



CAM ARC Report Number 959

Medieval Remains at the Abbey Gardens, 6 Wood Lane, Ramsey, Cambridgeshire

An Archaeological Evaluation

Liz Muldowney

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PROJECT DETAILS				
Project name	Evaluation at Abbey Gardens, 6 Wood Lane, Ramsey, Cambridgeshire			
Short description	The evaluation of a driveway at number 6 Wood Lane in Ramsey Abbey Gardens. One trench was excavated within the confined space of the privately owned garden. The trench was sited directly over a large archaeological feature of undetermined scale and form. Archaeological deposits were encountered to a depth of 2.4m below the modern gravel drive surface. Excavation stopped at this point due to safety reasons. Datable material (15th to 16th century) was retrieved from all but the lowest four deposits, which comprised primary in washed sandy clays and gravels as well as well preserved organic matter.			
Project dates	Start	09.07.07	End	10.07.07
Previous work	none		Future work	unkown
Associated project reference codes	RASABG07; ECB 2622			
Type of project	evaluation			
Site status	none			
Current land use (list all that apply)	Driveway of private domestic dwelling			
Planned development	Erection of an ancillary residential building and garage			
Monument types / period (list all that apply)	unknown			
Significant finds: Artefact type / period (list all that apply)	Pottery; floor tile; roof tile; book clasp; knife blade; stained window glass; lead window came; iron nails; iron rotary key – all medieval; pottery – post-medieval; animal bone			
PROJECT LOCATION				
County	Cambridgeshire	Parish	Ramsey	
HER for region	e.g. Cambridgeshire, Peterborough, Bedfordshire			
Site address (including postcode)	Abbey Gardens, 6 Wood Lane, Ramsey, Huntingdon PE26 1XA			
Study area (sq.m or ha)	16m square			
National grid reference	TL292 852			
Height OD	Min OD	4.01m	Max OD	6.42m
PROJECT ORIGINATORS				
Organisation	CAM ARC			
Project brief originator	Andy Thomas			
Project design originator	James Drummond Murray			
Director/supervisor	Liz Muldowney			
Project manager	James Drummond Murray			
Sponsor or funding body	Campbell Rees Associates (Architects)			
ARCHIVES				
	Location and accession number		Content (e.g. pottery, animal bone, database, context sheets etc)	
Physical	CAM ARC RASABG07		Pottery; bone; cbm; metalwork; shell; glass; environmental residues	
Paper	CAM ARC RASABG07		Context sheets; plans; sections; indices, photos; report.	
Digital	CAM ARC RASABG07		AutoCAD drawings and sections; Illustrator drawings; Report pdf; digital photos;	
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Summary

Between the 9th and 10th July 2007 CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit) conducted an archaeological evaluation in the driveway of a residential property at 6 Wood Lane, Ramsey in advance of the proposed construction of an ancillary residential dwelling with garage.

One stepped trench measuring 4m by 4m was excavated to a depth of 2m below the modern driveway (a small sondage was excavated through the base to a depth of 0.33m below this level). The trench was sited directly over a large undefined archaeological feature and archaeological deposits were recorded across the evaluated area to its full depth.

Too little of this feature was exposed within the area to determine its origin, it may have been a large pit or a substantial east to west oriented ditch. The recovered dating evidence suggests that it was in use from the 15th to 16th century. After a period of disuse when a thick garden type soil accumulated over the feature, layers of demolition material were deposited to level the area in the 18th century over which a late 18th to 19th century garden soil developed. These layers were sealed by 20th century levelling and driveway surfaces.

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1 Introduction

This archaeological evaluation was undertaken in accordance with a Brief issued by Andy Thomas of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA; Planning Application 0700296FUL), supplemented by a Specification prepared by CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit).

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *Planning and Policy Guidance 16 - Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by CAPCA, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

The site archive is currently held by CAM ARC and will be deposited with the appropriate county stores in due course.

2 Geology and Topography

The site overlies March gravel according to the geological maps (British Geological Survey, 1995). No natural deposits were encountered within the evaluated area, however, primary in-washed gravels were noted in the base of the sondage. The modern driveway was level with the garden associated with the house at approximately 6.42m OD. It dropped sharply to the west towards the gate leading to Wood Lane which was at approximately 6m OD at this point. The trench was excavated by machine to a depth of 4.34m OD, the sondage was excavated to a depth of 4.01m OD.

3 Archaeological and Historical Background

3.1 Historical Background

The site lies within the precinct of the important Benedictine monastery of Ramsey Abbey and the 1998 investigation (Macaulay 1999) represented the first significant archaeological work conducted within the environs of the monastic precinct.

Ramsey Abbey was founded as a regular Benedictine monastery in AD 969 by Ailwyn (foster brother to King Edgar), and by AD 974 a wooden church was recorded and dedicated. Substantial land grants led to the church becoming one of the richest not only in the fens, but in the country and was to earn the name of 'Ramsey the Golden'. The Abbey continued to flourish throughout the 11th century, surviving both the Danish invasion and Norman Conquest. In the 12th century the monastic buildings and the church were rebuilt using stone from Barnack (nr Peterborough). It was also in the 12th century that the monastery was seized and fortified by the Essex Baron Geoffrey de Mandeville, in the period known as the 'Anarchy'. His son abandoned

the abbey shortly after Geoffrey's death in 1144. The abbey continued to flourish up to its dissolution in 1539, when its land, titles and buildings were bought by the Cromwell family who saw to its destruction. Much of the abbey stone is known to have been used to build several Cambridge Colleges (Kings, Trinity, Gonville & Caius) as well as the gate house at Hinchingsbrooke House.

3.2 Archaeological Background

The present knowledge of the archaeology of the Abbey is very poor. Following its dissolution in 1539, most of the buildings were demolished. The accurate location of the monastic buildings, including the cloisters, Abbey church and inner and outer court boundaries are not known, such was the scale of the demolition. Various theories persist, based upon the interpretation of surviving buildings that include the present day parish church of St Thomas a Becket, thought to be the original infirmary built in 1180-90. This structure, however, may also have been the guest house (hospital). Other survivals include the 16th century gate house and the 13th century chapel, known as the 'Lady Chapel' which is incorporated into the cellars of the present school building known as Abbey House, itself a 16th century building.

3.2.1 *Previous Archaeological Work*

There are records (Eames 1980) of a medieval tile kiln (Ramsey Abbey was renowned for its decorated tiles) excavated in the 1960s. A kiln was discovered in the grounds of the Ailwyn School in 1966 and excavated by Elizabeth Eames, John Cherry and the master and pupils of the school. The precise location of the kiln is not known but it probably lies close to the small copse along Hollow Lane to the south-east of the school buildings.

Monitoring at Ramsey Abbey in 1995 (ECB734 – Heawood 1995) revealed part of an undercroft.

In 1998 and 2002 archaeological excavations were undertaken within the grounds of the Abbey School (ECB735 - Macaulay 1999; Spoerry, Macaulay and Atkins forthcoming). This investigation uncovered remains from the Late Saxon or Saxo-Norman period (10th-11th century AD), a 12th century (probable Anarchy) fortification ditch, 12th-14th century buildings and a putative lode or canal with associated cranes, loading areas and drainage features. Later demolition and masonry fragments were also recovered pertaining to the Abbey's dissolution in the 16th century.

In 2004 a trench evaluation was conducted on the area of a proposed development at the Ailwyn School by the CCC AFU (ECB2177 - Cooper 2004). This investigation uncovered a single, large ditch over 5m wide and 1m deep, of indeterminate date. The nature of the fills

and remains indicated that this land was marginal in the medieval period but little else could be ascertained.

A 2005 test pit at the Abbey School (ECB2177 – Kenney 2005) produced quantities of post-medieval demolition material.

Further work at the Ailwyn School in 2005-06 (ECB 2173/2097 – Mortimer 2006) revealed pits and ditches of probable medieval and post-medieval date. This work followed an evaluation in 2004 (ECB2177 – Cooper 2004).

A watching brief to the rear of the Biology lab, Ramsey Abbey (ECB2334 – Howe 2006) produced some worked and unworked stone but no pottery.

The current site lies in the northern half of the Abbey precinct, immediately to the north of the old stable block in an area thought to be part of the Abbey Gardens.

4 Methodology

The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that an adequate proportion of the available threatened area be evaluated by linear trenches and/or testpitting. The subject area was constrained by a garden to the north, a garage to the east, the wall of a stable block to the south and the property boundary wall and gates to the west. A single trench was excavated within the available space measuring 4m by 4m, stepped in at a depth of 1.1m to 3m by 1.8m in area as deep deposits were encountered. Machine excavation was carried out under constant archaeological supervision with a tracked 360 degree excavator using a 1.8m wide toothless ditching bucket.

Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those that were obviously modern.

All archaeological features and deposits were recorded using CAM ARC's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

Two 20L and two 10L samples were taken from relevant deposits to investigate possible survival of macro- and micro- botanical remains.

Weather conditions were generally good and the trench was not adversely affected by a thunderstorm of biblical proportions at the end

of the first day. The lowest deposits encountered were waterlogged and well preserved.

5 Results

Archaeological deposits were encountered across the excavated trench to the full excavated depth of 2.41m below the current ground surface. The upper 0.33m comprised modern make up layers and driveway surfaces sealing post-medieval layers. No natural layers were encountered within the excavated area.

5.1 Trench 1 description

The trench was oriented east to west and encountered a single archaeological feature, the limits of which extended beyond the trench in all directions (Plate 1). A series of fills within this feature were encountered below a number of layers, ranging in date from the 15th or 16th century to the current gravel driveway. The lower five deposits (15, 16, 17, 18 and 19) were seen only in a small hand dug sondage in the base of the trench, all other deposits are shown on fig. 4, sections 1 and 2.

5.1.1 Fills

The earliest recorded deposit was a mix of gravel and peagrit with a small amount of brownish yellow silty clay (19). This fill probably represented a primary in-washed deposit towards the base of the feature. No datable material was retrieved.

Fill 18 sealed this deposit; it was a sticky, light greyish yellow (green tinged) sandy clay with occasional gravel inclusions, 0.12m deep. No datable material was retrieved. This deposit is likely to have been in-washed from the sides of the feature.

Fill 17 overlay fill 18, it was 0.05m deep and was a plastic mid greenish grey silty clay with no visible inclusions. It was laid in a horizontal band within the sondage and was distinct from both the in-washed sandy clay below and the organic deposit (16) above. This deposit was undated; the sample (4) taken from the deposit had too high a clay content to be processed.

Fill 16 was 0.06m deep laid in a horizontal band across the sondage and was composed of mixed reddish brown plastic silty clay and very dark grey laminated organic matter. This was a very firm waterlogged deposit with straw visible. Its appearance suggested that it might have been a dump of stable yard manure, the sample (3) indicated that there was indeed good preservation of both botanical and insect remains. The assessment of the plant macrofossils indicated that it consisted of a dense mass of compressed plant material including rushes and seeds associated with grassland and some associated with

wet environments. The presence of stinking mayweed indicated that cultivation of heavy clay soils was taking place in the vicinity. The plant remains did not support the interpretation that this deposit incorporated stable waste with no evidence for straw/grass culm nodes (Appendix 8). However, the insect assemblage from the context was described as being exceptionally well preserved (Appendix 7) and provided evidence for beetles associated with both rotting domestic organic material (possibly in the form of rush flooring) as well as an abundance of specimens associated with rotting wet material such as stable manure. The small range of aquatic specimens recovered suggests that the feature was not a pond, and that it had been initially used for the disposal of domestic and animal waste. No datable material was retrieved from the context.

