

Figure 16 Section 17 Sout-east facing section in Area 1.

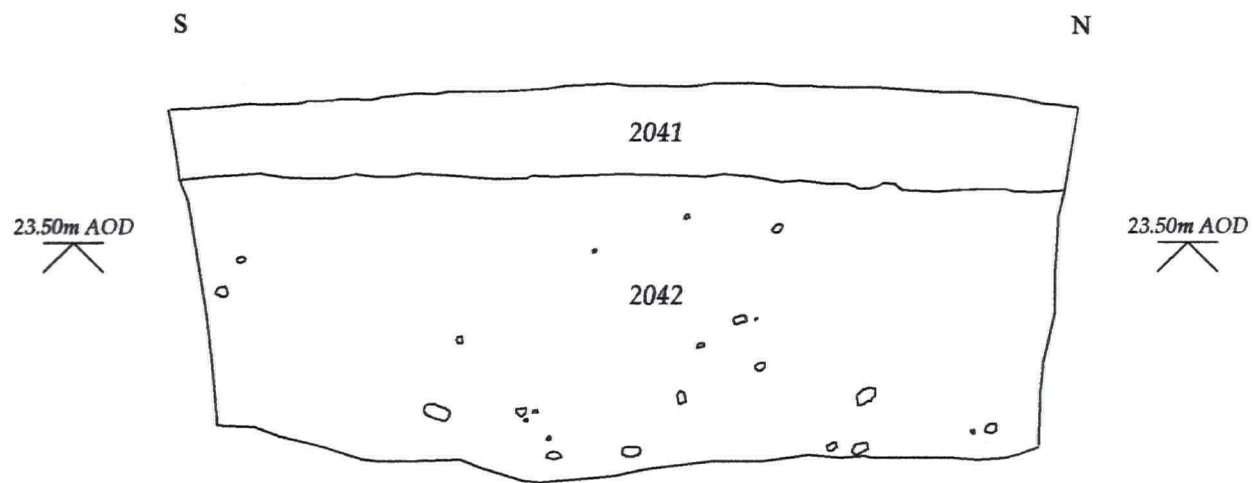


Figure 17 Section 20 North-east facing section in Area 2.



