut into the base of the hollow. The principal structural postholes at the NE and SW ends of the building were 0.2m and 0.17m in diameter and extended 0.3m and 0.5m below the base of the main construction hollow.

The lower fills G33 consisted of off-white / light brown clay silts with occasional charcoal inclusions. The fill contained animal bone and a large number of artefacts, comprising Saxon pottery, a fragment of Roman *tegula*, three bone pin beaters (RAs 5, 6 and 7), three lead fishing weights (RAs 35, 36 and 37) and fragments of ten ceramic loomweights (RAs 8–15 and 27–31). The majority of the loomweights lay in a tight cluster towards the northern corner of the building. The preponderance of artefacts associated with weaving suggests a likely use for the building. The slot in the floor could have contained the lower part of the frame of a warp-weighted loom or have accommodated the weights suspended from the loom.

The upper fills G34 consisted of light brown clay silts with moderate charcoal inclusions and discrete lenses of charcoal. They produced animal bone, Iron Age, Roman and Saxon pottery, fragments of Roman *tegulae*, a bone comb (RA 32) and two iron strip fragments (RA 33 and 34).

The animal bone assemblage from the fills of G32 was the largest to be recovered from any of the buildings of L10; it was dominated by sheep/goat.

Possible Sunken-featured Buildings

Two other features G64 and G65 (Landscape L21) are interpreted as possible sunken-featured build-

ings. G64 was only partly uncovered within a trial trench. It consisted of a wide, shallow hollow (at least 2.7m wide and 0.18m deep) with a flat base and a substantial posthole, situated approximately halfway along its SW side. Its fill contained Saxon pottery, bone and iron nails, while the fill of the posthole contained a single large sherd of Saxon pottery.

G65 comprised a sub-circular, shallow hollow measuring 3.7m by 3.1m and 0.1m deep. The single fill of brown silty clay contained no artefacts.

Dispersed Pits

Three pits G36, G42 and G48 (Landscape L11) were distributed across the NE part of the excavated area.

Pit G36

Pit G36 was circular, 2.2m in diameter and 0.54m deep, with slightly concave sides and a flattish base. The primary fills consisted of light grey-brown and mid orange-brown silty clays, which contained a small amount of undiagnostic pottery, charcoal, animal bone and daub. A final disuse fill G37 of yellow-brown silty clay contained a very small amount of Iron Age and Saxon pottery.

Pit G42

Pit G42 was sub-oval in plan, 2.4m long by 1.5m wide, with convex sides and a flattish base, 0.32m deep. Some disturbance was noted on the NW side, possibly caused by animal activity. A primary fill G43 of pale grey-brown silty clay, with frequent small stones and occasional flecks of charcoal contained a small amount of animal bone and Saxon pottery. The presence of a mineralised seed in this deposit (see below) suggests this pit may have contained cess. Two upper fills G44 contained moderate amounts of occupation debris (fragments of chalky clay, animal bone and pottery) and probably result from the re-use of the pit for refuse disposal.

Pit G48

Pit G48 was sub-circular with steep sides and a slightly concave base. It was 1.57m in diameter and 0.48m deep. A thin primary fill of mid grey-brown silty clay with occasional chalk and charcoal inclusions was overlain by dark grey-brown silty clay with frequent flecks and small pieces of charcoal. It contained a small amount of pottery and animal bone. The lower fills were partly covered by G49,

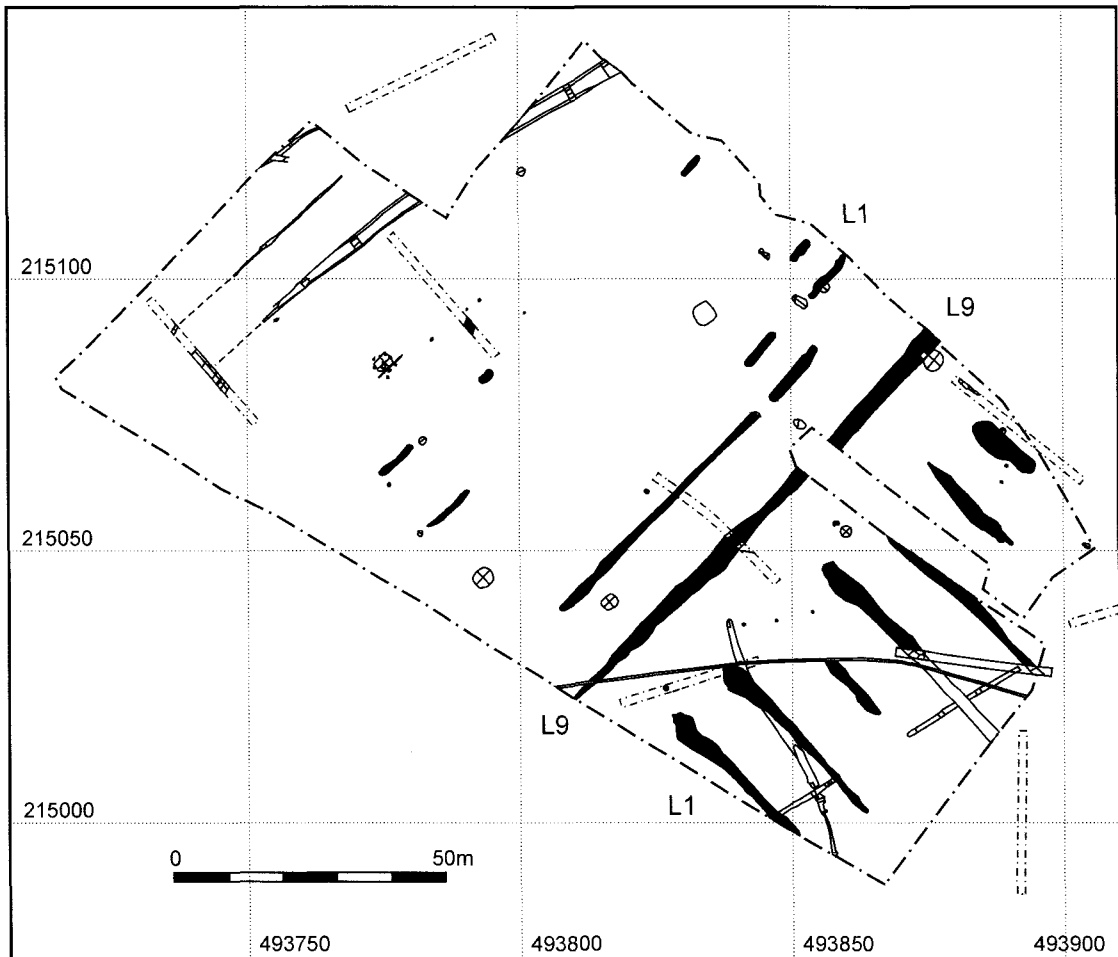


FIGURE 5 Excavated area - Phase 4: medieval and post-medieval features.

light grey clay that had slumped down the sides of the pit. The upper part of the disused pit was filled by G50, dark grey-brown silty clay with moderate amounts of charcoal flecks and a small amount of pottery.

Refuse Deposit in Disused Roman Ditch

While the Saxon settlement was in use, the upper part of a former Roman boundary ditch G20 was used for the disposal of domestic refuse G22 (Landscape L19). This black to dark grey silt contained frequent charcoal flecks, a large amount of animal bone, pottery, a fragment of iron strip (RA

20) and a Roman coin (RA 18). The animal bone was dominated by cattle and the condition of the bone suggests that it was deposited directly into the ditch, either in a single event or over a short period of time.

PHASE 4: MEDIEVAL/POST-MEDIEVAL FIELD SYSTEM

Evidence for activity in this period comprises cultivation furrows and a hollow way (Fig. 5). During this period the area formed part of the open fields surrounding the medieval settlement centred on Church End to the east.

Hollow Way L9

Hollow way G4 was a shallow, linear feature (c.3.6m wide and 0.19m deep) which ran NE to SW across the excavation area. Traces of wheel ruts survived in the base of the hollow as slots worn into the chalk bedrock. The fill G5 of the hollow way produced a small amount of animal bone, medieval and post-medieval pottery, and a fragment of a Roman brooch (RA 26).

Fields L1

The bases of cultivation furrows indicated the presence of two separate furlongs on either side of the hollow way. To the SE, the furrows were perpendicular to the hollow way, aligned NW to SE, and were spaced at intervals of approximately 13m. To the NW, they ran parallel to the hollow way at a spacing of approximately 7m.

PHASE 5: UNDATED FEATURES

Features that could not be assigned a date included traces of a possible path, pits and a scatter of post-holes.

The possible path, G12, was a linear feature found in the southern part of the site. In plan, it appeared irregular, up to 0.98m wide while in profile it was very shallow, only 0.08m deep. It could be the base of a track that has been eroded into the underlying chalk. It was cut by ditch L3 which it is suggested is likely to have been part of the Roman phase of activity.

Undated pits occurred relatively close to the buildings of the Saxon settlement. Some lay between buildings G23 and G26, with others a

short distance to the north of building G32. They varied in size from 0.5m to 2.6m across in plan and were up to 0.7m deep.

A small number of postholes were found widely spread across the excavated area.

THE ARTEFACTS by Jackie Wells

The investigations yielded an artefact assemblage comprising pottery, ceramic building material, personal items and objects associated with domestic and craft activities. These are discussed below by category. The majority of the assemblage is datable to the early to middle Saxon period, and derives from features associated with Phase 3 settlement activity. Methodologies are outlined, where appropriate, in each section.

POTTERY

Introduction

The investigations produced 553 pottery sherds, representing 288 individual vessels, weighing 6.0kg. The pottery was examined by context and thirty-eight fabric types¹ were identified (see Appendix 1) in accordance with the Bedfordshire Ceramic Type Series, held by Albion Archaeology. Where similarities between early-middle Iron Age and Saxon fabric types made classification problematic, questionable sherds have been recorded as unidentifiable. Form codes were assigned and catalogued within fabric type. Quantification was by minimum vessel and sherd count, and weight. Sherds belonging to the same vessel, but deriving from separate contexts were quantified as a single

TABLE 1 Illustrated Saxon pottery.

<i>Illust No</i>	<i>Fabric Type</i>	<i>Description</i>	<i>Group</i>	<i>Landscape</i>	<i>Phase</i>
1	A16	Mixed coarse quartz jar	44	11	3
2	A18	Fine quartz vessel	25	10	3
3	A16	Mixed coarse quartz jar	22	19	3
4	A19	Quartz and organic bowl	34/44	10/11	3
5	A19	Quartz and organic jar base	34	10	3
6	A16	Mixed coarse quartz vessel	44	11	3
7	A23	Sandstone vessel	27	10	3
8	A16	Mixed coarse quartz vessel	44	11	3
9	A23	Sandstone bowl	64	21	3
10	A16	Mixed coarse quartz vessel	28	10	3

¹ Defined either by type and quantity of inclusions, or by finish.

vessel. Attributes including decoration, manufacturing techniques, levels of abrasion, and evidence of use (such as the presence/absence of residues, sooting and wear marks) were recorded.