Fill 15 sealed this organic matter (16), it was friable dark greenish grey clayey sand similar in appearance to layer 11, measuring 0.08m deep.

Fill 12 overlay fill 15 and was plastic dark brownish grey (green tinged) peaty silt with occasional limestone fragments, measuring 0.11m deep. Two roof tile fragments were retrieved from this waterlogged deposit, sample 2 contained charred plant remains in a waterlogged state, wheat, charcoal and various weed seeds were noted indicating that the environment in the vicinity consisted of both damp grassland and cultivated heavy clay soils.

Fill 11 lapped over the eastern end of this deposit (12) extending for a distance of 0.76m within the excavated area. It was friable light greenish grey clayey silt with frequent peagrit and gravel inclusions, measuring 0.10m+ in depth at the east end of the trench petering out to the west. It contained medieval tile, butchered cattle bone and eight sherds of mid 15th to 17th century pottery as well as patches of cassy material. One piece of medieval window glass (SF16) was also retrieved. The sample from this deposit (1) contained charcoal and waterlogged seeds including dock and orache as well as fish bones, fish scale, bird/amphibian bones, mussel and cockleshell and eggshell fragments. This indicates that domestic refuse was deposited in this context and that wet grassland was nearby.

Fill 10 sealed both fills 11 and 12; it was sticky to plastic light reddish brown silty clay with rare gravel and small limestone fragments. It was 0.24m at its deepest towards the east end of the trench becoming shallower to the west at 0.10m deep. Its appearance suggested that it had accumulated in wet but not waterlogged conditions. It contained medieval roof tile and one fragment of animal bone as well as a large iron rotary key (SF 6) similar to keys found in 14th century contexts in London (Appendix 2). One fragment of medieval stained window glass (SF15) was also retrieved.

Fill 20 overlay fill 10 and was confined to the north-east corner of the trench. It was a mix of 90% charcoal with 10% dark brownish grey clayey silt. This undated deposit tipped from east to west in section.

Fill 8 /9 sealed this deposit (20); it was friable mid yellowy brown silty clay with moderate to frequent charcoal flecks and moderate gravel inclusions. It was 0.25m at its deepest and also tipped down from east to west. It contained two sherds of mid 15th to 16th century pottery, and one medieval roof tile fragment and a large piece of handmade brick.

Fill 6 sealed fill 8/9, it was mid greyish brown sticky silty clay with moderate peagrit, gravel and charcoal flecks. It measured between 0.08m deep at the east end and 0.30m deep to the west, the interface between this deposit and overlying layer 5 was horizontal. It contained the articulated remains of a buried complete juvenile pig around two years in age (Skeleton context 7), this pig was not within a separate grave cut and appeared to be intact with little evidence for disarticulation. It also contained four sherds of probably residual pottery dating to the mid 12th to 13th century; six roof tile fragments and a crow bone. This deposit is believed to be the upper fill of the feature.

5.1.2 *Layers*

Upper fill 6 was sealed by a very thick layer (5) of mid yellowish brown friable clayey silt with occasional gravel and charcoal flecks measuring between 0.55m and 0.67m in depth. This 'loamy' deposit contained the greatest quantity of artefacts including two sherds of 16th century pottery, eight medieval roof tile fragments and two pieces of handmade brick, as well as butchered cattle and domestic fowl bone. A large number of metal items were retrieved from this deposit: there were four copper alloy artefacts; a late medieval/early post-medieval century copper alloy book clasp (SF1, fig. 5), one sheet edge fragment (SF18) undated; and two fragments of metalworking debris (SF19 and SF20) both undated. There were six lead or lead-alloy objects all medieval in date: window came offcut (SF3); four sheet offcuts (SFs 5, 7, 8 and 10); one bar offcut (SF17). There were seven iron objects; a medieval/early post-medieval iron knife blade (SF2, fig. 5); a possible handle (SF4); fifteen nails (SFs 9, 11 (11 nails), 12, 21, 22, and 23). One piece of painted window glass was also retrieved (SF14). The layer again tilted down from the east to west and its appearance would suggest that it was a garden or agricultural soil that had accumulated above the disused ditch/pit.

Layer 4 sealed layer 5, it was sticky light brownish yellow sandy clay with moderate gravel and small limestone fragment inclusions, it measured 0.27m at its deepest. It contained seven sherds of 18th century pottery, seven roof tiles, two brick fragments, one glazed floor tile and a horse metatarsal. It also contained a folded and crumpled

lead sheet offcut with a nail hole (SF24, fig. X); one nail (SF26) and an iron bar/shank (SF25). This layer was likely to be redeposited clay levelling the area.

Layer 14 overlay layer 4, it was composed of small to medium fragments of limestone building material and roof tile 0.05m deep. This layer was confined to the north-west corner of the trench lying on the interface between layers 4 and 3 and appeared to be demolition material.

Overlying this was layer 3, mid greyey brown friable silty clay with frequent limestone building material fragments, moderate gravel and occasional small angular flint fragments. It contained late 18th to mid 19th century pottery, six roof tile one decorative ridge tile and two glazed floor tile fragments and butchered pig bone. It also contained one piece of residual medieval stained window glass (SF14). The stone building material was spread throughout the layer but increased in frequency towards the east side of the trench.

Layer 13 sealed layer 3 it comprised mixed modern rubble and hardcore with mid yellowy brown silty clay 0.15m deep. This was a levelling layer for the deposition of the bitumen/gravel drive (2).

Layer 2 comprised a mixture of bitumen and gravel incorporating a lens of ashy material measuring 0.15m deep. This formed a previous modern driveway.

Layer 1 sealed layer 2 and comprised unconsolidated well sorted gravel 0.07m deep. This formed the current driveway for the property and was the final layer in the sequence.

6 Discussion

The location of the evaluation trench was constrained by the modern land use and it was not possible to extend it in order to determine the full extents of the feature encountered. Despite this it provided an opportunity to examine an area within the Abbey precinct that had previously seen little archaeological intervention. It has resulted in a sequence of activity from the late medieval period to the modern day.

No plans or maps of the pre-dissolution precinct survive. The Silius Titus map of 1704-9 shows no feature in the relevant place - the northern extremity of the precinct within the Abbey Gardens. The building now known as the Abbey stables is not shown and the insect evidence argues against this feature being used as a dump for stable waste.

Within the confines of the evaluated area it was not possible to determine the limits of the feature encountered nor the extent of the overlying layers. However, it is possible to state that there was a large feature here greater than 1.8m in width at a depth of 1.3m below the

current land surface (approximately 5m OD) surviving to a depth of more than 1.06m.

There are a number of possible interpretations for this feature, it may have been a large east to west oriented ditch, with the fills going down slope from east to west. It may have been a large pit, possibly originally a gravel extraction pit, subsequently used for rubbish (domestic and animal) disposal. Rubbish from the Abbey was dumped in the fields to the north of the evaluated area (Hall 1992, 42). However, the pottery from these deposits mainly dated to the 13th century, significantly earlier than the 15th to 16th century material retrieved from this feature. The possibility that this was a pond was raised due to its size and the waterlogged basal fills, however, it was discounted because the fills were not indicative of settled pond silts and the burial of the complete pig in the upper fill (6) strongly suggested that it was not a wet feature. The assessment of the beetle remains from lower fill (16) supported this, aquatic species were generally absent whereas beetles associated with household flooring and domestic waste survived in abundance (Appendix 7). Therefore on balance this feature is likely to have been either a large ditch or a large pit, used for the disposal of waste from a nearby (timber?) building in the abbey precinct.

The pottery retrieved from the lower fills would suggest that this feature began to be filled in the 15th or 16th century with domestic and other waste, including butchered bone, cess, other food waste and domestic artefacts including a large rotary key (SF6) present. Rushes from flooring and stable dung were also present in fill 16.

The presence of medieval stained window glass and roof tile fragments in its upper fills might derive from either an episode of rebuilding of some part of the Abbey complex or more probably from the mid 16th century dissolution of the monastery.

During the 16th century soil accumulated over the disused ditch/pit, incorporating significant quantities of domestic refuse (5) as well as lead came and a large number of nails probably indicating continued episodes of demolition. The area was levelled in the 18th century with the deposition of clay layer 4; the overlying rubble deposit (14) suggests that this episode may have been associated with construction in the vicinity. A late 18th to mid 19th century soily layer (3) accumulated over this rubble layer, two Victorian drains were cut into this layer both had been lined with broken pieces of large flower pots. This layer was sealed by the 20th century levelling layer (13) associated with the first, tarmac, driveway (2). This driveway was directly sealed by the current gravelled surface (1).

7 Conclusions

It was not possible to determine the form or limits of this feature and as such it is not possible to be conclusive about its function or its relationship, if any, to the Abbey. The nature of its fills and the environmental evidence indicate that it was most likely to be a substantial ditch or pit.

Despite this the evaluation provided evidence for its date, what it was backfilled with and something of the environment that surrounded it shortly after its construction. Its construction and initial use dates to the 15th to 16th century when the area nearby included open wet grassland as well as cultivated heavy clay soils, although the pit/ditch was cut through sands and gravel. Ramsey is sited on a small gravel spur within an area surrounded by fenland peat and chalky clay deposits, it is from the later that the stinking mayweed may have derived.

Initially the feature was used to dispose of a mixture of household waste including floor rushes and food waste as well as stable manure. The combination of the environmental remains and the material deposited within it might suggest that this area was not within the formal Abbey Gardens as had been suggested, and may have been a more peripheral area.

Subsequently it was backfilled with a mix of domestic refuse and building materials including rubble, lead came, window glass and numerous roof tiles. These deposits may have been associated with an episode of rebuilding of part of the Abbey buildings towards the end of its existence or more probably with the documented demolition that followed its dissolution in 1539. The presence of a lead offcut with a nail hole (SF24, Fig. 5) would tend to support this interpretation, as it was likely to have been cut from roofing material stripped off to melt down for reclamation (Appendix 2).

The pottery assemblage retrieved was small as would be expected from a machine excavated area and it is not possible to form conclusions as to the status of those depositing material here. Where identifiable the vessels have been identified as bowls, jars and jugs and drinking vessels. The jug fragments were exclusively within the fills of the ditch/pit whereas the overlying layers contained a greater number of bowl and drinking vessels.

The feature was probably entirely filled in by the end of the 16th century. During the late 18th century the area above the pit/ditch was deliberately levelled possibly prior to construction of a building in the vicinity. During the 18th to 19th century this area is likely to have been part of a garden, latterly associated with the extant dwelling. The area was landscaped at some point in the 20th century to create a driveway for the house, remaining as such to the present.

Recommendations for any future work based upon this report will be made by the County Archaeology Office.

Acknowledgements

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The brief for archaeological works was written by Andy Thomas, who visited the site and monitored the evaluation.

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Appendix 1: Post Roman Pottery

by Carole Fletcher

1 Introduction and Background

The evaluation at Ramsey Abbey Gardens Ramsey, Cambridgeshire produced a very small pottery assemblage of only 37 sherds, weighing 0.551kg. The material from the topsoil and any unstratified material are included in these totals.

