Rushbrooke Nitrate Pipeline, Rushbrooke, Bury St Edmunds RBK 020 & 021

Archaeological Excavation Report

SCCAS Report No. 2008/212

Client: Anglian Water

Author: M. Muldowney & S. Anderson

July 2011

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Author: M. Muldowney & S. Anderson

Contributions By: Sue Anderson, Sarah Bates, Diana Briscoe, Andrew Brown, Julie Curl, Val Fryer, Richenda Goffin, Faye Minter, Ian Riddler & Nicola Trzaska-Nartowski

Illustrator: Crane Begg, Ellie Hillen & Sue Holden

Editor: Joanna Caruth

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Planning Application No:	**SE/06/2678**
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Grid Reference:	**TL 8607 6152 to TL 8733 6229**
Client/Funding Body:	**Anglian Water**
Curatorial Officer:	**Dr. Jess Tipper**
Project Officer:	**Mo Muldowney**
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Prepared By:	Sue Anderson
Date:	July 2011
Approved By:	Joanna Caruth
Position:	West Area Contracts Manager
Date:	November 2011
Signed:	

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Summary

Fieldwork was carried out prior to and during work to install a pipeline at Rushbrooke Water Treatment works between 2007 and 2008. Monitoring in 2007 (RBK 020) along the pipeline wayleave identified a Saxon sunken-featured building and a series of three ditches, one of which was of Early Saxon date. In 2008 (RBK 021), further monitoring of the pipeline 'launch pits' identified a colluvial deposit only, and an excavation of a further stripped area identified seven pits and five ditches, the majority of which were located towards the south-west end of the site. One of the ditches was of possible Early Anglo-Saxon origin and the remainder were either post-medieval or undated. A cluster of postholes to the north of the ditches contained flint and may be prehistoric. A few other discrete features were also identified, although none contained dateable material.

1. Introduction

Fieldwork was carried out by Suffolk County Council Archaeological Service (SCCAS) ahead of the insertion of an additional pipeline at Rushbrooke Water Treatment Works by Anglian Water. The first stage of monitoring took place in 2007 and was given the Suffolk Historic Environment Record (HER) code RBK 020.

The second stage of archaeological monitoring (HER code RBK 021) was undertaken during the establishment of four 'launch and exit' pits along the route of the Anglian Water Nitrate Pipeline. The launch pits were of varying sizes and located at irregular intervals along the pipeline route. They allowed for the pipeline to be directionally drilled.

A brief excavation stage followed the second stage of monitoring, after Anglian Water had completed work on the pipeline. The work was requested by Dr. Jess Tipper (SCCAS) after it became apparent that an area containing archaeological features, mostly not within the limits of the original pipeline, was mistakenly stripped of topsoil. The area covered approximately 0.02ha and was located between two of the launch pits, just west of the River Lark.

2. The excavation

2.1 Site location

The development area lay between the medieval villages of Rushbrooke to the south-east, Sicklesmere to the south, and the town of Bury St Edmunds to the north (Fig. 1). It was situated in arable land which was under crop at the time of excavation.

2.2 Geology and topography

The route of the pipeline lay on sloping land (between 30m and 55m AOD) from TL 8733 6229 (east) to TL 8607 6152 (west) over a distance of 550m between the water treatment works and the A134 (Fig. 1). The excavated area was located on generally flat land between 30m and 35m AOD and was situated at the base of a moderate north-east facing slope on the western floodplain of the River Lark.

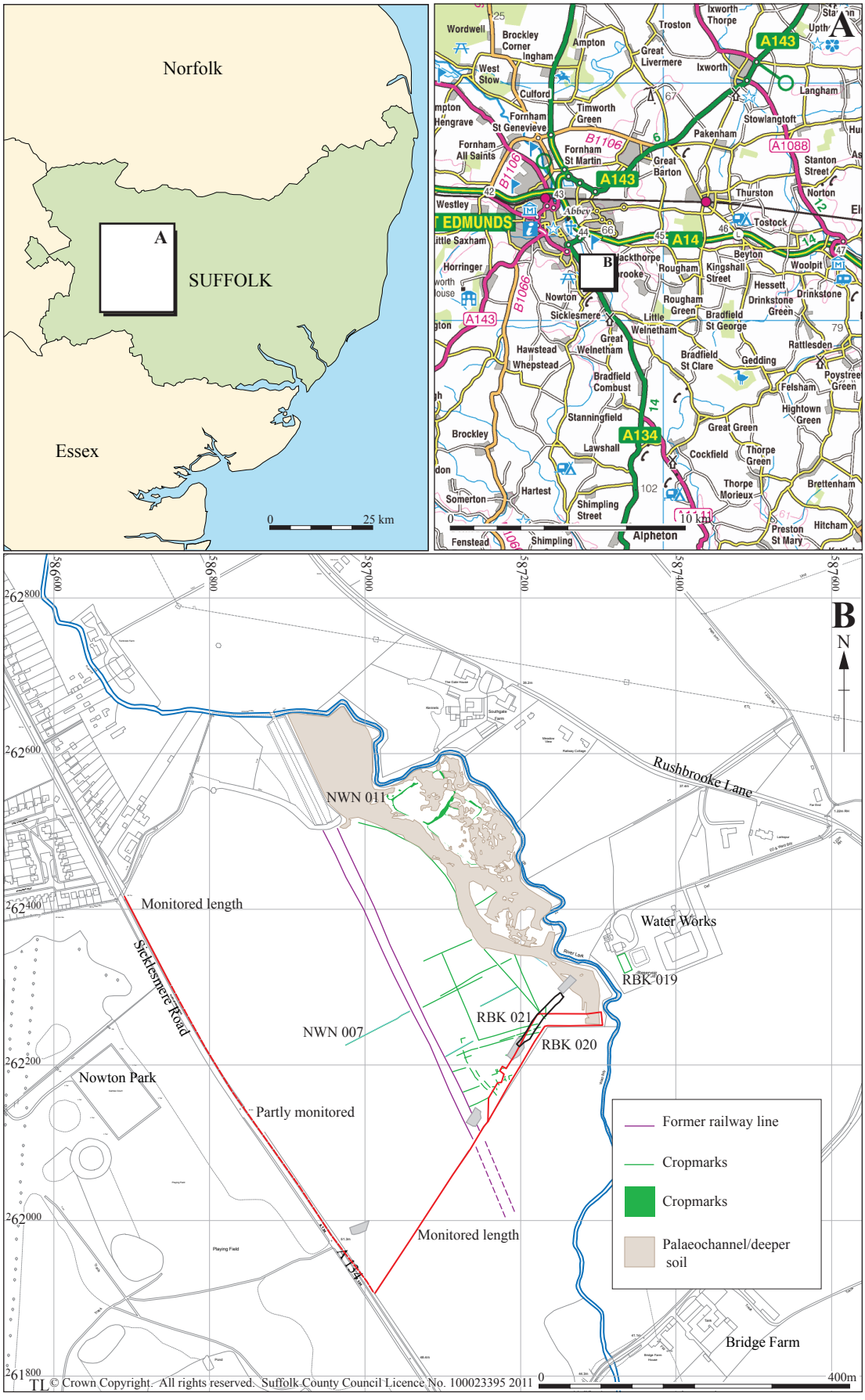


Figure 1. Location plan showing RBK 020 (red), RBK 021 (black), launch pits (grey) and HER sites mentioned in the text (green)

The solid geology of the area comprises upper chalk deposits, overlain by boulder clay then glacial sands and gravels (British Geological Survey 1982) and finally, located immediately adjacent to the River Lark, alluvial (flood) deposits; this, however, was not encountered during the excavation stage.

A palaeoenvironmental survey was carried out by Birmingham Archaeo-Environmental Institute of Archaeology and Antiquity (BAE) (Hill 2007) as part of the second stage archaeological monitoring works (RBK 021), in order to assess the alluvial deposits exposed at that point. Analysis demonstrated that the deposits were likely to have accumulated during the mid-to-late Holocene period (Hill 2007).

2.3 Archaeological and historical background

The development area appears to have been under agricultural use for the majority of its documented history. Archaeological remains of significance in the area are predominantly restricted to the villages already mentioned. Within the immediate vicinity, there is a large rectangular enclosure (NWN 007) to the north-west, and another more irregular enclosure in the bend of the river (NWN011), both of which are known from cropmark (aerial photographic) evidence only (Fig. 1) and are undated. The south-west end of the RBK 021 excavation area lay within the area covered by NWN 007. To the north-east a programme of archaeological evaluation and monitoring (RBK 019) was undertaken in 2007 which identified a ditch containing Roman pottery, a sherd of Saxon pottery, and a concentration of struck flint of which the largest group is thought to be Neolithic (Green 2007).

3. Methodology

3.1 Monitoring (RBK 020)

The pipeline route was stripped of overburden to the level required by Anglian Water and was constantly monitored by an experienced archaeologist. As archaeological features were identified in two areas, an excavation strategy was employed in order to sample these deposits. The first area was located approximately 85m south-west from the point at which the pipeline route changes orientation, and was stripped using a tracked 360° machine with a 1.8m wide toothless ditching bucket; the second area was located at the angle in the pipeline. Trenches totalling 246.5m in length

were excavated by a tracked 3-tonne 360° machine with a 1.2m wide toothless ditching bucket in order to target the visible features and cropmarks shown in aerial photographs. Each area was stripped to the upper surface of the natural sands and gravels under constant supervision by an experienced archaeologist. The two areas contaiing archaeological features were metal-detected by a member of SCCAS's Field Team.

3.2 Monitoring and Excavation (RBK 021)

The launch pits (Fig. 1) were stripped by a rubber-tracked mechanical excavator, with a 1.8m wide toothless ditching bucket, under constant archaeological supervision. Any archaeological deposits identified were excavated mechanically and recorded using SCCAS *pro forma* record sheets. Context numbers were assigned between 0001–0005.

Although the area under excavation had previously been stripped of topsoil by Anglian Water, it was observed that more required removal in order to establish beyond reasonable doubt the presence/absence, character, density etc. of archaeological features. This was undertaken using the same rubber-tracked mechanical excavator as before. All identified features were then excavated by hand in order to facilitate the recovery and removal of artefacts and to determine their character. All discrete features were initially half-sectioned and later fully excavated, and a minimum of 10% of all linear features, including any intersections, was also excavated. Sections were drawn at a scale of 1:10 and plans at 1:50. Colour photographs were taken using a high resolution digital camera and black and white prints using a 35mm SLR. A rough pre-excavation plan was created using a TST, which included the limit of excavation, and all level data was taken (on the ground surface) by the same method. In order to avoid duplication of numbers with the previous phase of works, contexts were recorded using a continuous numbering system beginning at 5000, and samples from 50. All areas were metal-detected by a member of SCCAS's Field Team.

3.3 Post-excavation

All site data was entered into an MS Access database and recorded under the County HER codes: RBK 020 and RBK 021.

4. Results

4.1 Introduction

Archaeological features comprised a sunken-featured building, a series of ditches, a small cluster of postholes, and three additional, unrelated postholes/pits. All identified contexts are listed in Appendix 2. Broadly speaking, the postholes/pits were located towards the north-east end of the stripped area and the ditches in the middle and towards the south-west end. Figure 2 shows the identified features within the two monitored and excavated areas. The areas have been combined for the purposes of description.

The natural horizon, into which all archaeological features were cut, comprised loose sands and gravels (5026), becoming slightly more silty towards the west end of the stripped area, where the easternmost extent of colluvium was encountered. One struck flint was recovered from this context.

4.2 Phase 1: Prehistoric

A cluster of postholes to the northern half of the RBK 021 trench (Fig. 2) may be of prehistoric date. Postholes 5000, 5002, 5004 and 5017 (Fig. 3) all contained small quantities of struck or burnt flint and no other finds. Posthole 5006 (Fig. 3) was of similar character but produced no finds. All were circular in plan with gently sloping sides and concave bases, and each contained a single grey-brown silty sand fill. To the east, within RBK020, a similar feature was discovered. Pit 0028 (Fig. 2) was circular in plan with a U-shaped profile. It was 0.5m in diameter by 0.1m deep and contained single fill 0031, mid brown sandy silt with burnt flint inclusions.

4.3 Phase 2: Roman

Although no features could be assigned to the Roman period, a number of Roman objects were recovered from the site (see Section 5), from ditches 0022, 0026 and as unstratified finds. There is a possibility that this assemblage represents limited Roman activity on the site, but it could also be related to Saxon occupation as Roman material was often collected for re-use in this period. However, none was recovered from the SFB.

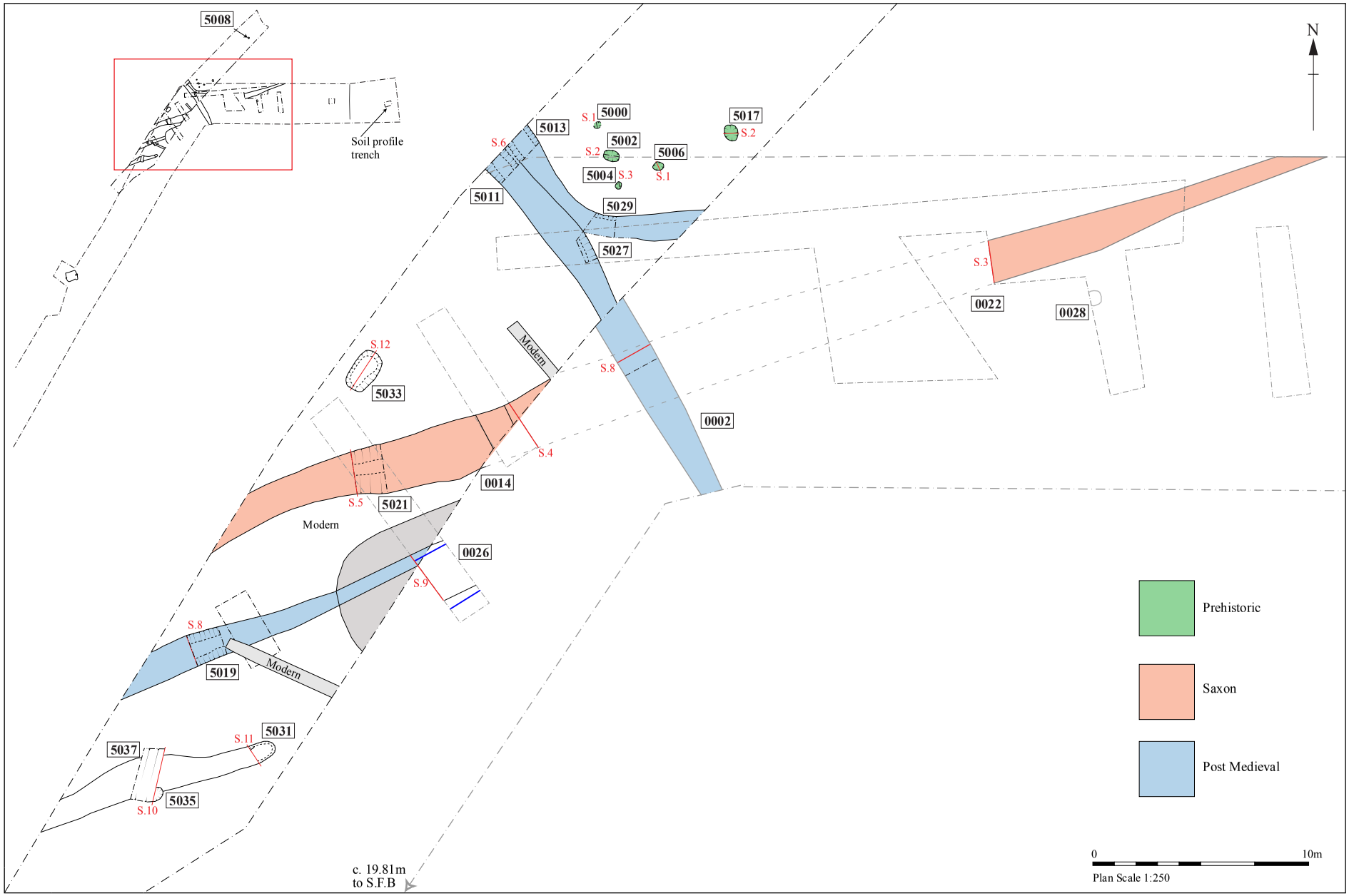


Figure 2. Phased Trench plan, showing RBK 020 (pale grey) and RBK 021 (black)

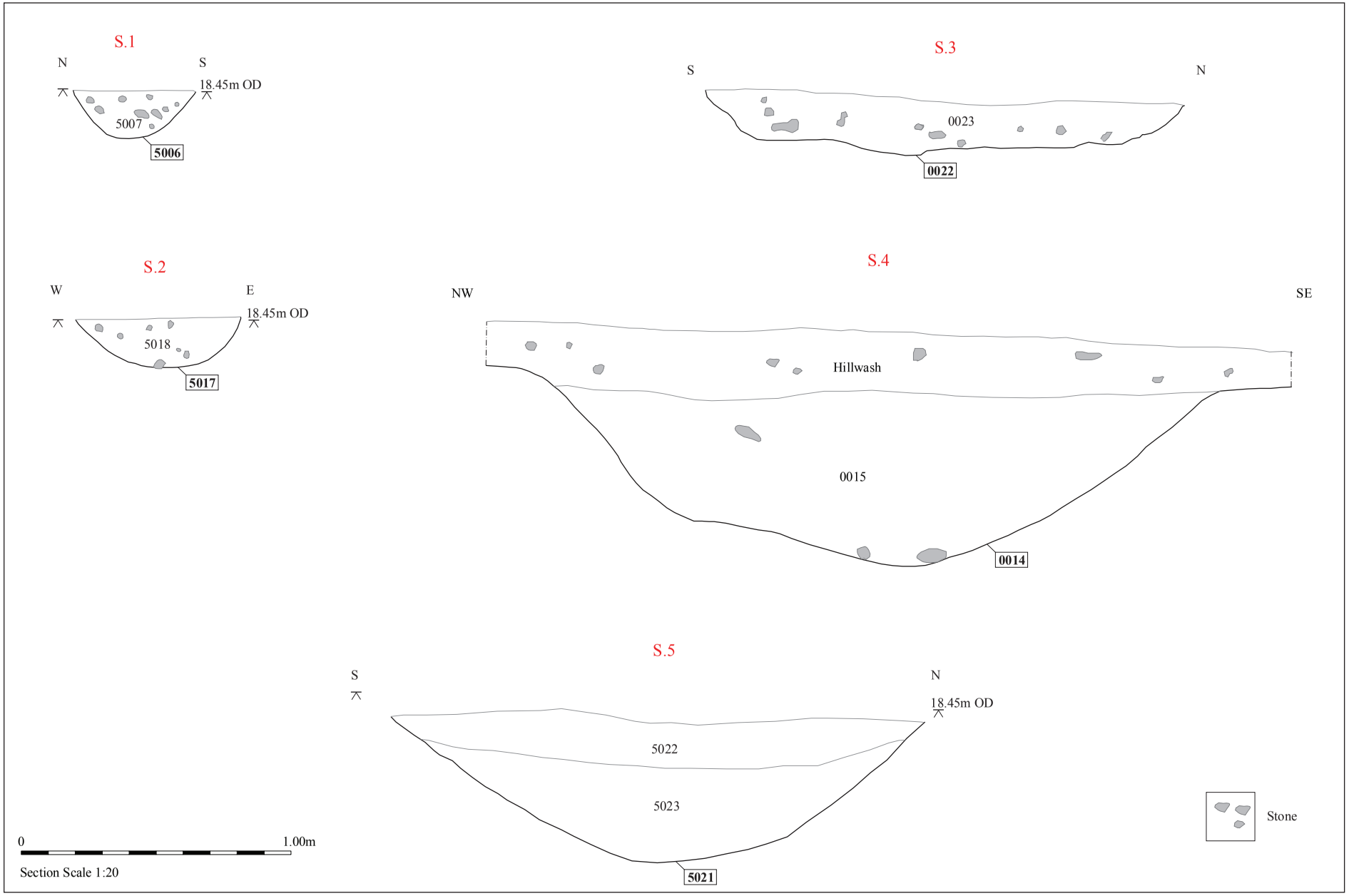


Figure 3. Phase 1 and 3 sections

4.4 Phase 3: Early Anglo-Saxon

Ditch 0014 was identified during the monitoring of RBK 020 and was subsequently more fully excavated as RBK 021 5021 (Fig. 3). It was aligned WSW–ENE, was more than 15m long and did not terminate within the excavation area. It varied between 1.5m and 2.7m wide and was 0.5m deep. It had a broad, U-shaped profile and contained lower fill 5023, comprising 0.35m thick mid orange brown silt, and upper fill 5022, mid grey sandy silt up to 0.2m thick. Early Saxon pottery was recovered from both fills, and monitoring fill 0015 contained a fragment of a copper alloy vessel rim (SF 1003), possibly intrusive.