A representative sample of the Saxon pottery has been illustrated, Fig. 6, Table 1. The pie diagram at the base of each illustration indicates the proportion of the vessel recovered.

Discussion

The proportions of fabric types within each phase and landscape are presented in Table 2. The pottery is discussed below by chronological period, with reference to the structural hierarchy (Phases, Landscapes and Groups) where appropriate. The majority of the assemblage dates from the Saxon period. Small quantities of prehistoric, Roman and post-Saxon material were also identified.

Late Bronze Age/early Iron Age (5.8% total assemblage)

The late Bronze Age/early Iron Age assemblage comprises thirty-two sherds, representing sixteen vessels (232g) of fine and coarse flint-tempered pottery (fabric types F01A, B and C), characteristic of the period. The material is fairly abraded and fragmented, with an average sherd weight of 3g, and a vessel:sherd ratio of 1:2. No diagnostic forms occur, although a flat base sherd, and two body sherds with finger-impressed decoration were noted. Nineteen sherds (186g) were recovered from intercutting pits G58, Phase 1, while the remainder were residual in later features.

Early-middle Iron Age (2.9% total assemblage)

Early-middle Iron Age pottery comprises fifteen abraded sherds, representing thirteen vessels, weighing 65g. The pottery occurs in a limited range of predominantly sand-tempered fabrics, comparable with those identified from excavations at Aston Clinton (Slowikowski in prep), approximately 4km SW of Pitstone. No diagnostic forms are present, although two vessels with upright flattened rims were recorded. The small assemblage of early-middle Iron Age pottery was entirely residual in Phase 2 and Phase 3 features.

Late Belgic Iron Age and Roman (5.1% total assemblage)

Material of late Belgic Iron Age date is represented by six undiagnostic sherds (21g) in grog-tempered

fabric types F06 and F09. All are small (average sherd weight 4g), abraded and residual within later features.

The small Roman assemblage comprises seventeen sherds, representing fifteen vessels, weighing 255g. Fabrics comprise second century whitewares (type R03C) from the Verulamium (St Albans) region, 2nd-3rd century coarse greywares (type R06) of probable local manufacture, and late Roman regional fineware imports from Oxfordshire (type R11) and Hertfordshire (type R22A). Diagnostic forms are restricted to flanged bowls, *mortaria* and an abraded footring bowl base. Decoration includes burnishing, horizontal grooves, and slipping.

Three Roman sherds (18g) derived from the disuse fills of Phase 2 boundary ditches G16 and G18, while the remainder are residual in Phase 3 sunken-featured buildings G23, G26 and G32, and pits G42 and G48.

Saxon (80.8% total assemblage)

Pottery datable to the Saxon period comprises 447 sherds, representing 206 vessels, weighing 5.2kg. Despite constituting the majority of the ceramic assemblage, the material is fairly fragmented, with an average sherd weight of 11g.

This figure is broadly comparable with that recorded for contemporary sites in the region, such as Pennyland, Buckinghamshire (Blinkhorn 1993, 247) or Stratton, near Biggleswade, Bedfordshire (Albion Archaeology in prep), which averaged a sherd weight of 13-14g. The pottery is not particularly abraded, and several vessels, particularly those deriving from sunken-featured buildings, are represented by more than one sherd.

The Saxon vessels are predominantly sand-tempered (fabric types A16, A18, A19, A23, A26 and A32), hard-fired, undecorated and in most cases, entirely reduced. Fabrics containing calcareous and organic inclusions (types A15 and A01 respectively) are also present in small quantities. The latter is a characteristically early Saxon type, reaching a peak during the seventh century, before ceasing to be used, at least in the south and midlands, by the mid-eighth century. The low proportion of organic tempered fabrics (7 sherds), coupled with the absence from the site of standard middle Saxon types such as Maxey or Ipswich wares, may suggest a date prior to the mid-seventh century for the assemblage. However, the continuation into the

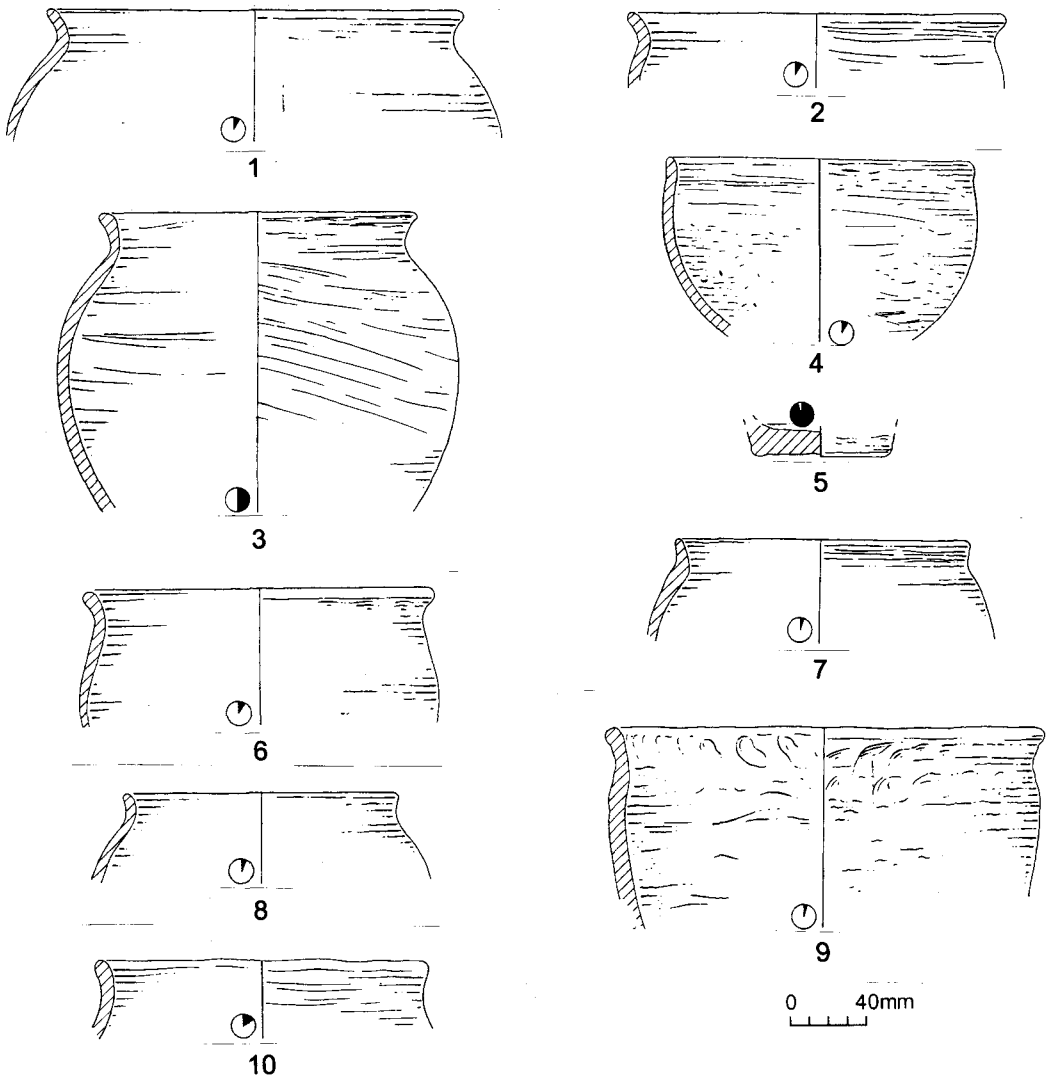


FIGURE 6 Selected Saxon pottery (scale 1:4); see Table 1.

middle Saxon period of many of the fabric types found at Pitstone should be noted.

Diagnostic forms comprise jars and bowls with either everted, upright or inturned rims. Bases are rare and occur in rounded, flat-angled and flat-rounded forms. A single footring base fragment was also present. An applied boss represents the only decorative element. The surfaces of most sherds are untreated apart from simple hand-wip-

ing, although several are burnished. Fifty-nine sherds have deliberately oxidised exterior surfaces. A number of sherds bear traces of thick internal black residues, possibly resulting from the accidental burning of vessel contents during cooking.

The Saxon assemblage reflects a significant increase in activity and organisation of the landscape during this period. Approximately 62% of the Saxon pottery was recovered from the fills of

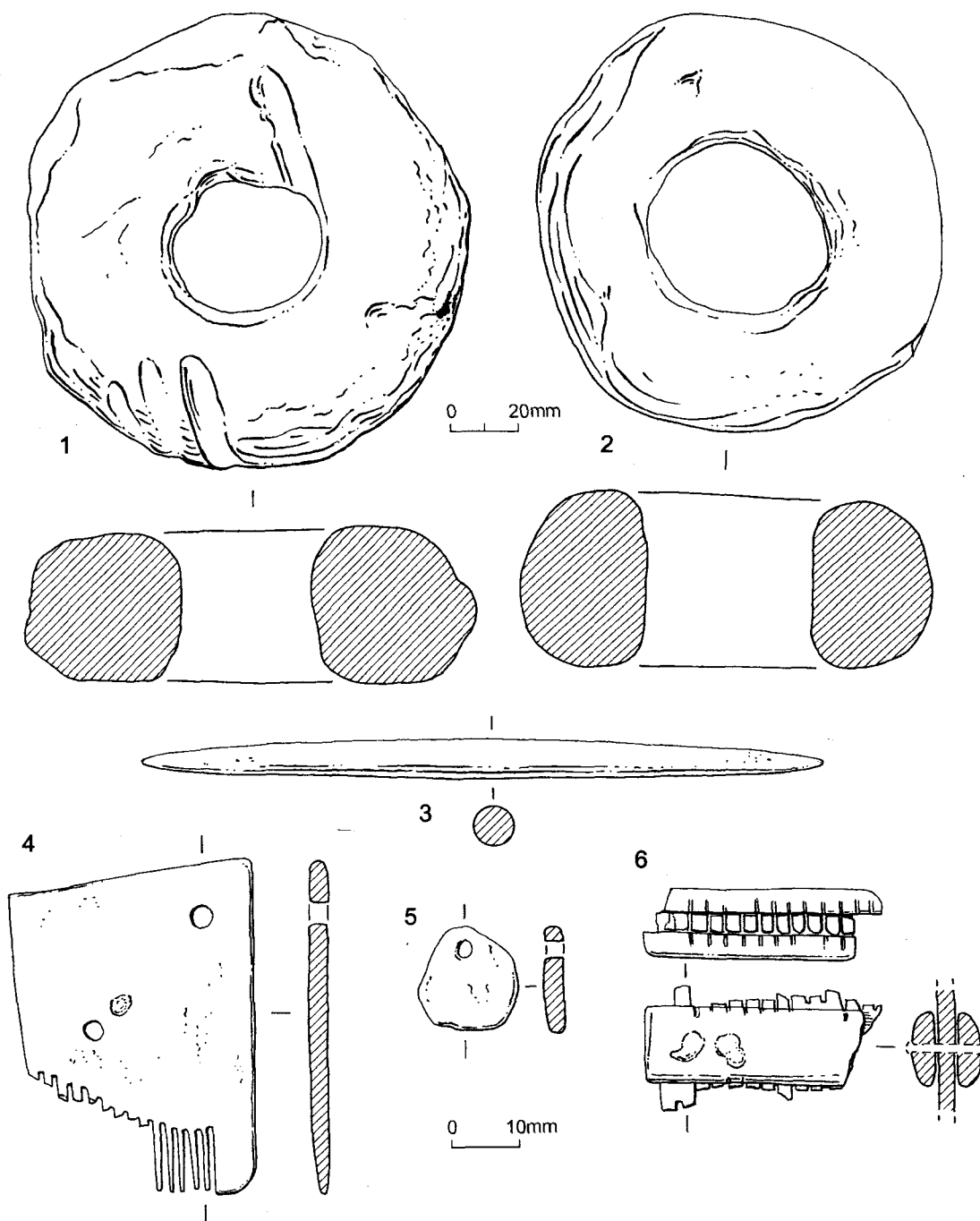


FIGURE 7 Selected Saxon artefacts (nos 1-2 scale 1:2) (nos 3-6 scale 1:1).