Ceramic fabric abbreviations used in the following text and spot dating table are:

Bichrome	BICR
Bourne D or Colne	BONC
Cistercian	CSTN
Grimston ware	GRIM
Huntingdon Fen Sandy ware	HUNFSW
Late medieval Ely ware	LMEL
Post-medieval Black Glazed ware	PMBL
Post-medieval Red wares	PMR
Refined Earthenware	RFE
South Cambridgeshire Early Medieval Ware	SCAMEMW
Staffordshire White Salt Glazed	SWSG

2 Methodology

The basic guidance in the Management of Archaeological Projects (MAP2) has been adhered to (English Heritage 1991). In addition the Medieval Pottery Research Group (MPRG) documents Guidance for the processing and publication of medieval pottery from excavations (Blake and Davey, 1983), A guide to the classification of medieval ceramic forms (MPRG, 1998) and Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics (MPRG, 2001) act as a standard.

Spot dating was carried out using CAM ARC's in-house system based on that previously used at the Museum of London. Fabric classification has been carried out for all previously described types. All sherds have been counted, classified and weighed. All the pottery has been spot dated on a context-by-context basis (see Appendix A)

The pottery and archive are curated by CAM ARC until formal deposition.

3 Evaluation

The trench was machine excavated with further excavation carried out by hand and selection made through standard sampling procedures on a feature by feature basis. There are not expected to be any inherent biases. Where bulk samples have been processed for environmental remains, there has been no recovery of pottery.

4 The Assemblage

Fieldwork generated a very small assemblage of 37 sherds, weighing 0.551kg from seven contexts. This material consists mainly of moderately abraded pottery. There are a wide range of periods represented in the assemblage these include medieval, 16th, 17th and 18th to early 19th century. The largest numbers of sherds are medieval-post medieval transitional and early post medieval fabrics, these are distributed throughout most of the assemblage. Only context 6 contains solely medieval fabrics dating from the mid 12th to the end of the 14th century. The medieval sherds present in the assemblage include HUNFSW, LMEL, SCAMEMW and a single sherd of GRIM.

Fabrics from Cambridgeshire make up the majority of the assemblage with early medieval, medieval and post-medieval fabrics produced in Ely and its environs and the fens. This is mirrored in almost all of the vessel types with jars produced in coarse ware fabric HUNFSW and bowls in transitional red wares and PMR, both fabrics almost certainly made in kilns in and around Ely. Only two jug sherds were recovered, a single sherd of GRIM and one of BONC.

Context	Fabric	Number of sherds	Weight in kg	Vessel	Spot date range for context
3	Pearl ware	1	0.012	Bowl/Plate	Late 18th to mid 19th century
	RFE	6	0.064	Bowl/Plate	
	CSTN	2	0.010	Drinking	
	PMR	2	0.032	Bowl	
	Transitional Red	2	0.010	Bowl	
	LMEL	1	0.026	Bowl	
4	PMR	3	0.195	Bowl	18th century
	PMBL	1	0.042	Drinking	
	SWSG	1	0.068	Jar	
	HUNFSW	1	0.007		
	Transitional Red	1	0.015	Bowl	
5	BICR	1	0.008		16th century
	Transitional Red	1	0.013	Bowl	
6	HUNFSW	1	0.002		Mid 12th to late 13th century
	HUNFSW	1	0.004	Jar	
	SW	1	0.002		
	SCAMEMW	1	0.003		
8	BONC	1	0.004	Jug	Mid 15th to 16th
9	GRIM	1	0.003	Jug	
11	BONC	1	0.002	Jug (Handle)	Mid 15th to 17th century
	UNK (Buff-orange fabric occasional calc, occasional white quartz and	7	0.029		

Table 1: Pottery Spot Dates

5 Conclusion

The assemblage is very small and almost all of the material is moderately abraded, suggesting some reworking of the material after initial deposition. The assemblage has no complete vessels, no sherds worthy of illustration and full statistical analysis is not viable. Despite this there is some indication of medieval domestic activity on the site. The majority of the activity represented by this assemblage is early post medieval. Although the assemblage is too small to be certain if this is a true reflection of pottery usage on the site.

No preservation bias has been recognised and no long-term storage problems are likely and no further work is required

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Appendix 2: The Metalwork

by Nina Crummy

1 Summary

A total of 22 objects were examined. Where diagnostic of date they belong to the medieval or early post-medieval period.

2 Condition

The objects, both metal and non-metal, are in good condition. They are packed to a high standard of storage in polythene bags supported, where appropriate, by pads of foam. The bags are stored in larger crystal boxes or airtight Stewart boxes with silica gel.

3 The Assemblage

The assemblage is small but nevertheless has two characteristics of larger groups of material from monastic establishments: evidence for literacy and a quantity of scrap lead and iron nails.

In this instance the evidence for literacy consists of part of a double-plate book-clasp, a later type than the medieval hinged form that is particularly common on monastic sites (Fig. 5, SF 1). Clasps of the later type date to the early post-medieval period and have been found at, for example, St Augustine's Abbey in Canterbury, Battle Abbey and the Free Grammar School at Whitefriars in Coventry, and with the spread of literacy are also found in ordinary urban and manorial assemblages (Sherlock & Woods 1988, 179, 193, fig. 54, 3, fig. 60, 23; Geddes 1985, 160, fig. 51, 65-7; Woodfield 1981, 94, nos 48-9).

A large proportion of the objects from Abbey Gardens are lead scrap and iron nails, construction debris often found on monastic sites in contexts associated both with new building work and renovation and more especially with Dissolution destruction debris. At the Dissolution all the lead used for roofing, drainage systems, water supply and windows on monastic buildings was considered to be the property of the crown, and there is both archaeological and documentary evidence for its removal, and conversion into large cast ingots for accurate quantity assessment and transportation, particularly at the wealthy abbeys of Yorkshire (e.g. Brooks *et al.* 2004, 137-8, with references). Even where monastic churches survived as parish or other community churches, the lead could be stripped from the roof to be sold and replaced with cheaper ceramic tiles, as happened with the west end of the church of London's Austin Friars (Schofield 1984, 140). Any iron nails fixed in the sheet lead were extracted before it was melted down for casting. Sometimes this was done by cutting away the area of sheet containing the nails and extracting them later, so that these small pieces of lead escaped the melting process and were left behind on site. SF 24 is a typical example of such a fragment.

The two small pieces of copper-alloy debris from Abbey Gardens (SF 19-20) may also have derived from such a reclamation process, but are more likely to come from small-scale bronze-working by the inhabitants of the abbey.

Among the other objects from the site is a large key (Fig. 5, SF 6), similar to examples that have been found in 14th century contexts in London; they were probably used for locks on doors rather than chests (Egan 1998, 111, 115, fig. 117, 322-6). Such keys are common on both secular and monastic sites, and represent the need to keep valuables and records secure. A more unusual item is a short iron blade with integral knobbed handle (Fig. 5, SF 4). This may be a surgical scalpel or a specialised craft tool; no precise parallel has been found. If this is a scalpel it may be evidence for small-scale surgery taking place at the abbey.

4 Object Descriptions

Fig. 5, SF 1. (5). Upper plate of a copper-alloy hooked book-clasp with bifurcated inner end. There is a double ring-and-dot motif set just before the fork. An iron plate is fixed on the underside near the hooked end and there are two short riveted projections set on the fork for the attachment of the lower plate. Length 40 mm.

Fig. 5, SF 6. (10). Large iron rotary key with some damage to the bit. The shank is solid and tapers to a point beyond the bit. The bow is kidney-shaped. Length 131 mm.

Fig. 5, SF 2. (5). Iron knife blade with straight back. The edge runs parallel to the back before rising to the tip. Length 91 mm.

Fig. 5, SF 4. (5). Iron knife or scalpel with knobbed terminal and short blunt-ended blade. Length 121 mm.

SF 3. (5). Lead window came fragment. Length 54 mm.

Fig. 5, SF 24. (4). Folded and crumpled sheet lead offcut, pierced by a nail hole near one corner. Maximum dimensions 46 by 42 mm.

SF 5. (5). Sheet lead offcut. 23 by 24 mm.

SF 7. (5). Sheet lead offcut. Length 93 mm, maximum width 42 mm.

SF 8. (5). Sheet lead offcut. Maximum dimensions 58 by 38 mm.

SF 10. (5). Sheet lead offcut. 32 by 18 mm.

SF 17. (5). Offcut from lead bar or thick sheet. 24 by 11 mm.

SF 19. (5). Copper-alloy metal-working debris. Weight 6 g.

SF 20. (5). Copper-alloy metal-working debris. Weight 10 g.

SF 18. (5). Copper-alloy strip fragment; only one long edge is original. Length 32 mm, width 8 mm.

SF 25 (4). Iron square-section bar or shank fragment, tapering slightly to one end. Length 61 mm.

Iron nails

Nails described as complete may have the very tip of the shank missing. Nails cannot usually be closely dated on their form, but the small double-oval head of one of the nails in the group forming SF 11 is a shape confined to the later medieval period.

SF	Context	Number/Description	Length (mm)
22	3	1 nail, round head, complete	62
26	4	1 nail, round head, complete	80
9	5	1 nail, round head, complete	70
11	5	3 nails, square/rectangular head, complete; 1 nail, square head, incomplete; 4 nails, round head, complete, one clenched at the tip; 2 nails, round head, incomplete; 1 nail, double-oval head, complete, shank bent	63, 57, 54; 31; 77, 62, 54, 50; 37, 25; 56
12	5	1 shank fragment	44
21	5	1 shank fragment	31
23	5	1 shank fragment	57

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Appendix 3: The Glass

by Carole Fletcher

1 Introduction and Background

The evaluation at Ramsey Abbey Gardens Ramsey, Cambridgeshire produced a small assemblage of glass consisting of a single shard from a glass bottle weighing 0.069kg and nine shards of window glass, weighing 0.035kg. The material from the topsoil and any unstratified material are included in these totals.

The glass and archive are curated by CAM ARC until formal deposition.

2 Methodology

The basic guidance in the Management of Archaeological Projects (MAP2) has been adhered to (English Heritage 1991). Dating was carried out using the Archaeological Field Unit's (AFU) in-house system. All shards have been counted, classified and weighed.

3 The Window Glass Assemblage

The assemblage contains a number of decorated glass fragments, painted with red/brown or black paint and a single shard; SF14 from context 5 shows traces of silver stain. Some of the fragments of glass are in poor condition with the glass having become opaque. The majority of the assemblage was originally clear glass; only a single piece of pot metal glass has been identified.

The glass represents several periods though unfortunately none are closely datable. The thin sherds from context 3 are clear colourless glass and clear glass with a greenish cast all are thin glass of between 1.4 and 1.6mm thick, this type of glass is most likely to be late 19th or early 20th century in date.

3.1 *The painted Glass*

A single piece of bright blue pot metal glass SF 13 was recovered from context 3, this glass shows some degradation and the painted design on the grozed, slightly curved fragment has been almost lost with only faint traces surviving showing parallel painted lines. The context is dated to the late 18th to early 19th century, however the glass is very likely to be medieval in date. This is in part indicated by its quality and its thickness at 3.5 to 3.6 mm. King (1987, 39) suggests that "medieval glass as a general rule becomes thinner as the medieval period progresses". This piece of glass may be 14th century or later.

SF14, a grozed sub triangular piece of clear glass is painted and shows silver stain which was not used before the 14th century however the thinness of the glass 2.1 to 2.5mm and the poor quality of the black paint suggest a much later date. Pottery dates this context to the 16th century.