Ditch 0022 (Figs 2–3) was on the same alignment as 0014/5021 and was again indistinct in plan. Potentially it may represent an extension of the same ditch if the intervening area was truncated. It was 1.8m wide by 0.2m deep with a very shallow profile. It contained single fill 0023, mid-light orange brown sandy silt from which a silver Iron Age coin (SF 1005) was recovered. Two sherds of Early Saxon pottery and two (joining) fragments of *tegula* were also recovered.

A sunken-featured building (SFB) 0004 was identified towards the south of the site. It was rectangular in shape, 4m long by 3.4m wide and 0.17m deep, with irregular, steep sides and a flat base (Fig. 4; Pl. 1). It was filled by 0005, a dark charcoal-stained sandy silt, which contained a large finds assemblage (Table 1).

Plate 1. Sunken-featured building 0004 from the north. (Scale = 2m)

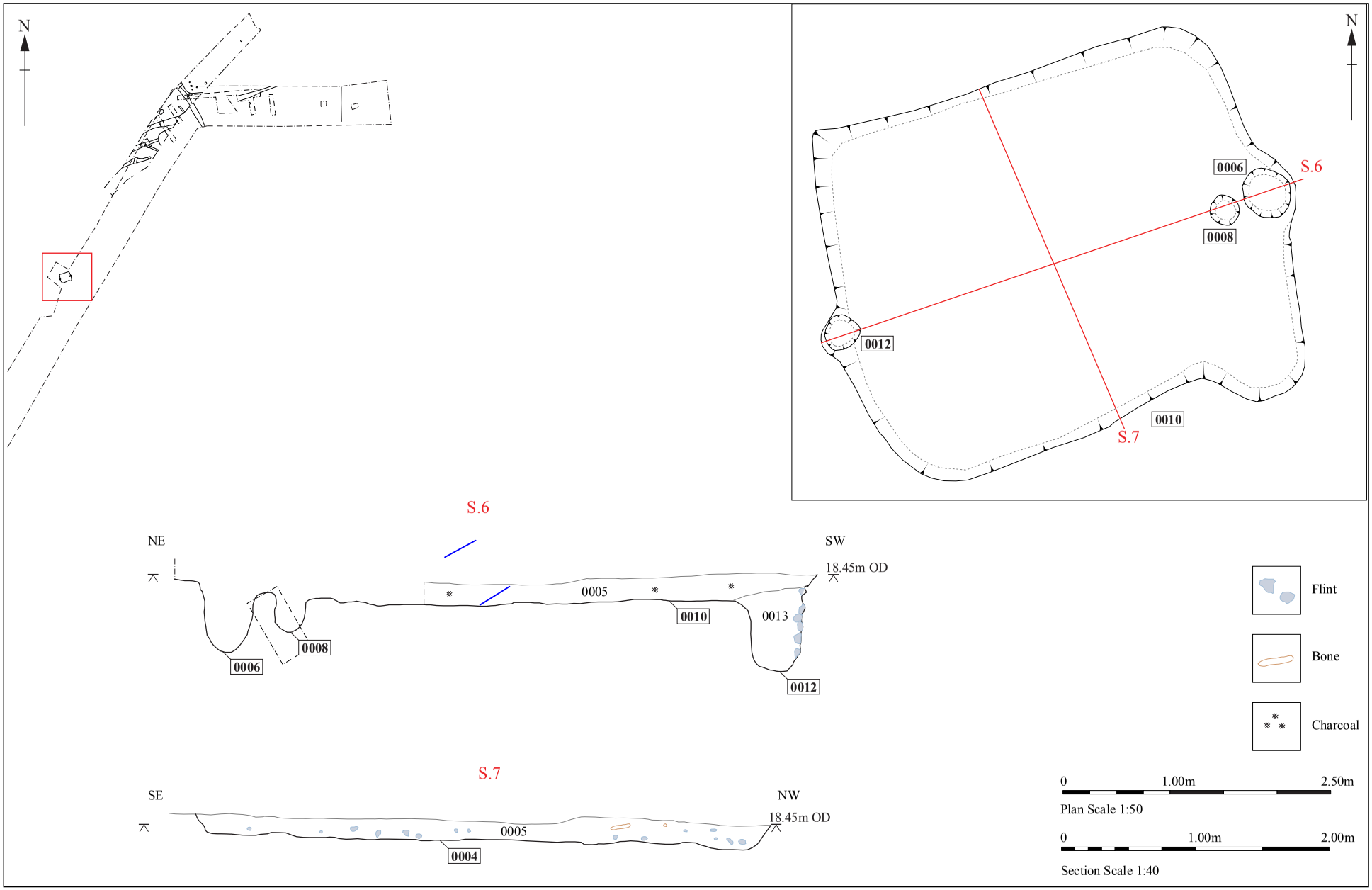


Figure 4. Plan and sections for building 0004

Find type	SFB fill 0005	PH fill 0007	PH fill 0013
Pottery	176	3	
CBM	7		
Fired clay	4		
Flint	34		
Burnt stone	41	3	
Copper alloy	2		
Iron	9		
Slag	10		
Bone	330	12	2
Worked bone	7		1

Table 1. Summary of finds from the SFB.

Three postholes, 0006, 0008 and 0012, were seen in the base of the building (Fig. 4, Pl. 1). Posthole 0006 was set at the north-east edge of the SFB and was oval in plan with a steep-sided, U-shape profile. It was 0.5m long by 0.45m wide and contained single fill 0007, dark grey brown sandy silt. Posthole 0008 was located immediately to the south-west of 0006 and was circular with a similar profile. It was 0.35m long by 0.3m wide and 0.22m deep and contained single fill 0009, dark grey brown silt; no finds were recovered. Posthole 0012 was set at the south-west edge of the SFB, opposite posthole 0006. It was 0.35m in diameter by 0.7m deep and had a steep-sided, U-shaped profile. It was filled by 0013, mid grey silty sand.

4.5 Phase 4: Post-medieval

Two ditches in the northern half of the RBK021 site were identified as post-medieval: 5011/5027 and 5013/5029 (Fig. 2). Both ditches became significantly shallower towards their south-east and east ends respectively.

Ditch 5011/5027 was linear in plan and more than 8.75m long by up to 2.1m wide and 0.53m deep. It equates to ditch 0002 in RBK 020 (Fig. 5). It contained three fills, the lower of which (5015, not seen in 0002) comprised flint gravel with a mid brown silty sand matrix and was up to 0.13m thick. Mid fill 5012/0011 was also the main fill and comprised mid-brown silty sand up to 0.39m thick. This was overlain by upper fill 5039/0003, dark grey sandy silt up to 0.3m thick. Finds from the main fill comprised post-medieval ceramic building material (CBM), residual Saxon pottery, flint, animal bone and oyster shell. Upper fill 0003 contained three sherds of 18th-century pottery and five fragments of CBM.

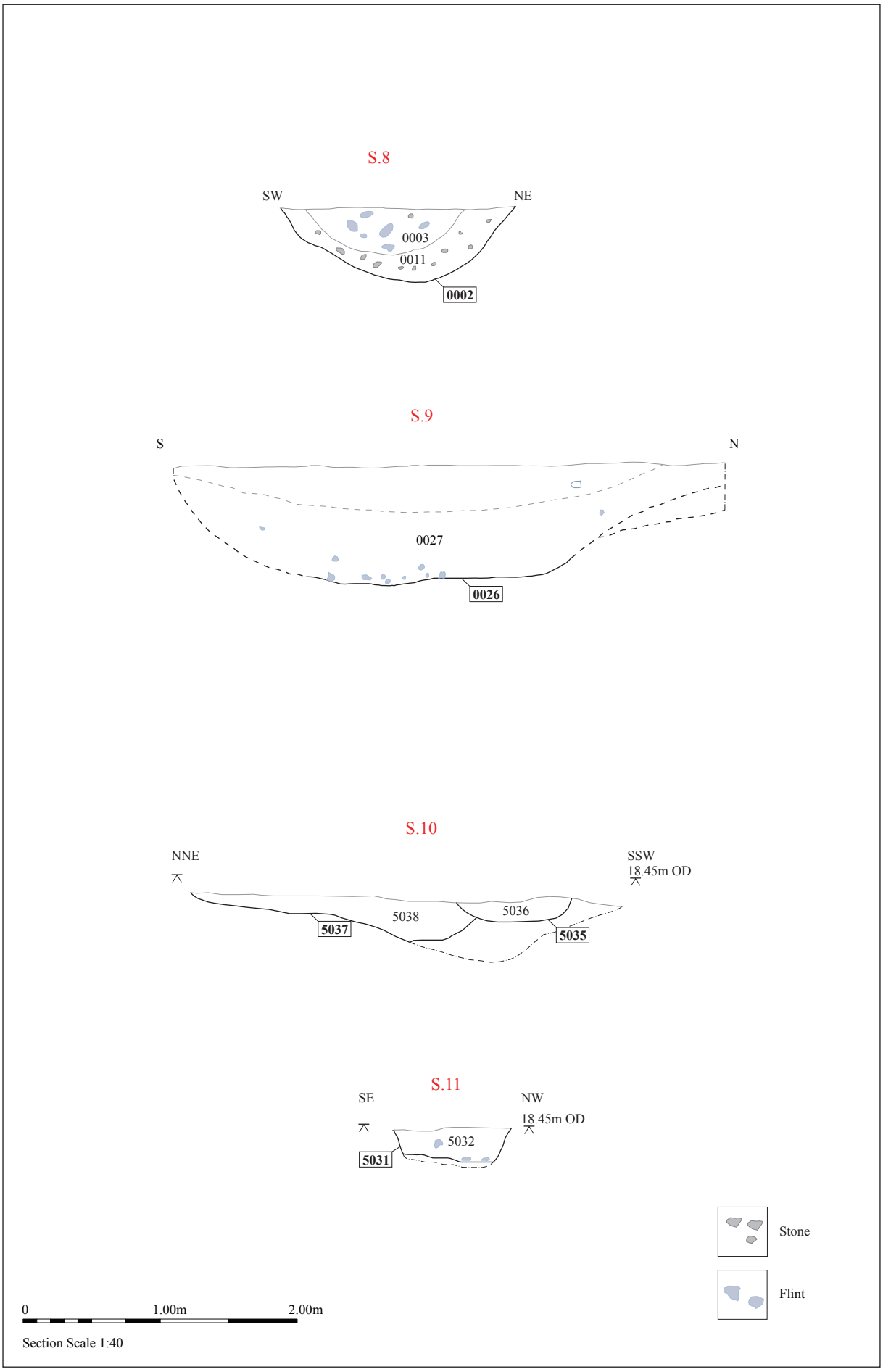


Figure 5. Sections of post-medieval ditches 0002 and 0026, and undated features 5031, 5035 and 5037

Ditch 5013/5029 (Fig. 2) was curvilinear in plan and approximately 10m long by 1.35m wide and up to 0.55m deep. It contained single fill 5014/5030, mid orange-brown silty sand, from which ?Roman and post-medieval CBM fragments were recovered.

A third ditch, 5019 (Fig. 2), from which struck flint only was recovered, was likely to also be post-medieval in date as it truncated a large (at least 8.5m by 3m) pit filled with clean, upcast sands and gravels at the south-east edge of the excavation area and contained a single fill, similar in colour and composition to those in ditch 5011/5027. Ditch 5019 itself was more than 15m long by 1.5m wide and 0.34m deep and had a symmetrical, U-shaped profile with a flat base and contained one fill, 5020, mid orange brown silty sand.

Ditch 0026 (Figs 2 and 5) was recorded during the monitoring and appears to form part of 5019. However it was significantly larger, being 4m wide by 0.8m deep with a wide profile with gently sloping sides and a concave base. It was filled by 0027, light orange brown sandy silt, from which three copper alloy objects were recovered – the top part of the spring cover and reeded bow of a Langton Down-type brooch (SF 1004) of Roman date, a possible Roman coin (SF 1006), and an unidentified sheet fragment (SF 1007). As this feature apparently also cut the large modern feature identified in RBK 021, it is presumed to be post-medieval.

4.6 Undated features

The remaining features were undated. There were three circular features: 5008, 5033 and 5035 (Fig. 5). Posthole 5008 was located at the north-east end of the excavated area (Fig. 1), and had a single fill of mid grey-brown silty sand; it could be of similar date to the prehistoric postholes further to the south but contained no finds. Oval pit 5033 was situated at the north-west edge of the excavated area just under 3m north-west of ditch 5021. It was 1.95m long by 1.25m wide and up to 0.25m deep and had a wide, U-shaped profile. One fill (5034) was present which comprised light brownish grey silty sand. Pit 5035 cut ditch 5031/5037 in the southern half of the trench (Fig. 5). It contained a charcoal-rich fill which was sampled and analysis of the sample has suggested that the debris within it may be from an industrial context (see Section 6 below).

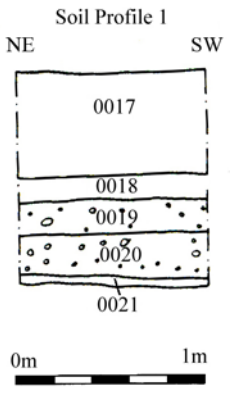
Ditch 5031/5037 (Fig. 7) was the most south-westerly of the ditches and was a minimum of 11.5m long, with a terminus at its north-east end. It varied in width between 0.95m and 1.75m and was up to 0.29m deep with a wide, shallow profile towards the middle of its exposed length, changing to a more square-sided, flat-based profile at its terminus. It contained single fill 5032/5038, comprising mid orange brown sand/sandy silt from which struck flint and a piece of crag stone were recovered. There is a possibility that the ditch could be prehistoric or Roman in origin.

4.7 Monitoring of launch pits (RBK 021)

Monitoring of the launch pits identified no archaeological features but did discover a 0.24m thick layer of mid brown colluvium (0002), which was excavated by machine in a 3m square slot in the north-east corner of launch pit 2. Eight sherds of Roman, Early Anglo-Saxon and medieval pottery, one fragment of tile and a piece of struck flint were recovered from this deposit.

4.8 Test pit (RBK 020)

A 2m by 2m test pit was excavated towards the east end of the stripped area in order to examine the deposits adjacent to, and on the floodplain of, the River Lark. The layers encountered are illustrated and listed in Table 2.



Context no.	Description	Thickness (m)
0017	Dark brownish black sandy silty gravel	0.29
0018	Coarse light greyish yellow sand	0.08
0019	Mid grey coarse silty sand	0.10
0020	Leached dark orange yellow clay	0.13
0021	Light whitish brown silty clay with charcoal flecks	0.03

Table 2. Layers exposed in test pit

5. The finds evidence, by Richenda Goffin

5.1 Introduction

Table 3 shows the quantities of finds from the two phases of fieldwork. A full quantification by context is included as Appendix 3.

Find type	RBK 020		RBK 021	
	No	Wt (g)	No	Wt (g)
Pottery	185	2833	17	402
CBM	14	1311	32	3433
Fired clay	4	74		
Clay pipe			1	4
Glass			1	22
Flint	37	1023	14	56
Burnt flint/stone	44	4037	1	32
Stone			1	2732
Slag	10	202		
Animal bone	345	4358	8	2
Shell	1	2		
Charcoal	1	1		

Table 3. Finds quantities.

5.2 The pottery (RBK 020)

Sue Anderson

Introduction and methodology

A total of 185 sherds weighing 2833g was collected during the excavation. The post-Roman assemblage is dominated by Early Anglo-Saxon material, although a few sherds of medieval and post-medieval date were also collected. A full catalogue by context is available in archive and a summary is presented in Appendix 4.

Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. A full quantification by fabric, context and feature is available in archive. Early Anglo-Saxon fabric groups have been characterised by major inclusions. Form terminology and dating for Early Anglo-Saxon pottery follows Myres (1977) and Hamerow (1993). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format, and the results were input directly onto an MS Access table.

Early Anglo-Saxon wares

Table 4 shows the quantities of Early Anglo-Saxon pottery from site by fabric. Almost the entire assemblage of Early Anglo-Saxon pottery was recovered from the fill of SFB 0004, with three sherds being recovered from posthole fill 0007 within the SFB and two sherds from ditch fill 0023.

Description	Fabric	Code	No	Wt/g	MNV	eve
Early Saxon coarse quartz	ESCQ	2.03	32	449	15	
Early Saxon fine sand	ESFS	2.04	22	262	13	0.30
Early Saxon grog	ESGS	2.05	1	16	1	
Early Saxon sparse shelly	ESSS	2.07	6	51	5	
Early Saxon fine sand and mica	ESSM	2.08	1	21	1	
Early Saxon granitic	ESCF	2.10	54	867	18	0.41
Early Saxon granitic and organic	ESOM	2.11	13	235	2	0.26
Early Saxon sparse chalk	ESSC	2.141	8	82	6	0.05
Early Saxon quartz conglomerates	ESQC	2.15	1	48	1	
Early Saxon grog and granite	ESGG	2.19	2	33	2	
Early Saxon calcareous and granitic	ESCM	2.21	6	153	1	
Early Saxon medium sandy	ESMS	2.22	34	495	20	0.74
Total Early Saxon			*180*	*2712*	*85*	*1.76*

Table 4. Early Anglo-Saxon pottery quantification by fabric.

Twelve generic fabric groups were distinguished on the basis of major inclusions. However, it should be noted that, as with all handmade pottery, fabrics were extremely variable even within single vessels and categorisation was often difficult. Background scatters of calcareous material, unburnt flint, grog, white mica and other less common inclusions, such as felspar and ferrous pieces, were present in many of the fabrics. All Saxon wares were handmade, and colours varied throughout from black through grey, buff and brown to red, often within single vessels. General fabric descriptions are listed below.

Quartz tempered

ESCQ: Coarse quartz tempering; generally moderate or abundant large grains of sub-rounded quartz in a finer sandy matrix, often poorly sorted.

ESMS: Medium sand tempering with few other inclusions, sand grains generally well-sorted.

ESFS: Fine sand tempering with few other inclusions.

ESSM: Very fine sand and abundant white mica.

Grog tempered

ESGS: Grog and sand tempering. Grog was usually red and very coarse, but may also be grey.

ESGG: Grog and granitic inclusions.

Calcareous tempered

ESSS: Sparse to moderate fine shell and sand tempering, shell generally leached out.

ESSC: Sparse, rounded chalk in a fine to medium sandy matrix, sometimes leached out.

Granitic tempered

ESCF: **‘**Charnwood Forest’ type, containing granitic tempering (dark mica, feldspar).

ESCM: Mixed calcareous and granitic inclusions.

ESOM: Abundant organic tempering in association with granitic inclusions.

Sandstone
ESQC: Medium sandy with sparse coarse quartz conglomerates.

Many sites in East Anglia and the Midlands have produced similar fabric groups, although they occur in different proportions. In general, fine, medium and coarse quartz-tempered pottery tend to be the most common fabric groups at sites in East Anglia, although in the later early Saxon period these appear to have been replaced to some extent by grass-tempered pottery.

At this site, in terms of the MNV the quartz-tempered group dominated with forty-nine vessels, whilst the granitic group also formed a large proportion of the assemblage with twenty-one vessels. Other fabrics were sparse and very few sherds contained a high proportion of organic matter. A few calcareous fabrics were present, but this form of tempering was generally more common to the south-east of the county and in the East Midlands.