TABLE 2 Pottery quantification (vessel: sherd ratio, excluding unphased and unidentified material).

Phase	L No.	G No.	Fabric Type																				Med	P-med	Total							
			Late Bronze Age/ early Iron Age			Early-middle Iron Age				Late Iron Age				Roman					Saxon													
			F01A	F01B	F01C	F18	F19	F28	F35	F06A	F06B	F06C	F09	F	R03A	R06	R21	R11	R22A	V	A01	V15				A16	A18	A19	A23	A26	A32	
4	1	7												1:1			1:1												5:5		7:7	
	1	9																												1:1	1:1	
	9	5																											3:3	1:1	4:4	
3	10	24		1:1																	14:30	7:11	3:9	2:2	2:2					29:55		
	10	25	1:1			3:4									1:1						22:31	7:7	8:14		1:1					43:59		
	10	27													1:1	1:1	1:1				1:1	9:16	2:2	1:1	1:1					16:23		
	10	28					1:1	2:2							1:1	1:1	1:1				1:1	0:2	1:2	4:7	2:3	1:1		1:1		16:23		
	10	30																			4:4	3:12								7:16		
	10	31	1:1		1:1				3:3		1:1										6:9	9:24	2:2	1:1						25:43		
	10	33																			2:2		3:36		2:5					7:43		
	10	34								1:1					1:1	2:3				1:2	0:1	8:10	2:2	7:11	1:1	1:1	1:1		25:34			
	11	37		1:1			1:1																1:2							3:4		
	11	43																				1:1	1:1							2:2		
	11	44					2:3								1:1						2:4	17:62	3:7	3:11						28:84		
	11	48													1:1							1:1								2:2		
	11	49																						1:1						1:1		
	11	50											1:1									2:3		1:1	1:1					5:6		
	19	22																			1:3	15:55	3:5	1:2			1:3			21:68		
	21	64																			1:2	1:2		1:3	1:2					4:9		
2	3	11					1:1																1:1							1:1		
	17	19	1:1								1:1			1:1																4:4		
	17	21		1:1			1:1														0:1		1:1							3:4		
	18	17	1:2	1:2	1:2	1:1								1:2																5:9		
1	12	58	1:1	3:8	2:10							3:3																		9:22		
Total			5:6	7:13	4:13	1:1	1:1	9:11	2:2	3:3	1:1	1:1	1:1	1:1	4:4	1:1	6:7	1:1	5:6	2:2	2:3	2:7	4:9	108:235	40:76	31:91	7:8	7:10	3:5	8:8	2:2	268:524

sunken-featured buildings G23, G26, G29, G32 and G64, although none of this material can be directly related to the use of the structures. The composition and condition of the assemblage show little variance between periods of final use/initial disuse and disuse/infilling of each building. The uniformity of the assemblage suggests only one main period of occupation during this period. Pottery deriving from the disuse fills of pits G36, G42, G43, and G48 constitutes 21% of the Saxon assemblage, and 15% occurred in the disuse fills of the recut of boundary ditch G20.

Post-Saxon (2.9% total assemblage)

Post-Saxon material comprises nine undiagnostic sherds (27g) of sand-tempered medieval pottery, and seven sherds (122g) of glazed earthenware and stoneware dating from the 17th-18th centuries. The material is either unstratified, or derives from Phase 4 medieval / post-medieval agricultural features.

CERAMIC BUILDING MATERIAL

Fifty-three pieces of tile and brick weighing 2.4kg were recovered. The majority are oxidised, sand-tempered, flat roof tile fragments of late medieval / post-medieval date, associated with post-Saxon agricultural features in Phase 4. Roman tile is residual within the disuse fills of sunken-featured buildings G26 and G32, and comprises five oxidised, abraded sand-tempered roof tile (*tegulae*) fragments. An abraded shell-tempered, flanged *tegula* fragment is also present.

Six hand-made slab or brick fragments (119g), two in a soapy organic fabric and four sand-tempered, occurred in the disuse fills of ditch G18 (Phase 2) and in sunken-featured building G23 and pit G48, Phase 3.

The fills of sunken-featured building G23 and pit G42, Phase 3, yielded 116 unfired chalky clay fragments (1.8kg). The majority are amorphous abraded lumps, although a number have one finished surface suggesting their possible use as daub or as a lining material. Fragment thicknesses range between 25–40mm. Several pieces appear to be fire blackened, and one flat surface bears a series of cereal grain impressions (see below).

REGISTERED ARTEFACTS

Registered artefacts (*i.e.* excavated objects requiring more detailed recording and description in publication than bulk finds such as pottery) are

catalogued below. All iron objects and four copper-alloy artefacts (fourteen in total), were submitted for x-radiography; the x-ray plates form part of the site archive.

The non-ceramic assemblage provides some useful insights into the character and date of activity on the site, although the fragmentary nature of many of the objects precludes precise classification. The few typologically datable registered artefacts are indicative of Roman and Saxon activity, the former attested by the presence of a residual assemblage of coins and a brooch fragment, the latter by a number of domestic and craft items. Post-Saxon activity is evidenced by the recovery of medieval and post-medieval artefacts from agricultural features.

Textile Working

Evidence for weaving was recovered exclusively from the use/disuse fills of sunken-featured building G32, suggesting it was a possible 'weaving shed' (Williams 1993, 81, Hamerow 1993, 17).

Loomweights (Fig. 7, nos. 1 & 2).

Fragments of ten, fired clay loomweights (RAs 8–15, 27–31) were identified, indicating the use of a warp-weighted loom, where circular weights were used to tension the warp. Where classifiable, all appear to be of intermediate type (after Hurst 1959, 24). Comparable examples have been recovered from 5th and 6th century contexts at Mucking, Essex (Hamerow 1993, 66), although examples are also known from contexts of late Saxon date at Fishergate, York (Rogers 1993, 1269), and West Stow, Suffolk (West 1985, vol i, 138).

Pin-beaters (Fig. 7, no. 3).

Three cigar-shaped pin-beaters (RAs 5–7), used to separate warp threads on a warp-weighted loom, were identified. The use of pin-beaters in conjunction with the warp-weighted loom has been demonstrated both by experiment and by finds of loomweights and bone tools on settlement sites (Brown 1990, 226). Double-ended pin-beaters can be separated into two distinct types based on their length, as observed at West Stow, Suffolk (West 1985, fig 129, nos 4 and 5) and Pennyland, Buckinghamshire (Waller 1993, fig 61). This has promoted the theory that pin-beaters of differing lengths formed part of a differentiated set used during weaving (Waller 1993, 119). Of the two com-

plete Pitstone pin-beaters, one is of type A (up to 110mm in length) and one of Type B (extending to 140mm in length). Cigar-shaped pin beaters have been found in deposits of early to middle Saxon date (*c.f.* Pennyland, Waller 1993, 117).

Multi-purpose Implements

Knife

The use/disuse fills of sunken-featured building G23 yielded an iron tang and partial blade from a small whittle tang knife (RA 4). The fragmentary state of the object precludes further classification or dating, although its provenance and association with datable pottery suggests an early to middle Saxon date.

Whetstone

Whetstone fragment RA 38 is an example of a primary hone, fashioned from micaceous schist, deliberately quarried and traded. The object has one surface worn smooth through use; the remaining surfaces are spalled due to exposure to heat. It was recovered from the use fills of pit G48, Phase 3. It is typologically undatable but its provenance suggests it is associated with the Saxon settlement.

Personal Items

Combs (Fig. 7, nos. 4 & 6).

Two small sections of bone comb were recovered from the disuse fills of sunken-featured buildings G29 and G32 (RAs 19 and 32 respectively). RA 32 (Fig. 7, 4) comprises the end plate of a single-sided composite comb with an *in situ* rivet and five surviving teeth. The slightly flaring or 'winged' appearance of the end plate may suggest it derived from a hogbacked comb, although this cannot be demonstrated with any certainty. The period of use for this type ranges from the 7th to 8th centuries (MacGregor 1985, 87).

RA 19 (Fig. 7, 6) is part of a double-sided composite comb and comprises two undecorated D-shaped

connecting plates with two *in situ* iron rivets and a tooth-plate. Although no complete teeth survive, it is possible to see there would have been coarse teeth on both sides. Double-sided composite combs are recognised as a long-lived type, in use from the third to the thirteenth centuries (MacGregor 1985, 92), during which time they were subject to slight typological variations. The incomplete nature of RA 19 precludes positive dating, although certain elements, such as the presence of coarse teeth on both sides of the comb, coupled with its association with early to middle Saxon pottery, are suggestive of a Saxon date.

Brooch

A small portion of a residual Roman bow brooch (RA 26) was recovered from the silting of hollow way G5, Phase 4. The object is made of copper alloy and comprises a complete, undecorated triangular catchplate and partial foot, although further identification of brooch type is impossible.

Fasteners and Fittings

An incomplete loop-headed spike (RA 3) was recovered from initial silting of Roman ditch G21, Phase 2. Such objects are well attested in most Roman assemblages, and functioned by providing a ring or loop for attachment to woodwork or masonry (Manning 1985, 129).

Coins

Three copper alloy coins (RAs 16–18) were identified (see Table 3)². One derived from the secondary silting of Roman ditch G21, Phase 2, while two are residual within the Phase 3 disuse fills of sunken-featured building G29 and the refuse deposit G22 in the disused Roman boundary ditch G20.

Miscellaneous Objects

Fishing weights

Four lead net weights were recovered from the disuse fills of sunken-featured building G26 (RA 24)

TABLE 3 Coins by phase and type.