SF 15 context 10 is a large irregular shaped piece of glass, neatly grozed, the glass is opaque and concretions somewhat obscure the painted design of stiff leaved foliage, surrounded by a crosshatching. The piece is 68.8mm long by 53.3mm wide and 3 to 3.3mm thick. The opaque nature of the glass and its thickness alongside the design elements present suggest a fragment from a grisaille window of mid to late 13th century date.

3.2 *Shaped Panes of Glass*

Quarries

A single sherd of glass SF16 context 11 may be from a quarry. The piece of glass is sub triangular having two neatly grozed sides, the third being a broken edge which is as oxidised as the grozed edges suggesting the break was not recent. The fragment appears unpainted and it may be from plain quarry glazing. The fragment is opaque and 3.2 to 3.5 mm thick and medieval in date.

4 Conclusions

The small window glass assemblage recovered from the evaluation indicates that there were decorated windows present of medieval and later date. This should come as no surprise when excavating on the site of a medieval Abbey. The assemblage is a mix of medieval and later glass some of which may relate to the present Abbey School. No further work is required.

5 The Vessel Glass Assemblage

A single piece of vessel glass was recovered from the excavation from context 3. This clear colourless incomplete round, recessed glass base from an unidentified vessel is covered in a milky white, opaque coating or patination. Dating is problematic as there is no pontil mark, although the inside edge of the base appears to have been rough and sharp, and there are no mould lines present. The context is dated to the late 18th to early 19th century and it is likely that the glass dates to the 19th century.

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Catalogue of Glass Small finds

Context Number	Small Find Number	Object Category	Object Name	Object Period	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
3	13	Building window glass	Stained glass	Medieval	24	21	3.6	3.40
5	14	Building window glass	Stained glass		35	30	2.3	4.50
10	15	Building	Stained	High	69	63	3.3	19.30

Context Number	Small Find Number	Object Category	Object Name	Object Period	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)
		window glass	glass	medieval				
11	16	Building window glass	Window glass	Medieval	40	26	3.5	3.40

Appendix 4: Faunal Remains

by Chris Faine

1 Introduction

3.2 Kg of animal remains was recovered from the evaluation. The assemblage consisted of 92 fragments, 31 of which being unidentifiable to species (33.6% of the total sample). Fragments were obtained from a series of fills and layers dating to the medieval period. All bone was recovered by hand. The condition of the assemblage is good albeit fragmented, with the majority of fragmentation being attributed to butchery rather than any taphonomic processes.

2 Methodology

All elements identifiable to species and over 25% complete were noted and recorded. Loose teeth, caudal vertebra and ribs without proximal epiphyses were noted but not included in any quantification. Elements not identifiable to species were classed as "large/medium/small mammal" but again not included in any quantification. Initially all elements were assessed in terms of siding (where appropriate), completeness, tooth wear stages (also where applicable) and epiphyseal fusion. Tooth wear was assessed using Grant (1982). Completeness was assessed in terms of percentage and zones present (after Dobney & Reilly, 1988). Initially the whole identifiable assemblage was quantified in terms of number of individual fragments (NISP) and minimum numbers of individuals MNI (see table 1). Any instances of butchery were also recorded. The type of lesion, its position, severity and direction were all noted. The presence of any further taphonomy, i.e. burning, gnawing etc was also noted.

3 The Assemblage

Identifiable elements were recovered from 6 contexts. The largest number these were recovered from context **6**. These consisted of the semi articulated remains of single pig of around 2 years of age. Examples of all skeletal elements were recovered with the exception of the distal phalanges and caudal vertebrae. Unfortunately, due to the age of the animal, the relevant epiphyses were not fused enough to permit metrical analysis of the long bones. An example of pathology was seen in the form of lytic lesions on the proximal epiphysis of a rib and on the corresponding articular facet on the thoracic vertebra. This could be the result of trauma/dislocation and resulting infection. No sign of butchery was seen on any of these remains. In addition to the pig remains, a proximal humerus from a single crow was also recovered.

Animal remains were also recovered from two further fills. Context **10** contained a single sheep/goat radius from an individual around 57.8 cm at the shoulder. Portions of butchered cattle inominate, vertebra and radius were found in context **11**.

Faunal material was also recovered from 3 layers sealing the above fills. Context 3 contained a portion of butchered distal pig humerus. Context 4 contained a complete horse metatarsal from an animal around 1.5 metres at the shoulder (around 14 ½ hands high) Context 5 yielded portions of butchered cattle lumbar vertebrae, calcaneus and inominate. The calcaneus in particular displayed cut marks consistent with disarticulation of the joint. In addition a single butchered domestic fowl humerus was recovered from context 5.

	NISP	NISP%	MNI	MNI%
Pig (<i>Sus scrofa</i>)	50	82	2	22.2
Cattle (<i>Bos</i>)	7	11.4	3	33.4
Sheep/Goat (<i>Ovis/Capra</i>)	2	3.2	2	22.2
Domestic Fowl (<i>Gallus sp.</i>)	1	1.7	1	11.1
Crow (<i>Corvus corone</i>)	1	1.7	1	11.1
Total:	61	100	9	100

Table 5: Species distribution for entire assemblage

4 Discussion

No signs of butchery were seen on the pig remains from context 6, suggesting the deliberate burial of a complete animal. Burial of complete or near complete carcasses is not unusual on sites of all periods and most likely represents the disposal of a single sick animal. The faunal material from the remaining contexts is indicative of general domestic waste. As mentioned above few elements proved suitable for metrical analysis. Those that were indicated animals of comparable size and morphology to those from contemporary sites such as West Cotton (Albarella & Davis, 1994).

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Appendix 5: Other Finds

Stone

Context Number	Context date	Material	Quantity	Weight (kg)	Comments
3	mid 18th to 19th Century	Stone	4	0.06	Small fragments of Barnack limestone. Building stone.

Table 6: Stone artefacts

Representative sample of larger quantities of stone found in this deposit.

Clay Pipe

Context Number	Context date	Material	Quantity	Weight (kg)	Comments
4	18th Century	Clay Pipe	3		Three fragments of clay pipe stem.

Table 7: Clay Pipe

Shell

Context Number	Context date	Material	Quantity	Weight (kg)	Comments
3	mid 18th to 19th Century	Shell	1	0.01	Oyster Shell
4	18th Century	Shell	1	0.03	Oyster Shell
5	16th Century	Shell	2	0.01	Oyster Shell
6	15th to 16th Century	Shell	1	0.01	Oyster Shell
11	15th to 16th Century	Shell	2	0.01	Mussel Shell
12	?15th to 16th Century	Shell	1	0.01	Oyster Shell

Table 8: Shell

A representative sample of the large quantities of shell noted were retained.

Ceramic Building Material

Context Number	Context date	Material	Quantity	Weight (kg)	Comments
3	mid 18th to 19th Century	CBM	9	1.43	6 peg tile fragments (2 with peg holes); 2 glazed floor tiles (different thickness); 1 decorative ridge tile
4	18th Century	CBM	10	1.17	7 roof tiles (1 with a square peg hole had been reused - mortar adhering); 2 handmade brick fragments and one piece of glazed floor tile
5	16th Century	CBM	10	0.66	8 roof tiles (1 reused – mortar adhering); two small brick fragments
6	15th to 16th Century	CBM	6	0.49	6 roof tile fragments
8/9	15th to 16th Century	CBM	2	0.81	1 large piece of handmade brick and 1 roof tile
10	15th to 16th Century	CBM	7	0.74	7 roof tile fragments

11	15th to 16th Century	CBM	7	0.87	7 roof tile fragments including 1 ridge tile
12	?15th to 16th Century	CBM	2	0.37	2 roof tile fragments

Table 9: Ceramic building material

The CBM fragments vary in fabric with creamy yellow, greenish-grey and pink to red examples present suggesting variable sources. The tiles had different colour glazes including black, green and yellow and were of differing thickness suggesting that they were from different floors, and probably different buildings, none were patterned.

Appendix 6: Environmental Remains

by Rachel Fosberry

1 Introduction and Methods

Four bulk samples were taken from a single feature within the evaluated area in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

Ten litres of Samples 1 and 2 were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.5mm nylon mesh and the residue was washed through a 1mm sieve. Both flot and residue were allowed to air dry. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted on Table 3.

Sample 3, context 16, was sent to Emma Tetlow, Birmingham University for insect assessment (Appendix 5) and a sub-sample was forwarded to Val Fryer for assessment of waterlogged plant remains (Appendix 8).

Sample 4, context 17, was comprised of sticky clay that was highly resistant to flotation.

2 Results

The results are recorded on Table 10.

Sample Number	Context Number	Context details	Flot contents	Residue contents
1	11	Fill of large feature	Charcoal, waterlogged seeds, fishbone, fishscale, snails	Fish bones, animal bones, Mussel ands Cockle shells, flake hammerscale
2	12	Fill of large feature	Egg shell, wheat grains, charred seeds, waterlogged seeds, wetland snails	Burnt bone, pottery and tile fragments
3	16	Waterlogged deposit of possible stable waste	Assessed by Val Fryer and Emma Tetlow	
4	17	Heavy clay deposit beneath sample 3	Not processed	

Table 10: Environmental Samples Results

Preservation of samples 1 and 2 is by both charring and waterlogging as charred plant remains are found in waterlogged deposits.

Sample 1 contains charcoal and a few waterlogged seeds including dock (*Rumex* sp.) and orache (*Atriplex* sp.). Sample 2 contains charred wheat grains, charcoal, charred weed seeds including stinking mayweed (*Anthemis cotula*), numerous waterlogged seeds (*Rumex* sp.), cinquefoil (*Potentilla* sp.), buttercup (*Ranunculus* sp.), sedges (*Carex* sp.) and orache (*Atriplex* sp.).

Sample 1 contained several fragments of animal bone including a mandible of a large mammal. Smaller mammal bones are also present together with bird or amphibian bones and fish bones. Fish bones and fish scale are also present in the flot of this sample. Fragments of mussel and cockleshells were also noted. A large (approx 2.5cm x 2cm) fragment of eggshell was recovered from the flot of Sample 1.

3 **Conclusions and Recommendations**

The plant remains from Samples 1 and 2 are almost identical to those recovered from Sample 3. They provide a clear picture of the local environment of damp grassland and they give an indication of the cultivation of heavy clay soils through the presence of stinking mayweed (*Anthemis cotula*), which is a plant specific to this habitat. The additional information recovered from these two samples is in the form of dietary refuse of cereal grains, fish, shellfish and animal remains.

Appendix 7: Analysis of Insect Remains

By Dr. Emma Tetlow

Summary

The insect remains discussed are from a single sample recovered from an organic-rich ditch-fill at the site of the former Ramsey Abbey, Huntingdon, Cambridgeshire.

The insect assemblage suggests that material was being dumped into the ditch from a number of sources. These sources include drier material thought to be derived from human housing, spoiled foodstuffs; including granary pests and evidence of rotting material which suggests a midden deposit. The largest component of the assemblage forms part of Kenwards' 'House Fauna' and is characteristic of human habitation and domestic waste. Waste associated with pastoral activity or stabling, such as dung or manure was absent.

Introduction

The insect assemblages discussed are from the locality of a stone structure, interpreted as a stable block, associated with the former precincts of the renowned Benedictine Abbey, founded and endowed in 969 by Athelwold, Bishop of Winchester. It was hoped that the insect remains from the site would provide information on a number levels: To establish the environment surrounding the feature and to explore the nature of human occupation and activity at the site, ultimately facilitating further landscape reconstruction and visualisation.