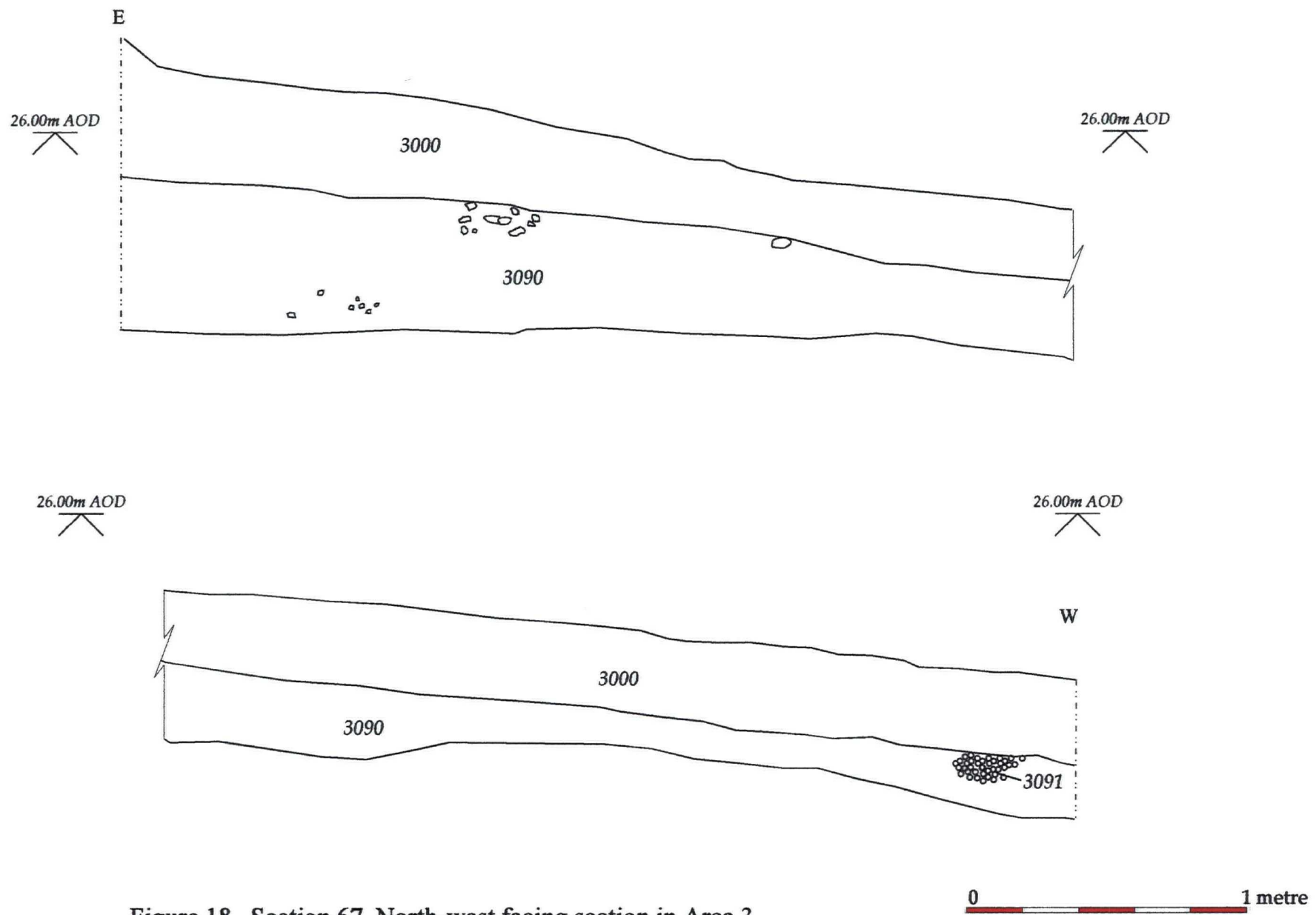


Figure 18 Section 67 North-west facing section in Area 3.

6. CONCLUSIONS

The excavations revealed a significant number of archaeological features and deposits possibly ranging in date from the Anglo Scandinavian to modern periods.

6.1 Naturally occurring deposits

The profile of the natural deposits (Group 1) on site is clearly reflected by the overall topography of the site. A naturally occurring ridge adjacent to Priest Lane and Residence Lane fell away sharply both to the south and west. There was little evidence within the excavated area for gravel extraction, except for one post-medieval quarry pit located in the south-western portion of Area 1. This suggests that the overall topography of the site had been little affected by quarrying.

6.2 Roman (2nd-5th centuries)

The only evidence of Roman activity was a small quantity of residual brick and part of a hypocaust flue tile. This residual material was found in a number of contexts across the site (contexts 1020, 1036, 2044, 3000, 3001, 3044 and 3129), most of which were of post-medieval date. Although no structures of Roman date were located within the excavated area, the presence of the residual material, together with sherds of residual Roman pottery from excavations in the nearby Deanery Gardens, may imply that a substantial Roman building is located somewhere in the area.

6.3 Anglian and Anglo-Scandinavian (5th-11th centuries)

None of the features on site could be securely dated to this period, although some residual material of this date was recovered in later contexts, which implies some limited activity in the area. The residual material included a small quantity of 10th/11th-century pottery (contexts 1000, 3000 and 1037), an Anglo-Scandinavian knife (context 1000) and an Anglo-Scandinavian dress pin (context 1020).

The only features potentially of this date were those in Group 2, which consisted of a few rubbish pits and post-holes scattered across the excavated area. The dating evidence for these features was 8-12th-century, 11th-century and 11th/12th-century respectively. Obviously, given these dates it is possible that some, or indeed all, of the Group 2 features could post-date the Norman Conquest. The lack of securely datable features suggests that the area was little used prior to the 11th-century, at least for structural purposes or activities requiring specific disturbance of the ground. This is a noteworthy finding, given the penumbra of pre-conquest activities, particularly burials, noted from the site's immediate surrounds.

6.4 Medieval (11th-16th centuries)

The majority of the features excavated were of medieval date. These consisted of a number of property boundaries, build ups of horticultural soils and rubbish pits.

Relatively few contexts predated the 13th-century, apart from a build up of horticultural soil of 11/12th- and 11-13th-century date, and a single pit of 11-13th-century date (context 3008). Although it must be noted that some, or indeed all, of the Group 2 features could be phased here.

Despite the lack of pre 13th century excavated features, there was a great deal of residual 11th/12th-century pottery, which implies that there was a reasonable amount of activity on the site, even if the activity was only sporadic dumping.

The 13th-century saw a more intensive pattern of land use, with a number of property boundaries being laid out across the site. The initial boundaries were a linear ditch parallel to Priest Lane (Group 4) and an L-shaped boundary aligned at roughly 45 degrees to Priest Lane (Group 3). Both Groups 3 and 4 contained 13th-century dating evidence, but it was impossible to say if they were contemporaneous or not. Groups 3 and 4 were beneath a second set of boundaries (Group 5), which were again of 13th-century date. The Group 5 boundaries consisted of a ditch parallel to Priest Lane (clearly a replacement of the earlier Group 4 ditch), with three associated east-west ditches, effectively dividing the land into small fields or properties.