Within Suffolk, this pattern is perhaps closest to that seen in the settlements at Flixton (FLN 061/062) and Eye (EYE 083), both still at assessment stage (Anderson 2006 and 2008), and Carlton Colville (Tipper 2009). Many of the cemetery sites in the county have produced much greater proportions of either granitic or organic fabrics (or both) at the expense of the sandy wares. Outside Suffolk, similar high proportions of sandy wares are seen at the St Ives Priory site (which also had a high proportion of granite-tempered wares; Anderson and Tester 2000), sandy wares appear to have dominated at the cemetery site of Morningthorpe in Norfolk (Friedenson and Friedenson 1987), and they were also the most common type in the settlement at Foulsham, Norfolk (Anderson forthcoming). At all these sites, organic-tempered vessels were more frequent than they were at Rushbrooke. However, it is uncertain how representative the Rushbrooke assemblage is likely to be of the settlement as a whole, since it is largely from a single SFB.

The estimated vessel equivalent of 1.76 is based on rim fragments from twenty-one vessels. Measurements of handmade vessels are always approximate unless a large proportion of the rim is present. For this reason, the minimum number of vessels (MNV), based on sherd families, was estimated for each context, producing a total MNV of 85 vessels.

Rim and base types were classified following Hamerow (1993, fig. 26). There were three vessels with flaring rims, eleven vessels with vertical ('upright') rims, two with everted rims, and three with incurving rims. Six vessels had flat-rounded bases and three had rounded or saggy bases.

Very few vessels were complete, but it was sometimes possible to suggest the vessel type on the basis of rim or base form, where enough of the body was present. It was also possible to get an idea of shape from some of the larger body sherds, and carinated vessels were especially identifiable from even small pieces. Seven vessels were identified as bowls (e.g. Fig. 6, No. 1), and sixteen as jars (e.g. Fig. 6, No. 2). Those for which more detailed form descriptions could be applied are shown in Table 5. Many pots showed signs of sooting and/or burnt food residues, but the fragments were generally too small to ascribe particular functions (such as lamps).

Form	MNV
biconical?	1
sub-biconical?	4
shouldered	4
baggy with slight shoulder	1
round-bellied (globular)	1
hemispherical bowl	3
straight-sided bowl	4

Table 5. Identifiable forms of Saxon vessels.

Surface treatment was recorded on a minimum of fifty-two vessels, and at least nine had some form of decoration. Table 6 shows the main types found. Most showed some signs of smoothing, but sometimes the surface had worn away through use. Five vessels were stamped in common types consisting of rosettes, rectangular grids, and ring-and-dot. Where decorative schemes could be identified, most consisted of bands of incised horizontal lines delineating areas of stamps, sometimes with chevrons above or below the carination (Fig. 6, Nos 3–5). These designs are common in East Anglia and beyond (cf Myres 1977, figs 133–5). One vessel was decorated with ?knife-incised vertical lines. The stamps have been catalogued in a separate report below.

Surface treatment	Decoration	MNV
Burnishing	None	4
Smoothing	None	31
	Incised lines	4
	Incised lines and stamps	5
Grass wiping	None	6

Table 6. Surface treatment and decoration.

This assemblage shows elements which could place it as early as the 5th century (biconical vessels), but the majority of dateable pottery belongs to the 6th century (stamps, chevron decoration, straight-sided bowls). The lack of organic-tempering as the main inclusion suggests that the SFB had probably been filled before the 7th century however, perhaps even as early as the first half of the 6th century.

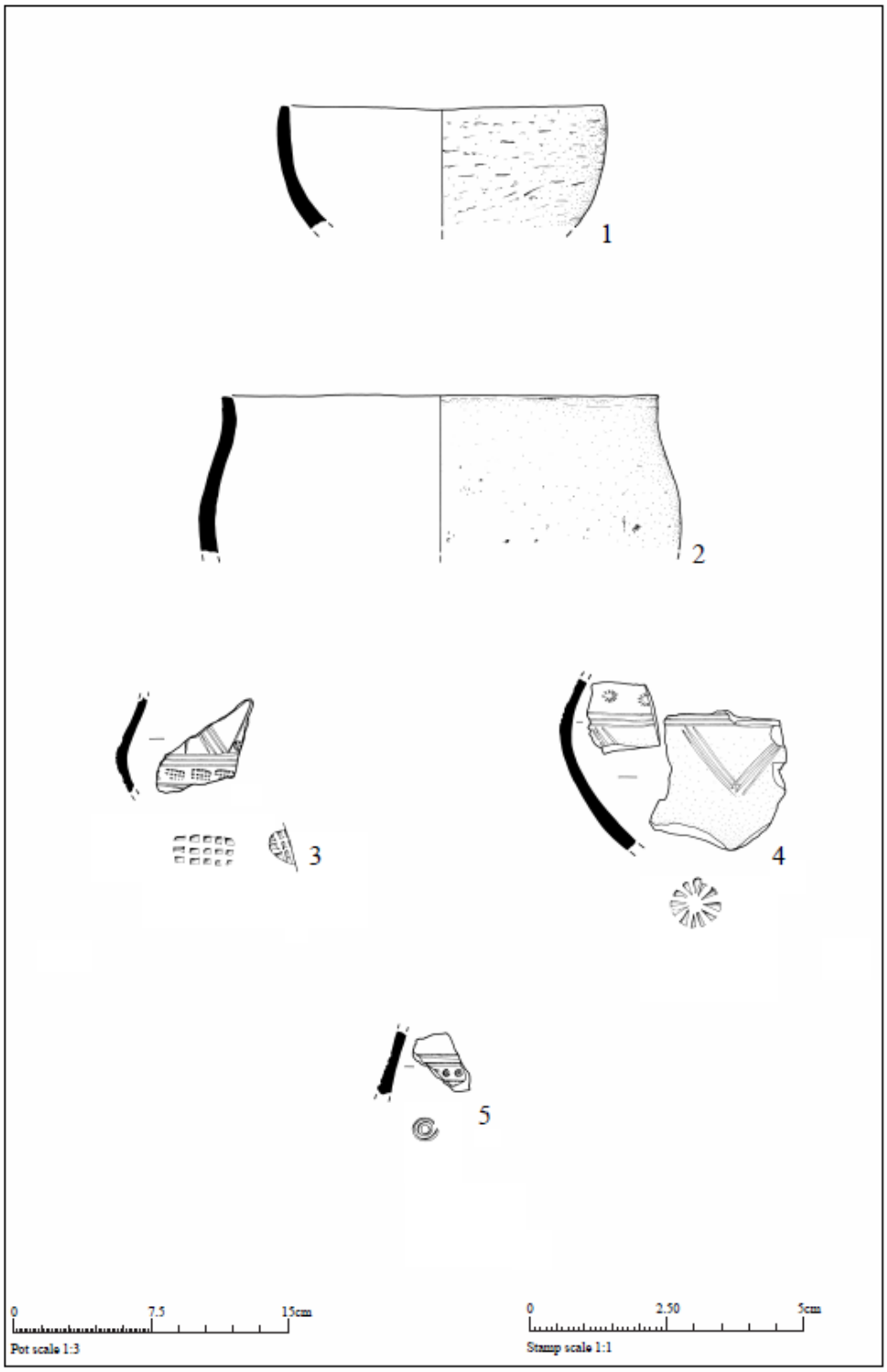


Figure 6. Anglo-Saxon Pottery drawings

Catalogue of illustrated vessels (Fig. 6)

All vessels are from context 0005.

1. ESOM (moderate granitic inclusions and sparse organic impressions in medium sandy matrix), straight-sided bowl with vertical rim, smoothed internally.
2. ESCF (common medium to coarse granite), slightly shouldered jar with upright squared-off rim, roughly smoothed.
3. ESFS (common fine sand), biconical vessel, incised diagonal lines above the carination, horizontal lines on the carination, smoothed, grid rectangular stamps, and possibly oval too.
4. ESCF (sparse granite in a fine sandy matrix with sparse coarse brown quartz), sub-biconical jar, three or more incised horizontal lines with three diagonal lines forming chevrons below, smoothed, rosette stamp above carination, slight burnishing externally.
5. ESSS (fine sparse shell in medium sandy matrix), jar, smoothed, incised horizontal lines, band of ring-&-dot stamps.

The pottery stamps

Diana Briscoe

Seven different Early Anglo-Saxon vessels were decorated with stamps, all of which were recovered from fill 0005 of the SFB. A full report on the Rushbrooke stamps is available in the archive.

Note: 'Die' means the actual piece of carved bone, wood, (possibly) chalk or metal used to make the impression. Where stamps are described as 'like', it means they have been made with the same die.

1. **Briscoe type A 2ai** (Fig. 6 No 5).
Category A includes all circular stamps. These are by far the most common stamps from this period, representing well over half the total identified stamps.
A 2ai describes two negative rings of equal proportions. This is an extremely common stamp and is found widely distributed. As such, it is of little use for diagnostic purposes, although this is a very small example and therefore of interest. Locally there are nearly thirty examples recorded in the AASPS with very similar sized versions coming from Lackford, Lakenheath, Mildenhall and Illington, and larger examples coming from most of these sites plus West Stow and Westgarth Gardens, Bury St Edmunds.

2-3. **Briscoe type A 5ai and A 5axii** (Fig. 6 No 4)
A 5a comprises the rosette stamps which are one of the most common groups. They are classified according to the number of their 'petals', so that avi has six petals, avii has seven and so on. A 5ai describes part stamps which it is impossible to classify.
A 5axii describes a circular negative rosette stamp with twelve petals. This is a very rare stamp with only five other examples recorded in the AASPS. All are larger than this stamp, and range in size from 12 x 12 mm to 20 x 20 mm. The other examples come from Puddlehill (Sewell), Beds; Newark, Notts (2); Spong Hill, Norfolk; and Barrow Hills, Oxon.

4. **Briscoe type C2 aiii** (Fig. 6 No 3)
Category C covers all square and rectangular stamps. The C 2a group includes all square or rectangular grid stamps. The variations record the number of negative squares present. They are mostly very common and have a wide distribution. Where the grid is not readable, they are classified as C 2a.
C 2aiii describes a grid with 3 x 4 (or more) negative squares. This is a common stamp with over 100 examples recorded in the Archive and with a very wide distribution. However, this one is unusual because it is a rectangle, not a square. There are seventeen local examples of this motif recorded in the AASPS, but only two other rectangles. One comes from Westgarth Gardens and measures 6 x 11 mm (Grave 13). The other comes from Lackford and also

measures 6 x 11 mm (Myres Corpus No. 998, Fig. 336). It seems that both these stamps were made by the same die, thus making them 'like' stamps. Whether the Rushbrooke stamp was made with the same die is uncertain, but it is possible.
Further afield, there are rectangular examples from Portchester, Hants (5 x 9 mm); Sancton, Yorks (8 x 12 mm); and St John's, Cambridge (9 x 14 mm). These do not appear to have been made with the local die described above.

5. **Briscoe type D 2 aiii** (Fig. 6 No 3)
Category D covers the oval stamps. This is a small category and comparatively unusual.
The D 2aiii stamp describes a negative oval grid of 3 x 4 or more squares. This is an uncommon stamp with only thirty-one examples recorded by the AASPS. Of these, eleven are local and come from Lackford (5), Illington (4) or West Stow (2). From further afield, the motif has been found at Spong Hill; Barrow Hills; Mucking, Essex; and Duston, Northants; as well as at Loveden Hill, Lincs; South Elkington, Lincs; and Cleatham, Lincs.

6. **Briscoe type F 2di** (not illus)
Category F covers the diamond-shaped stamps, which is one of the smaller categories.
The F 2di stamp describes a diamond shape with a negative outline containing a positive grid. This is a fairly common stamp with forty-three examples recorded by the AASPS, and a wide distribution ranging from Suffolk to Yorkshire. Locally there are examples from Ixworth and Lackford (both 9 x 11 mm), and from Westgarth Gardens (12 x 13 mm). Having looked at the casts, this stamp was not made by the dies used at Ixworth or Lackford, but might be the same as the die used for the Westgarth Gardens stamp (which comes from a sherd with the reference W19 / 9 / 72 – u/s).

7. **Briscoe type O** (not illus)
Category O covers all indecipherable stamps, which are, of their nature, undiagnostic. The stamp could be part of an E (triangles and chevrons) or an F (diamonds). However, the F 2di stamp from Westgarth Gardens is associated with a L 2bi stamp (a rune set in an ornamented surround). It is just possible, from what is left of this stamp, that it is an L 1bi (an outlined rune), which would make the comparison with the pot from Westgarth Gardens even closer.

There are fourteen sites producing 1,588 stamps within an approximately 20-mile radius of the site (Table 7). Only eight of these sites have produced comparable examples for one or more of the motifs.

Site	County	AASPS Site No	Nat. Grid	No of stamps
B St Edmunds: (vicinity of)	Suffolk	155	TL 8564	3
B St Edmunds: Westgarth Gardens	Suffolk	192	TL 8463	13
Eriswell: Lakenheath Airbase	Suffolk	280	TL 7279	27
Icklingham	Suffolk	055	TL 7772	6
Illington	Norfolk	057	TL 9489	393
Ixworth	Suffolk	149	TL 9370	11
Lackford	Suffolk	066	TL 7969	661
Lakenheath	Suffolk	067	TL 7182	44
Mildenhall	Suffolk	093	TL 7174	9
Needham Market	Suffolk	373	TM 0855	9
Redgrave	Suffolk	190	TM 0477	2
Risby	Suffolk	191	TL 7966	1
Tuddenham	Suffolk	103	TL 7371	3
West Stow	Suffolk	171	TL 8170	406

Table 7. Number of stamps from sites within c.20 mile radius of Rushbrooke

Rarity of Stamps

1–20	Rare	21–40	Uncommon
41–70	Fairly common	71–100	Reasonably common
100–150	Common	151+	Very common

It is unusual for so small an assemblage to have so many definite links to other sites

producing stamped pottery, but this is the case with Rushbrooke. The links with other sites along the River Lark are unmistakable, and the repeated motifs (even if not from the same die) make it very clear that the owners and/or occupiers of the Rushbrooke SFB had regular contacts with other communities along the river.

Rather more intriguing are the links with communities considerably further away. It has been known for some years that the settlements at Barrow Hills in Radley in Oxfordshire had regular contacts with the Lark Valley, because stamps unique to the Lackford-Illington potter were found at Barrow Hills. However, it is interesting because it means that the pottery that the Barrow Hills community was using, should now be considered to be part of the standard production of the Lackford-Illington potter, and not as items specifically made for long-distance trade (or whatever was going on between the two areas).

It is hardly surprising that unusual motifs from the Lark Valley have also appeared at Spong Hill. It seems more noteworthy if the motifs do not appear at Spong Hill, than if they do. Nonetheless the connection points up the importance of the river systems of East Anglia in facilitating communications and trade.

The Newark find site for one of the A 5axii stamps brings a further connection. Although the stamps are not from the same dies, there are numerous examples of the C 2aiii, D 2aiii or F 2di stamps occurring at Loveden Hill, South Elkington and Cleatham, as well as at Elsham, Lincs. Whether there was a coastal trade along the Lincolnshire coast and into the River Trent via the Humber estuary, or whether traders followed the Nene into the East Midland area and then items went north using the old road system, it seems clear that there were cultural or trading contacts between the two areas.

A further point of note is that recent study of some of the stamps from South Elkington has turned up a most interesting series of connections between there and Portchester. The occurrence of similar motifs at Rushbrooke and Portchester simply emphasizes that there was a great deal more travel going on in Britain during the 5th and 6th centuries than has generally been acknowledged until very recently.

Medieval and later pottery

Five sherds were of post-Saxon date (Table 8).

Description	Fabric	Code	No	Wt/g	MNV	eve
Medieval coarseware	MCW	3.20	1	7	1	
Glazed red earthenware	GRE	6.12	2	40	1	
Staffordshire white salt-glazed stonewares	SWSW	8.41	1	1	1	0.07
Late slipped redware	LSRW	8.51	1	73	1	0.11
Total post-Saxon			**5**	**121**	**4**	**0.18**

Table 8. Post-Saxon pottery by fabric.

One sherd of medieval coarseware similar to Hollesley Ware was recovered from the fill of the SFB (0005), where it is presumed intrusive.

Two sherds of a late glazed red earthenware vessel in a pale orange fabric with orange glaze was found in ditch fill 0003, associated with a rim fragment from a white salt-glazed stoneware cup, and probably of 18th-century date. A late slipped redware jar rim was an unstratified find.

Discussion

The majority of vessels in this group were in quartz-tempered or granitic fabrics, with a variety of other fabrics present but represented by a few vessels each. Comparison with other assemblages is difficult since this group formed the contents of a single SFB, whilst other settlement groups have been recovered from more than one structure and are probably more variable as a result. However, the closest parallels to the pattern seen at Rushbrooke can be found in the north of the county in the settlements at Flixton (FLN 061/062) and Carlton Colville, and in Norfolk at Foulsham and Morning Thorpe (although the Norfolk groups tend to have fewer granitic pots, and Carlton Colville had more organic than granitic material).

The forms of eighteen vessels were identified in detail. Eight were ‘simple’ types – a baggy jar and plain bowls. Nine vessels were globular or sub-biconical. Only one possible ‘early’ biconical form was present. This range, together with the stamped and incised decorative schemes seen on a few vessels, places the assemblage largely in the 6th century. This also accords with the lack of organic tempering in the group.

Although the pottery was recovered from a single structure, it is uncertain whether it represents material in use during the life of the building. Whilst it could have been

discarded in a midden adjacent to the structure and later used to backfill the SFB pit, it is probably more likely that the open pit served as a rubbish dump following demolition of the superstructure. This prolonged use would explain the broad variety of pottery found in the fill. Although the same might be true of a midden, such stockpiled material might be more likely to find its way onto the surrounding fields during manuring and thus be moved away from the settlement on a regular basis. Material infilling an inconvenient hole, on the other hand, is less likely to have been removed, although, if this were the case, less fragmentation of the pottery than seen here might be expected.

The assemblage thus represents the waste from households living near the SFB, but probably reflects activity which took place after its demolition. Assemblages from other structures on the site would be needed to place this group in a broader context, but in general the range of fabrics and forms is typical of settlement groups of the period in the northern half of East Anglia.

5.3 The pottery (RBK 021)

Richenda Goffin

Introduction and methodology

Seventeen fragments of pottery weighing 402g were collected from the excavation. The ceramics are wide ranging in date, from the Roman through to the later part of the post-medieval period. The pottery was fully quantified and catalogued, and the information input onto the site database (Appendix 4). The Early Anglo-Saxon fabric groups have been characterised by major inclusions, so that they are compatible with other assemblages recorded by SCCAS. The recording uses a system of letters for fabric codes based on established fabric types in the region.

Roman

A small abraded fine greyware sherd of Roman date was found in colluvium deposit 0002.

Early Anglo-Saxon

Nine fragments (80g) of hand-made Early Anglo-Saxon wares were identified from five contexts. Three were organic tempered, including one very abraded sherd which was contained very little quartz. One granitic-tempered sherd was present, and the

remainder had medium or coarse quartz tempering. Most of the Early Anglo-Saxon pottery is represented by small sherds, but the largest one which was found in the upper fill 5022 of ditch 5021 has a surface treatment of tooling, both externally and inside the vessel.

Two of the Early Anglo-Saxon sherds are clearly residual, as they were recovered from the fills 5012/5028 of post-medieval ditch 5011/5027. Two other fragments were found in the fills (5022/5023) of ditch 5021, which also contained a fragment of Roman ceramic building material. The remaining five sherds of this date had been deposited into the colluvial layer 0002.

Medieval and post-medieval

Two sherds of medieval coarseware (18g) were recovered from the excavation, both in colluvium 0002, and are abraded. A fragment of a Hollesley type ware bowl was identified. The assemblage dates from the 12th-14th century.

A small group of pottery dating to the 18th century was collected from deposit 0003. In addition to Glazed red earthenwares, a Staffordshire white salt-glazed stoneware bowl was present dating to c.1720–80.

Significance of the pottery

The ceramic assemblage is very small, and has provided some dating evidence for the features. In addition the presence of several fragments dating to the Early Anglo-Saxon period reflects the proximity of features of this date.