Methods

The samples were processed at the University of Birmingham using the standard method of paraffin flotation outlined in Kenward *et al.* (1980). The insect remains were then sorted from the paraffin flot and the sclerites identified under a low power binocular microscope at x10 magnification. Where possible, the insect remains were identified by comparison with specimens in the Gorham and Girling collections housed at the University of Birmingham. The taxonomy used for the Coleoptera (beetles) follows that of Lucht (1987).

Results

To aid interpretation, where applicable, the taxa have been assigned ecological groups following those of Kenward (Hall and Kenward 1990, Kenward and Hall 1997, Kenward and Hall 1995). The affiliation of each species to a particular group is listed in the second column (marked 'EG') in Table 1. The meaning of each ecological code is explained in Table 2. The proportions of these groups, expressed as percentages of the total Coleoptera present in the faunas, are shown in Figure 1 and 2.

The Insect Assemblage

The sample produced a well-preserved and diverse fauna. A comprehensive and informative series of 'Indicator Packages' were present, that can be interpreted as indicators of human activity at the site. Insects associated vegetation or the wider landscape surrounding the feature however, were restricted.

The sample contained a large suite of synanthropic species, which are closely associated with human habitation in the archaeo-entomological record. They form part of Kenward's 'House Fauna' (Hall and Kenward 1990, Kenward and Hall 1997, Kenward and Hall 1995). They included Cryptophagidae, such as *Cryptophagus scutellatus*, Lathridiidae, the colydiid, *Aglenus brunneus*, and the lyctid, *Lyctus brunneus*. All were found in relatively large numbers and many of these taxa are associated with drier organic material in various stages of decay. Particularly abundant were species including the lathridiid, *Enicmus minutus*, the ptinid, *Ptinus fur*, and the Cryptophagidae, which are strongly associated with drier, rotting material (many are also part of Kenward's 'RD' group; Kenward and Hall 1995). Further indicators of dry, rotting material include the scolytid, *Leperisinus varius*, which is a pest of dead or seasoned wood, particularly ash (*Fraxinus excelsior*) (Bullock 1993), and several specimens of the common woodworm, the anobid, *Anobium punctatum*. This species is found with seasoned, worked wood and is also a component of Kenward's 'House Fauna'. It is likely that source of the latter two species is a nearby timber structure.

Large numbers of species associated with fouler, rotting organic material were also recovered, including the Hydrophilidae, *Cercyon haemorrhoidalis*, and *Cryptopleurum minutum*, the staphylinid, *Platystethus arenarius* and the histerid, *Acritus nigricornis* (Hansen 1987, Tottenham 1954). These species are all part of Kenward's 'RF' group, associated with fouler, generally damp, rotting material (Kenward and Hall 1995). More general indicators of rotting organic material were present in relatively large numbers, including a further hydrophilid, *Cercyon analis*, in addition to a large suite of Staphylinidae, such as the 'Oxyteline' group (*Oxytelus rugosus*, *Oxytelus sculpturatus*, and *Oxytelus sculptus*, *Trogophloeus bilineatus*, *Gryohypnus fracticornis*, *Leucoparyphus silphoides*, and *Omalium rivulare*; Tottenham 1954). Species directly associated with fresh dung or accumulations of dung, such as manure heaps or stable manure are limited to a single specimen of the Scarabaeidae family, *Aphodius ater*, and a histerid, *Atholus duodecimstriatus*. Both species are associated with decaying organic material (Jessop 1986, Koch 1989a). Strongly synanthropic taxa, which are dependant on human activity for survival, were also present. The cucujid, *Oryzaeophilis surinamensis*, and the curculionid, *Sitophilus granarius*, are both pests of granaries and grain stores (Koch 1992). A further possible pest of stored products is the

bruchid, *Bruchus rufimanis*, the 'broad bean weevil', which was recovered in relatively large numbers.

Species more closely associated with vegetation are limited and, with two notable exceptions, are indicative of disturbed or waste ground and waysides. These include the obligate monophages, *Brachypterus urticae*, a nitidulid, found on nettles (*Urtica dioica*), and the curculionid, *Gymnetron pascuorum* found on ribwort plantain (*Plantago lanceolata*) (Bullock 1993). Also present in relatively large numbers is the orthoperid, *Corylophous cassidoides*, which is less specific and found in rotting vegetation amongst damp, tussocky grassland (Koch 1989b).

A small aquatic and hygrophilous component was also recovered. This included a small, distinctly aquatic assemblage which consisted of the Hydrophilidae, *Coelostoma orbiculare*, *Hydrobius fuscipes*, and *Cymbiodyta marginella*. These species are all associated with the well vegetated margins of standing water bodies, although the composition of these herbaceous riparian taxa is ambiguous. Indicators associated with the type of vegetation are restricted to the carabid, *Agonum thoreyi*, which is found upon a variety of tall reed species such as bulrush (*Typha* spp.) and club rush (*Schoenoplectus lacustris*) (Lindroth 1974). The remaining hygrophilous taxa are the Hydraenidae family which are associated with the muddy margins of a variety of water bodies and muddy, ephemeral and seasonal pools (Hansen 1987).

Discussion

The dominant group in the assemblage from Ramsey Abbey are the synanthropic taxa, associated with a number of Kenward's 'Indicator Packages'. The most apparent are those that belong to the 'House Fauna' group. Taxa from this group form a substantial component of the assemblage from the Ramsey Abbey fill. The incorporation of such large numbers of these creatures clearly suggests that refuse from a domestic source was being dumped in this feature.

The 'House Fauna' group is commonly associated with unheated earthen-floored dwellings and wooden or wattle and daub structures (Hall and Kenward 1990; Kenward and Hall 1995). This group is also associated with relatively dry 'hay-like' material in the early stages of decay. Of the eleven taxa that make up the 'House Fauna', eight were recovered from the fill at Ramsey Abbey (Table 3), and constituted 35% of the total assemblage recovered from the site. It is possible that the source of this material was spoiled rush or reed flooring which was dumped into the feature. This could also explain the incorporation of the taxa associated with reed vegetation, such as the reed beetle *Agonum thoreyi*, and the orthoperid *Corylophous cassidoides*. The seeds of a number of wetland plants, such as rushes (*Juncus* spp.) and spike rushes (*Eleocharis* spp.) were also found during the analysis

of the waterlogged plant remains (Fryer pers. comm.). Insect taxa associated with living specimens of this type of are virtually absent.

A further source of 'House Fauna', the *Enicmus minutus*, and *Sitophilus granarius*, have been recorded from thatch (Robinson 2007, Smith 1996, Smith *et al.* 1999). Relatively large numbers of the common woodworm also indicate the presence of a wooden structure at the site. Woodworm is a serious pest of worked, seasoned wood, and a second taxa associated with dry, dead wood is the scolytid, *Lepreisinus varius*. Whilst the latter forms part of the 'house fauna', *L. varius*, cannot be described as typical synanthrope but has often found associated with synanthropic assemblages, at Castle St. Carlisle (Kenward 1999), Tanners Row (Hall *et al.* 1983), 1 Poultry (Smith unpublished) and was particularly abundant at Coppergate (Kenward and Hall 1995). This strongly suggests that these taxa have found an exploitable niche in environments closely associated with human habitation.

What is surprising, particularly considering the initial archaeological interpretation which suggests that this deposit was recovered from the vicinity of a stable block, is the absence of large numbers of Scarabaeidae or 'dung' beetles which are associated with fresh dung and accumulations of this type of material such as dung and manure heaps. Specimens of the scarabaeid family are limited to a single specimen of a taxa which favours rotting vegetation and organic material. Large numbers of Staphylinidae and Histeridae associated with damp, rotting organic material, however, were found and it seems likely that their presence indicates an accumulation of material more akin to compost or the detritus of food preparation than any substantial manure or dung heap.

Moreover, a number of Coleoptera recovered from this sample are associated with spoiled or infested foodstuffs. The grain pest, *Sitophilus granarius* (the granary weevil), is a common pest in granaries where both the larvae and the adults feed on tainted, whole grain (Coombs and Woodroffe 1963, Hunter *et al.* 1973). When such infestations occur, they can become extremely destructive, especially if unchecked. Evidence of such catastrophic infestations have been recorded at a number of Romano-British sites, including granaries at Coney Street in York (Kenward and Williams 1979) and Inveresk Gate (Smith unpublished). A further granary pest found at Ramsey Abbey is *Oryzaephilus surinamensis* (saw toothed granary weevil), which is a 'secondary' pest of granaries that have already been infected by *Sitophilus granarius* (Coombs and Woodroffe 1956, Hunter *et al.* 1973, Smith unpublished). The small numbers of both species at Ramsey Abbey do not suggest an infected granary nearby or that the infected material was being dumped into this feature in large quantities, but instead could easily be a result of food preparation, or the detritus thereof. It is also not impossible that either taxa became transported to the site accidentally, by man or beast (Kenward and Hall 1997,

Osborne 1983). Both taxa are often found in cess pit deposits, such as those encountered in the Southampton French Quarter (Tetlow 2007a, 2007b), Malton (Buckland 1982) and at The Magistrates Court, Kingston upon Hull (Hall *et al.* 2000, Kenward and Carrott 2006). The presence of small numbers of *Sitophilus granarius*, found in deposits at Viking York are also interpreted as inclusions as a result of transportation via an equine gut (Kenward and Hall 1995). A final taxon associated with infested foodstuffs is the bruchid, *Bruchus rufimanis*, also known as the 'broad bean weevil'. The larval stage of this beetle is found in the kernels of large beans, and once again, this species was found in large numbers in Viking York, at Coppergate (Kenward and Hall 1995), Tanners Row (Hall *et al.* 1983) and Southampton French Quarter (Tetlow 2007a, 2007). At 1 Poultry, Smith (unpublished) attributes the presence of large numbers of *Bruchus pisorum*, to the dumping of spoiled peas.

Conclusions

The insect evidence, particularly the absence of large numbers of Scarabaeidae, strongly suggest that a stable block was not located nearby during the formation of this deposit. However, as only one sample was assessed during this palaeoenvironmental investigation, this does not entirely dismiss the initial theory. The deposit appears to be strongly anthropogenic, with components associated with domestic waste and possibly thatch, seasoned wood and foodstuffs. The exact source of this melange is ambiguous, but it would not be improbable to suggest a wooden structure, with a thatched roof and used for human habitation, was located nearby. It is also not unfeasible to suggest that the deposit accumulated through the dumping of domestic waste.