A number of linear post-hole alignments (Groups 7 to 10) probably also represent the constant replacement of property boundaries within a small portion of the southern end of Area 3. Groups 7 to 10 were largely undated, but a single post-hole contained medieval brick implying a 14th-century or later date. In general it is impossible to say how the Group 7-10 features relate chronologically to the Group 3, 4 and 5 boundaries. The only other securely dated medieval features were two rubbish pits of 13-14th-century and 14th-century date respectively (contexts 3123 and 3040 in Group 6), although a number of undated rubbish pits and post holes were interpreted as medieval (Group 11).

Overall the pattern of medieval land use seen seems to be of open ground up to the 13th-century, followed by the sub-division of the area into small plots or fields by a number of boundary ditches/fences which were periodically replaced. The land does not seem to have been used for habitation but rather as fields, with the occasional disposal of rubbish in pits. This pattern of land use seems to have lasted until the 14th-century. It is interesting that there were no features, and virtually no pottery, of 15th-16th-century date. This may imply that the area was a single field by this stage, which was used solely for livestock. The presence of a range of ironwork associated with horses (snaffle bits, horseshoe fragments and horseshoe nails) is notable. The horse equipment derives from both the medieval and post-medieval periods, and seems to confirm the primarily agricultural use of the site. Manure from the animals would undoubtedly have contributed to the build up of horticultural type deposits recorded across the site.

6.5 Post-medieval (16th-18th centuries)

As stated above (6.4), there is evidence that the site was largely open ground used for livestock in the 16th century. Within Area 2 there had clearly been a 17th-century brick wall with associated cobble and gravel surfaces (Group 13). It is impossible to say if this was a garden wall or part of a building. The wall was later robbed out and replaced by an 18th-century alignment of bricks which may have supported a timber structure of some kind (Group 13). Within Areas 1 and 3 a small number of large rubbish pits, a possible terracing cut which was also backfilled with rubbish, and a quarry pit were excavated (Group 12).

6.6 Modern (19th-20th centuries)

The modern deposits consisted of a ditch cut parallel to Priest Lane, which possibly represented a hedge line (Group 14). The ditch was sealed by build up deposits typical of open ground (Group 15), which were only recorded in section as they had been removed by machine

clearance. Within the build-up deposits there were small patches of dumped mortar. There were two other isolated features; a small length of limestone walling close to Priest Lane, which was presumably part of a boundary wall, and an isolated post-hole which is impossible to interpret (Group 16). The most recent deposits were further build-up deposits including the present field topsoil and turf, together with the infilled 1998 trial trenches 1, 2 and 7, and an engineering test pit (Group 17). The Group 17 deposits were removed by machine at the start of the excavations. The modern build-up deposits were particularly thick around the northern and eastern edges of the site; the presence of trees and bushes in these areas had undoubtedly encouraged the build-up of soils.

7. ARCHAEOLOGICAL IMPLICATIONS

7.1 Research objectives for the excavations

A research design drawn up prior to the commencement of works identified a number of issues for investigation. Most of the objectives identified related to hoped-for evidence of an Anglo-Saxon monastic site. The investigations offered an opportunity to assess if the low gravel ridge linking Ailcy Hill and the former gravel mound at Scots Monument Yard had been used to form part of the precinct boundary of the monastery. It was therefore a priority to establish the date of any ditches or boundary features running parallel to Priest Lane. Three such boundary features were located, all of which were partially excavated and carefully scanned with a metal detector to recover as much dating evidence as possible. Unfortunately none of the ditches proved to be of pre-conquest date. The earliest two (both of which had been re-cut) were of 13th-century date, while the third was of 19th-century date. Clearly therefore no evidence was recovered of a *vallum monasterii* of pre-Conquest date.

It was also thought possible that human remains relating to the Ailcy Hill cemetery might be recovered from the site. A single human bone was found, but this was clearly redeposited. The presence of redeposited bone shows that a certain amount of reworking of deposits has taken place on the site, probably as a result of ploughing.

In addition to assessing the evidence for possible monastic boundaries and burial grounds, it was hoped the excavations would yield evidence for pre-conquest land use in the area, especially any information regarding the links between the pre-conquest monastery and its hinterland. All features cutting into natural (except the ditches described above) were therefore carefully, and fully, hand excavated in an attempt to recover pre-conquest artefact or ecofact assemblages. Very few features excavated were potentially of pre-conquest date (Group 2 above); the dating of these features was ambiguous, as some (or indeed all) of them could be of post-conquest date. There were a number of rubbish pits and a few post-holes, but these did not constitute intensive land use. The backfills of these features consisted of redeposited natural gravel, which was not suitable for environmental sampling. Neither did they contain any organic material for radiocarbon dating. A small number of residual pre-conquest artefacts were recovered from later contexts on the site. The relative lack of residual material together with the small number of possible Anglo-Scandinavian features implies the land was little used prior to the 11th-century.