5.4 Ceramic building material

Fourteen fragments of ceramic building material were collected from RBK 020 (1.311kg) and thirty-two fragments (3.433kg) were found at RBK 021. The assemblage dates mainly to the late medieval to post-medieval period, but a small quantity of Roman date was identified. The material has been fully quantified and recorded on the site database (Appendix 5).

Roman

A fragment of re-used Roman tile which was deliberately cut down to form a *tessera* was recovered from colluvium deposit RBK 021 0002. The fragment has no signs of

mortar on it to suggest that it had been used. An undiagnostic fragment of Roman brick or tile was found in the upper ditch fill 5022 of ditch 5021. A less certain Roman attribution was given to two small fragments of red-fired ?tile present in ditchfill 5030.

Five fragments of undiagnostic brick/tile made in Roman fabrics were recovered from fill 0005 of the SFB. Two pieces show signs of burning. A sixth fragment has combing impressions and is most probably the remains of a box flue tile. It has a soft medium-coarse sandy fabric which has been identified in other Roman assemblages with flue tiles in the region, such as the villa site at Hitcham (Goffin 2010). It may be that a particular regional kiln site was specialising in the production of flue tiles. Another small corner fragment may also be part of a similar tile, and a small oxidised fragment may be later in date. Two joining pieces of a Roman brick or tile, perhaps from a flanged *tegula* were found in the fill of ditch 0022.

Late medieval - post-medieval

The remainder of the ceramic building material assemblage consists of fragments of red-fired roofing tile and late bricks. These were recovered from fill 5012 of ditch 5011, fill 5014 of ditch 5013, and fill 5028 of ditch 5027. Five pieces from the top fill of ditch 0002 are made from red-firing sandy fabrics, which are late/post-medieval in date. These are mainly the remains of roofing tiles with three abraded pieces of brick.

Significance of the ceramic building material

This small assemblage confirms the dating of several of the post-medieval ditches. A small amount of Roman building material may have been re-used during the Early Anglo-Saxon period.

5.5 Fired clay

Four fragments of fired clay were recovered from fill 0005 of the SFB. Two are made from a fine matrix with occasional chalk inclusions, and another fragment made from a different fabric has a circular impression 13mm in diameter which is likely to be a structural impression from some kind of daub. A fine-grained pink fragment is likely to be a piece of burnt chalk rather than clay.

5.6 Burnt stone and flint

Forty-one burnt stones were collected from the fill 0005 of the SFB and a further three fragments were found in one of the postholes 0007 of this structure. The stones

appear to be heat affected fragments of sandstone and quartzite. The stone is likely to have been brought in from nearby to be used to backfill the structure once it had been demolished. They may have been deposited into prehistoric features in the vicinity. The lack of other burnt material in the backfilling suggests that the stones were burnt before they were deposited into fill 0005.

A fragment of burnt flint was found in the fill 5018 of pit 5017 and is likely to be a prehistoric potboiler.

5.7 Flint

Sarah Bates

Methodology

Each piece of flint was examined and recorded by context in an Access database table. The material was classified by *category* and *type* (see archive) with numbers of pieces and numbers of complete, corticated, patinated and hinge fractured pieces being recorded and the condition of the flint being commented on. Numbers and weights of burnt flint were also recorded with material then being discarded. Additional descriptive comments were made as necessary. Non-struck flint was included in a separate column (*Non struck*) in the database but has now been discarded. It is not included below.

The assemblage

Thirty-four pieces of struck or shattered flint were recovered from RBK 020. Four thermally fractured fragments (possibly burnt) and three non struck fragments have been discarded. The flint is listed by context in Appendix 6. The flint is mostly dark grey with some pieces having paler-coloured mottles or inclusions. Cortex varies from medium thickness cream to thin greyish brown in nature.

Two very small lumps which have been struck and are battered, might be tiny exhausted multi platform flake cores. Four irregular struck fragments and another struck and, possibly, burnt fragment which may be from the side of a core are present. There is also a small, quite thin, fragment which has flakes struck from one edge and some slight flaking on its other face; it could have been used as a core or possibly as a tool.

The assemblage consists mostly of very irregular jagged and quite thick medium-sized flakes and shatter pieces. There are a small number of neater flakes. Two spalls are also present.
An irregular blade on light grey flint with a hinged distal termination has a notch formed by retouch in its right lateral edge.

A small curving flake has retouch of its tapered distal end and three very irregular flakes are also probably slightly retouched. A patinated thickish blade-like piece has its straight distal edge utilised and subsequent (post-patination) apparent retouch of its right lateral edge which might suggest the reuse of an older flake. Another irregular flake has slight utilisation of an edge.

Fourteen struck flints were recovered from RBK 021. The flint is mid to dark grey with some paler mottling. Cortex, where present is off white to orangey cream-coloured from gravel lumps. One or two piece exhibit patinated or weathered cortical surfaces suggesting the use of surface-collected raw material.

The assemblage consists of small flakes or flake fragments with a few blade-like pieces and one spall. The flakes are generally quite regular thin pieces although several have clearly been struck by hard hammer. Most of the unmodified flakes are edge damaged to some degree. A small blade-like flake has sight retouch of an edge and five flakes are utilised. Two or three of these are quite neat blade-like pieces, one of them has an abraded platform showing that it was struck from a prepared core. Another small flake has a cortical platform and two more are primary, or near primary, flakes.

Flint by context

Most of the flint from RBK 020 was found in the fill 0005 of an SFB. It was almost certainly residual there and represents earlier activity at the site. Two flints, a small neat flake with retouched distal end and a small possible core or two, were found residually in the fill 0011 of a probable post-medieval ditch. The proximal part of a regular-looking flake was from an unstratified context 0001.

Most of the flint from RBK 021 was from the excavated fills of post holes and ditches with one or, occasionally, two pieces coming from each feature. The post holes 5000,

5002, 5004 were undated by other finds, whilst the ditches were mostly of later date.

Discussion

The flint from RBK 020 was all found residually in later contexts or was unstratified. It is possible that the flint may be associated with the small number of features which have been assigned a prehistoric date, such as pit 0028. Two retouched blade-type pieces, both from the fill of the SFB, stand out from the rest of the flint from that feature; one is on a pale grey flint and the other is a patinated piece which may have been reused. The flint from the SFB might be comparable with flint found in SFBs at the New Museum Building at West Stow. There, a small number of more weathered, and clearly prehistoric, struck flints contrasted with quantities of unpatinated irregular flakes and shattered pieces, at least two of which refitted together (Bates 2010) (although there it was considered possible that the flint represented later building material and at the present site there is no such suggestion).

The small assemblage from RBK 021 is largely undiagnostic and no formal tools are present. It does, however, represent activity in the vicinity of the site during the prehistoric period and the small neat blade-like pieces, one of them with an abraded platform indicative of core preparation, suggest an earlier Neolithic component. It may be significant that two of these pieces came from fills of otherwise undated post holes; it is possible that the flint may be contemporary with the excavated features. Other flints were found in ditches, some of which dated to the Saxon period or later.

5.8 Miscellaneous finds

A small quantity of slag was collected from the fill 0005 of the SFB (10 fragments, 0.202kg). Most of the material is made up of undiagnostic pieces of vitrified hearth lining, which may be Early Anglo-Saxon in date.

A single stem of a clay tobacco pipe and a fragment of green post-medieval bottle glass were present in RBK 021 0003.

A large fragment of shelly limestone was collected from ditch fill 5038. It is worn and does not have any intact edges.

5.9 Small finds

Introduction

Forty-two small finds were recovered during the fieldwork at both sites. These are listed by material in Table 9.

Material	Roman	Saxon	Saxon?	Medieval	Med-P-med	Undated
RBK 020						
Bone/antler		8				
Copper alloy	5	1	1		1	3
Iron		6	4			
Lead					1	
Silver				3		1
RBK 021						
Copper alloy	3			2		3
Total	**8**	**15**	**5**	**5**	**2**	**7**

Table 9. Small finds by period and material type

Methodology

The small finds were recorded on individual small find sheets and all suitable metal work was x-rayed. The details have been catalogued on the small find database and the location of unstratified finds plotted (Appendix 7).

Roman finds

Faye Minter and Andrew Brown

Eight Roman objects were identified, consisting of five coins, a pin, one brooch fragment, and an incomplete finger ring.

Coins

1. A copper alloy Roman *As* or *dupondius,* very worn, 18.65mm diameter AD 43-260. RBK 020 SF 1002, unstratified
2. One copper alloy worn, oval shaped radiate coin, 11.14mm diameter, AD 260-296. RBK 020 SF 1006, from fill of ditch 0026
3. A copper alloy nummus, a contemporary copy of Magnentius, obv: bust right, bare headed rev: Two victories holding a shield, 11.86mm diameter, AD 350-353. RBK 020 SF 1005, from fill of ditch 0023.
4. Very worn 3rd century radiate. Obverse: Possibly head of Gallienus, c. AD 260-275. Reverse: illegible. RBK 021 SF 1002 unstratified from ploughsoil.
5. Very worn 3rd century radiate. Obverse: Probably Claudius II, c. AD 260-296. Reverse: illegible. RBK 021 SF 1005 unstratified unstratified from ploughsoil.

Other objects

6. Fragment of a copper alloy Langton Down Roman bow brooch, part of spring cover and reeded bow survive, 15.82mm in length and 13.81mm in width. Langton Down is a continental type with a cylindrical spring cover and flat-backed bow (Blagg et al 2004, 91–2, nos 36–7). RBK 020 SF 1004, from fill of ditch 0026
7. An incomplete worn copper alloy probable Roman finger ring. Missing part of hoop, the surviving hoop has a D-shaped cross section, the shoulders are decorated with three transverse grooves, and the bezel is solid and oval in shape. This finger ring is similar to an example from Hacheston (Blagg et al 2004, 112, no 61). RBK 020 SF 1032, unstratified
8. A complete copper alloy hairpin with a head of bead, reel and spool motif surmounted by a flattened sphere. The precise elements of the head are similar to a Type 2 metal pin (Crummy

Type 2 pin, No 469). The decoration consists of reel/square section to circular-section bead/circular-section spool/ flattened sphere. Such pins are considered to date from the early 2nd century to the end of the third century (Crummy 1983, 28). RBK 021 SF1001 unstratified from ploughsoil.

These finds are likely to be due to low level Roman activity on or around the site, possibly due to casual losses through manuring or farming practices.

Early Anglo-Saxon finds

Ian Riddler and Nicola Trzaska-Nartowski

Fifteen small finds were assigned to this period, with a further five whose attributions are not definite. The significant small finds of this date have been catalogued below.

Copper alloy

The fragmentary and slightly abraded cruciform brooch (SF1000) retains a knop at the head and parts of the side extensions, as well as most of the bow (Pl. 2). It is unstratified, but can be identified to type. Cruciform brooches are common finds from Early Anglo-Saxon graves and settlements in East Anglia and a compendium of Suffolk examples has been published by West (1998, 294–6 and figs 145-53). West followed Reichstein's typological system, which can be difficult to use, however, and in response to this problem Bode has produced a revised scheme that examines the main components of each brooch, namely the head, bow and foot (Reichstein 1975; Hines 1984, 244–53; Bode 1998, 23–72). Within Bode's scheme, this brooch has a type 10 head form and a type 6 bow. The foot does not survive, although the relatively restricted set of designs from England suggests that it would have been an elongated equine form with a rounded terminal, a foot type 38 or 48 (Bode 1998, 35). Type 10 head forms are widely distributed across East Anglia and occur also in Kent, albeit in smaller numbers (Bode 1998, karte 6). Several brooches of a similar size and form can be seen at Lakenheath, for example, although the combination of head and bow seen here is not a particularly common one (West 1998, fig 106). Taking the head as the defining element, the brooch can be placed in Bode's English Group 3, examples of which were produced in the second half of 5th century and the early 6th century (Bode 1998, 67-8). The broader grouping of cruciform brooches provided by Penn and Brugmann (2007, 24) provides a similar dating scheme.

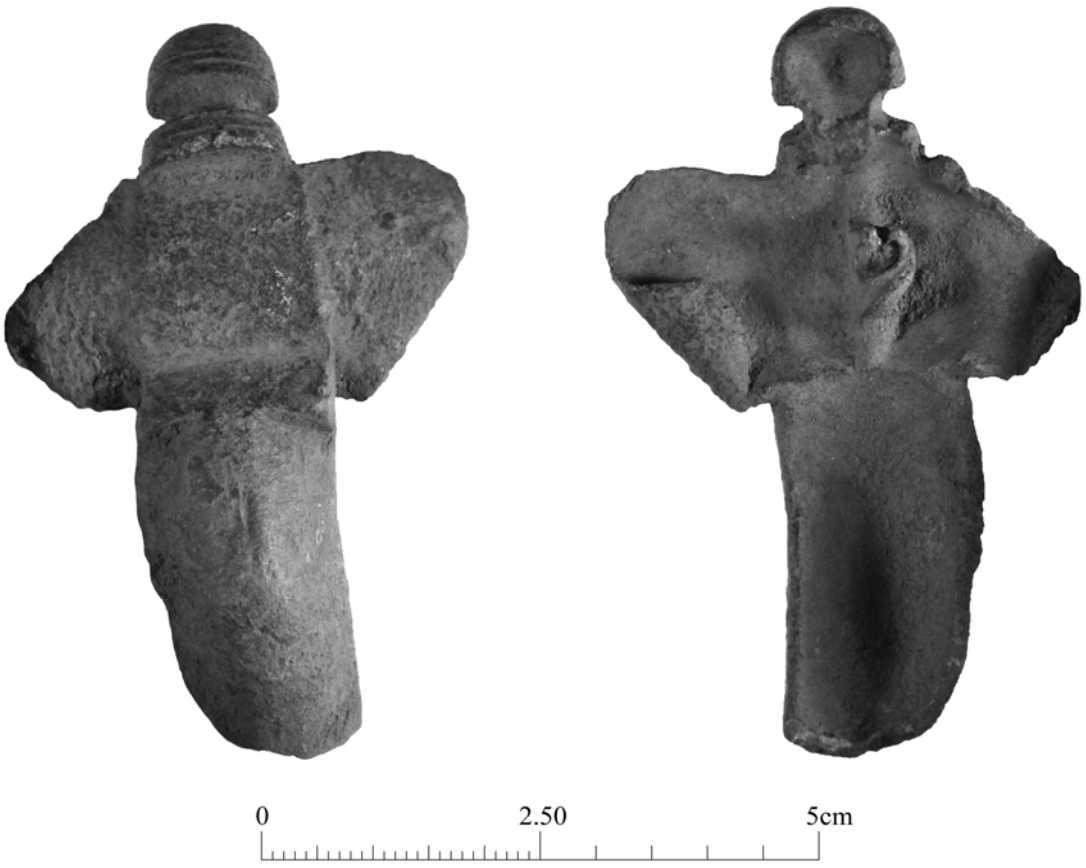


Plate 2. Cruciform brooch fragment SF 1000.

Two fragments of copper alloy waste (SF 1028) were recovered from the fill of the SFB and a larger and more substantial fragment (SF 1001) was recovered from the topsoil. All three pieces show flow lines of the alloy, as well as a number of voids, and have an irregular, sub-rectangular shape. They can be identified as spillages from non-ferrous metalworking, as defined by Bayley (1992, 779). On its own, this material is not conclusive evidence for metalworking in the vicinity because it can also be formed accidentally by fires, most of which are intense enough to distort copper alloy. It is suggestive of metalworking, however, particularly when viewed against the larger body of evidence from the contemporary settlement at Eye, as well as the presence of crucibles at Witton in Norfolk (Lawson 1983, 58 and fig 63).

Catalogue

9. Fragmentary cruciform brooch with rounded knop of semi-circular section at apex and sub-rectangular flat main field with fragmentary projections to either side. Both side knops are now missing. Part of the bow survives below rectangular raised area, hollow cast. Part of pin rest survives on reverse. Length: 68.0mm, Width: 43.5mm. RBK 020 SF 1000, unstratified.

10. An irregularly shaped heavy segment of copper alloy waste material, with linear flows on the lower flat face. D-shaped in section. Length: 65.5mm. Width: 30.5mm. RBK 020 SF 1001, unstratified.
11. Two fragments of waste material, of irregular, sub-rectangular shape, one piece lightly curved in profile. Several voids and flow lines in their structure. Length: 52.0mm. Width: 19.0mm. RBK 020 SF 1028, SFB fill 0005

Iron

The small assemblage of iron objects from the backfill of the SFB includes a knife, two fragmentary components of a large casket or chest, and a section of sheet metal. A fragmentary knife (SF1024) lacks the tip of the blade and the end of the tang. It is noticeably small, with an estimated blade length of just 45 mm, less than all of the comparable knives from the Early Anglo-Saxon cemetery at Flixton (Riddler, forthcoming) (Fig. 7) but of a similar size to a few of the smaller knives from West Stow (West 1985, fig 240.9, 13 and 15). The back of the blade curves lightly to the tip, allowing it to be identified as a type A1 knife, following the scheme outlined by Drinkall and Foreman (1998, 279–83). This is the most common knife form of the Early Anglo-Saxon period, occurring from the 5th century onwards, and it cannot be closely dated.

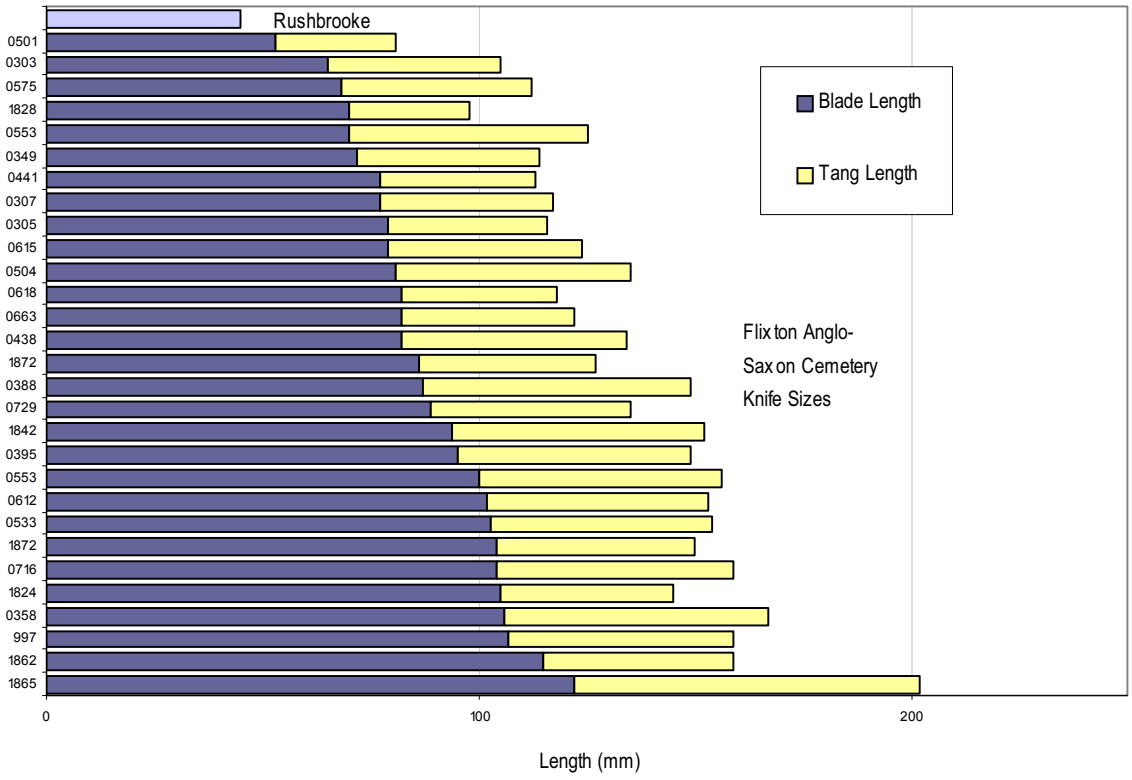


Figure 7. Rushbrooke and Flixton knife sizes

A lightly curved iron strip (SF 1025) has a rounded terminal and three prominent rivet

holes; it has fractured across one of these. By analogy with later material from York it can be identified as part of a small hinge strap (Ottaway 1992, 629 and fig 261.3377). A related strip of iron (SF 1020) tapers towards one end and can be identified as the main body of a looped hinge, similar to examples from Haithabu described by Westphalen (2002, 194 and taf 74.12–15) but now lacking the looped element at the upper end. Both pieces of iron would have been used on household furniture, principally on large caskets or chests. A fragment of iron sheet (SF 1026) of uncertain function was also recovered.