Context			16
Sample			3
Processed Weight			10kg
Processed Volume			10l
	EG	SYN	
Carabidae			
<i>Bembidion</i> spp.	oa		1
<i>Agonum thoreyi</i> Dej., 1828	oa		2
Dytiscidae			
<i>Hydroporous</i> spp.	oa-w		1
Hydraenidae			
<i>Hydaena testacea</i> Curt.	oa-w		1
<i>Hydraena</i> spp.	oa-w		
<i>Limnebius</i> spp.	oa-w		
<i>Octhebius minimus</i> (F.)	oa-w		1
<i>Octhebius</i> spp.	oa-w		11
<i>Helophorus</i> spp.	oa-w		1
Hydrophilidae			
<i>Coelostoma orbiculare</i> (F.)	oa-w		1
<i>Cercyon ustulatus</i> (Preysl.)			2
<i>Cercyon haemorrhoidalis</i> (F.)			5
<i>Cercyon</i> cf. <i>tristis</i>			4
<i>Cercyon sternalis</i> Shp.			3
<i>Cercyon analis</i> (Payk.)			7
<i>Cryptopleurum minutum</i> (F.)	oa-w		23
<i>Megasternum boletophagum</i> (Marsh.)	oa-w		2
<i>Hydrobius fuscipes</i> Leach	oa-w		1
<i>Cymbiodyta marginella</i> (F.)	oa-w		1
Histeridae			
<i>Acritus nigricornis</i> (Hoffm.)	rt	st	6
<i>Atholus duodecimstriatus</i> (Schrk.)	rt	sf	1
<i>Hister</i> spp.	rt		1
Scydmaenidae			
<i>Scymnus</i>			
Orthoperidae			
<i>Corylophus cassidoides</i> (Marsh.)	rt		7
Staphylinidae			

<i>Micropeplus porcatus</i> (Payk.)	rt		1
<i>Omalium rivulare</i> (Payk.)	rt	sf	1
<i>Omalium</i> spp.			5
<i>Trogophloeus bilineatus</i> (Steph.)	rt	sf	4
<i>Trogophloeus rivularis</i> Mtsch.	u		1
<i>Trogophloeus fuliginosus</i> (Grav.)	u	st	6
<i>Trogophloeus</i> spp.			4
<i>Oxytelus sculptus</i> Grav.	rt	st	9
<i>Oxytelus rugosus</i> (F.)	rt		2
<i>Oxytelus sculpturatus</i> Grav.	rt		1
<i>Oxytelus nitidulus</i> Grav.	rt-d		1
<i>Oxytelus</i> spp.			11
Sample			3
Staphylinidae			
<i>Platystethus arenarius</i> (Fourcr.)	rf		1
<i>Platystethus cornutus</i> (Grav.)	oa-d		3
<i>Platystethus nitens</i> (Salhb.)	oa-d		2
<i>Platystethus</i> spp.	u		3
<i>Stenus</i> spp.	u		1
<i>Stilicus similis</i> Er.			2
<i>Gryohpnus fracticornis</i> (Mull.)	rt	st	2
<i>Xantholinus</i> spp.			10
<i>Philonthus</i> spp.			11
<i>Tachyporus</i> spp.			2
<i>Tachinus rufipes</i> (Geer.)			1
<i>Tachinus</i> spp.			1
<i>Leucoparyphus silphoides</i> (L.)	rt	st	9
<i>Aleocharinae</i> gen. & spp. Indet.			11
Nitidulidae			
<i>Brachyterus urticae</i> (F.)	oa		1
Rhizophagidae			
<i>Rhizophagus</i> spp.	u	sf	1
Cucujidae			
<i>Monotoma picipes</i> Hbst.	rt	st	1
<i>Monotoma</i> spp.	rt	st	17
<i>Oryzaephilus surinamensis</i> (L.)	g	ss	1
Cryptophagidae			
<i>Crptophagus scutellatus</i> Newm.			1
<i>Cryptophagus</i> spp.	rd-h	st	5
<i>Atomaria</i> spp.	rd-h	st	3
Lathridiidae			
<i>Encimus minutus</i> (L.)	rd-h	st	28
<i>Corticaria</i> spp.	rt	sf	2
Colydiidae			

<i>Aglenus brunneus</i> (Gyll.)	rt-h	ss	4
Lyctidae			
<i>Lyctus brunneus</i> (Steph.)	l	sf	1
Anobiidae			
<i>Anobium punctatum</i> (Geer.)	l	sf	4
Ptinidae			
<i>Ptinus fur</i> (L.)	rd-h	sf	6
Scarabaeidae			
<i>Aphodius ater</i> (Geer.)	oa-f		3
Chrysomelidae			
<i>Phyllotraeta</i> spp.	oa		1
Sample			3
Scolytidae			
<i>Leperisinus varius</i> (F.)	l		2
Bruchidae			
<i>Bruchus rufimanus</i> Boh.	oa		5
<i>Bruchus</i> spp.	oa		2
Curculionidae			
<i>Apion aeneum</i> (F.)	oa-p		1
<i>Sitona cylindricollis</i> (Fahrs.)	oa-p		1
<i>Sitona</i> spp	oa-p		2
<i>Sitophilus granarius</i> (L.)	g		3
<i>Gymnetron pascuorum</i> (Gyll.)	oa-p		1

Figure 1: Ramsey Abbey - Species ecological groups

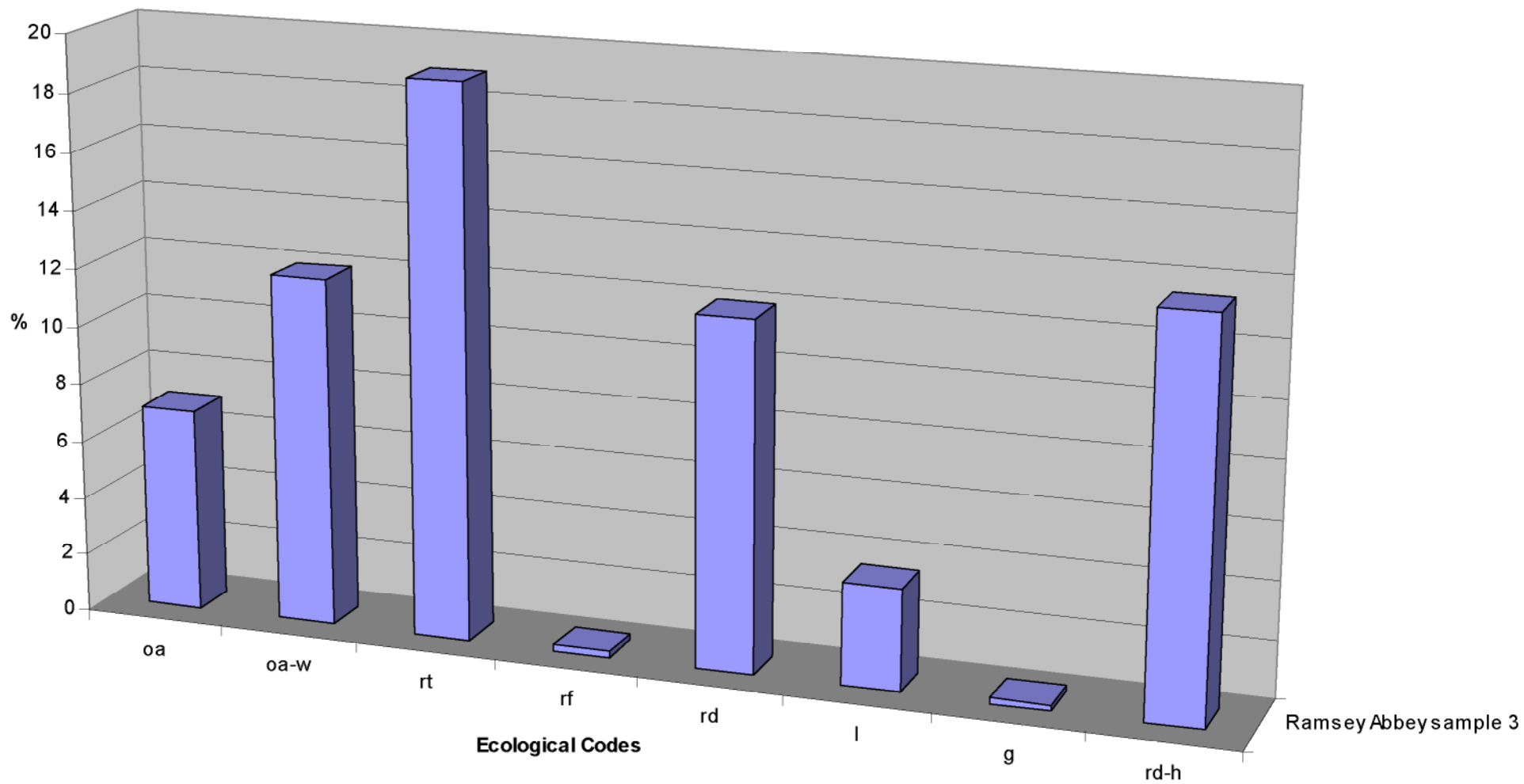
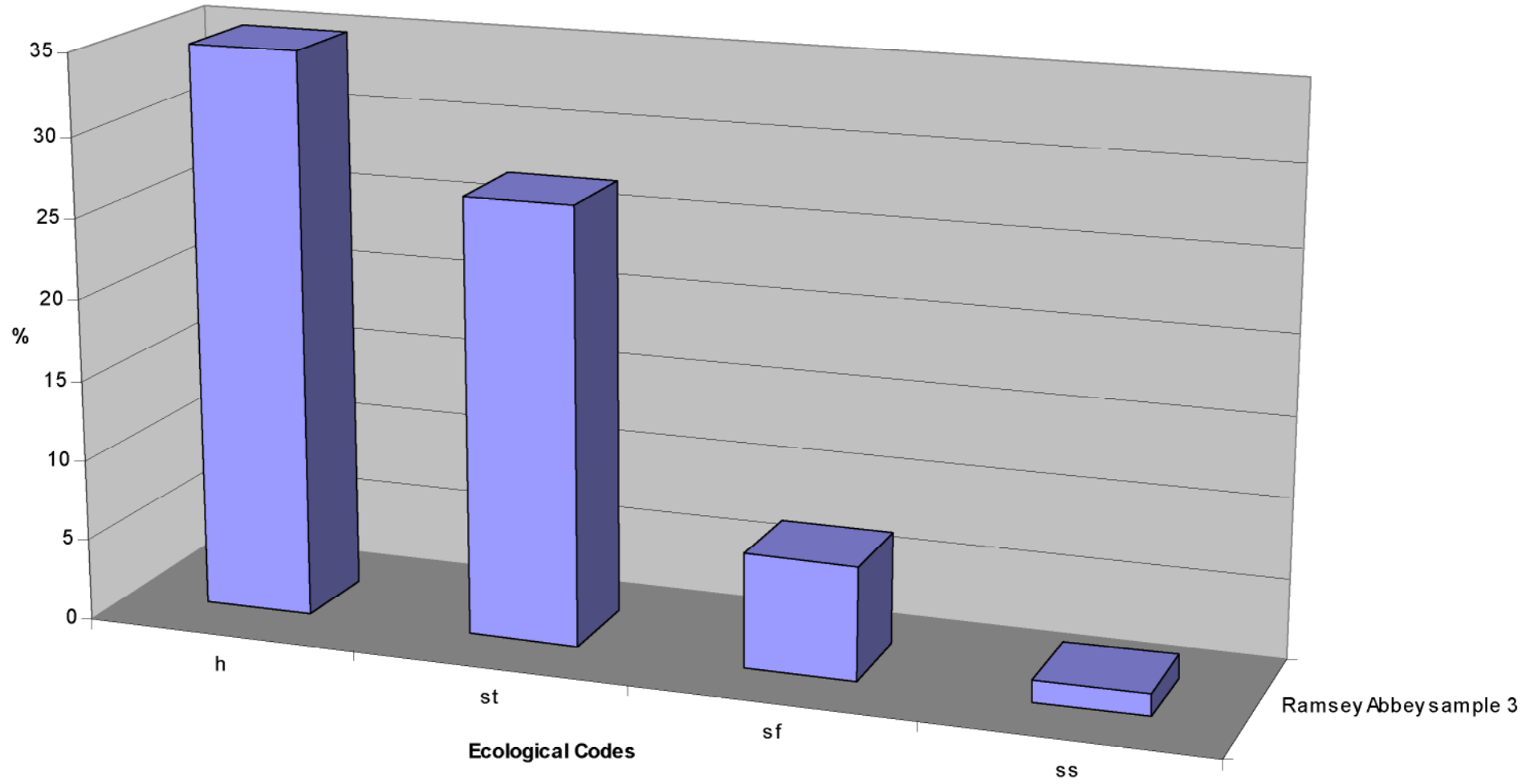


Figure 2: Ramsey Abbey % Composition of taxa associated with Kenward's 'House Fauna'



Ramsey Abbey sample 3	
oa	7
oa-w	12
rt	19
rf	0.2
rd	12
l	3.5
g	0.2
rd-h	13.5

Ramsey Abbey sample 3	
h	35
st	27
sf	7
ss	1.4

Ecological coding (Kenward and Hall 1995)

oa (& ob) - Species which will not breed in human housing.

w- aquatic species.

d- species associated with damp watersides and river banks.

rd- specie primarily associated with drier organic matter.

rf - species primarily associated with foul organic matter often dung.

rt - insects associated with decaying organic matter but not belonging to either the rd or rf groups.

l - species associated with timber.

h - members of the 'house fauna' this is a very arbitrary group based on archaeological associations (Hall and Kenward 1990).