Phase	Landscape	Group	RA	Denom.	Date range	Obverse	Reverse	Mint
3	L10	G31	17	Dupondius/as	1 st –2 nd century	Illeg. (beardless bust)	Illeg. SC	
	L19	G22	18	AE3	367–375	GRATIAN	Secvritas Reipvblicae	Lyons
2	L17	G21	16	Radiate	260–294	Illeg.	Illeg.	

² Coin identifications by Dr Peter Guest (University of Cardiff).

and the use/disuse fills of sunken-featured building G32 (RAs 35–37), Phase 3. RA 24 (Fig. 7, no. 5) is a crudely fashioned, roughly lozenge-shaped object, with a perforation on the top edge, and is comparable to medieval examples from London (Steane and Foreman 1988, fig. 9/1–5). RAs 35–37 are cylindrical, with an axial perforation and longitudinal seam. They measure between 29 and 33mm in length and each weighs 12g, suggesting their use on hand nets, as opposed to the larger seine nets. Cylindrical lead weights have been found on sites ranging in date from the late Iron Age to the medieval periods. Comparable examples to the Pitstone weights are known from 8th to 12th century contexts at Fishergate, York (Rogers 1993, 1320). The presence of fishing weights at Pitstone is interesting, given the distance of the site from a river or other significant body of water.

Rings

Two incomplete, annular iron rings (RAs 2 and 25) were recovered, the former from furrows G7, Phase 4, and the latter from the disuse fills of sunken-featured building G26, Phase 3. RA 2 has a diameter of 24.6mm and is a possible buckle with a corroded and distorted tongue (*cf.* Ottaway and Rogers 2002, fig. 1465/12682), of a type ranging in date from the

Saxon to the late medieval periods. RA 25 is square-sectioned, with a diameter of 37mm, and may be part of a buckle or buckle junction. The object is typologically undatable.

Strip fragments

Four rectangular iron strip fragments (RAs 20, 23, 33 and 34) derive from Phase 3 features. Three are perforated and retain *in situ* rivets or nails, and one (RA 33) is highly demineralised and survives in poor condition. They may represent parts of strap hinges or bindings.

Registered Artefact Catalogue

The catalogue is organised by registered artefact number. The thirty-six registered artefacts recovered were assigned broad terms and functional categories. Selected artefacts are illustrated in Fig. 7. Only those objects relevant to the publication are listed, although individual descriptions are omitted for the three coins, which are discussed above. Full details of unstratified finds and those artefacts whose date range places them beyond the scope of this report are contained within the site archive.

The coding which prefixes each catalogue entry contains the following information:

TABLE 4 Summary of registered artefacts by phase, landscape and group.

Phase	Landscape	Group	Group description	Artefact Summary (registered artefact numbers in brackets)
4	L1	G7	Furrows	Fe annular ring (2)
	L9	G5	Silting of trackway SG5	Ca brooch catchplate (26)
3	L10	G24	Use/disuse fills of SFB G23	Fe whittle-tang knife (4)
	L10	G28	Disuse fills of SFB G26	Pb net weight (24), Fe annular ring (25)
	L10	G31	Disuse fills of SFB G29	Ca coin (17), bone comb (19), Fe strip fragment (23)
	L10	G33	Use/disuse fills of SFB G32	Bone pin beater (5, 6, 7), ceramic loomweight (8–15, 27–31), Pb net weight (35–37)
	L10	G34	Disuse fills of SFB G32	Bone comb (32), Fe strip fragment (33, 34)
	L11	G48	Construction cut and use fills of pit	Whetstone (38)
	L19	G22	Disuse fills of boundary ditch recut G20	Ca coin (18), Fe strip fragment (20)
2	L17	G21	Use/disuse fills of boundary ditch recut G20	Fe loop-headed spike (3), ca coin (16)

e.g. coding RA 20 = Registered artefact no.: G22 = Group: L19 = Landscape: Phase 3 = Phase: Fig. * no. * = Illustration no.

In all cases measurements denote the maximum surviving artefact length unless otherwise stated.

RA 2 G7, L1, Phase 4. *Iron annular ring*. Incomplete square-sectioned ring (in several pieces); possible buckle with corroded/distorted tongue. Diameter 24.6mm. Cf. Ottaway and Rogers 2002, p2886 and fig 1465/12682.

RA 3 G21, L17, Phase 2. *Iron object*. Incomplete, tapering square sectioned bar with hooked terminal; possible broken loop-headed spike. Length 116.7mm.

RA 4 G24, L10, Phase 3. *Iron knife blade*. Incomplete, tang and partial blade from small whittle tang knife. Length 52.1mm.

RA 5 G33, L10, Phase 3. *Bone pin beater*. Incomplete cigar-shaped, one end pointed, opposite end broken. Smooth finish with polish evident. Length 73mm.

RA 6 G33, L10, Phase 3, Fig. 7, no. 3. *Bone pin beater*. Complete double-ended, cigar-shaped, highly polished with a smooth finish. Type A. Length 100.8mm.

RA 7 G33, L10, Phase 3. *Bone pin beater*. Complete double-ended, cigar-shaped, highly polished with a smooth finish. Type B. Length 111.5mm.

RA 8 G33, L10, Phase 3. *Ceramic loomweight*. Incomplete, nine fragments in coarse, friable, (?) poorly-fired/unfired, buff fabric with calcareous inclusions. Length 73.2mm, weight 133g.

RA 9 G33, L10, Phase 3. *Ceramic loomweight*. Complete, five joining fragments of intermediate type in friable, (?) poorly-fired/unfired, buff fabric. No visible inclusions. Diameter 130mm, height 47.6mm, weight 732g.

RA 10 G33, L10, Phase 3. *Ceramic loomweight*. Complete example of intermediate type in hard fired, buff fabric with abundant flint, quartz and calcareous inclusions. Diameter 130mm, height 47.1mm, weight 677g.

RA 11 G33, L10, Phase 3. *Ceramic loomweight*. Incomplete, fifteen fragments (some joining) of intermediate type in (?) poorly-fired/unfired, micaceous, buff fabric. Length 99mm, height 51.4mm, weight 729g.

RA 12 G33, L10, Phase 3. *Ceramic loomweight*. Incomplete, eleven fragments (some joining) of intermediate type in friable, (?) poorly-fired/unfired, buff fabric. No visible inclusions. Length 112mm, height 49.2mm, weight 391g.

RA 13 G33, L10, Phase 3, Fig. 7, no. 1. *Ceramic loomweight*. Complete example of intermediate type in

hard fired oxidised fabric with abundant quartz and iron-stone inclusions. One side has two grooves caused by suspension. Diameter 131mm, height 44.1mm, weight 711g

RA 14 G33, L10, Phase 3. *Ceramic loomweight*. Incomplete, ten fragments in friable, (?) poorly-fired/unfired, buff fabric. No visible inclusions. Length (largest fragment) 36mm, weight 31g.

RA 15 G33, L10, Phase 3, Fig. 7, no. 2. *Ceramic loomweight*. Complete example of intermediate type in (?) poorly-fired/unfired, micaceous buff fabric. Diameter 120mm, height 52.6mm, weight 589g.

RA 19 G31, L10, Phase 3, Fig. 7, no. 6. *Bone comb*. Double-sided composite; undecorated D-shaped (plano-convex) connecting plates with two *in situ* iron rivets and tooth-plate (no teeth survive); coarse teeth on both sides; four teeth per 10mm; saw marks cut into connecting plates from manufacture of teeth. Length 34.6mm, height 14.9mm, thickness 10.3mm.

RA 20 G22, L19, Phase 3. *Iron strip fragment*. Distorted, riveted rectangular strip with small nail *in situ*. Possible strap hinge or binding. Length 82.3mm, width 32mm, thickness 10.8mm.

RA 23 G31, L10, Phase 3. *Iron strip fragment*. Rectangular strip with two rivet holes (one at each end), with *in situ* rivets. Length 34.2mm, thickness 1.1mm

RA 24 G28, L10, Phase 3, Fig. 7, no. 5. *Lead net weight*. Crudely fashioned, roughly lozenge-shaped object, perforated for suspension. Length 15.2mm, thickness 2.7mm, weight, 4g, diameter of perforation 2.4mm. Steane and Foreman type 1 (1988, 154, fig. 9/1-5).

RA 25 G28, L10, Phase 3. *Iron annular ring*. Incomplete, square-sectioned ring. Possible buckle or buckle junction. Diameter 37.3mm, thickness 5.4mm.

RA 26 G5, L9, Phase 4. *Copper alloy bow brooch catch-plate*. Undecorated, triangular, tapering. Length 22.1mm.

RA 27 G33, L10, Phase 3. *Ceramic loomweight*. Fragment of intermediate type in coarse, friable, (?) poorly-fired/unfired, buff fabric with calcareous inclusions. Joins RAs 29, 30 and 31. Length 48.6mm, weight 49g.

RA 28 G33, L10, Phase 3. *Ceramic loomweight*. Complete, five joining fragments of intermediate type in friable, (?) poorly-fired/unfired, buff fabric. No visible inclusions. Diameter 125mm, height 61.3mm, weight 804g.

RA 29 G33, L10, Phase 3. *Ceramic loomweight*. Fragment of intermediate type in coarse, friable, (?) poorly-fired/unfired, buff fabric with calcareous inclusions. Internal diameter grooved from suspension. Joins RAs

27, 30 and 31. Length 113mm, height 46.3mm, weight 197g.

RA 30 G33, L10, Phase 3. *Ceramic loomweight*. Fragment of intermediate type in coarse, friable, (?) poorly-fired/unfired, buff fabric with calcareous inclusions. Joins RAs 27, 29 and 31. Length 84mm, height 52.5mm, weight 141g.

RA 31 G33, L10, Phase 3. *Ceramic loomweight*. Fragment of intermediate type in coarse, friable, (?) poorly-fired/unfired, buff fabric with calcareous inclusions. Joins RAs 27, 29 and 30. Length 87mm, height 52.4mm, weight 147g.

RA 32 G34, L10, Phase 3, Fig. 7, no. 4. *Bone comb*. End-plate from single-sided composite comb, with *in situ* rivet and five surviving teeth (six teeth per 10mm). The end-plate has a perforation at the top corner, to facilitate suspension, and a second perforation 3mm distant from the *in situ* rivet. The proximity of these perforations suggests the comb may have been repaired. Height 49.9mm

RA 33 G34, L10, Phase 3. *Iron strip fragment*. Three joining sub-rectangular fragments, very demineralised and in poor condition. Total length 58mm.

RA 34 G34, L10, Phase 3. *Iron strip fragment*. Rectangular in shape, broken at both ends, perforated with a nail *in situ*. Length 26.5mm, width 11.9mm, thickness 2.1mm.

RA 35 G33, L10, Phase 3. *Lead net weight*. Cylindrical, with longitudinal seam, both ends open. Length 29.2mm, diameter 11.5mm, weight 12g.