12. An incomplete strip of iron, lightly curved in profile and of even thickness, tapering towards one end. Part of a looped hinge strap, with the loop now missing. Length: 60.5mm, Width: 11.5mm. RBK 020 SF 1020, SFB fill 0005.
13. Small knife, fragmentary, lacking part of the tip and the tang, but includes most of blade. Blade Length 41mm est, tang length not clear. Original blade length c 45mm. Length: 54.5mm, width: 9.0mm, estimated blade length: 45mm. RBK 020 SF 1024, SFB fill 0005.
14. Rectangular strip, lightly curved, flat in profile and pierced by two perforations, fractured across a third. Rounded terminal. Length: 48.0mm, width: 10.5mm. RBK 020 SF 1025, SFB fill 0005.
15. Section of iron sheet of irregular form, flat with two straight edges but otherwise fractured. Fairly large and substantial but function unclear again. Length: 52.0mm, Width: 42.0mm. RBK 020 SF 1026, SFB fill 0005.

Antler and bone

Antler Waste

The antler waste consists of a naturally shed red deer burr with an accompanying brow tine (SF 1019) and a section of crown, sawn and snapped away from the beam (SF 1018) (Pls. 3–4). The coronet of the burr (SF 1019) remains intact and the antler has been sawn just above the bez tine. The latter was removed with the aid of a knife rather than a saw, cutting into the surface from several directions before fracturing the cortile tissue at the centre. The use of a knife to sever tines from the beam can be seen with a number of contemporary assemblages, including Abbots Worthy and Wavendon Gate (Riddler 1991, fig 36; 1996, 133 and figs 79-80). Antler waste of Middle and Late Saxon date was dismembered with the aid of a saw and tines removed by knife are a rare occurrence in those assemblages. Both pieces were discarded in the initial stages of working, when antlers were sawn or cut into their component parts and the tines, crown and burr were separated from the beam. The circumference of this burr has been measured using the guidelines provided by Müller-Using and von den Driesch (Müller-Using 1953; von den Driesch 1976, 36) and can be compared with the sample from Ipswich (Fig. 8). It is of a good size, larger than the burrs from secure Middle Saxon contexts and comparable with the

Late Saxon material, and it undoubtedly stems from a mature adult. The burr is naturally shed and would have been obtained locally.

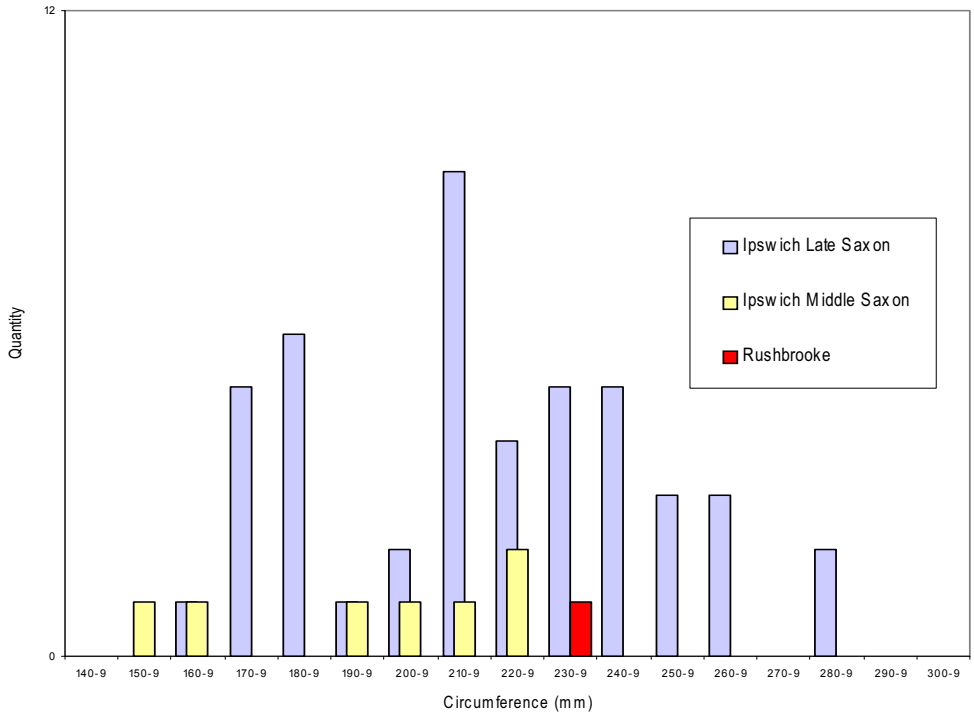


Figure 8. Antler burr circumferences for Rushbrooke and Ipswich

Antler waste has been recovered in small quantities from a wide range of Early Anglo-Saxon settlements (Riddler 1996, 135). Within East Anglia, small assemblages are known from Colchester, Handford Road and Greyfriars Road at Ipswich, and West Stow (Crummy 1988, 88–90 and fig 98; Riddler forthcoming; Riddler et al. forthcoming; Crabtree 1990, 92–6). Twenty fragments of antler came from Colchester, 21 and 31 pieces were retrieved from two sites at Greyfriars Road and just two fragments came from Handford Road, Ipswich. At West Stow, red deer antler was found in the fills of 29 structures, with the largest individual group amounting to 19 fragments. Twelve pieces of antler and fifteen shavings were found at Abbots Worthy, most of them from a single structure, and this concentration of waste in the backfill of a particular building is a common pattern of the time, repeated at Colchester and Ipswich.

16. Crown sawn from the antler beam in two directions with the cortile tissue snapped. Flattened oval in section, with modern damage removing the second tine. Otherwise unmodified. Length: 125.0mm, weight: 36.1g. RBK 020 SF 1018, SFB fill 0005.
17. Three conjoining fragments of antler, including a naturally shed burr and a complete brow tine. Sawn from the beam just above the bez tine, which has been hacked away with the use of an axe or knife. Otherwise unmodified. Length:150mm, weight: 275g. RBK 020 SF 1019, SFB fill 0005.

Plate 3. Antler waste SF 1019.

Plate 4. Antler waste SF 1018.

Antler handle

A complete antler handle (SF 1014; Pl. 5) has been cut from a section of tine, close to its junction with the beam. It has been sawn laterally at either end and partially hollowed, removing some of the cortile tissue to a depth of 15mm. The outer surface of the antler has not been smoothed and there is no iron staining from the insertion of a whittle tang. The handle appears to be unfinished. It is likely to have been intended for a whittle tang knife handle of a larger size than the blade (SF 1024) which was also recovered from the site. The hole cut into the cortile tissue is rectangular in shape. Other implements, like awls, tend to have smaller tangs of square section, and although some were attached to antler handles (Brown *et al* 1954, fig 30d; West 1985, fig 188.1) these are generally of a smaller size. The majority of knife handles of the Early Anglo-Saxon period were made of horn and antler or bone examples are comparatively rare (Hills and Watson 1984; Watson 1988). A single example came from West Stow and an undecorated handle came from a grave at Harnham Hill (West 1985, fig 247.12; Akerman 1855, pl XXXVI). Several antler handles were recovered from cremation graves at Spong Hill (Hills et al. 1987, fig 118.2751/4 and 2771/1).

18. Section of antler tine with the tip removed and the end facetted by knife and partially hollowed. Cleanly sawn at the opposite end; otherwise unmodified. Hollowed to a depth of 5.3mm. An unfinished antler implement handle. Length: 110.0mm, width: 34.5mm. RBK 020 SF 1014, fill 0013 of posthole of SFB.

Plate 5. Antler handle SF 1014.

Bone needles

Five bone implements ably illustrate stages in the manufacture of needles. All of them are made from pig fibulae. One example (SF1016; Pl. 6) represents an early stage of manufacture. The head is unmodified and the shaft includes a series of longitudinal marks reflecting its initial cleaning, principally involving the removal of skin and sinew. The proximal end has been roughly trimmed but has yet to be cut to shape to provide a pointed terminal. A second object (SF1017) has a shaft cut and trimmed to shape. The point has fractured, as has the head, possibly during an attempt to perforate the bone. The three remaining implements have all been finished. A complete needle (SF1012; Pl. 6) has a lightly curved shaft with a rounded end and a spatulate head pierced by a knife-cut oval perforation. Draw-knife marks can still be seen along the shaft and the needle shows few signs of use. In contrast, a fragmentary needle (SF1015) has fractured across its perforation after some use, and the lower part of the shaft is missing. In a similar manner, a highly polished needle (SF1013) has also fractured at both ends.

Plate 6. Unfinished needle SF 1016 (left) and complete needle SF 1012 (right)

All five implements can be regarded as needles. Pig fibulae of this type, with heads little modified from the original shape of the bone and simple, knife-cut perforations, have previously been described as pins (Leeds 1923, 183; MacGregor 1985, 120–1), but they are now regarded as bone needles, implements that were probably used alongside pin-beaters as weaving tools on the warp-weighted loom, as well as in repairs to loose mesh textiles and netting (Ulbricht 1984, 54-5; Rulewicz 1994, 95; Westphalen 1999, 63 and taf 12; Riddler and Walton Rogers 2006, 294–7). They are common objects, recovered in some numbers from most Early Anglo-Saxon settlements. Thirty-seven were recovered from West Stow (all of which came from the settlement; there were no examples from the cemetery) and smaller quantities are known from Higham Ferrers and Pennyland, amongst other sites (West 1985, 125; Scott 2007, 117 and fig 4.16; Riddler 1993, 117–19). They can be readily distinguished from bone pins, which are less common, occurring in a similar frequency to pins of copper alloy and iron. In her study of Scandinavian sites of 9th to 12th century date, Andersson has noted that most bone needles are made from pig fibulae, with flat or rounded heads and lengths of 70–100 mm (Andersson 2003, 145-7 and fig 74). Needles made from pig fibulae occur throughout the Anglo-Saxon period, the latest examples coming from contexts of 12th to 13th-century date (Riddler and Walton Rogers 2006, 294–7).

Pig fibula needles could be produced in a matter of minutes with the aid of a knife. The distal end of the bone, which is spatulate in shape with an undulating unfused articular surface at the apex, was usually reserved for the spatulate head, although the proximal end was used on occasion. Unfinished examples and waste from the manufacture of pig fibulae needles are rarely found, and it is unusual to be able to view stages in their production. The two unfinished examples (SFs 1016 and 1017) have shaped shafts but the heads have not been modified. In contrast, a near-contemporary assemblage from Castlefarm, County Meath, showed that the heads were perforated before the shafts were shaped (Riddler and Trzaska-Nartowski 2009).

19. A complete bone needle, produced from a pig fibula with the head cut from the distal end of the bone and little modified, although the apex has been trimmed to a flat surface. Pierced by an oval knife-cut perforation. The shaft is lightly curved and ends in a rounded point. Length: 97.5mm, width: 13.0mm. RBK 020 SF 1012, fill of SFB 0005.
20. A fragmentary bone needle, fractured at the base of the head, which has been cut from the distal end of the bone. The shaft is straight and highly polished; the tip is now missing. Highly polished. Length: 67.5mm, width: 6mm. RBK 020 SF 1013, fill of SFB 0005.

21. Fragmentary bone needle, produced from a pig fibula with the head at the distal end. Fractured across the perforation at the head, and with the lower part of the shaft also missing. Lightly curved shaft of oval section. Polished. Length: 55.0mm, width: 7.0mm. RBK 020 SF 1015, fill of SFB 0005.
22. An incomplete pig fibula, little modified except for the presence of drawknife marks along the shaft and lateral knife cuts at the proximal end. An early stage in needle production. Length: 101.5mm, width: 13.5mm. RBK 020 SF 1016, fill of SFB 0005.
23. Fragmentary bone needle, produced from a pig fibula with the head at the distal end, fractured close to the tip. The shaft is oval in section and lightly curved; the tip is now missing. Length: 96.5mm, width: 12.0mm. RBK 020 SF 1017, fill of SFB 0005.

Medieval and post-medieval

Faye Minter and Richenda Goffin

Silver

24. Farthing Edward I obv: facing crowned bust, EDWARDVS REX rev: long cross with three pellets in each quadrant CIVI/TAS/LON/DON. Possibly type 14, 1317–19 (Withers and Withers 2001). RBK 020 SF 1008, unstratified.
25. A cut farthing of short cross type, obv: facing bust HE[ ]obv: short cross with quatrefoil in each angle. {]ON.L{] Henry II–III. RBK 020 SF 1009, unstratified.
26. Henry VI, halfpenny, obv: facing crowned bust {] RICVS REC MASCLE A[ ] rev; long cross with three pellets in each angle VIL/LA/CALI/SIE, CALAIS mint. Rosette-mascle issue 1422-61, 1453 (Withers and Withers 2003, 45). RBK 020 SF 1033, unstratified.

Copper alloy

27. Fragment of the rim of a cast cooking vessel of medieval to post-medieval date. RBK 020 SF 1003, unstratified.
28. A buckle fragment, consisting of part of a simple oval frame with an angled edge. Evidence of possible decoration on the outer face. 13th–14th-century (Egan and Pritchard 1991, 68). RBK 021 SF 1003 unstratified from ploughsoil.
29. A small D-shaped buckle with integral plate and single rivet, with perforation for the missing pin. RBK 021 SF 1008 unstratified from ploughsoil.

All these objects again indicate low-level medieval to post-medieval activity in the area, probably as a result of manuring.

Undated

The other finds examined from RBK 020 are either unidentified or of unknown date. A number of iron nails not assigned individual small find numbers were recovered from colluvium deposit RBK 021 0002, together with two iron fragments which could be part of a blade. Three additional undated copper alloy small finds from RBK 021 comprise a ring (SF 1004), a ?button (SF 1006) and a strap? fragment (SF 1007).

5.10 Summary of the finds evidence

Prehistoric

A small quantity of worked flint was recovered from the excavations, although much of it appears to be residual or was the only artefact type in an otherwise undated feature. The assemblage itself shows few diagnostic features and so is difficult to

characterise, but it does suggest activity in the area.

Roman

A number of finds dating to the Roman period were recovered from both parts of the excavation. A few fragments of burnt Roman ceramic building material found in the backfill of the SFB may have been re-used during the Saxon period, perhaps as part of a hearth, but fragments of box flue were also identified. Other scrappy fragments were found in one of the ditch fills (RBK 020). The eight Roman small finds are wide ranging in date. There is no evidence to suggest that the Roman small finds were being considered for re-use or recycling during the Saxon period, although they may have been. The almost complete lack of Roman pottery, and ceramic building material in any substantial quantity together with the relative lack of metalwork suggests that there was no indication of an intensive Roman presence in the immediate vicinity of the site.

Early Anglo-Saxon

The most significant group of finds and animal bone was recovered from the main fill of the SFB. The substantial pottery assemblage includes some vessels which date to the 5th century, although the majority of the ceramics are 6th-century. The unstratified cruciform brooch (SF 1000), also dates from the second half of the 5th to the 6th century. Other types of finds such as the iron knife (SF 1024) are harder to date within the overall Saxon period. A quantity of finished and partially finished fragments of bone needle were present, along with fragments of antler and antler waste and horn cores, suggesting that small scale production of bone, antler and possibly horn objects took place in the immediate vicinity. The animal bone (see Section 6 below) shows that both red deer and roe deer were relatively frequent in the SFB assemblage, along with cattle, sheep/goat and pig. Copper alloy waste fragments from the backfilling of the SFB may indicate small-scale Anglo-Saxon metalworking.

The finds assemblage may reflect activities taking place after the demolition of the SFB, and could represent items discarded from other households in the immediate vicinity. The environmental evidence (section 6, below) shows the presence of cereals, seeds, charcoal and faecal material indicative of the detritus of a domestic environment. It is perhaps likely, in view of the long date range for the ceramics, that

the open pit at the centre of the demolished SFB was seen as a rubbish pit, which collected material over a considerable period of time, although the surviving fill did not show a stratigraphic sequence.

As only a single SFB was present, the finds assemblage is limited in terms of how it can be interpreted. The pottery overall appears to be typical of settlement sites in this part of East Anglia. The small finds assemblage and the waste material from animal bones, antler and horn are similar to those recorded from other settlement sites such as West Stow, although it is unusual to find evidence of unfinished bone needles.

Later finds

Small quantities of medieval and post-medieval material, including pottery, CBM and metal small finds, are thought to be related to agricultural activity in these periods and may have reached the site through manuring or casual loss.

6. The environmental evidence

6.1 Animal bone

Julie Curl

Introduction

A small faunal assemblage was recovered from RBK 020, largely from the Early Anglo-Saxon SFB. The remains produced seven species, including the unusual find of a Puffin and several bones from a Red Deer, some of which was articulated.

Eight tiny fragments of bone (2g) were collected from RBK 021. A splinter of a molar, probably bovine, was present in ditch fill 5028. This material is not considered further.

Methodology

All of the bone studied in this assemblage was hand-collected; no environmental samples were examined. The mammal bones were recorded using a modified version of the method described in Davis (1992). Measurements (listed in the appendix) were taken where appropriate, generally following von den Dreisch (1976). Any butchering was also recorded, noting the type of butchering, such as cut, chopped or sawn. A note was also made of any burnt bone. Bones were examined

for any pathological condition. Other modifications were also recorded, such as any possible working, working waste or animal gnawing. Weights and total number of pieces counts were recorded for each context, along with the number of pieces for each individual species present (NISP). All information was recorded directly into an excel spreadsheet for analysis. A catalogue is provided in Appendix 8 giving a summary of all of the faunal remains by context with all other quantifications. Tables giving the measurements and tooth record are also provided.

The provenance and condition of the assemblage

A total of 1.027kg of bone was collected from four contexts, with the assemblage consisting of 380 pieces. The majority of the assemblage examined was retrieved from the Early Anglo-Saxon SFB, whilst a single bone came from a post-medieval ditch. The remains are in good condition, although fragmentary from butchering and wear. The condition of all the bones is broadly similar and does not seem to suggest any intrusive material. Two bones show some gnawing. A bird bone in SFB fill 0005 shows gnawing consistent with that of a cat (or possibly small dog) and the deer metapodial in 0007 showed a little canid gnawing at the proximal end. Some invertebrate (insect, isopod, mollusc) damage was noted on the bones in fill 0005.

Discussion

Table 10 shows quantification of the species and shows a clear dominance of the main domestic animals (sheep/goat, cattle and pig) with ovicaprids the most frequent. Table 10 also shows the relative frequency of deer remains, with several elements recovered and largely consisting of post-cranial bones, clearly demonstrating hunting and not simply deer represented by antler fragments. Two species of bird were seen, including one wild species.

Species	Total NISP
Bird - Galliforme	3
Bird - Puffin	1
Cattle	17
Deer – Red	7
Deer – Roe	2
Mammal	319
Pig	11
Sheep/goat	20
Total	**380**

Table 10. Quantification of animal bone species

An incomplete sheep skull was recovered from SFB fill 0005. This skull is from a large and robust sheep; the size of the attached horncores and the muscle attachments at the rear of the skull would suggest a mature male.

A cattle skull fragment with remains of the horncore base was produced from fill 0005 which showed two oblique chops used to remove the bulk of the horn from the skull, presumably for working.

A fragment of red deer antler was recovered from SFB fill 0005 which had been sawn on one side of the piece; other sides showed natural breaks. This piece clearly suggests antler working waste. Several bones of red deer were also found in fill 0005, consisting of a chopped humerus and complete metacarpal (from the front limb of a large red deer) and a chopped tibia, calcaneus and talus from the rear limb of a large individual. The robustness and size of the metacarpal suggests a stag and the bone shows some arthritis around the proximal end of the bone, indicating an older animal. A red deer proximal metatarsal which had been butchered and gnawed came from 0007. A mandible from a mature roe deer was retrieved from 0013, and the robustness of the jawbone suggests an older male.