Synanthropic codeings (Kenward 1997).

sf - facultative synanthropes - common in 'natural' habitats but clearly favoured by artificial ones.

st - typically synanthropes - particularly favoured by artificial habitats but believed to be able to survive in nature in the long term.

ss - strong synanthropes - essentially dependant on human activity for survival.

Table 2: Key to species ecological groups.

House fauna species	Present at Ramsey Abbey	MNI*
<i>Xylodromus concinnus</i>		
<i>Cratarea suturalis</i>		
<i>Anobium punctatum</i>	√	4
<i>Ptinus fur</i>	√	6
<i>Atomaria nigripennis</i>		
<i>Atomaria</i> spp.	√	3
<i>Cryptophagus scutellatus</i>	√	1
<i>Cryptophagus</i> spp.	√	5
<i>Enicmus minutus</i>	√	28
<i>Mycetaea hirta</i>		
<i>Aglenus brunneus</i>	√	4

Table 3: The House fauna with *Minimum number of individuals from this group found at Ramsey Abbey.

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1 Appendix 8: Assessment of the macro-botanical remains
By Val Fryer

1 Introduction and method statement

Excavations at Ramsey, undertaken by CAMARC, located a single large feature, either a ditch or a pit possibly associated with Ramsey Abbey. A single waterlogged sample was taken for the evaluation of the content and preservation of the plant macrofossil assemblage.

As part of a process to retrieve both the plant macrofossils and the arthropod remains, the sample was processed by Birmingham Archaeology and the plant remains were retained within a 300 micron mesh sieve. The wet retents were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains recorded are listed on Table 1. Nomenclature within the table follows Stace (1997). All plant remains were waterlogged with the exception of a small number of charcoal fragments.

2 Results

The sample matrix consisted of a densely compacted mass of comminuted plant remains, including a low to moderate density of seeds of segetal/grassland weeds and wetland plants, most of which were moderately well preserved. Taxa noted included stinking mayweed (*Anthemis cotula*), orache (*Atriplex* sp.), corn marigold (*Chrysanthemum segetum*), grasses (Poaceae), cinquefoil (*Potentilla* sp.), buttercup (*Ranunculus* sp.), wild radish (*Raphanus raphanistrum*), dock (*Rumex* sp.), spike rush (*Eleocharis* sp.) and rush (*Juncus* sp.).

3 Conclusions

It was tentatively suggested at the time of excavation that this deposit could be derived from horse dung or similar stable waste, on the basis of a visual inspection of the deposit. However, the composition of the plant macrofossil assemblage does little to support this interpretation, as cereal remains and straw/grass culm nodes (both common constituents of stable waste) appear to be absent. As a result of the low density of seeds recorded during the initial scan, it is not possible to conclusively identify the nature of the deposit or the source of the material. However, it would appear that both cultivated clay soils and damp grassland conditions were present within the immediate vicinity.

Reference

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Key to Table

x = 1 – 10 specimens xx = 10 – 50 specimens xxxx = 100+ specimens

tf = testa fragment cf = compare

Sample No.	3
Context No.	16
Dry land herbs	
<i>Anthemis cotula</i> L.	xx
<i>Atriplex</i> so.	x
Brassicaceae indet.	xtf
<i>Chrysanthemum segetum</i> L.	x
<i>Cirsium</i> sp.	x
<i>Lapsana communis</i> L.	x
<i>Leontodon</i> sp.	x
<i>Plantago major</i> L.	x
Small Poaceae indet.	x
<i>Polygonum aviculare</i> L.	x
<i>Potentilla</i> sp.	x
<i>Prunella vulgaris</i> L.	x
<i>Raphanus raphanistrum</i> L. (siliqua frags.)	x
<i>Ranunculus acris/repens/bulbosus</i>	x
<i>Rumex</i> sp.	x
<i>Scleranthus annuus</i> L.	xcf
<i>Sonchus oleraceus</i> L.	x
<i>Urtica dioica</i> L.	xcf
Wetland plants	
<i>Carex</i> sp.	x
<i>Eleocharis</i> sp.	xx
<i>Juncus</i> sp.	xx
Other plant macrofossils	
Charcoal <2mm	x
Waterlogged root/stem	xxxx
Indet.inflorescence frags.	x
Indet.seeds	x
Indet.twig frags.	x
Wood frags.>5mm	x
Animal macrofossils	
Cledoceran ephippia	xx
Waterlogged arthropod remains	xx
Sample volume (litres)	
Volume of flot (litres)	0.4
% flot sorted	25%

Table 11: Results of macro-botanical assessment of sample 3 from context 16










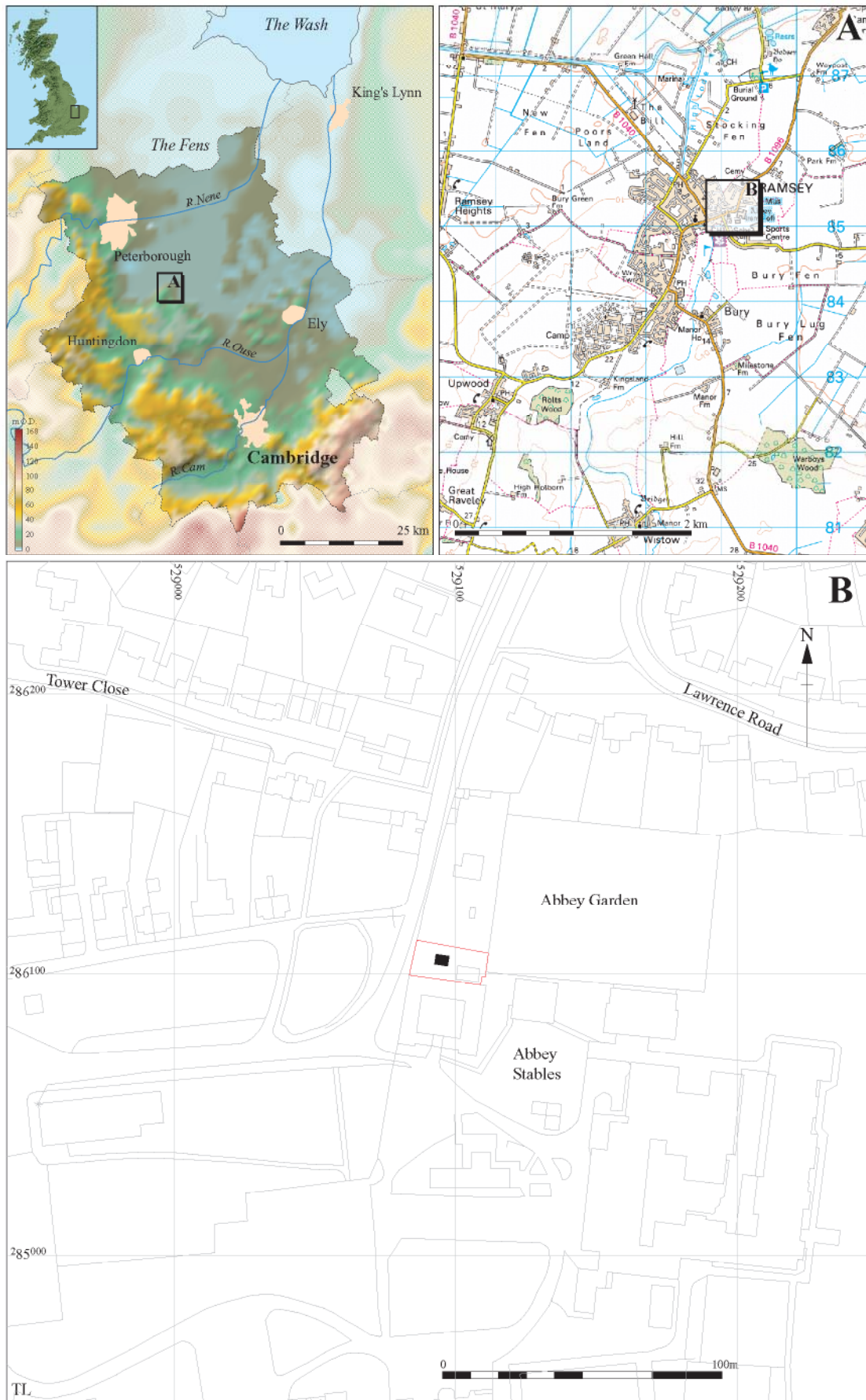
Drawing Conventions	
Sections	
Limit of Excavation	-----
Cut	—————
Cut - Conjectured	-----
Soil Horizon	-----
Soil Horizon - Conjectured	-----
Intrusion/Truncation	-----
Top of Natural	—————
Top Surface	—————
Break in Section	-----
Cut Number	
Deposit Number	117
Ordnance Datum	
Tile	
Stone	
Charcoal	
Gravel	
Plans	
Limit of Excavation	—————
Deposit - Conjectured	-----
Break in slope	-----
Intrusion/Truncation	-----
Sondages/Machine Strip	-----
Illustrated Section	
Deposit	
Deposit	

Figure 1: Convention key



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Figure 2: Location of trench with the development area outlined (red)