RA 36 G33, L10, Phase 3. *Lead net weight*. Cylindrical, with longitudinal seam, both ends open. Length 33.9mm, diameter 11.6mm, weight 12g.

RA 37 G33, L10, Phase 3. *Lead net weight*. Cylindrical, with longitudinal seam, both ends open. Length 31.9mm, diameter 9.3mm, weight 12g.

RA 38 G48, L11, Phase 3. *Micaceous schist primary hone*. Incomplete, sub-rectangular, with one surface worn smooth through use. Other remaining surfaces spalled due to exposure to heat. Length 86mm.

HUMAN BONE by Ellen Hambleton

Two fragments of human bone were present in the hand-recovered material from the upper, disuse fill of sunken-featured building G26. These include a complete radius and a complete humerus from different contexts. Both bones were unfused and extremely porous, indicating a very young child, and were of a size consistent with that of a newborn or perinate. It is likely that both bones belonged to the same individual.

TABLE 5 Animal bone: fragments count by phase.

<i>Species</i>	<i>Phase 1</i>	<i>Phase 2</i>	<i>Phase 3</i>	<i>Phase 4</i>	<i>Phase 5</i>	<i>Total</i>
Cow		13	105	1	2	121
Sheep/Goat		2	103		1	106
Pig		5	39		3	47
Horse		1	8			9
Deer	1		2			3
Hare			1			1
Frog/Toad			2			2
Bird			7			7
Total Identified	1	21	267	1	6	296
Unidentified	0	23	545	3	5	576
Total	1	44	812	4	11	872

Percentage identified bone in each phase

Cow		61.9%	39.3%	100.0%	33.3%	40.9%
Sheep/Goat		9.5%	38.6%		16.7%	35.8%
Pig		23.8%	14.6%		50.0%	15.9%
Horse		4.8%	3.0%			3.0%
Deer	100.0%		0.7%			1.0%
Hare			0.4%			0.3%
Frog/Toad			0.7%			0.7%
Bird			2.6%			2.4%

ANIMAL BONE by **Ellen Hambleton**

INTRODUCTION

A total of 59 contexts yielded 872 animal bone fragments, 296 (34%) of which could be identified to species (Table 5). In addition to the hand-recovered assemblage, a small amount of animal bone was recovered from sieved environmental samples, including some identifiable fragments. An initial assessment established that only the Saxon assemblage was large enough to provide any reliable information and that, overall, the assemblage had only limited potential to provide information about diet, exploitation of animals and the deposition of their remains throughout the different periods of occupation. However, the Saxon deposits did display some interesting variations in species composition from different areas across the site that merited further investigation.

METHODOLOGY

All animal bones were examined and the following information recorded for each context:

- context number, cross referenced with additional contextual information
- assessment of the state of preservation (one of five grades ranging from good to poor)
- number of fragments provisionally identified to each species
- number of unidentified fragments
- number of limb bones with epiphyseal fusion data for each species
- number of mandibles for each species with surviving cheek teeth
- number of measurable bones for each species
- other comments

Anatomical elements represented, fragmentation, gnawing, butchery marks, pathology and ageing data were not recorded. Fragments noted with modern breaks were counted only once. Material recovered from the sieved environmental samples was briefly evaluated and the presence of identifiable species noted but not quantified.

More detailed recording was undertaken on bone from Saxon deposits (Phase 3) that could be identified to species. For each fragment the species and the anatomical element was noted, plus further information concerning the completeness of the element and which parts of it (anatomical zones)

were present. Also recorded for each fragment was the presence/absence of recent breaks, gnawing, burning, and surface erosion. Given the small size and generally poor preservation of the potential dataset, and following the recommendations of the assessment, no detailed records were made of ageing data or butchery marks. Where possible, measurements were taken to add to the existing metrical dataset for the region, but no analysis of the metrical data was undertaken. The same suite of information was recorded for the sieved environmental samples, together with basic counts of the unidentifiable fragments from each context.

Information was recorded onto an Access database and Excel spreadsheet, which are stored with the site archive. All counts are approximate. For the purposes of this report only the hand-recovered material is discussed in detail.

PRESERVATION AND PROVENANCE

Overall the state of preservation of the assemblage is at best moderate to quite poor and there are frequent occurrences of eroded and fragmented bone, which would account for the high proportion of unidentifiable fragments. There was some evidence of dog gnawing. Very few fragments had been burnt.

Although small samples of bone were recovered from non-Saxon contexts, the great majority of faunal material (812 fragments) came from Saxon (Phase 3) features (Table 6). The largest bone assemblages came from G34 (201 fragments) and G31 (97 fragments), both of which were disuse fills of sunken-featured buildings, G32 and G29 respectively. Other Saxon deposits contributing relatively large samples include a refuse deposit G22 in the upper part of a Roman ditch (78 fragments) and two pits: G42 (fills G43 and G44, 98 fragments) and G48 (fills G49 and G50, 112 fragments).

SPECIES REPRESENTATION

The assemblage is dominated by the three main domestic species (cattle, sheep/goat and pig), of which cattle is the most abundant (41%), closely followed by sheep/goat (36%) and then pig (16%). A small amount of horse (3%) was also recovered. Wild species were present in small numbers, including deer (1%) (roe and possibly red deer), hare (<1%) and frog/toad (<1%). Birds (2%) were also present in the hand-recovered assemblage, and the identified bird fragments consisted mainly of

goose with some domestic fowl. Sheep/goat, pig, cattle and bird (predominantly goose, but also domestic fowl) were also observed in the sieved samples. Within the sheep/goat assemblage some fragments could be distinguished to species and both sheep and goat were identified as present in the sample.

Some variation is apparent in the relative abundance of different species between different periods (Table 5). However the samples from all phases except Phase 3 (Saxon) are extremely small and as such are subject to bias. Within the Phase 3 assemblage, cattle (39%) and sheep/goat (39%) are present in almost equal numbers and both species outnumber pig (15%); this is in contrast to the smaller Phase 2 (Roman) assemblage where cattle (62%) predominate and sheep/goat (10%) are outnumbered by pig (24%).

THE PHASE 3 (SAXON) ASSEMBLAGE

A total of 812 fragments were recovered from 46 contexts of Saxon date. Of these fragments, 267 (33%) were identified to species, including cattle (39%), sheep/goat (39%), pig (15%) and horse

(3%). Deer (including roe deer and possible red deer), hare, goose, domestic fowl and frog were also present in small numbers. For a small proportion of sheep/goat bones it was possible to differentiate between the two species; two horncores were positively identified as belonging to goat, while three mandibles containing deciduous 4th premolars were positively identified as sheep. The majority of identified faunal remains were recovered from four sunken-featured buildings L10, with additional samples recovered from several dispersed pits L11 and the disposal of Saxon refuse L19 in an earlier, Roman, ditch. The assemblage composition in terms of relative abundance of different species varied considerably within and between these landscapes (Table 6).

Analysis of faunal remains from a similar Saxon site at Harrold, Bedfordshire, indicated significant intra-site variability in assemblage composition in terms of body part distribution between different features, as well as variability in species abundance (Maltby n.d.). In the light of this, the skeletal element composition of the Pitstone assemblage was examined. Cattle and sheep/goat assemblages

TABLE 6 Phase 3 animal bone: fragments count by landscape and group.

<i>Species</i>	<i>L10</i>	<i>L10</i>	<i>L10</i>	<i>L10</i>	<i>L11</i>	<i>L11</i>	<i>L11</i>	<i>L19</i>	<i>L21</i>
	<i>SFB</i>	<i>SFB</i>	<i>SFB</i>	<i>SFB</i>	<i>Pit</i>	<i>Pit</i>	<i>Pit</i>	<i>Ditch</i>	<i>?SFB</i>
	<i>G23</i>	<i>G26</i>	<i>G29</i>	<i>G32</i>	<i>G36</i>	<i>G42</i>	<i>G48</i>	<i>G22</i>	<i>G64</i>
Cow	14	10	6	16	2	12	18	27	
Sheep/Goat	3	2	20	65	2	5	5	1	
Pig	3	4		13	2	9	7	1	
Horse	1			1		1		5	
Deer				1	1				
Hare							1		
Frog/Toad							2		
Bird	1	1				1	4		
Total Identified	22	17	26	96	7	28	37	34	
Unidentified	81	29	101	135	4	70	75	44	6
Total	103	46	127	231	11	98	112	78	6
Percentage identified bone in each group									
Cow	63.6%	58.8%	23.1%	16.7%	28.6%	42.9%	48.6%	79.4%	
Sheep/Goat	13.6%	11.8%	76.9%	67.7%	28.6%	17.9%	13.5%	2.9%	
Pig	13.6%	23.5%		13.5%	28.6%	32.1%	18.9%	2.9%	
Horse	4.5%			1.0%		3.6%		14.7%	
Deer				1.0%	14.3%				
Hare							2.7%		
Frog/Toad							5.4%		
Bird	4.5%	5.9%				3.6%	10.8%		

within the Saxon sample include bones from all the main areas of the body, indicating that complete carcasses would have been present on the site. Some contexts contained more of certain elements than others, but it is difficult to interpret such patterns as resulting from particular dining/consumption activities or industrial/craft processes, as these differences in element composition may also be a factor of small sample bias. A wide range of skeletal elements were observed in the cattle and sheep/goat samples, while the pig sample had a more restricted suite of elements present. The slight bias in the sheep sample towards the more dense and robust elements such as the tibia, mandible, radius and metapodials reflects the fragmented and fairly poorly preserved state of the assemblage. The pig sample consisted primarily of mandibles and other cranial elements such as skull, maxilla and loose teeth, as well as humerus fragments. It is possible that the concentration of these elements may reflect some processing activity but again it is as likely to be a result of small sample size rather than selective deposition.

Sunken-featured Buildings L10

All four sunken-featured buildings yielded faunal remains. The material was recovered from the fills of the construction hollows and, in one case only, the fill of a structural posthole. There were no significant differences between material from the lower and upper fills and it is assumed that the bone was deposited in the buildings after they had gone out of use. Two of the buildings (G23 and G26) are dominated by cattle and have very low abundance of sheep/goat, whereas the other two buildings (G29 and G32) are both dominated by the remains of sheep/goat and have comparatively low numbers of cattle.

Building G23 yielded 103 bone fragments, only 22 of which could be identified to species as the assemblage was very fragmentary. Cattle (14 fragments) were the most abundant species and included several fragments of very young, porous bone (calf). One adult cattle metatarsal had been longitudinally chopped to extract the marrow. Sheep/goat (3 fragments), pig (3) and horse (1) were also present.

Building G26 produced the smallest assemblage of all the sunken-featured buildings (46 fragments). However, it exhibited some of the best preservation, with a high proportion of relatively large iden-

tifiable fragments with little surface erosion. Cattle fragments (10), including two complete astragali, were considerably more abundant than sheep/goat (2) and pig (4). Part of the furcula of a goose was also present. One of the sheep/goat fragments was a metacarpal that had been longitudinally split. A pig calcaneum (the only identified fragment from context 2188) had been burnt.