The excavations offered the opportunity to study the development of the area throughout the medieval period. It was unclear how the site was used during the 11th- and 12th-centuries. There were virtually no excavated features of this date, but there was a reasonable quantity of residual pottery in later contexts. This implies that the area was used at the very least for dumping, but

that the dumping was not necessarily in rubbish pits. It is possible that the area was a single field at this stage, and that the residual material may have arrived on the site as waste used for the deliberate manuring of the field. The pattern of land use changed in the 13th-century, when the open ground was divided by ditches and fences into a number of smaller fields. The fields seem to have been used for occasional pit digging. The function of the pits is uncertain; they were too small to represent gravel quarrying, and were devoid of domestic rubbish, so did not seem to be for the dumping of waste either. Most of the excavated features were of 13th-century date, but some were 14th century. The virtual absence of any finds or features of 15th-16th century date, except for horse fittings suggests the area was again an open field used for livestock.

It was also hoped that Area 2 of the excavations would offer the chance to study undisturbed deposits sealed by slopewash. This proved not to be the case, as the formation level for the proposed school was not deep enough in this area to penetrate medieval or earlier deposits.

7.2 Archaeological Implications

It is worth stating that all features located within the area of disturbance necessitated by the construction of the new school have been either fully excavated (in the case of pits and post-holes) or excavated sufficiently to recover dating evidence (in the case of the linear features). The site did not yield any conclusive evidence for Anglo-Saxon monastic features, and even during the medieval period seems to have been largely open ground with occasional rubbish pits and boundary features.

It must be stressed, however, that the southern portion of the site was not investigated. This area lies immediately adjacent to Ailcy Hill, the site of a 6th-9th century cemetery. At the time of excavation this area was scheduled to be the school playing field, and there was a suggestion the area would be built up, rather than excavated out, in order to create an even playing field surface. Any future excavation work along the southern edge of the site (for the insertion of services, boundary walls or works relating to the playing field) might well encounter articulated human remains from the cemetery. Given the importance of the cemetery full archaeological excavation would certainly be necessary if any disturbance occurred in the southern portion of the site.

In terms of post-excavation work, given that no conclusive evidence Wilfred's monastery was found, there would seem to be little point fully publishing the results of the work. A summary of the work in *Medieval Archaeology's* annual review of excavations would probably be sufficient for the remains recovered.

8. ASSESSMENT OF POTTERY

8.1 Pottery dates

context	no of sherds	date range	notes
1000	1	18 th /19 th	bird shaped handle
1000	31	19 th	Black ware pancheons
1000	88	10/11 th , 11 th /12 th , 19 th /20 th	willow pattern, tin-glazed earthenwares, stone wares
1000	25	12 th -mod	
1004	1	11/12 th	
1011	11	18/19 th	slip wares, tgew, stonewares
1013	3	11/12 th	gw/ spl
1013	3	11/12 th	gw, spl
1015	1	11/12 th	
1022	8	13 th	
1024	4	11/12 th , 19 th	gw, tgew
1028	1	19 th	stn
1030	5	18 th	porcelain, tin glazed earthenwares
1037	2	10 th /11 th	gw,
1047	1	11/12 th	spl
1052	3	11/12 th	gw
1053	1	19 th /20 th	
2000	17	11/12 th , 16 th , 19 th	gritty wares, medieval fabrics, Cistercian and tin-glazed earthenwares (3)
2005	15	11 th -13 th	
2010	16	19 th	some earlier medieval wares
2034	16	19 th /20 th	brown wares, stone wares, tin-glazed earthenwares
2035	1	11/12 th	gritty wares
2039	3	18 th	stonewares and earthenwares
2042	9	11/12 th , 19 th	7 gritty wares and splashed ware, 2 19 th
2044	15	18/19 th	porc, tgew etc
2045	1	11/12 th	gw
2046	29	11/12 th	gw spl small sherds
2049	2	11/12 th , 19 th	
2052	1	12/13 th	splashed
2056	2	14 th	medieval
2100	1	19 th	porcelain
2103	1	11, 12 th	gw
2106	1	Unid	
3000	9	10/11 th , 11/12 th , 15 th , 19 th	early gritty types, tin-glazed earthenwares
3000	7	19 th /20 th	
3000	13	12 th -15 th , 19 th /20 th	
3001	4	11/12 th ; 13/14 th , 17 th	gritty wares, slip wares
3002	1	11/12 th	
3009	1	13/14 th	medieval
3013	1	11 th	
3046	2	11/12 th	gw spl
3054	5	11/12 th	gw/spl
3058	6	11 th	gw
3088	1	11 th	gw
3094	1	Unid	
3103	1	11 th	

3105	4	12 th /13 th	gritty and splashed wares
3105	6	11/12 th	gw/spl
3111	1	11/12 th	spl
3119	2	11/12 th	
3121	1	11 th	gw
3123	3	11-13 th	
3126	3	12 th	gritty wares
3129	6	11/12 th	gw, spl
3131	1	11 th	gw

key:

tgew = tin glazed earthenwares

gw = gritty wares

spl = splashed wares

stn = stonewares

porc= porcelain

8.2 Summary

This assemblage contains no pottery which is earlier than the 11th-century. An early group comprises small sherds of gritty and splashed wares, which are ubiquitous in the area at this time. Their currency may well extend into the 13th-century but probably not beyond. Although these wares do occur without later material they are often found associated with post-medieval and later wares, indicating that the deposits have been disturbed. There is very little medieval material or early post-medieval material. Slipwares of late 17th-century types, 18th-century English stonewares, porcelain and a range of coarse earthenwares and tin-glazed earthenwares complete the sequence.