Figure 3: Close-up plan of trench and development area

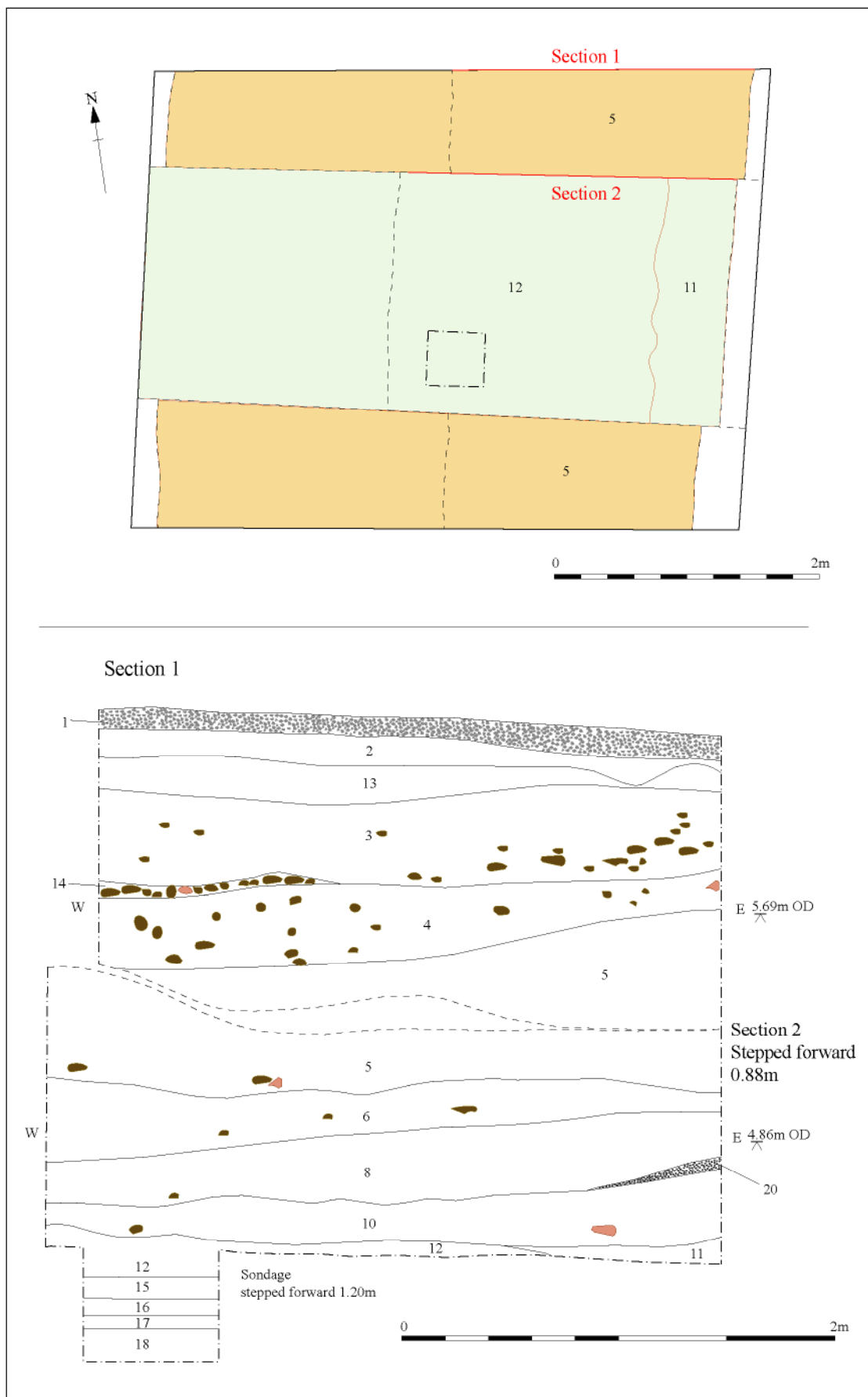


Figure 4: Trench plan and section

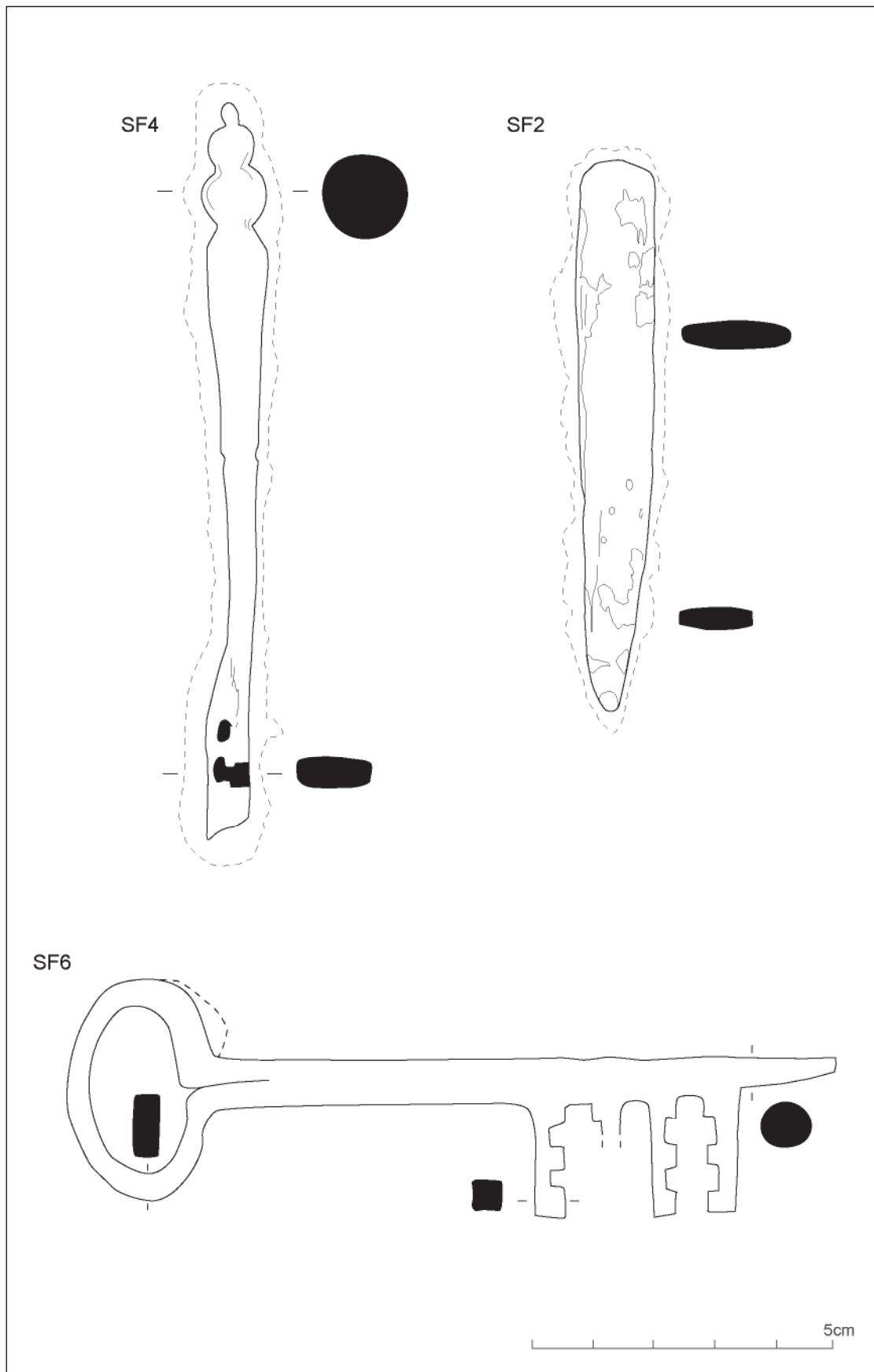


Figure 5: Iron artefacts

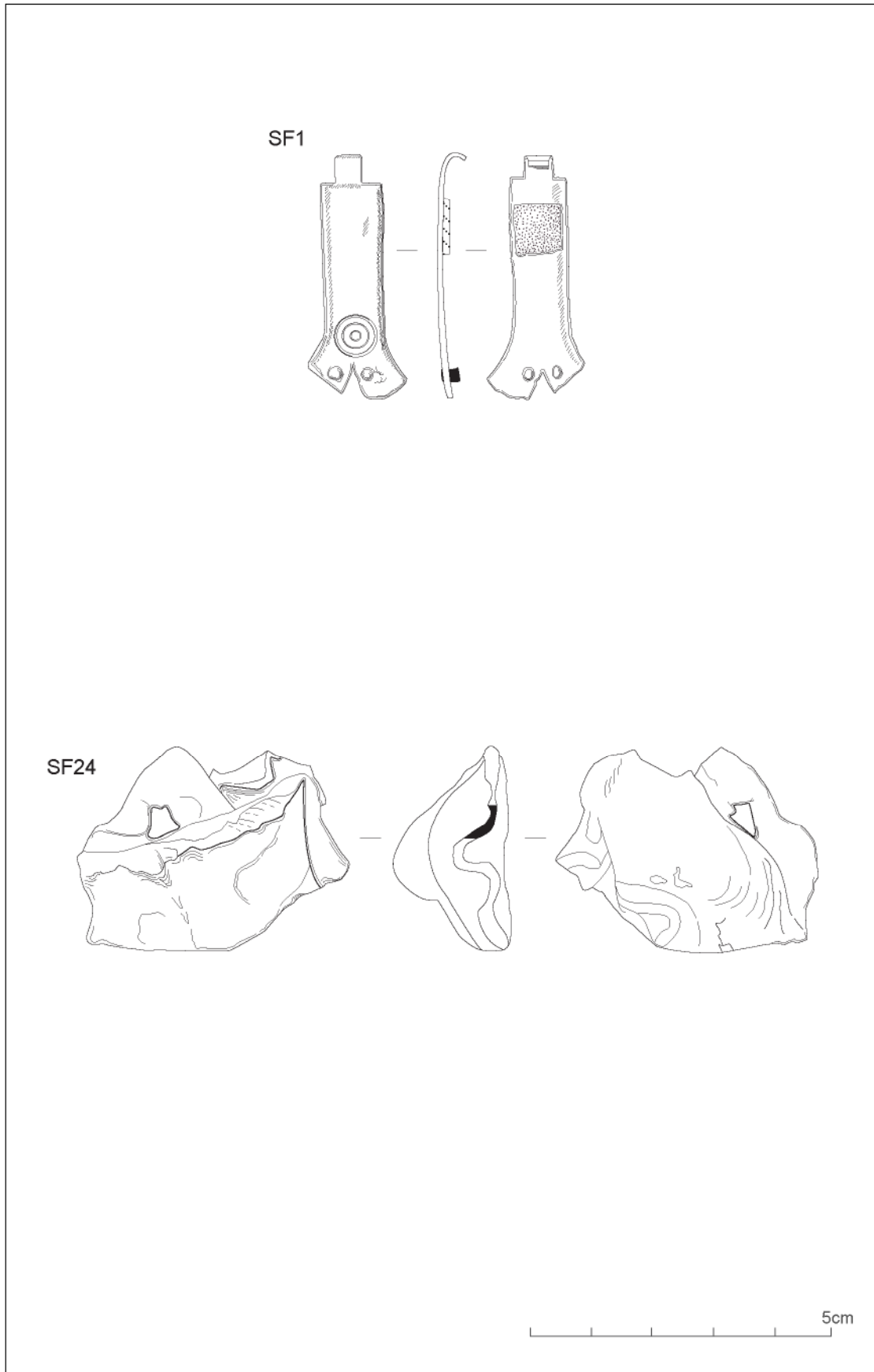
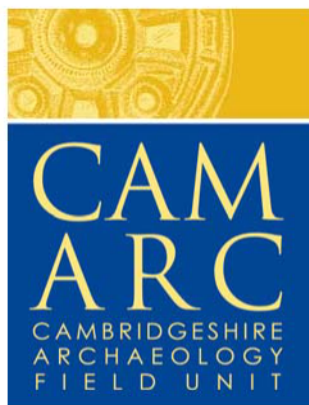


Figure 6: Copper alloy and lead artefacts



Plate 1: South facing section of Trench 1



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