Building G29 yielded an assemblage of 127 fragments. The assemblage was highly fragmented with some surface erosion and only 26 bones could be identified to species. Sheep/goat (20 fragments) considerably outnumbered cattle (6 fragments). The sheep/goat assemblage consisted mostly of dense elements such as the lower limb bones and loose teeth. One very porous cattle 3rd phalanx indicated the presence of young calf while the sheep/goat remains included the mandible of an older juvenile.

Building G32 produced by far the largest assemblage consisting of 231 fragments. Compared to the rest of the Saxon assemblage the bone surface preservation was reasonably good and there was less fragmentation, which enabled the identification of 96 fragments to species. Preservation in the lower fills G33 was slightly better than in the upper fills G34, where it was slightly more mixed. One context within G34 contained a fragment of cow humerus that was considerably more eroded than the rest of the assemblage from this context and may indicate the presence of some residual material. Sheep/goat (65 fragments) were by far the predominant species followed by cattle (16 fragments) and pig (13 fragments). Horse (1 tibia fragment) and roe deer (1 mandible) were also present. Sheep/goat remains included several fairly complete mandibles, three of which were positively identified as belonging to sheep. The majority of mandibles belonged to older juveniles with mixed deciduous and permanent dentition and one mandible was that of a young adult with the adult 4th premolar just erupting at the time of death. The mandibles suggest the sheep/goat assemblage from this building was derived mainly from specimens at a prime age for meat exploitation. However, a small, porous sheep/goat humerus from the same building also attests to the presence of a very young individual. Interestingly, the roe deer mandible was at a similar stage of dental development to the majority of sheep mandibles. The cattle assemblage included fragments from adult and very young

individuals. One horncore, identified as belonging to goat, had been sawn through at the base. Other butchery marks, including knife cuts and cleaver chops, were present on bone fragments of other species.

Dispersed Pits L11

Three pits G36, G42 and G48 yielded small faunal assemblages. Overall, cattle (32 fragments) were the most abundant species among the pit fills. Pigs (18 fragments) were better represented in the pits than sheep/goat (12 fragments). Horse, deer and hare were each represented by single fragments and two frog bones were also recovered.

Pit G36 is the smallest, most poorly preserved of the three pit assemblages. It produced only seven identifiable fragments including cattle, sheep/goat, pig and deer. All fragments were from the cranial region, including one fragment of worked antler and a fragment of horncore belonging to a goat. Pit G42 also contained a relatively high proportion of cranial fragments, particularly in the case of pig. One very young pig mandible was present as well as loose adult teeth. A pathological cattle metatarsal was recovered showing signs of porous new bone deposition and disruption of the articular surface at the proximal end. Pit G48 yielded the largest of the three pit assemblages, and also contained the widest variety of species. As well as the three main domestic species (cattle, sheep/goat, pig), a fragment of hare tibia and two frog tibia were present. Four bird bone fragments were also recovered, at least three of which were identified as right wing bones from the same goose. Other fragments from the same goose wing were also recovered in the environmental samples from G48. As with the other pits, fragments of skull and loose teeth are well represented in the cattle and pig samples. The unidentified fraction from pit G48 contained a high proportion of rib fragments.

Refuse Deposit L19 in Roman Ditch

The assemblage from the refuse deposit G22 is dominated by the remains of large animals, particularly cattle (27 fragments) and to a lesser extent horse (5 fragments). Only one fragment each of pig and sheep/goat were identified. Unlike the material from the pits and buildings, the material from the ditch contains a high proportion of identifiable remains, is not heavily fragmented and comprises several large fairly complete bones. The surface

preservation is somewhat mixed with bones exhibiting generally quite good surface condition but with patches of erosion. There is some evidence of gnawing indicating that the bones were left accessible to dogs, but the damage is not extensive and this together with the completeness of the bones suggests the bones were deposited directly into the ditch in a single event, or over a short period of time. The cattle assemblage consists mainly of long bones. A right and left metacarpal and associated 1st and 2nd phalanges represent the front feet from a single individual. Both metacarpals exhibit some splaying of the proximal epiphyses perhaps indicative of the early stages of joint disease. Another incidence of pathology was noted on a cattle mandible from context 2352 where the mandibular condyle was splayed medio-laterally and formed two discrete facets separated by a central groove.

Summary and Discussion of the Saxon Animal Bone Assemblage

The assemblage was dominated by the remains of domestic species, containing broadly equal numbers of cattle and sheep/goat (*c.*40% each). Of the remainder, pig (*c.*15%) was the most abundant, with small quantities of horse, hare, fowl and goose. Cattle would have provided the main source of meat, with sheep and pig also providing a significant part of the meat diet. Geese and chicken would probably have supplemented the meat diet, but it is also likely that they were kept and exploited for other resources such as eggs and feathers. There was insufficient ageing data to build up a picture of the mortality profiles of cattle and sheep/goat, but it remains a possibility that these species were also exploited for their secondary products such as milk and wool.

The species proportions at Pitstone are very similar to those found in the Saxon material recovered from Walton, Aylesbury (Noddle 1976). However, they differ somewhat from the similarly dated assemblage from Harrold, Bedfordshire, where cattle are more abundant than sheep/goat (Maltby *n.d.*). They also differ from East Anglian Saxon rural assemblages such as West Stow, where sheep/goat predominate, and Wicken Bonhunt where pig by far outnumber the other species (Crabtree 1994).

It must be recognised, however, that there is considerable intra-site variation in species' relative

abundance at Pitstone, and indeed at other Saxon sites (Maltby n.d.), and thus the variation between sites may be a factor of which areas or features of the site were excavated. For example, at Pitstone, had only sunken-featured buildings G23 and G26 been excavated, the assemblage would have appeared similar to Harrold, with cattle the predominant species. Conversely, had only sunken-featured buildings G29 and G32 been excavated, the faunal assemblage would have exhibited a high proportion of sheep/goat, which would be more comparable to the West Stow assemblage. This type of intra-site variability is not unique to Pitstone and similar variations in assemblage composition were observed among the sunken-featured buildings at Harrold (Maltby *ibid*).

The differential distribution of species among the sunken-featured buildings at Pitstone is not random. Although the skeletal element representation in these features failed to provide any clear indications of the types of activities represented by the faunal remains, the differences in species composition must reflect different activities undertaken within or around each building. However, the interpretation of these activities is limited by the small sample sizes involved and the small range of features excavated.

MOLLUSCAN REMAINS FROM ROMAN AND SAXON DEPOSITS IN BOUNDARY DITCH L17 by Jenny Robinson

METHODOLOGY

The mollusc samples were floated onto a 0.5mm mesh and the residues then sieved to 0.5mm. The preservation of shells was good and most of the samples from the columns were shell-rich. The dried flots were scanned under a binocular microscope for assessment purposes and it was decided that it was unnecessary to analyse the samples in full. Therefore, results are given as an estimate of abundance of each taxon in each sample (see Appendix 2, Tables 9, 10 and 11). *Cecilioides acicula* has been excluded because it is a burrowing species. Nomenclature follows Kerney (1999).

RESULTS

Column samples 21, 22 and 23 gave a chronological sequence through the deposits of the Roman boundary ditch L17 (see section on Fig. 2). Column 21 came from the final re-cut of the ditch;

columns 22 and 23 were from previous cuts of the same boundary. All three sequences showed the same general trends. The samples from the bottom contained lower concentrations of shells and they were almost all species of dry open habitats, such as *Pupilla muscorum*, *Vallonia costata* and *V. excentrica*. The samples from the middle part of the sequences contained higher concentrations of shells, but they were again almost all open-country species. The upper samples, however, contained assemblages dominated by the shade-loving species *Carychium tridentatum*. Other shade-loving molluscs, such as *Aegopinella* and *Acanthinula aculeata*, were also present but open-country snails were by no means absent.

INTERPRETATION

What the molluscs appear to show are the stages of silting and vegetational succession in each cut of the ditch. Initially, conditions were very open and sedimentation was rapid. As silting slowed down, so the concentration of shells increased. Eventually, taller vegetation colonised the ditch cut. This need have been no more than herbaceous plants, such as tall grass or nettles, although it is possible that hedgerows were established along the ditches. The general site conditions were likely to have remained open. Unfortunately the one Saxon sample (Sample 21.4, G22) which was from the top fill of the final cut, contained few shells, although it did fit into the general trend.

MACROSCOPIC PLANT REMAINS

by Jenny Robinson

Eighteen samples were taken for the recovery of charred plant remains. These came from deposits representing a range of feature types and dates. In addition, a lump of fired clay, possibly daub or part of a hearth, displayed cereal grain impressions.

METHODOLOGY

The samples for charred plant remains were floated onto a 0.25mm mesh and dried. The flots were scanned under a binocular microscope. Charred seeds were noted in three samples and high concentrations of charcoal in seven samples. The samples containing seeds (chaff being absent) were sorted, the remains identified at up to x50 magnification and the results listed in Table 8. A representative range of charcoal fragments from the richer samples was fractured and identified at

TABLE 7 Charcoal.

Phase	1	3	3	3	3	3	3
Group	G58	G22	G43	G48	G27	G28	G33
Sample	19	24	2	5	8	12	14
Sample volume (litres)	20	10	20	50	10	7	10
Pomoideae indet. apple, hawthorn etc	++	+++	++	-	++	+++	-
<i>Corylus avellana</i> L. hazel	-	+	++	++	-	-	+
<i>Quercus</i> sp. oak	+++	-	++++	++++	++++	-	+++
<i>Fraxinus excelsior</i> L. ash	+	++	-	-	-	-	-

+ present, ++ some, +++ much, ++++ very much

No. of contexts sampled 18, Total volume (litres) 377, No. of contexts with charcoal 17

magnifications of up to x400. An estimate of charcoal abundance from these samples is given in Table 7.

RESULTS

Charcoal

One late Bronze Age / early Iron Age (Phase 1) sample (Sample 19, G58) contained charcoal of *Quercus* sp. (oak) and Pomoideae (hawthorn, apple etc), along with a little charcoal of *Fraxinus excelsior* (ash). Oak predominated among the Saxon charcoal but *Corylus avellana* (hazel), hawthorn-type and ash were all present. The Saxon assemblages of charcoal were mostly mixed and were likely to represent the fuel of domestic hearths.

Charred Seeds

Only three samples, all Saxon, contained charred seeds and those only in low concentrations. Sample 2 from pit fill G43 contained nutshell fragments of *Corylus avellana* (hazel) and at least one example of *Pisum sativum* (pea). There were also some cereal grains which were mostly of hulled *Hordeum* sp. (hulled barley) but a grain of *Avena* sp. (oats) was also present. Sample 3, from the upper fills G28 of sunken-featured building G26, contained a few cereal grains, including free-threshing *Triticum* sp. (rivet or bread wheat) and a weed seed, possibly *Bupleurum rotundifolium* (thorow-wax). Sample 14, from the lower fills G33 of sunken-featured building G32, contained grain of hulled *Hordeum vulgare* (six-row hulled barley) and *Secale cereale* (rye). A couple of hazelnut shell fragments were also present. The remains were likely to have been derived from domestic food

preparation, perhaps including the drying of grain to harden it so it could be ground.