The pottery indicates early activity in the area but is of limited further use in interpreting the site function as a whole.

9. ASSESSMENT OF SMALL FINDS

9.1 Iron

109 finds of iron were recovered, the majority (50) being structural nails. Other structural ironwork includes hinges (sfs2 and 66), a U-shaped staple (sf21), hasp link (sf24) and clench bolt (sf168), all from modern levels. Miscellaneous post-medieval/modern ironwork includes a skewer (sf26), a knife (sf49) and a boot plate (sf10).

A range of ironwork associated with horses was found; this comprises a pair of snaffle bits (sf115), horseshoe fragments (sfs39, 40, 59 and 102) and horseshoe nails (sfs5, 33, 36, 44, 63, 84, 86, 98-101, 167 and 181). The earliest of the nails is sf33 (context 1022) which is probably 11th – 13th-century; sfs5 (c.1000), 36 (c.1022), 44 (c.1020), 63 (c.1007) and 181 (c.3126) are likely to date to the 13th – 14th-century, and sfs 86, 98-101, 167 (c.1000) are probably 14th/15th-century – post-medieval (sf84 c.1052 is headless and thus undatable.) The horseshoes date from c.11th – 13th-century (sf59, c.1020) and the post-medieval period (sfs39, 102 c.1000); sf40 c.1000 is too fragmentary to date. The horse bits (sf115, c.3001) are of a type used in the medieval period but also the post-medieval period. A large square buckle (sf163, c.1000) may also be from horse harness. The earliest iron object is probably the knife sf28 (c.1000) which is likely to be Anglian or Anglo-Scandinavian. Other objects include two keys for fixed locks (sfs38, 95

c.1000); sf38 has traces of plating and may be 9th – 14th century in date, while sf95 with its kidney-shaped bow may be 14th-century. Another possible key is sf62 (c.1007) which may be a late medieval latch key. Other interesting but undatable objects include a possible punch (sf32, c.1022) and a buckle plate fragment (sf180, c.3126).

9.2 Copper alloy

There are eight finds of copper alloy, including sf46 (c.1020) which is an Anglian/Anglo-Scandinavian dress pin, with a square head and lozenge shaped facets. Sf 1 (c.1000) appears to be part of a medieval two-piece strap-end, possibly dating from the mid-13th–15th-centuries. Other objects are clearly modern, i.e. sweet/jelly moulds (sfs8 and 11) and a drawer handle (sf15). Sfs18 and 69 are strips or sheet with perforations, and sf172 is a ring – none of these are datable.

9.3 Lead alloy

Eleven finds of lead alloy were recovered; six of these were spillages from manufacturing processes (sfs65, 68, 138, 146, 150 and 184), and the remainder are sheet/plate fragments (sfs96, 136, 139, 170 and 173).

9.4 Silver

Sf118 (c.3101) is a silver cut half penny of pre 1180, possibly of Scottish origin (C.Barclay pers. com.)

9.5 Bone

Three bone objects were found; sf12 is socketed, but its identification is uncertain, and sfs43 and 112 are offcuts.

9.6 Glass

Thirteen bags of glass finds from two vessels were recovered (sfs6, 29, 30, 50, 53, 73, 91, 92, 107, 109, 111, 140, 178). One vessel was a blown glass bottle of 19th century date, probably for the transportation of wine, the second was a very large dome shaped vessel, possibly a cloche, again of 19th century date (M.Pettit, Social History Curator, The Castle Museum, York, pers. com.)

9.7 Fired clay

The fired clay objects comprise eight post-medieval tobacco pipes (sfs9, 110, 130, 133, 156, 175, 176 and 187), a fragment with glass dribble on it (sf16), and sf117 which appears to be a possible Victorian ornament.

9.8 Flint

Sfs123 and 131 are both flakes.

9.9 Stone

Two tiny fragments of lava quern (sfs185, c.3086, and 186, c.3129) were found; lava querns typically date from the 8th-12th-century, but Roman examples are also known. The identifications of sfs75 and 153 are uncertain, although sf153 may be a mould fragment; sf132 appears to be a fragment with glass dribble on it.