A single bone from a probable puffin was found in fill 0011, the lower fill of a ?post-medieval ditch. Puffin is an unusual species on most sites and certainly on an inland site. There is a possible knife cut, although surface damage to this bone makes this difficult to determine. It is likely that this bird had been collected for food or possibly as a curiosity.

Butchering was noted throughout the assemblage. Finer cuts from skinning were seen. Many bones showed heavy cuts and chops from division of the carcass and the production of sections of meat. Many rib fragments were noted that had been cut and chopped into fairly small sections, probably for cooking into a soup or stew, with the cut bones releasing more marrow and flavour into the food. A horncore from SFB 0005 showed oblique chops at the base that strongly suggest the horn was removed for working.

Conclusions and comparisons with other sites

The bulk of the assemblage was primary and secondary butchering waste from the SFB. Some evidence for working is present with the chopped horncore and sawn fragment of antler. Several bones of red deer were also found in the SFB fill 0005 in association with the antler; the presence of these post-cranial elements demonstrates that these animals were actually hunted. Red and roe deer remains were found in all phases of SFBs at West Stow (Crabtree 1990), with post-cranial bones here, as well as remains of antler. The elements present could be bones left with a crudely prepared hide as they have been chopped at the distal end of the upper limbs, and no fine skinning marks were seen on the metacarpal or foot bones which would be expected with a hide removed by a skilled skinner. It is possible that the deer bones and the remains of antlers and horn were waste from a workshop.

The horned sheep skull present in the SFB assemblage may have been for ornamental purposes, rather than for material for hornworking as there were no obvious butchering marks on the horncores.

The bulk of the meat would have been produced by cattle and sheep, which is consistent with other Saxon assemblages (Hagen 1992), with sheep providing wool, lanolin, dung for manure, milk and other by-products. The diet here was clearly supplemented with pig, roe and red deer, the later also providing antler for some of the artefacts found in the SFB. Chickens are likely to have been kept close to the buildings for a supply of eggs as well as for meat.

The Puffin is a more unusual find, especially found at an inland site when the bird is normally a bird of more rocky coastal areas. These sea birds are occasionally seen around the East Anglian coast, often in larger groups in autumn to winter and can be blown many miles off course in stormy weather, which could account for the bird at Rushbrooke. It is quite possible that this bird was collected for food. This bird was eaten until recently in large numbers on St Kilda (Cocker and Mabey 2005). Juvenile puffins are referred to as being eaten, along with juvenile gannets as a fish, along with beavers (tails in particular), frogs and geese (Hagen 1995). Water-based birds and mammals were often eaten as ‘fish’ on fasting days, a rule extended to unborn animals that were living in a watery environment. An unusual coastal bird, a chough,

was found at Thetford in two phases (Jones 1993). Another bird, a shag, was found in an Early Anglo-Saxon ditch fill at Wimbotsham in Norfolk (Curl 2007), which had been butchered, clearly attesting to its use. One find of a butchered puffin was seen in an assemblage from a 17th-century context in Norwich (Curl 2002), this bird being found with several species that had been skinned; it is possible this bird was kept for its sleek, waterproof skin. The puffin from Rushbrooke could have been for food as possible cut mark was seen on the bone, but this unusual looking bird could have been collected as a curiosity.

6.2 Shell

A single fragment of oyster shell was collected from the lower fill 0011 of ditch 0002.

6.3 Plant macrofossils and other remains

Val Fryer

Introduction and method statement

Samples for the retrieval of the plant macrofossil assemblages were taken from the structural postholes of the SFB, from a pit/posthole within the building and from the fill of the main structural pit at RBK 020, and five were submitted for assessment. A further four were submitted from RBK 021.

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16. Nomenclature follows Stace (1997). With the exception of rare mineral replaced seeds, all plant remains were charred. Modern contaminants including fibrous roots, seeds and arthropod remains were present throughout. The non-floating residues were collected in a 1mm mesh sieve and sorted when dry. All artefacts/ecofacts were retained for further specialist analysis.

Results

Table 11 presents the results for RBK 020.

Cereal grains/chaff and seeds of common segetal/grassland plants were recorded at a low density from all five samples. Preservation was generally poor, with most grains being puffed and distorted, possibly as a result of combustion at very high

temperatures. Oat (*Avena* sp.), barley (*Hordeum* sp.), rye (*Secale cerale*) and wheat (*Triticum* sp.) grains were noted, with wheat occurring most frequently. A single cotyledon fragment of an indeterminate large pulse (Fabaceae) was also present within the assemblage from Sample 5. Weed seeds occurred infrequently, but did include specimens of brome (*Bromus* sp.), goosegrass (*Galium* sp.) type, grass (Poaceae) and dock (*Rumex* sp.). A single fragment of hazel (*Corylus avellana*) nutshell was noted within Sample 4. Small charcoal/charred wood fragments were common or abundant throughout, with a number of larger pieces recorded within the assemblage from Sample 5. It was noted that the charcoal within the latter sample had a very flaked appearance, possibly indicative of high temperature combustion. Fragments of black porous and tarry material were present throughout, and although most were probable residues of the high temperature combustion of organic remains, others were hard and brittle and appeared more 'industrial' in nature. These, along with the numerous small pieces of coal, were almost certainly intrusive within the features from which the samples were taken. Other remains occurred infrequently, but did include fragments of bone and mineralised faecal material.

Sample No.	**1**	**2**	**3**	**4**	**5**
Context No.	0009	0007	0013	0005	0005
Feature No.	0008	0006		0010	0010
Feature type	Pit/ph	ph	ph	SFB	SFB
Cereals and other food plants					
Avena sp. (grains)				xcf	
Hordeum sp. (grains				x	
(rachis nodes)			xcf		
Secale cereale L. (grains)			x		
Triticum sp. (grains)	xcf		xfg	x	x
(rachis frag.)	x				
Cereal indet. (grains)	x		x	x	
Large Fabaceae indet.					xcotyfg
Herbs					
Bromus sp.			x		
Chenopodiaceae indet.		x			
Fabaceae indet.				xcf	
Galium sp.		x			
Poaceae indet.			x	xcf	
Rumex sp.			x xcfm		xcf
Tree/shrub macrofossils					
Corylus avellana L.				x	
Other plant macrofossils					
Charcoal <2mm	xxx	xxx	xxx	xxxx	xxxx
Charcoal >2mm	xxx	xxx	xxx	xxx	xxxx
Charcoal >5mm					xx
Charred root/stem	x	x	x		
Indet.seeds	x			x	xm
Other remains					
Black porous 'cokey' material	x		xx	x	x
Black tarry material	x	x	xx	xx	
Bone		x	x		x
Ferrous ? Hammer scale		x			
Mineralised faecal concretions		xx			
Mineral replaced arthropods		x			
Small coal frags.	xx	x	xx	xx	x
Small mammal/amphibian bones	x	x	x		x
White mineral concretions			x		
Sample volume (litres)	**10**	**10ss**	**40ss**	**20ss**	**40ss**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**0.2**
% flot sorted	**100%**	**100%**	**100%**	**100%**	**50%**

Table 11. Plant macrofossils and other remains (RBK 020)

Key to Table: x = 1–10 specimens; xx = 11–50 specimens; xxx = 51–100 specimens; xxxx = 100+ specimens; cf = compare; fg = fragment; coty = cotyledon; m = mineral-replaced; ss = sub-sample; ph = posthole; SFB = sunken-featured building

Table 12 shows the results for RBK 021 (for key see Table 11).

Sample No.	**50**	**51**	**52**	**53**
Context No.	5032	5014	5023	5036
Feature No.	5031	5013	5021	5035
Plant macrofossils				
Hordeum sp. (grain)	xcf			
Triticum sp. (grains)			xcf	x
Cereal indet. (grain)		x		
Corylus avellana L.	x			
Charcoal <2mm	xx	xx	xx	xxxx
Charcoal >2mm	xx	xx	x	xxxx
Charcoal >5mm		x		xx
Charcoal >10mm				xx
Charred root/stem	x			
Indet.seed				x
Indet.tuber				x
Other remains				
Black porous 'cokey' material	xx	x	xx	x
Black tarry material	x	x	xx	
Bone		x	x	x
Burnt/fired clay				x
Ferrous globules				x
Small coal frags.	xxx	xx	xx	x
Sample volume (litres)	**20**	**20ss**	**20**	**10**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**	**0.3**
% flot sorted	**100%**	**100%**	**100%**	**50%**

Table 12. Plant macrofossils and other remains (RBK 021)

With the exception of charcoal/charred wood fragments, which were present throughout, plant macrofossils were exceedingly scarce and all were very poorly preserved. Individual barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recorded along with a single indeterminate cereal grain and fragments of hazel (*Corylus avellana*) nutshell. Charcoal/charred wood fragments, including some larger pieces in excess of 10mm, were particularly abundant within the assemblage from Sample 53. The fragments of black porous and tarry material, which were most abundant within Samples 50, 51 and 52, were generally hard and brittle, and again had the appearance of either 'industrial' residue or a derivative of the high temperature combustion of coal. Coal fragments were also common within all three assemblages. Other remains occurred very infrequently, but did include fragments of bone and burnt or fired clay, and ferrous globules.

Conclusions and recommendations for further work

In summary, the composition of the RBK 020 assemblages is entirely consistent with material recorded from other contemporary sunken-featured buildings with eastern England, where it is assumed that the majority of the macrofossils are derived from detritus, which fell through the floor of the structure into the underlying pit or basement. As cereals, seeds, charcoal and faecal material are all recorded, it is

probably reasonable to assume that the structure served as a domestic dwelling rather than a workshop or store.

The assemblages from RBK 021 Samples 50, 51 and 52 are small (<0.1 litres in volume) and very sparse, containing little other than scattered refuse, coal and charcoal fragments and porous and tarry residues. It is considered most likely that much of the material within these assemblages is intrusive within the contexts from which the samples were taken. The assemblage from Sample 53 (fill of pit 5035) is very different and almost certainly contains material from a specific source. The presence of ferrous globules within this assemblage may indicate material derived from fuel used in a forge or similar industrial context. As this feature is currently undated, it is suggested that the larger charcoal fragments from this assemblage are submitted for species identification prior to potential C14 dating. The other assemblages are all extremely small (<0.1 litres in volume) and as none contain a sufficient density of material for quantification (i.e. 100+ specimens), no further analysis is recommended.

7. Discussion

Two main phases of activity have been identified for the excavated features – prehistoric and Early Anglo-Saxon – with artefacts from other periods also suggesting low-level activity in the Roman, medieval and post-medieval periods.

7.1 Phase 1: Prehistoric

A cluster of pits and postholes to the northern half of the site may be of broad prehistoric date. No pottery was recovered and the small quantities of worked flint from the feature fills were not closely dateable. Worked flints were also found in the post-medieval ditches to the south of the cluster, suggesting that this area may have been a focus of activity if the flints are contemporary. The identification of an earlier Neolithic component has been noted in this group (Bates above), and Neolithic material was also identified at RBK 019 (Pendleton in Green 2007), although at the latter site there was also evidence of later prehistoric flint working.

A further small group of worked flints was recovered from ditch 5031/5037, although they may be residual here. The largest group, however, was collected from the fill of the SFB, including some weathered material. This may suggest that it disturbed further evidence of prehistoric activity in this part of the site.

7.2 Phase 2: Roman

Residual Roman metal finds and CBM were collected from some of the later ditches. These finds may be related to those excavated during previous phases of work at RBK 019 (Green 2007).

7.3 Phase 3: Early Anglo-Saxon

Two sections of ditch crossed the site, 5021 and 0022, although if they originally joined there was no evidence for this in the central area between them. Finds from the fills were sparse but included Roman metalwork, CBM and fragments of Early Anglo-Saxon pottery. There is a possibility that the ditches could have been excavated originally in the Roman phase and then backfilled later, but handmade wares were found in the lowest fill so this seems unlikely. A similar east-west aligned ditch was excavated at RBK 019 on the other side of the river, and also contained both Roman and Early Anglo-Saxon material in small quantities.

The shallow remains of a sunken-featured building contained a fill which produced the majority of finds from this fieldwork. The assemblage included large groups of pottery and animal bone, as well as a number of pieces of antler objects and working waste, and a variety of metal objects. Similar groups of objects have been recovered from other SFBs at sites around the region, for example at Carlton Colville (Lucy et al 2009) and West Stow (West 1985). Only one of the structures at Carlton Colville, for example, produced such material (Lucy et al 2009, 71, structure 19), and Riddler (above) has noted that it seems to have been common practice to dump such material as a concentration, rather than for it to be spread across several structures within settlements. The other waste from the Rushbrooke SFB is not particularly unusual, but the range of pottery may suggest that the remains may represent several decades' worth (or more) of rubbish. This in itself is suggestive of more buildings and households being present close by, even if outside the bounds of the trench.

7.4 Phase 4: Post-medieval

Ditch 5011/5027/0002 was almost certainly of post-medieval date. It contained finds of the 18th century as well as residual fragments of prehistoric and Saxon date. It is likely that this feature equates to a field boundary which is shown on all OS maps from the first edition of 1885 up until 1978 (it had gone by the 1991 edition). It is also clearly seen on aerial photographs (NMS No. TL8762/JBY 12–13), running from the angle of the surviving field boundary in a north-westerly direction, cutting across the eastern half of the rectangular enclosure, to intersect with the angle of a palaeochannel.

Also on the aerial photographs, as mapped by Air Photo Services Cambridge (2007), are the lines of two ditches which run on a roughly ENE–WSW alignment just to the south of the rectangular enclosure NWN 007. These run roughly parallel to the southern edge of the enclosure, suggesting either that they were contemporary or that one respected the other. Extrapolation of the line of the most northerly of these two ditches suggests that Phase 3 excavated ditches 5021 and 0022 were part of the same feature, whilst the other may have linked with the suggested post-medieval ditch 5019/0026. Another parallel ditch 5031/5037 is undated (although the possibility of it being prehistoric has been suggested) and may not extend far beyond the excavated area. These parallel ditches might represent the continuation of a much earlier boundary into the post-medieval period, albeit with a replacement slightly to the south. It appears from the cropmark evidence that a number of ditches once ran on similar alignments at approximate right-angles to the Sicklesmere road.

Ditch 5013/5029 has been allocated to Phase 4 as it contained post-medieval CBM. However it was cut by 5011/5027/0002 and the possibility that it was an earlier feature with intrusive rubble from the later ditch should also be considered. The ditch appears to have been relatively vestigial at the east end, as it was not identified in RBK 020. There is no particular evidence for it continuing beyond the excavated area as a cropmark and potentially it could be a short curvilinear ditch associated with the nearby postholes.

8. Conclusions

The fieldwork has resulted in the discovery of a previously unknown Early Anglo-Saxon structure. It is unlikely that such a structure would have been isolated and the inferred presence of a settlement of this period is of regional significance. The Lark Valley is well known to have been the site of a number of such settlements (West 1999) and the current excavation has provided further evidence for their sitting close to the floodplain.

Whilst it may be considered unfortunate that so few of the other excavated features on these sites produced definitive dating evidence, there is certainly evidence of prehistoric and Roman activity in the area. The short sections of excavated ditch, all apparently aligned with the southern edge of the rectangular cropmark enclosure, may be of different dates and throw into doubt any previous suggestion that the enclosure itself is Roman – something which can only be confirmed through excavation.

9. Archive deposition

The site archive is stored in the SCCAS main store at Bury St Edmunds under HER codes RBK 020 and RBK 021 and a digital copy of the report has been submitted to the Archaeological Data Service at: http://ads.ahds.ac.uk/catalogue/library/greylit

10. Contributors and acknowledgements

The project was directed by Mo Muldowney and managed and monitored by Andrew Tester and Joanna Caruth, who, with John Duffy, also provided advice during the production of the report. The excavation was carried out by a number of archaeological staff (Phil Camps, Tony Fisher, Fiona Gamble, Mike Green, Holly Stacey and Nick Taylor) all from Suffolk County Council Archaeological Service, Field Team.

Finds processing was carried out by Gemma Adams and the specialist finds report was written and compiled by Richenda Goffin. Other specialist identification and

reports were provided by Sue Anderson, Faye Minter, Julie Curl, Andrew Brown, Val Fryer, Ian Riddler and Nicola Trzaska-Nartowski. Illustrations are by Ellie Hillen, Crane Begg and Sue Holden. The report was compiled and edited by Sue Anderson.

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Appendix 1 Brief and Specification – Monitoring

SUFFOLK COUNTY COUNCIL

ARCHAEOLOGICAL SERVICE - CONSERVATION TEAM

Brief and Specification for Archaeological Monitoring of Development

ANGLIAN WATER KINGS ROAD RUSHBROOKE NITRATE SCHEME – WASHOUT PIPELINE

Although this document is fundamental to the work of the specialist archaeological contractor the developer should be aware that certain of its requirements are likely to impinge upon the working practices of a general building contractor and may have financial implications.

1. **Background**

1.1 The Kings Road Rushbrooke Nitrate Scheme Washout Pipeline is situated between TM 4719 6316 (north) and TM 4693 6272 (south), *c*. 1.00km in length (**Please contact the developer for a map of the route including the location of the trial pits**).

1.2 A series of 11 launch and exit pits will be undertaken along the line of the proposed route in order for the pipeline to be directionally drilled. Anglian Water has been advised that archaeological monitoring of this ground disturbance should take place.

1.3 The route of the proposed pipeline is orientated NW-SE for *c*. 560m and SW-NE for *c*. 510m, principally on the western side, and crossing the floodplain of, the River Lark. The eastern half of the pipeline, aligned SW-NE follows the line of a previous Anglian Water pipeline scheme in 2007 (Rushbrooke to Nowton pipeline), which involved a stripped easement.

1.4 This application is situated within an area of archaeological importance that is recorded in the County Historic Environment Record. In particular, the line of the proposed route passes close to a known archaeological site (NWN 007). A recent Anglian Water pipeline easement along the southern edge of this site produced evidence of both Roman and early Anglo-Saxon settlement.

1.5 The underlying drift geology comprises chalk till and loam over clay with river alluvium in the floodplain. The height of the proposed pipeline route varies between *c*. 35 - 50.00m AOD.

1.6 The proposed route crosses the Lark floodplain for *c*. 180m. This area provides considerable potential for the recovery of palaeo-environmental and geoarchaeological deposits, and has the potential for former land surfaces buried by later sedimentation.

1.7 In accordance with the standards and guidance produced by the Institute of Field Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to the Conservation Team of the Archaeological Service of Suffolk County Council (Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory. The WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the planning condition will be adequately met.

1.8 Before any archaeological site work can commence it is the responsibility of the developer to provide the archaeological contractor with either the contaminated land report for the site or a written statement that there is no contamination. The developer should be aware that

investigative sampling to test for contamination is likely to have an impact on any archaeological deposit which exists; proposals for sampling should be discussed with the Conservation Team of the Archaeological Service of Suffolk County Council (SCCAS/CT) before execution.

1.9 The responsibility for identifying any restraints on field-work (e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c.) rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such restraints or imply that the target area is freely available.

1.10 Any changes to the specifications that the project manager may wish to make after approval by this office should be communicated directly to SCCAS/CT for approval.

2. Brief for Archaeological Monitoring

2.1 To provide a record of archaeological deposits which are damaged or removed by any development [including services and landscaping] permitted by the current planning consent.

2.2 The significant archaeologically damaging activity in this proposal is the excavation of the launch and exit pits (each measuring *c*. 2.00 x 2.00m in area x 1.00m deep) along the line of the proposed route. These, and the upcast soil, are to be closely monitored during and after they have been excavated by the building contractor.

2.3 The pits must be excavated with a toothless ditching bucket down to the interface layer between topsoil and subsoil or other visible archaeological surface. All machine excavation is to be under the direct control and supervision of an archaeologist. The topsoil should be examined for archaeological material.

2.4 Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation (see 4.3).

3. Arrangements for Monitoring

3.1 To carry out the monitoring work the developer will appoint an archaeologist (the archaeological contractor) who must be approved by SCCAS/CT - see 1.3 above.