Mineralised Remains

The calcium phosphate mineralised remains in Sample 2, from the fill of pit G42, suggest that this pit was used as a latrine or included human sewage among its fill. The seed of *Brassica* or *Sinapis* sp. (mustard, cabbage etc) had very probably been consumed as a flavouring.

Cereal Impressions

A number of impressions of cereal grain were observed on a piece of fired clay from G25, the upper disuse fills of sunken-featured building G23. On one surface of the piece, which measured 90mm x 70mm, about 17 impressions of hulled cereal grains were visible. Five can be identified as hulled *Hordeum* sp. (barley). The presence of grain impressions suggests that much hulled barley came into contact with the clay when it was soft, possibly because crop processing was occurring alongside whatever construction work utilised the clay.

INTERPRETATION OF PLANT REMAINS

The oak and ash charcoal from the Saxon samples suggest the proximity of at least small areas of woodland, contrasting with the Roman and Saxon molluscan evidence for open conditions on the site itself. Although the concentration of plant remains from the Saxon contexts was low, they produce a picture of an agricultural system in which bread or rivet wheat, rye, six-row hulled barley, oats and peas were cultivated and hazelnuts were collected. The four cereal crops identified are consistent with the Saxon date suggested for the settlement by the

TABLE 8 Charred plant remains (excluding charcoal).

	Phase	3	3	3
	Group	G43	G28	G33
	Sample	2	3	14
	Sample volume (litres)	20	10	10
Cereal Grain				
<i>Triticum</i> sp. – short free-threshing	rivet or bread-type wheat	–	1	–
<i>Secale cereale</i> L.	rye	–	–	2
<i>Hordeum vulgare</i> L. – hulled lateral	six-row hulled barley	–	–	2
<i>Hordeum</i> sp. – hulled median	hulled barley	–	–	2
<i>Hordeum</i> sp. – hulled	hulled barley	6	1	3
<i>Hordeum</i> sp.	barley	5	–	1
<i>Avena</i> sp.	oats	1	–	2
cereal indet.		3	1	1
Other Food Plants				
<i>Pisum sativum</i> L.	pea	1	–	–
large legume indet.	pea, bean	4	–	–
<i>Corylus avellana</i> L. – nut shell frags.	hazel	7	–	2
Weed Seeds				
cf. <i>Bupleurum rotundifolium</i> L.	thorow-wax	–	1	–
Total		27	4	15

No. of contexts sampled 18, Total volume (litres) 377, No. of contexts with seeds etc 3

pottery assemblage. Bread wheat and rye were only minor crops in the Roman period but they subsequently rose to prominence, displacing spelt wheat. The find of pea is a useful addition to the local Saxon crop record, while the mineralised mustard-type seed adds a line of evidence not usually available for sites of this date.

DISCUSSION

Pitstone is situated within the Chiltern foothills, a transitional zone between the Vale of Aylesbury to the NW and the Chiltern plateau to the SE. The land below the scarp, in the Vale of Aylesbury, is good quality arable farmland that has been intensively utilised from the Iron Age onwards. Evidence from a number of periods has been found on the Chiltern scarp. Settlement on the Chiltern plateau has seen periods of expansion and subsequent contraction, the heavy clay soils being less suited to arable agriculture.

The site produced a little evidence for activity

during the prehistoric period, comprising a few pits and a background scatter of late Bronze Age / early-middle Iron Age pottery in secondary contexts.

In the Roman period a series of boundary ditches were dug. These contained relatively small quantities of occupation debris suggesting that they represent field divisions rather than settlement enclosures. The dominant species among the molluscan remains recovered from the ditches suggest that the surrounding countryside remained open, throughout the Roman and Saxon periods. Other late Iron Age and Roman activity is well attested from previous archaeological work in the vicinity (Dungworth 1991). Approximately 1km to the east, excavation in Quarry Number 2 revealed the remains of extensive, enclosed settlement from the late pre-Roman Iron Age well into the Roman period. Enclosures found on the Ashridge Estate also suggest expansion onto the heavy soils of the clay plateau in this period. It is likely such settlement contracted after the Roman period. At the end

of the Saxon period, the Chiltern plateau had the second largest area of woodland, after The Weald, in the country (Rackham 1986).

The main body of evidence from the site was for an area of unenclosed Saxon settlement, which almost certainly extended beyond the limits of excavation. On balance, the artefactual dating evidence suggests a date prior to the mid-seventh century for this phase of occupation.

Structural evidence comprised a maximum of six sunken-featured buildings, the identification of two being less certain. One of the buildings was almost certainly used for weaving. It may be significant that this structure was slightly larger than the other buildings. All of the structural evidence was in the form of sunken-featured buildings; no "halls" were observed. The degree of truncation incurred by the surviving features suggests that if post-built structures had once been present on the site, then they would have probably survived.

The Saxon animal bone assemblage, although small, proved valuable in demonstrating significant intra-site variability. The animal bone remains were dominated by cattle and sheep/goat in roughly equal proportions, with pig the most abundant of the other domestic species. On a regional level, the assemblage has added to the picture of Saxon animal husbandry in the Chilterns, by providing some evidence of intra-regional variation and similarity in animal husbandry strategies. The charred plant remains comprised the typical suite of cereal crops found on sites of this period: bread or rivet wheat, rye, six-row hulled barley and oats, in addition to examples of mustard, pea and hazelnut.

Overall, the picture of Saxon activity in Pitstone is likely to be one of an extensive, dispersed, probably shifting settlement, similar to that recorded at Mucking (Hamerow 1993). It is interesting to note the presence of the Saxon inhumation cemetery that was identified approximately 1km to the east of the site.

There are few comparable excavated settlements from this period within Buckinghamshire, the nearest being Walton, Aylesbury approximately 13km to the west of Pitstone (Farley 1976), (Dalwood et al 1989) and (Parkhouse 1995). Excavations at Walton have revealed a number of sunken-featured buildings and post-built "halls" dating from the 5th to 7th centuries.

The site reverted to agricultural use at some point from the middle to late Saxon period

onwards, when settlement coalesced at a small number of locations within the parish, including Pitstone Church End. The landscape at this time was probably intensively utilised; the vale of Aylesbury Domesday returns show some of the highest numbers of plough teams and population in the region (Blair 1994).

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APPENDIX 1: POTTERY TYPE SERIES

Fabrics are summarised below by chronological period. Given the absence of a standardised Buckinghamshire prehistoric and Saxon type series, fabrics are listed using type codes and common names in accordance with the Bedfordshire Ceramic Type Series, currently held by Albion Archaeology. Full fabric descriptions are given only for those types not previously published. Bracketed figures after

each fabric type denote a percentage of the total excavated assemblage. Percentages are only noted for fabric types constituting over 1% of the total assemblage.

Iron Age

Type F01A Coarse flint (1.1%)

Fabric: hard fired, rough fabric with variable orange-brown to grey surfaces and core. Characterised by abundant poorly sorted angular flint 1.0–5.0mm. Also contains sparse, poorly sorted fine sub-rounded quartz 0.1–0.5mm and red and black iron ore.

Forms: undiagnostic hand-made body sherds.

Date range: late Bronze Age/early Iron Age.

Type F01B Fine flint (2.3%)

Fabric: hard fired, rough fabric with variable orange-brown to grey surfaces and core. Occasionally reduced throughout. Contains abundant, well-sorted angular flint 0.5–1.5mm, sparse well-sorted fine sub-rounded quartz and red and black iron ore.

Forms: undiagnostic hand-made body sherds.

Date range: late Bronze Age/early Iron Age.

Type F01C Quartz and flint (2.3%)

Fabric: hard-medium fired, sandy or harsh to feel with even fracture. Exterior surface generally patchy grey, interior surface and core dark grey or black. Contains common, moderately well sorted, angular flint inclusions, 1.5–3mm; and common, well sorted, rounded, clear or milky-white quartz, 0.2–0.4mm. Also may contain sparse, fine, red and black iron ore.

Forms: undiagnostic hand-made body sherds.

Date range: late Bronze Age/early Iron Age.

Type F18 Fine sand and shell

Fabric: Hard-medium fired, sandy to feel and with regular fracture. Typically surfaces are patchy dark-grey and the core dark grey or black. Contains common, well-sorted rounded or subrounded clear or milky white quartz, 0.2–0.4mm; and common-sparse, plate-like fossil shell (or voids, where leached), 0.3–0.8mm. May also contain sparse quantities of fine quartz and black or red iron ore.

Form: undiagnostic hand-made body sherd

Date range: early-middle Iron Age.

Type F19 Sand and organic

Fabric: Slowikowski (2000, 63)

Forms: undiagnostic hand-made body sherd.

Date range: early-middle Iron Age.

Type F28 Fine sand (2.0%)

Fabric: hard-medium fired, sandy or occasionally harsh to feel with even fracture. Variable colour, can be dark-

grey throughout, or have mid brown or reddish brown surfaces. Contains abundant, well-sorted, rounded or sub-rounded, clear or milky-white quartz 0.1–0.4mm (occasionally up to 0.8mm); sparse, well-sorted, rounded, black and red iron ore 0.2–0.5mm. Additionally, the matrix may contain sparse, greenish glauconite inclusions 0.1–0.2mm

Forms: undiagnostic hand-made body sherds.

Date range: originating in the late Bronze Age/early Iron Age and continuing into the middle Iron Age.

F35 Micaceous

Fabric: fairly hard fired with smooth surfaces, reduced dark grey-black throughout. Characterised by the presence of abundant fine white mica, particularly visible on the external surface. Contains abundant, well-sorted sub-rounded fine quartz, 0.1–0.5mm, and rare elongated voids, up to 1.5mm in size, where organic matter has burnt out.

Forms: undiagnostic hand-made body sherds.

Date range: early-middle Iron Age.

Type F06 Grog

Fabric: Slowikowski (2000, 62); three sub-divisions of this type have been defined, based on the size and frequency of the grog inclusions (types F06A, B and C). All occur at Pitstone.

Forms: undiagnostic body sherds, mainly wheel-thrown.

Date range: late 'Belgic' Iron Age.

Type F09 Sand and grog

Fabric: Slowikowski (2000, 62), *c.f.* also Milton Keynes fabric group 47 (Marney 1989, 193–4).

Forms: undiagnostic wheel-thrown body sherd.

Date range: late 'Belgic' Iron Age.

Type F Non-specific Iron Age (4 sherds)

Sherds which could not be assigned a fabric type, but whose form or context suggest an Iron Age date. These are described in the site archive.