9.10 Slag

Slag was recovered from the following contexts: 1000, 1007, 1024, 1030, 1036, 1039, 1040, 1053, 3000, 3001, 3022, 3044, 3054, 3057, 3058, 3066, 3086, 3105, 3111, 3117, 3126, 3131. Most of these contexts were of post-medieval or modern date. The medieval examples were context 1039 in group 1 (clearly a recording error on site, as 1039 was natural), context 3086 in group 2, context 3126 in group 3, contexts 1040 and 1053 from group 4, contexts 3105, 3111, 3054, 3058 and 3057 in group 5, context 3022 in group 8 and context 3117 in group 11.

9.11 Summary

The assemblage appears largely of medieval to modern date, although there are a couple of pre-Norman objects amongst the metalwork. The horse equipment forms a largish group, deriving from the medieval and post-medieval periods, and perhaps indicating agricultural use of the site over a long period. Otherwise, the objects appear to be a mix of domestic type items, structural ironwork and some metalworking debris.

10. CERAMIC BUILDING MATERIALS

10.1 Introduction

Two boxes of ceramic building material were submitted for examination. The date of the material ranges from the Roman period to the 19th-century or later.

10.2 Roman material

Forms present include miscellaneous brick fragments and flue tile. It is difficult to identify Roman material due to the fragmentary nature of the pieces. However, the fragments identified are likely to be Roman due to the fabric and manufacturing marks. One definite piece of Roman material is a fragment of flue tile from context 1036. Its method of keying for plaster or mortar is combing. Combing is a feature associated with the 2nd-century or later.

10.3 Medieval Material

The sample is fragmentary, but it is possible to identify plain roof tile, peg tile and brick. Some of the plain roof tile might be later than the medieval period.

The plain roofing tile might be either peg tile or nib tile, or possibly a combination of both. Only peg tile is present in the sample. The peg tile fragment has a square peg hole, which was probably placed centrally at one end.

Brick is found elsewhere in the region from the 14th-century onward. However, there is no definite medieval brick in this sample. There might be fragments, but these cannot be identified with any certainty until larger example of medieval brick are found for comparison.

10.4 Post-medieval material

Post-medieval forms comprise brick, plain roofing and pan tile.

The brick is dated to the post-medieval period due to measurements, manufacturing features, and fabric quality. A typical manufacturing feature is slop moulding (where the mould is only wetted and not sanded). One of the bricks has indented borders (context 2014) which elsewhere in Yorkshire is a medieval feature. The measurements for the bricks from contexts 2014 and 2022 also fall within the common medieval range. However, the bricks are slop moulded. Perhaps these bricks are immediately post-medieval in date.

Pan tile is present, and came into use in England during the 17th-century. There is a glazed brick from context 1000 which might be part of a brick associated with services.

10.5 Other material

Daub is present in context 3129. It has wattle rod impressions. It was found in association with Roman brick so may be of that date.

Context 3103 has a piece of burnt sandstone with tooling marks on a smoothed surface.

Several fragments of sandstone were examined. These had flat surfaces and may be Elland flag. They might be part of stone roof tiles. One fragment (context 1000) has a nail hole so was definitely a roof tile.

Context 3000 has a shaped piece of limestone. It looks as though it might be some sort of bowl or basin.

10.6 Conclusion

The Roman brick and tile hints at a Roman building in the area. However, the pieces are quite fragmentary, so the building is probably not close by. The flue tile would have been part of a hypocaust so the building was substantial. The daub comes from a less substantial building, or perhaps an oven.

The medieval material consists of roofing tile. This would doubtless have been associated with a timber-framed building of some kind. The bricks point to brick building in the post-medieval period.

The sample should be retained for further study. At that point, the material should be fully recorded by a recognised ceramic building materials specialist. The information gathered will then be able to contribute to the study of building works in Ripon, and also to ceramic building materials in a wider context, such as regionally or nationally.

10.7 Context Listing

Cxt	Form	Len	Bre	Thi	Comments	Date range	Spot date
1000	Brick				x 2 frags, Post-medieval	16 th +	L19 th +
	Brick				Hard fabric, Glazed, Services brick	L19 th +	
	Brick			52	Slop moulded	16-18 th	
	Pan				x 4 frags	17 th +	
	Plain					13-16 th	
	Plain					19 th +	
	Plain				x 5 small frags	13-16 th	
	Stone				?Sandstone, Roof tile, nailhole 8mm across	?	
1007	Brick				x 6 frags, Post-medieval	16 th +	16-18 th