3.2 The developer or his archaeologist will give SCCAS/CT five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored. The method and form of development will also be monitored to ensure that it conforms to previously agreed locations and techniques upon which this brief is based.

3.3 Allowance must be made to cover archaeological costs incurred in monitoring the development works by the contract archaeologist. The size of the contingency should be estimated by the approved archaeological contractor, based upon the outline works in paragraph 2.2 of the Brief and Specification and the building contractor's programme of works and time-table.

3.4 If unexpected remains are encountered SCCAS/CT must be informed immediately. Amendments to this specification may be made to ensure adequate provision for archaeological recording.

4. Specification

4.1 The developer shall afford access at all reasonable times to both SCCAS/CT and the contracted archaeologist to allow archaeological monitoring of building and engineering operations which disturb the ground.

4.2 Opportunity must be given to the contracted archaeologist to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make

measured records as necessary. Where it is necessary to see archaeological detail one of the soil faces is to be trowelled clean.

4.3 All archaeological features exposed must be planned at a minimum scale of 1:50 on a plan showing the proposed layout of the development.

4.4 A photographic record of the work is to be made of any archaeological features, consisting of both monochrome photographs and colour transparencies/high resolution digital images.

4.5 All contexts must be numbered and finds recorded by context. All levels should relate to Ordnance Datum.

4.6 Archaeological contexts should, where possible, be sampled for palaeoenvironmental remains. Column samples should be also taken for assessment, where appropriate, from geoarchaeological deposits encountered within the area of the floodplain. Best practice should allow for sampling of interpretable and datable archaeological deposits and provision should be made for this. Advice on the appropriateness of the proposed strategies will be sought from J. Heathcote, English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, *A guide to sampling archaeological deposits for environmental analysis*) is available for viewing from SCCAS.

4.7 All finds will be collected and processed (unless variations in this principle are agreed with SCCAS/CT during the course of the monitoring).

4.8 The data recording methods and conventions used must be consistent with, and approved by, the County Historic Environment Record.

5. **Report Requirements**

5.1 An archive of all records and finds is to be prepared consistent with the principles of *Management of Archaeological Projects* (*MAP2*), particularly Appendix 3.This must be deposited with the County Historic Environment Record within three months of the completion of work. It will then become publicly accessible.

5.2 The project manager must consult the County Historic Environment Record Officer (Dr Colin Pendleton) to obtain an event number for the work. This number will be unique for each project or site and must be clearly marked on any documentation relating to the work.

5.3 Finds must be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*. The finds, as an indissoluble part of the site archive, should be deposited with the County Historic Environment Record if the landowner can be persuaded to agree to this. If this is not possible for all or any part of the finds archive, then provision must be made for additional recording (e.g. photography, illustration, analysis) as appropriate. Account must be taken of any requirements the County Historic Environment Record may have regarding the conservation, ordering, organisation, labelling, marking and storage of excavated material and the archive.

5.4 A report on the fieldwork and archive, consistent with the principles of *MAP2*, particularly Appendix 4, must be provided. The report must summarise the methodology employed, the stratigraphic sequence, and give a period by period description of the contexts recorded, and an inventory of finds. The objective account of the archaeological evidence must be clearly distinguished from its interpretation. The Report must include a discussion and an assessment of the archaeological evidence, including palaeoenvironmental remains recovered from palaeosols and cut features. Its conclusions must include a clear statement of the archaeological value of the results, and their significance in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).

5.5 An unbound copy of the report, clearly marked DRAFT, must be presented to SCCAS/CT for approval within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and SCCAS/CT.

5.6 Following acceptance, two copies of the report should be submitted to SCCAS/CT. A single hard copy should be presented to the County Historic Environment Record as well as a digital copy of the approved report.

5.7 A summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute of Archaeology*, must be prepared and included in the project report.

5.8 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County Historic Environment Record. AutoCAD files should be also exported and saved into a format that can be can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.

5.9 At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ must be initiated and key fields completed on Details, Location and Creators forms.

5.10 All parts of the OASIS online form must be completed for submission to the County Historic Environment Record. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

Specification by: Dr Jess Tipper

Suffolk County Council
Archaeological Service Conservation Team
Environment and Transport Department
Shire Hall
Bury St Edmunds
Suffolk IP33 2AR

Tel. : 01284 352197
E-mail: jess.tipper@et.suffolkcc.gov.uk

Date: 21 February 2008 Reference: / AW_KingsRoadRushbrookePipeline2008

This brief and specification remains valid for six months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.

Appendix 2 Context list

RBK 020

context	feature	group	ditch segment	Identifier	type	description	spotdate
0001	-			finds	-	unstratified finds from whole of site	
0002	0002			ditch	Cut	Cut of ditch {0002}. Fairly modern ditch joining with existing ditch network. Sides slope 50 degrees to a concave base. 18th-19th cent	
0003	0002			ditch	Fill	Top fill in ditch [0002]. Mid-dark brown sandy silt fill with moderate flint inclusions.	18th c.?
0004	0010	0010		SFB	cut	Cut of main SFB pit. Fairly shallow pit in structure [0010]. Irregular steep sides, sides slope 60-70 degrees to an irregular flat base.	
0005	0004	0010		SFB	Fill	Main fill in square SFB pit. Dark charcoal stained brown/ grey sandy silt fill with moderate flint inclusions, occasional chalk flecks and moderate charcoal flecks and lumps. Also some mixed clay lumps and flecks near the centre of the feature.	5th-7th c.
0006	0010	0010		posthole	cut	Cut of larger posthole associated with SFB [0010]. Oval in plan U in section. Sides slope 85-90 degrees to a concave base. 50 then 100% excavated	
0007	0006	0010		posthole	Fill	Only fill in posthole [0006]. Dark grey brown sandy silt fill with occasional charcoal flecks and occ flint inclusions. 50 the 100% excavated	5th-7th c.
0008	0010	0010		posthole	cut	Cut of smaller second posthole located in the pit cut [0004] of SFB [0010]. Circular in plan U shape in section. Sides slope 85--90 degrees to a concave base. 50 then 100% excavated	
0009	0008	0010		posthole	Fill	Fill of posthole [0008] in SFB [0010]. Dark brown grey silt fill with occasional charcoal flecks and occasional flint inclusions. 50 the 100% excavated	
0010	0010	0010		SFB	structure	Overall number for the structure of the SFB. Including the main cut of the pit [0004], postholes [0006], [0008] and [0012] and associated fills.	
0011	0002			ditch	Fill	Basal fill of ditch [0002]. Mid- light brown silty sand fill with frequent flint inclusions. 100% of segment excavated	
0012	0012	0010		posthole	cut	Cut of posthole in SFB [0010]. Posthole is located at the south of feature, diagonally opposite posthole [006] to NE. Vertical sided, concave base. Roughly circular in plan. 50 the 100% excavated	
0013	0012	0010		posthole	Fill	Fill of posthole [0012]. A mid grey silty sand, loose compaction, with occasional intermittent charcoal flecks. Some small flint cobble inclusions. 50 then 100% excavated	
0014	0014			ditch	cut	Ditch running NE-SW. 45 degree sloping sides and concave base.	
0015	0014			ditch	Fill	Fill of ditch [0014]. Fill is a natural clay hillwash that may have replaced the original fill in a flooding event. This makes this feature highly dubious. No finds. 100% of segment excavated	
0016	-			Soil profile	Soil profile	Soil profile of lower alluvium near the river lark. Also showing dark organic, charcoal stained sandy silt.	
0017	-			layer	deposit	Top fill in soil profile 0015. Dark brown/ black sandy silty gravely fill.	
0018	-			layer	deposit	2nd fill in soil profile 0015. Course light grey/ yellow sand.	
0019	-			layer	deposit	3rd fill in soil profile 0015. Mid grey course silty sand.	
0020	-			layer	deposit	4th fill in soil profile 0015. Leeched dark orange/ yellow clay.	
0021	-			layer	deposit	5th fill in soil profile 0015. Light creamy brown silty clay with charcoal flecks	
0022	0022			ditch	cut	Cut of ditch running E-W. Dubious ditch. A shallow and irregular cut both base and sides.	
0023	0022			ditch	Fill	Fill of ditch [0022].	5th-7th c
0024	-			ditch	cut	Cut of ditch running NE-SW. Dubious ditch. Not drawn	
0025	0024			ditch	Fill	Fill of ditch [0024]. Mid- light orange/ brown sandy silt fill with occ flint inclusions. Not drawn	
0026	0026			ditch	cut	Cut of wide ditch running E-W. Sides are concave sloping 60-65 degrees to a concave base.	
0027	0026			fill	fill	Fill of ditch [0026]. Light orange/ brown sandy silt fill with occasional flint inclusions.	
0028	0028			pit	cut	Cut of prehistoric pit. Irregular circle in plan. Irregular in section and very shallow. Not drawn in section. On tst	
0029	0004	0010		SFB	fill	NE quad taken out of SFB [0010] fill (0005)	

context	feature	group	ditch segment	Identifier	type	description	spotdate
0030	0004	0010		SFB	fill	SE quad taken out of SFB [0010] fill (0005)	
0031	0028			pit	fill	Fill of prehistoric pit. Mid brown sandy silt fill with occasional charcoal fleck and moderate burnt flint inclusions. 100% excavated	

RBK 021

context	feature	group	ditch segment	identifier	type	description	interpretation	spotdate
0001	0001			finds		U/S finds		
0002	0001			finds		Finds from buried soil layer/stripped surface in Launch pit		
0003	0003			layer	deposit		Spread of post-med material in launch pit	18th c.
0004	0004			ditch	cut	N-S aligned ditch, partially excavated (E side only), sloping side, flat base, 0.5m deep		
0005	0004			ditch	fill	mid brown silt		
5000	5000	5010		posthole	cut	circular, shallow sloping, gentle concave, not truncated. 1m north of 5002	shallow posthole in small group	
5001	5000	5010		posthole	fill	mid grey brown silty sand, very loose, lots of root disturbance, very stoney, varying sizes	singel fill of posthole	PRE
5002	5002	5010		posthole	cut	oval, fairly steep-sided, flat base, not truncated. 1m south of 5000	pit or posthole in group	
5003	5002	5010		posthole	fill	mid brown grey, very loose. Root disturbance, several varying size stones	single fill of posthole	PRE
5004	5004	5010		posthole	cut	circular, gently sloping sides, concave base, not truncated	very small and shallow posthole in group	
5005	5004	5010		posthole	fill	mid brownish grey silty sand, very loose, very stoney, varying sizes, root disturbance	single fill of posthole	PRE
5006	5006	5010		posthole	cut	circular, gradual sloping sides, concave base, not truncated	possible posthole within group of similar	
5007	5006	5010		posthole	fill	mid brown grey silty sand, very soft, varying sized stones	single fill of posthole	
5008	5008			posthole	cut	oval, u-shaped profile, concave base	posthole	
5009	5008			posthole	fill	mixed mid orange brown sandy silt, common large med and small flint, pea grit base, loose	single fill of posthole	
5010	5010	5010				group number for postholes 5000, 5002, 5004, 5006		
5011	5011		5016	ditch	cut	linear, u-shaped profile, concave base, not truncated, north-west to south-east	post-med ditch	
5012	5011		5016	ditch	fill	mid brown silty sand, frequent flint gravels, friable	mid fill of post-med ditch	LM/PM
5013	5013		5016	ditch	cut	curvilinear, u-shaped profile with concave base	ditch cut	
5014	5013		5016	ditch	fill	light orange brown silty sand, stoney, more dense towards base of cut on north-east side. (Bulk soil sample <51> 3 buckets)	single fill of ditch 5013	PM
5015	5012		5016	ditch	fill	85% gravel fill with mid-brown silty sand matrix	gravel accumulation at base of cut. Accumulated during the creation of the ditch or after opening, then left open for a period of time	
5016	5011 5013	5016				group number for ditches 5011=5027 and 5013=5029		
5017	5017			pit	cut	small round pit with rounded bottom	pit or posthole close to other postholes to W	
5018	5017			pit	fill	brown sand with frequent stones	fill of pit 5017	PRE

context	feature	group	ditch segment	identifier	type	description	interpretation	spotdate
5019	5019			ditch	cut	curvilinear, straight sides and flat base, approx e-w oriented	ditch, modern	
5020	5019			ditch	fill	mid orange brown silty sand with frequent flint gravel, angular	single fill of modern ditch	PRE
5021	5021			ditch	cut	linear, u-shape profile, gently sloping sides with concave base, not truncated	ditch	
5022	5021			ditch	fill	mid grey sandy silt, friable with pot and charcoal	Upper fill of ditch 5021. Possible deliberate backfill of grey material distinct from 5023. (1 bodysherd of A-S hand-made pot)	ESAX
5023	5021			ditch	fill	mid orange brown silt, compact. (Bulk soil sample <52> 3 buckets)	Lower fill of ditch 5021, colluvial in-wash? (1 small hm b/s same as 5022 A-S, 1 frag ?Rom cbm)	SAX
5024	5024			layer	deposit	mid brownish grey silty sand. Flint: frequent, sm to med angular. Pot (post-med): rare, med frags. Friable	topsoil	
5025	5025			layer	deposit	mid brownish orange silty sand. Flint: common, sm to med, angular, friable, west end of trench only	subsoil/colluvium	
5026	5026			layer	deposit	sands and gravels with occasional mid grey silt patches	natural sands and gravels	
5027	5027			ditch	cut	linear, u-shaped profile with concave base, as 5011. no basal gravel deposit at this point	ditch	
5028	5027			ditch	fill	mid brown silty sand, frequent flint, moderate compaction	single fill of post-med ditch	LM/PM
5029	5029			ditch	cut	curvilinear, north-west to south-east then turning to a east-west direction, partly truncated by machine. Shallow u-shape profile	ditch	
5030	5029			ditch	fill	mid orange brown silty sand, frequent flint gravels, friable	single fill of 5029	ROM
5031	5031			ditch	cut	curvilinear, u-shaped profile, e-w aligned	ditch	
5032	5031			ditch	fill	mid orange brown sandy silt, frequent med to large silt with pea grit at base and sides. (bulk soil sample <50> 3 buckets)	single fill	PRE
5033	5033			pit	cut	elongated oval, wide shallow profile, slightly concave base	cut for an elongated pit of unknown function and origin	
5034	5033			pit	fill	light brownish grey silty sand. Flint: common sm to large angular and sub-angular. Loose	single fill of pit 5033	
5035	5035			posthole	cut	shallow profile, flat base, sub-circular in plan	small posthole	
5036	5035			pit	fill	mid grey silty sand with occasional gravel and frequent charcoal, large angular flint. (Bulk soil sample <53> 1 bucket)	single fill of posthole, possibly truncated	
5037	5037			ditch	cut	gradual slope from north-north-east to flat base, south-south-west side truncated by posthole 5035, e-w aligned	ditch	
5038	5037			ditch	fill	mid orange brown compact sand with gravel, large angular flint at base	single fill of ditch, possibly colluvial	PRE
5039	5011		5016	ditch	fill	dark grey sandy silt, Flint: common, sm to med ang, friable	upper fill of ditch 5011	

Appendix 3 Bulk finds catalogue

Context	Pottery		CBM		Flint		Animal Bone		Miscellaneous	Spotdate
	No.	Wt/g	No.	Wt/g	No.	Wt/g	No.	Wt/g		
RBK 020										
0001	1	73			1	5				Unstratified
0003	3	41	5	187						18th c?
0005	176	2664	7	927	34	991	330	4086	4 fired clay (74g), 10 slag (202g), 41 burnt stone (3877g), 1 charcoal (1g)	5th-7th c
0007	3	31					12	212	3 burnt stone (160g)	5th-7th c
0011					2	27	1	1	1 oyster shell (2g)	
0013							2	59		
0023	2	24	2	197						5th-7th c
Total	*185*	*2833*	*14*	*1311*	*37*	*1023*	*345*	*4358*		
RBK 021										
0002	8	60	1	38	1	6				Rom, ESax, med
0003	5	304	5	2513					1 clay pipe (4g), 1 glass (22g)	18th c
5001					1	1				Pre?
5003					2	4				Pre?
5005					1	1				Pre
5012	1	3	4	110						LM/PM
5014			15	300						P-med
5018									1 burnt flint (32g)	Pre?
5020					2	8				Pre
5022	1	39	1	237			7	1		ESax
5023	1	1								ESax
5026					1	3				
5028	1	3	4	156	1	4	1	1		LM/PM
5030			2	79	1	3				Rom+
5032					1	9				Res pre?
5038					3	17			1 stone (2732g)	Res pre?
Total	*17*	*402*	*32*	*3433*	*14*	*56*	*8*	*2*		

Appendix 4 Pottery catalogue

RBK 020

Context	Fabric	Form	No	Wt/g	Decoration	Notes	Spot date
0001	LSRW	JR	1	73	slip int, clear glaze		19
0003	GRE		2	40	OG int & ext	pale fabric, late?	18+
0003	SWSW	CU	1	1	clear glaze		18
0005	ESCM		6	153	IVL, smoothed int & ext	widely spaced lines, common granite, coarse	ESax
0005	ESCF		1	3	IVL, smoothed	flake, sparse granite	ESax
0005	ESCF	JR	16	240	roughly smoothed	slightly shouldered, upright squared-off rim	6th c.?
0005	ESOM	BL	9	201		straight-sided bowl	ESax
0005	ESOM		4	34			ESax
0005	ESMS		2	28		v small globular vessel, thick walled, contains sparse Fe, grog, chalk, all coarse	ESax
0005	ESSC		3	19	grass-wiped	thick	ESax
0005	ESSC		2	35		slightly shouldered	6th c.?
0005	ESSC		1	12			ESax
0005	ESSS		1	7			ESax
0005	ESSS		1	4			ESax
0005	ESCQ		2	37			ESax
0005	ESMS		9	214		occasional coarse chalk or flint inclusions	ESax
0005	ESMS		1	101	grass-wiped		ESax
0005	ESFS		1	56			ESax
0005	ESCF		1	21	smoothed/burnished int & ext		ESax
0005	ESCF		1	67	smoothed ext	internal grits exposed	ESax
0005	ESSC	BL	1	2		hemispherical bowl	5th/6th c.?
0005	ESMS	BL	1	10		straight-sided bowl	5th/6th c.?
0005	ESMS	JR	1	14		slight shoulder	ESax
0005	ESMS	JR	1	19		slight shoulder	ESax
0005	ESCF	BL?	1	17	smoothed int	straight-sided bowl?	6th c.?
0005	ESFS	JR	1	7	burnished ext	poss biconical?	5th/6th c.?
0005	ESFS	JR	1	5	burnished ext		ESax
0005	ESMS	JR	1	9			ESax
0005	ESMS	JR	1	3			ESax
0005	ESCF	JR	1	3	burnished ext	sparse tiny flecks of calc	ESax
0005	ESFS		1	6	smoothed ext		ESax
0005	ESMS	JR	2	9			ESax
0005	ESCF	JR	1	8	grass-wiped	v slight shoulder, baggy?	6th c.
0005	ESMS		1	9	smoothed ext		ESax
0005	ESMS	JR	1	11	smoothed int		ESax
0005	ESSS	JR	2	17	smoothed int & ext, IHLs, band of ring-&-dot stamp		ESax
0005	ESQC	JR	1	48	IDLs and part of grid rectangular stamp, smoothed	lower part of ?sub-biconical jar, chevron pattern	6th c.?
0005	ESCF	JR	2	18	IHLs, IWL, partial rosette stamp, smoothed		ESax
0005	ESFS	JR	1	16	IDLs above carin, IHLs on it, stamps, smoothed	biconical vessel, grid rectangular stamps, and poss oval too	6th c.?
0005	MCW		1	7			
0005	ESMS	BL	4	25		straight-sided bowl	5th/6th c.?
0005	ESFS		1	10	smoothed/burnished int & ext		ESax
0005	ESFS		5	14	smoothed/burnished int & ext		ESax
0005	ESCF		1	16	smoothed ext	v coarse granite	ESax
0005	ESFS		5	76	smoothed int & ext	thin walled, sparkly sand type	ESax
0005	ESCF		9	210	smoothed ext	sparse granite, thick sherds	ESax