Roman

Type R03C Smooth whiteware

Fabric: Hard fired smooth fabric, cream-buff throughout. Contains common, well-sorted, sub-rounded clear or opaque quartz, 0.1–0.5mm, and occasional red iron ore.

Forms: undiagnostic wheel-thrown body sherd.

Date: late 1st-2nd century.

Type R06C Fine grey ware

Fabric: Hard fired, smooth fabric with variable reduced surfaces and paler core. Contains frequent, well-sorted fine quartz, 0.1–0.5mm.

Forms: jar base sherds.

Date: 2nd century+.

Type R06D Micaceous grey ware

Fabric: Soft fired fabric with mid-grey surfaces and paler core. Contains common, well-sorted, sub-rounded fine quartz, 0.1–0.5mm, and sparse inclusions of larger grains. Also rare red iron ore.

Forms: undiagnostic wheel-thrown body sherd.

Date: 2nd century+.

Type R06F Grog and sand grey ware

Fabric: Hard fired, dense fabric, smooth to the touch, with variable grey-brown surfaces and core. Contains frequent well-sorted subangular quartz, 0.1–0.3mm, powdery buff grog particles, 0.5–1.0mm, and sparse black iron ore.

Forms: undiagnostic wheel-thrown body sherd.

Date: ?2nd century+.

Type R06H White-slipped greyware

Fabric: hard fired fabric, mid-dark grey throughout. Contains fine - sparse to common clear and white quartz inclusions 0.1–0.3mm. Also sparse iron ore and rare shell inclusions.

Forms: undiagnostic wheel-thrown body sherd.

Date: ?2nd century+.

Type R11D Oxford colour coat

Fabric: Young (1977, 123).

Forms: flanged bowl and miscellaneous footring base.

Date: mid 3rd-4th century.

Type R11E Oxford whiteware mortaria

Fabric: Young (1977, 56).

Forms: flanged mortaria.

Date: mid 3rd-4th century.

Type R21 Unsourced mortaria

Fabric: hard fired with buff surfaces and dark grey core. Contains abundant, well-sorted sub-rounded quartz, *c.* 0.2–0.5mm. Trituration grits are poorly-sorted opaque, grey-white quartz.

Form: flanged mortaria, with white slip.

Date: uncertain.

Type R22A Hadham oxidised

Fabric: Tomber and Dore (1998, 151), Marney (1989, 186: fabric 37)

Forms: neckless jar.

Date: mid to late 2nd century+, with the widest distribution occurring in the 4th century.

Saxon*Type A01 Organic (1.3%)*

Fabric: fairly hard, 'soapy' fabric with variable orange-brown to grey-black surfaces and black core. Characterised by abundant elongated blackened voids, up to 3.0mm in size, where organic temper (straw) has burnt

out during firing. Sherds also contain sparse, ill-sorted subangular quartz 0.1–0.3mm, and rare argillaceous inclusions, 0.6mm, the latter naturally occurring in the clay.

Forms: burnished hand-made body sherds.

Type A15 Limestone and sand (1.6%)

Fabric: fairly hard, sometimes burnished fabric, variable orange-brown to dark grey-black in colour. Contains frequent shelly limestone 0.6–1.2mm, and frequent medium, sub-angular quartz 0.3–0.6mm. Two sub-divisions of this type, i) fine (five sherds) and ii) coarse (four sherds), have been defined at Pitstone, based on the size and frequency of the limestone inclusions.

Forms: hand-made body sherds, and one upright rim.

Type A16 Mixed coarse quartz (43.0%)

Fabric: hard fired, fairly rough fabric, usually dark grey or black throughout, although surfaces can be light brown. Contains abundant, ill-sorted, subrounded to rounded quartz 0.3–0.6mm. Also occasional subrounded limestone fragments, 0.2–0.6mm, and coarse subangular flint inclusions up to 1.3mm. Organic impressions, up to 2.0mm in size are often visible on the surfaces.

Forms: hand-made jars and bowls with upright, everted or inturned rims, flat-rounded bases, and a single footring base. Some vessels have burnished or wiped exteriors. An applied boss represents the only decorative element.

Illustration: Fig. 6: nos 1, 3, 6, 8 and 10.

Type A18 Fine quartz (13.7%)

Fabric: hard, fairly smooth, occasionally sandy in texture. Reduced dark grey to black throughout, with occasional brown exterior surfaces. Contains abundant, well-sorted, fine subrounded to subangular quartz, 0.1–0.2mm, moderate to common subrounded sandstone fragments, 0.2–0.3mm, and occasional to moderate organic impressions, up to 2.0mm in size.

Forms: hand-made-vessels with upright or everted rims, flat-rounded and flat-angled bases, some sherds burnished or wiped, and some with oxidised exteriors.

Illustration: Fig. 6: no 2.

Type A19 Organic and sand (16.4%)

Fabric: hard, fairly smooth, dark grey to black throughout. Contains abundant subrounded to subangular quartz 0.2–0.6mm, and moderate to common coarse organic matter (straw) and/or frequent elongated blackened voids, up to 5.0mm in size, visible on surfaces and in breaks. Also occasional to moderate subangular limestone inclusions, 0.1–0.7mm.

Forms: hand-made burnished vessels with upright, everted or inturned rims, rounded and flat-angled bases.

Illustration: Fig. 6: nos 4 and 5.

Type A23 Sandstone (1.4%)

Fabric: fine, hard fabric, dark grey-brown to black throughout. Surfaces are often smoothed. Characterised by large clusters of subrounded quartz crystals, 0.6–1.0+mm, and moderate subangular sandstone fragments, 0.2–2.5mm. Also contains abundant subangular quartz 0.3–1.0mm and occasional elongated blackened voids, up to 3.0mm in size, where organic material has burnt out.

Forms: hand-made wiped vessels with plain upright and everted rims. One sherd has a faint finger impression directly below the rim.

Illustration: Fig. 6: nos 7 and 9.

Type A26 Mica, sand and organic (1.8%)

Fabric: fairly hard, variable orange-brown to dark grey-black fabric, often with smoothed surfaces. Contains common to abundant subangular 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.

Forms: hand-made undiagnostic body sherds.

Type A32 Red quartz

Fabric: hard fired, dark grey-brown to black throughout. Characterised by the presence of abundant subrounded and subangular red quartz 0.5–1.5mm. Also rare subrounded clear or milky quartz, 0.2–0.6mm, and occasional subrounded red / brown iron ore, 0.2mm. Occasional blackened, elongated voids where organic material has burnt out.

Forms: hand-made body sherds.

Type A

Fabric: hard fired, pale buff-grey throughout. Contains moderate, poorly-sorted subangular quartz, 0.1–0.5mm, and rare blackened, elongated and rounded voids, where organic material has burnt out. Also abundant white mica visible on surfaces, but not in breaks.

Forms: hand-made fine-walled body sherds, one with an applied boss.

Post-Saxon

Medieval and post-medieval pottery constitutes approximately two percent of the excavated assemblage (9 and 7 sherds respectively). A comprehensive list of post-Saxon types is contained in the archive.

APPENDIX 2: RESULTS OF MOLLUSCAN ANALYSIS

TABLE 9 Mollusc column 23 (*Cecilioides acicula* excluded).

<i>Group:</i>	<i>G18</i>	<i>G19</i>	<i>G19</i>	<i>G19</i>	<i>G19</i>	<i>G19</i>	<i>G19</i>
<i>Sample:</i>	23.1	23.2	23.3	23.4	23.5	23.6	23.7
<i>Context:</i>	2369	2370	2370	2370	2370	2370	2370
<i>Carychium</i> sp.	–	–	–	–	+	+	+++
<i>Cochlicopa</i> sp.	–	–	–	–	+	–	+
<i>Vertigo pygmaea</i> (Drap.)	+	+	+	+	+	+	+
<i>Pupilla muscorum</i> (L.)	+	+	++	+	+	+	–
<i>Vallonia costata</i> (Müll.)	+	+	+	+	++	++	+++
<i>V. excentrica</i> Sterki	+	+	++	++	+++	++	+
<i>Vallonia</i> sp.	+	+	++	++	++	+++	++
<i>Acanthinula aculeata</i> (Müll.)	–	–	–	–	–	–	+
<i>Ena obscura</i> (Müll.)	–	–	–	–	–	–	+
<i>Punctum pygmaeum</i> (Drap.)	–	+	+	+	+	+	+
<i>Vitrea</i> sp.	–	–	–	–	–	–	+
<i>Nesovitrea hammonis</i> (Ström)	–	–	+	+	+	+	–
<i>Aegopinella nitidula</i> (Drap.)	–	–	–	–	+	+	+
<i>Oxychilus cellarius</i> (Müll.)	–	–	+	+	–	–	+
<i>Helicella itala</i> (L.)	–	–	–	+	+	+	–
<i>Trichia hispida</i> gp.	+	+	+	++	++	++	++

+ present, ++ some, +++ many

TABLE 10 Mollusc column 22 (*Cecilioides acicula* excluded).

Group	G18	G19	G19	G19
Sample	22.1	22.2	22.3	22.4
Context	2366	2367	2367	2367
Carychium sp.	+	+	++	+++
Cochlicopa sp.	-	-	-	+
Vertigo pygmaea (Drap.)	-	+	+	+
Pupilla muscorum(L.)	+	+	+	+
Vallonia costata(Müll.)	+	+	++	++
V. excentrica Sterki	-	++	+++	+
Vallonia sp.	+	+++	+++	++
Acanthinula aculeata (Müll.)	-	-	+	+
Ena obscura (Müll.)	-	-	+	-
Punctum pygmaeum (Drap.)	-	+	+	+
Vitrea sp.	-	-	-	+
Nesovitrea hammonis (Ström)	-	-	+	-
Aegopinella pura (Ald.)	-	-	+	+
A. nitidula (Drap.)	-	-	+	+
Clausilia bidentata (Ström)	-	-	-	+
Helicella itala (L.)	-	+	-	+
Trichia hispida gp.	+	+	++	++

+ present, ++ some, +++ many

TABLE 11 Mollusc column 21 (*Cecilioides acicula* excluded).

Group:	G21	G21	G21	G22
Sample:	21.1	21.2	21.3	21.4
Context:	2353	2353	2353	2352
Carychium sp.	-	-	++	+
Cochlicopa sp.	+	-	-	-
Vertigo pygmaea (Drap.)	+	+	+	-
Pupilla muscorum (L.)	-	+	-	-
Vallonia costata (Müll.)	-	+	++	-
V. excentrica Sterki	+	+	-	-
Vallonia sp.	+	+	+	-
Acanthinula aculeata (Müll.)	-	-	+	-
Punctum pygmaeum (Drap.)	+	-	+	-
Aegopinella pura (Ald.)	-	-	+	-
A. nitidula (Drap.)	-	-	+	+
Helicella itala (L.)	+	+	-	-
Trichia hispida gp.	+	+	+	+

+ present, ++ some, +++ many