	Brick			47			Med?	
	Brick			51	Slop moulded		16-18 th	
	Brick			55	Slop moulded		16-18 th	
1011	Plain						13-16 th	13-16 th
1020	Plain						13-16 th	13-16 th
	Rbrick						1-4 th	
	Stone				Limestone		?	
1022	Plain						13-16 th	13-16 th
1028	Plain?				Modern		19 th +	19 th +
1036	Flue			22	Combed		2-4 th	2-4 th
2000	Peg				Square peghole, 11mm across reused		13-16 th	13-16 th
2010	Brick				Reused		Med+	Med+
2014	Brick	122		48	47/8, 17/8, Slop moulded, sanded base		16-18 th ?	16-18 th ?
	Brick	118		49	45/8, 17/8 Indented border, slop moulded		16-18 th ?	
	Brick	124		54	47/8, 21/4, Slop moulded, sanded base		16-18 th ?	
2022	Brick		116	47	45/8 17/8		16-18 th ?	17 th +
	Brick			51	2		16-18 th	
	Pan				x 4 frags		17 th +	
2027	Brick	247	119	54	Boot print (female?), fine sanded base, herring bone kiss marks?		16-18 th	16-18 th
	Brick	242	115	61	Slop moulded, overfired, straw marks on sanded base		16-18 th	
2037	Brick				Slop moulded		16-18 th	16-18 th
	Brick			50	Slop moulded		16-18 th	
	Brick			50*			16-18 th	
2039	Brick				Slop moulded		16-18 th ?	16-18 th ?
2044	Brick						Med+	Med+
	Rbrick				Hard fired, Sanded sides, Scrapped base		1-4 th	
	Rbrick?						1-4 th	
2046	Brick						Med+	Med+
	Stone			16	Fine grained sandstone. ?Elland Flag		?	
2100	Brick						Med+	
3000	Brick		117	50	Slop moulded		16-18 th	17-18 th ?
	Brick	222	109	51	Slop moulded, turning mark, fine sanding		17-18 th ?	
	Brick?			21	Flat surface		Med+	
	Rbrick?			24			1-4 th ?	
	Stone				Limestone, fragment shaped like basin		Med?	
3001	Brick				x 17 frags		Post Med	16-18 th ?
	Brick				Slop moulded		16-18 th ?	
	Mortar				x 5 small frags. Soft		Med+	
	Plain				x 2		13-16 th	
	Rbrick				Convincing fabric		Roman	
	Rbrick?				Sanded edges, convincing fabric		1-4 th	
3009	Brick				x 5 frags		Med+	14-16 th
	Plain						13-16 th	
3041	Brick						Med	
3044	Brick				Refined fabric		Post Med	Post Med
	Brick			48	17/8		16-18 th ?	
	Plain						Med+	
	Rbrick				Abraded		1-4 th	
	Rbrick?				x 2 small frags		1-4 th ?	
	Rbrick?			19			1-4 th ?	
3047	Brick				x 3 small frags		Med+	Med+
3075	Brick						Post Med	Post Med
	Plain			18			13-16 th	
3103	Stone				Sandstone, burnt heavily on upper surface, with tooling marks		Med?	Med?
3119	Stone			22	Fine grained sandstone		?	?
3129	Daub				Wattle rod impression 15mm across		Rom-Med	Roman?
	Rbrick				Convincing fabric		1-4 th	
	Stone				Limestone		?	

11. CONSERVATION ASSESSMENT REPORT

11.1 Objectives

This report aims to meet the requirements of MAP2, Phase 3, Assessment of Potential for Analysis, (English Heritage, 1991). The work carried out has involved an X-radiographic investigation of selected finds, assessment of their condition, stability and suitability of their packaging for safe long-term storage. This report includes an evaluation of the potential of each group of material for further investigative conservation. There are recommendations for long term stabilisation, packaging and analytical or specialist support required.

11.2 Procedures

All iron and copper alloy objects were X-rayed using standard Y.A.T. procedures and equipment. The X-ray plates have been given numbers to fit with the conservation filing system. The plates are stored in Conservation with duplicates stored within the Finds department.

The plates were laid out in small find number order as far as possible. The X-ray plate number was written on each bag. Each image on the X-ray was labelled with its small find number. The plates were packaged in an acid-free archival envelope and given a reference number in the Online Photo Archive. This was linked through to the CIFR record for each find.

All categories of material were examined under a binocular microscope at X20 magnification. The material identifications were checked and observations made about the condition and stability of the finds. Any technological information deduced from the X-rays and/or microscope examination was recorded on CIFR in the Work Record area, and printed below in section 5.