Context	Fabric	Form	No	Wt/g	Decoration	Notes	Spot date
0005	ESCQ		2	65	burnished ext		ESax
0005	ESCQ		2	56		some unburnt flint too	ESax
0005	ESCQ		13	151		poss 2 vessels	ESax
0005	ESCQ		3	65	smoothed int & ext		ESax
0005	ESFS	BL	3	49	smoothed int & ext	hemispherical bowl	5th/6th c.?
0005	ESMS		2	10	smoothed int & ext	greensand?	ESax
0005	ESCF		1	35			ESax
0005	ESSS		1	21	grass-wiped		ESax
0005	ESGG		1	16		surface spalled	ESax
0005	ESGG		1	17	smoothed int & ext	inclusions sparse	ESax
0005	ESCF		1	36	grass-wiped	thick	ESax
0005	ESGS		1	16		grey grog? poss limestone	ESax
0005	ESMS		1	8	smoothed int & ext		ESax
0005	ESCQ		1	15	smoothed/burnished int & ext		ESax
0005	ESCQ		1	14	roughly smoothed		ESax
0005	ESFS		1	8	smoothed int & ext		ESax
0005	ESMS		2	13			ESax
0005	ESFS		1	2		thin walled, sub-biconical, small	6th c.?
0005	ESCQ		7	36	some smoothed		ESax
0005	ESSS		1	2		flake	ESax
0005	ESCF		3	13	1 smoothed		ESax
0005	ESFS		1	13	smoothed int & ext, 3+ IHLs		ESax
0005	ESMS		1	4	smoothed int & ext, 1+ IHL		ESax
0005	ESCF	JR	14	176	3+ IHLs, 3 IDLs in chevrons below, smoothed, stamp	rosette stamp above carination, sub-biconical jar	6th c.?
0005	ESMS	BL	2	6		hemispherical bowl	5th/6th c.
0007	ESSC		1	14	grass-wiped	occ granitic?	ESax
0007	ESCF		1	4			ESax
0007	ESCQ		1	10			ESax
0023	ESSM		1	21	smoothed int & ext		ESax
0023	ESMS		1	2		small frag, could just be FC	ESax

RBK 021

Context	Fabric	No	Wt/g	Form	Decoration	Spot date
0002	ESO2	1	9	BODY	Reduced, hand/made sandy w some organic	5th-7th C
0002	ESMS	1	21	BODY	Oxid inside outer margin	12th-14th C
0002	ESCQ	2	6	BODY		5th-7th C
0002	ESMS	1	3	BODY	Reduced	12th-14th C
0002	GX	1	1	BODY	Roman, small greyware sherd	Roman
0002	MCW?	1	3	BODY	Sandy oxidised fabric	12th-14th C
0002	HOLL	1	15	BOWL		13th-14th C
0003	GRE	1	144	JAR	Applied thumbed clay pellets around rim	16th-18th C
0003	GRE	1	64	BOWL		16th-18th C
0003	SWSW	1	30	BOWL	Undecorated	1720-1780
0003	LPME	1	56	BODY		18th-20th C
0003	GRE	1	10	BODY		16th-18th C
5012	ESMS	1	3	BODY	Reduced sherd, oxid ext	5th-7th C
5022	ESCF	1	34	BODY		5th-7th C
5023	ESO1	1	1	BODY	Reduced, v small hand made sherd	5th-7th C
5028	ESO2	1	3	BODY	Reduced, sand and org	5th-7th C

Appendix 5 CBM quantification

RBK 020

Context	Period	Fabric	Form	No	Weight	Abr	Mortar	Notes	Date
0002	PM		LB	3		A		Red-firing sandy fabrics, all cbm from 0002 weighs 210g	Late Med/PM
0002	PM		RT	2				Red-firing sandy fabrics	Late Med/PM
0005	ROM	msf	BOX	1	152	A	Yes	Burnt, flue tile, combing	Roman
0005	ROM	ms	BOX?	1	71	A		Burnt, reduced core, organic imps	Roman
0005	ROM	mscp	RBT	3	478	A	Yes	Prob reused	Roman
0005	ROM	ms	RBT	1	7				Roman
0005	ROM	mscp	RBT	1	200			Burnt, poss flue tile?, reduced core	Roman
0023	ROM	msf	RBT	2	193			2 joining. Reduced core	Roman

RBK 021

Context	Period	Fabric	Form	No	Wt	Abr.	Notes	Date
0002	ROM	msfe	TESS	1	38		Possible tessera, irregular square, retained	Roman
0003	LM/PM	msfe	LB	1	1532		Maroon brick, Width 105mm, height 54mm	
0003	LM/PM	mscp	RT	1	79			
0003	LM/PM	msf	RT	1	23			
0003	LM/PM	fscp	LB4	2	873		2 joining, W120mm, height 40mm, re-used on broken edge	1st half of 16th C onwards
5012	LM/PM	msfe	RT	2	70		2 joining	Pmed
5012	LM/PM	ms	RT?	1	2			
5012	LM/PM	msf	LB?	1	38		v abraded, no external surface, semi-vitrified	
5014	LM/PM	msf	RT	1	118			
5014	LM/PM	msfe	RT	2	35			
5014	LM/PM	msf	RT	1	29			
5014	L/PM	cs	RT	1	10		Maroon	
5014	L/PM	msf	RT	1	18			
5014	L/PM	msf	LB?	5	72		Abraded fragments	
5014	L/PM	ms	LB?	3	14			
5014	L/PM	mscp	?	1	4		V small and abraded	
5022	ROM	fscp	RBT	1	227		No mortar	
5028	L/PM	fsf	RT	1	50			
5028	L/PM	fscp	RT	1	43	A		
5028	L/PM	msf	RT	1	20			
5028	L/PM	msf	LB?	1	42			
5030	ROM	msf	RBT	1	72	A	?roman fabric	?Roman
5030	INID	msf	?	1	5		Unknown date	

Appendix 6 Flint catalogue

Context	Type	Quantity
RBK 020		
0001	flake	1
0005	utilised flake	2
0005	burnt fragment	4
0005	multi platform flake core	2
0005	flake	9
0005	shatter	6
0005	spall	2
0005	notched blade	1
0005	retouched blade	1
0005	retouched flake	3
0005	struck fragment	1
0005	struck fragment	4
0005	non-struck fragment	0
0011	core/tool	1
0011	retouched flake	1
RBK 021		
0002	flake	1
5038	utilised flake	3
5001	spall	1
5003	blade-like flake	1
5003	utilised flake	1
5005	utilised flake	1
5020	flake	2
5026	retouched flake	1
5028	flake	1
5030	blade-like flake	1
5032	flake	1

Appendix 7 Small finds catalogue

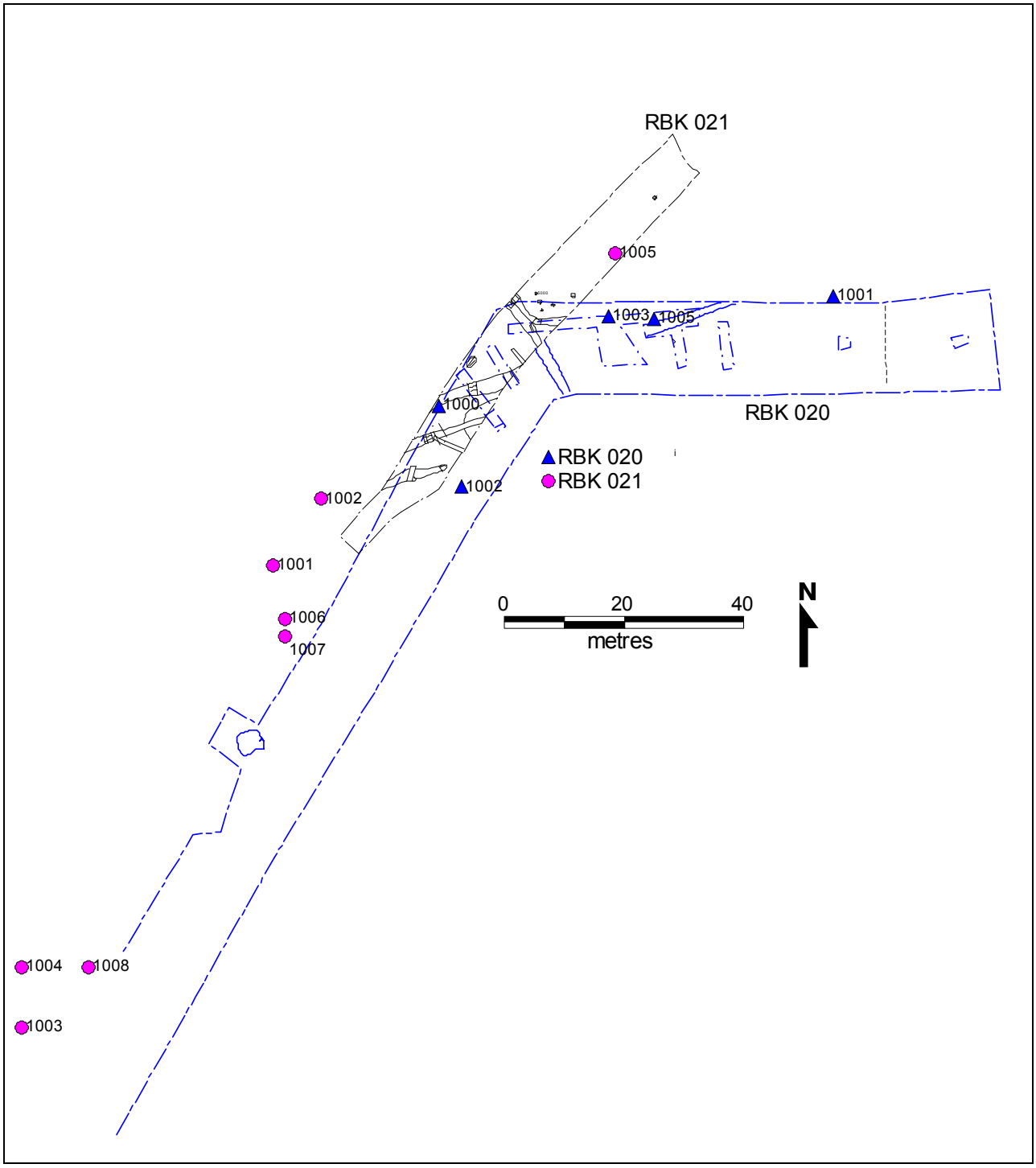
RBK 020

SF no	Context	Material	Object Name	Comments	Period	Date
1000	0001	Copper alloy	Brooch	Frag of large cruciform brooch, poss burnt. Type II?	SAX	E5th-M6th C
1001	0001	Copper alloy	Waste	Fragment of molten cu alloy		
1002	0001	Copper alloy	Coin	Roman As or dupondius very worn, 18.65mm diameter.	ROM	43-260
1003	0024	Copper alloy	Vessel	Cast copper alloy cooking vessel fragment, small fragment of rim survives, 1300-1600, 55.35mm by 39.26mm in size.	MED/ PMED	1300-1600
1004	0026	Copper alloy	Brooch	Fragment of a Langton Down Roman bow brooch, part of spring cover and reeded bow survive, 15.82mm in length and 13.81mm in width. Langton Down is a continental type with a cylindrical spring cover and flat-backed bow (Blagg et al 2004, 91-92, no 36-37).	ROM	25-65
1005	0023	Copper alloy	Coin	Roman nummus contemporary copy of Magnentius, obv: bust right, bare headed rev: Two victories holding a shield.	ROM	350-353
1006	0026	Copper alloy	Coin	Very worn, oval shaped, 11.14mm diameter, radiate AD 260-296	ROM	260-296
1007	0026	Copper alloy	unidentified object	Roughly rectangular in shape, uneven shape, possible metal working offcut, incomplete old breaks. 18.10mm by 14.50mm in size.	UNK	43-1700
1008	0001	Silver	Coin	farthing Edward I obv: facing crowned bust, EDWARDVS REX rev: long cross with three pellets in each quadrant CIVI/TAS/LON/DON. Possibly type 14, 1317-19.(Withers and Withers 2004).	MED	1317-1319
1009	0001	Silver	Coin	A cut farthing of short cross type, obv: facing bust HE[ ]obv: short cross with quatrefoil in each angle. {]ON.L{] Henry II-III.	MED	1180-1247
1010	0001	Silver	unidentified object	Small fragment, roughly square in shape, flat very worn. 6.52mm by 6.65mm in size.	UNK	
1011	0001	Lead	Weight	Cylindrical perforated weight, probably associated with fishing. 45.94mm in length, 26.19mm in width.	?LMED/ PMED	
1012	0005	Bone	Needle	Complete, perforated pig fibula, diameter of perf = 3.5mm	SAX	
1013	0005	Bone	Needle	Pin shaft, with head and tip missing. Polished	SAX	
1014	0013	Bone	Handle?	Frag of worked antler, poss used for whittle tanged knife. Worn smooth	SAX	
1015	0005	Bone	Needle	Frag of pin shaft head and tip missing. Pig fibula	SAX	
1016	0005	Bone	Needle	Frag of pig fibula, has cut marks, no perforation. Abandonned	SAX	
1017	0005	Bone	Waste	Frg of pig fibula, Cut at the end, head and tip missing	SAX	
1018	0005	Bone	Waste	Frag of cut antler tine	SAX	
1019	0005	Bone	Waste	2 joining (poss 3) frags of antler burr and tine. I end cut.	SAX	
1020	0005	Iron	Looped hinge	Wedge-shaped iron frag	SAX	
1021	0005	Iron		Triangular shaped object	SAX	
1022	0005	Iron		Small frag of iron, poss part of nail	SAX	
1023	0005	Iron	Nail	1 complete nail with head and 1 without head	SAX	
1024	0005	Iron	Knife?	Small blade-like fragment	SAX	
1025	0005	Iron	Hinge strap	Small curved frag of flattened iron	?SAX	
1026	0005	Iron	Sheet	Frag of flat iron plate-shaped object	?SAX	
1027	0005	Iron	Nail?	Frag of bent iron shaft, prob from nail shank	?SAX	
1028	0005	Copper alloy		2 frags molten copper alloy	?SAX	
1029	0005	Iron	Nail?	3 frags, 2 shafts and one with head	?SAX	
1030	0005	Iron		Small frag of iron, poss head of burnt nail	?SAX	
1031	0005	Copper alloy	unidentified object	Incomplete curvilinear object, with transverse moulding before old breaks and a flatter middle section, no parallel could be found, of Roman onwards in date. 25.30mm by 9.28mm in size.	UNK	43-1500
1032	0001	Copper alloy	Finger ring	Incomplete worn probable Roman finger ring. Missing part of hoop which has a D-shaped cross section. Shoulders are decorated with three transverse grooves, bezel is solid and oval in shape. 22.78mm by 15.65mm in size. Similar to an example from Hacheston (Blagg et al, 2004, 112,	ROM	43-410

SF no	Context	Material	Object Name	Comments	Period	Date
				no 61).		
1033	0001	Silver	Coin	Henry VI, halfpenny, obv: facing crowned bust {] RICVS REC MASCLE A[ ] rev; long cross with three pellets in each angle VIL/LA/CALI/SIE, CALAIS mint. Rosette-mascle issue 1422-61, 1453. (Withes and Withers, 2003, 45).	MED	1422-61

RBK 021

SF no	Context	Material	Object Name	Comments	Period	Date
1001		Copper alloy	Pin	Complete with head of bead, reel and spool motif	ROM	
1002		Copper alloy	Coin	Very worn, 3rd century? Radiate, probably Gallienus AD 260-268 (275) ID A Brown	ROM	
1003		Copper aloy	Buckle	Incomplete, simple oval frame, with outer edge at an angle, DA Fig 264 p68, 13th-14th C	MED	
1004		Copper alloy	Ring	Not finger ring		
1005		Copper alloy	Coin	Very worn, 3rd century, Poss a barbarous radiate, poss Claudius II, c AD 260-296 ID A Brown	ROM	
1006		Copper alloy	Button?	Circular, with internal perforation	?PMED	
1007		Copper alloy	Strap?	Slightly decorated on 1 face, linear, chamfered edges	?ROM	
1008		Copper alloy	Buckle	D-shaped buckle plate with integral plate, hole for the pin and rivet	MED	



Plot of location of unstratified small finds from RBK 020 and RBK 021

Appendix 8 Faunal remains catalogue (RBK 020)

Context	Ctxt Qty	Wt (g)	Species	NISP	Age	MNI	Butchering	Working	Gnaw	burnt	Comments
0005	362	0.777	Sheep/goat	20	range	3	cut/chop				
0005			Cattle	16	adult	1	cut/chop	2			horn chop at base, horn fragments and cut and chopped pelvis
0005			Pig	11	juv	2	cut/chop				
0005			Deer - Red	6	adult	1	sawn, chopped	1			Red antler body fragment, complete metacarpal, chopped humerus, chopped tibia, complete calcaneus, talus Invertebrate damage on surface of bones
0005			Bird - Galliforme	3	adult	1	cut/chop		1		gnawed humerus
0005			Mammal	306			butchered			5	frags, many rib sections
0007	13	0.19	Deer - Red	1	adult	1	cut/chop		slight		prox.metatarsal
0007			Cattle	1	adult						
0007			Mammal	11			heavy butchering			1	
0011	1	0.001	Bird - Puffin	1	juv	1	?cut				Juvenile prob. Puffin
0013	4	0.059	Deer - Roe	2	adult	1					worn M3
0013			Mammal	2							large mammal frags

Table A8.1. Catalogue of the faunal remains recovered from the SFB fills (RBK020).

Key:
NISP = **N**umber of **I**ndividual **S**pecies elements **P**resent.
Measure = measureable bones, See Davis, 1992 and Driesch, A. von den. 1976.
Countable = See Davis, 1992.
Age = Estimate age based on fusion of bones and tooth wear; a = adult, j = juvenile, neo = neonatal, range = range of ages.
Zone = LL=lower limb, UL=Upper Limb, ML=Mid-limb, P=Pelvis, Sc = Scapula, MAND = Mandible, T=Teeth, F = Footbones
Path = Notable pathologies.
Working = Probable worked bone, horn or antler waste.
Gnaw = gnawing/surface damage – canid = dog/wolf, rodent = rat/vole/mouse; invert = isopods, molluscs, insects.
Burnt = Burnt remains – number or percentage of fragments and g= grey, w = white, b = black colouration
? = Interpretation is dependant on further identification.

Context	Period	Type	Species	Element	Fusion	Gl	Bd	Dd	BatF	Bfd	A	B	SD	Bp
0005	E.Saxon	SFB	cattle	tibia	f		58.5	40.2						
0005	E.Saxon	SFB	cattle	metatarsal	f				55.16	60.19	28.05	27.99	31.53	
0005	E.Saxon	SFB	sheep	metacarpal	f	117.53			21.98	22.44	10.6	11.34	12.89	
0005	E.Saxon	SFB	galliforme	humerus	f	66.7	13.74						6.52	17.68

Table A8.2. Measuements of suitable bones (Driesh 1976)

Context	**Type**	**Period**	**Species**	**Tooth No**	**Eruption**	**TWS**
0005	SFB	E.Saxon	Sheep	Dp4	erupted	g
0005	SFB	E.Saxon	Sheep	M1	erupted	f
0005	SFB	E.Saxon	Sheep	M2	nfe	a
0005	SFB	E.Saxon	Sheep	Dp4	erupted	g
0005	SFB	E.Saxon	Sheep	M1	erupted	f
0005	SFB	E.Saxon	Sheep	M2	nfe	a-b
0005	SFB	E.Saxon	Sheep	Dp4	erupted	g-h
0005	SFB	E.Saxon	Sheep	M1	erupted	g
0005	SFB	E.Saxon	Sheep	Dp4	erupted	h
0005	SFB	E.Saxon	Sheep	M1	erupted	g
0005	SFB	E.Saxon	Sheep	M2	nfe	a
0005	SFB	E.Saxon	Pig	Dp4	d-e	
0005	SFB	E.Saxon	Pig	M1	a-b	

Table A8.3. Tooth record from suitable mandibles (Grant 1982). All mandibles were from context 0005

Key:
Nfe = Tooth not fully erupted
TWS = Tooth Wear Stage