11.3 Quantification

A total of 185 finds were assessed and 9 duplicated X-ray plates produced. The number of objects in each material category is listed below:

Iron	106
Copper alloy	9
Silver	1
Lead	11
Slag	24
Stone	6 (two are flint)
Glass	14
Fired Clay	10
Bone	3
Other	1 (possible modern metal)

11.4 Condition

11.4.1 Iron

The finds specialist Nicky Rogers examined all the iron finds together with their radiographs and selected some for further investigation. Details are highlighted in bold within section 5. The ironwork was generally covered in soil/silt and bulky uneven mixed orange-brown iron corrosion. Iron corrosion blisters disrupt surfaces and a number of crusts are powdery and core structures are cracked. Although most of the finds appear stable and are not fragmentary, a few display signs of post excavation activity. The corrosion crust incorporated material from the surrounding burial deposits: charcoal and white mineral inclusions were ubiquitous. The corrosion also incorporated mineralised organic remains (MPO) such as on nail elements. These MPO's could be referred to a specialist for identification and study. Where visible, I have highlighted evidence of MPO's in bold in the tables in section 5. From the x-ray images there appears to be possible evidence of surface plating to three finds (Sf 38, 51 and 95) and these have been recommended for further investigation. As long as the RH is maintained below 15% the objects should remain stable for the long term.

11.4.2 Non-ferrous Metals

11.4.2.1 Copper alloy: the copper alloy was covered with thin layers of soil/silt overlying mixed green corrosion products. A number of the finds display pale powdery green corrosion, a possible sign of bronze disease. The burial environment appears to be aggressive to copper alloy material. Due to the potentially unstable nature of the material the finds should be stored dry. Only one find (Sf 46) selected by the finds researcher has been recommended for a chemical stabilisation treatment. The others should remain stable if stored below 35% RH.

11.4.2.2 Silver: the silver coin (Sf118) is in a good condition. However small localised spots of lilac/grey waxy silver halides are present and the structure is split and brittle. The coin and the x-ray were sent to Craig Barclay (numismatist, Yorkshire Museum) for identification /dating and to assess any further conservation required. His findings are included within the assessment below. He has specified that the coin requires cleaning to ascertain type and issue.

11.4.2.3 Lead Alloy: the material is in a good condition with no sign of active aggressive corrosion. There are numerous irregular shaped fragments of possible metalworking waste and therefore it is recommended that they be referred to an archaeometallurgist, as they may be raw material used in casting.

11.4.2.4 Possible modern metal: there is one disk object (Sf 13) that is unidentified. It appears stable and ready for long-term storage.

11.4.2.5 Packaging on arrival within the lab: some of the finds were not supported with jiffy foam inserts. It is therefore recommended that the packaging of some of the finds is improved. Jiffy foam inserts should be cut to fit the storage bags. All the finds were packed in perforated mini-grip bags within a desiccated plastic box.

11.4.3 Slag

The slag fragments have been catalogued as small finds, packed (unwashed) in grip-top bags and stored in an acid free cardboard box without silica gel. It is suggested that the material (or a percentage) is examined by an archaeometallurgist and a sample selected for x-radiography. One find (Sf 125) has been transferred into a desiccated storage box as metallic iron appears to be present. Some of the finds were not supported with jiffy foam inserts. It is therefore

recommended that the packaging of some of the finds is improved. Jiffy foam inserts should be cut to fit the storage bags.

11.4.4 Stone

All the stone was sent with adherent silt, and is stable, packed in mini-grip bags with jiffy foam inserts and ready for long-term storage. Structures are compact. There are two lava quern finds and two flint finds within the assemblage.

11.4.5 Other Materials

Bone, Fired Clay, Glass:

All the bone, fired clay and the majority of the glass material are dry, stable and well-packed, with silt still adhering. All the finds except the wet packed glass material (Sf 73, 107, 109 and 29) were examined by L Vere-Stevens under the microscope and assessed. (see section 5.7). A conservator has not closely examined the wet packed glass material, although a brief assessment of the condition was made and recommendations for further work were suggested. These finds should undergo a water replacement treatment before being treated with a consolidating polymer (Paraloid B72 in acetone). The consolidation treatment has been budgeted for and fitted into the conservation work programme to begin on the 26th March 2001. It is recommended that one dry glass find (Sf 16) is referred to a glass specialist and/or an archaeometallurgist to confirm if it originates from a metallurgical or non-metallurgical process.

Some of the fired clay finds were not supported with jiffy foam inserts. It is therefore recommended that the packaging of some of the finds is improved. Jiffy foam inserts should be cut to fit the storage bags. All the dry finds were packed in perforated mini-grip bags within an acid free cardboard box. The wet material was double bagged with a small amount of water and contained within a black plastic box.

11.5 Assessment

The finds were viewed to determine the potential for further research and investigative conservation in the light of the microscope examination and X-radiographic results. The results are listed in the tables below by material type:

11.5.1 IRON

SF00002	1000	;IRON;	Assessment: Possible hinge or strap fitting. Forming a loop at one end which extends into two flat strips. Rectangular cross-section. One piece, broken off at one end and bent and fractured at central point of one arm. Covered in mixed orange/brown corrosion and soil from the burial. Signs of active iron corrosion (bright orange). Store at less than 15%RH.
SF00003	1000	;IRON;	Assessment: Five structural nails. Covered in mixed orange/brown corrosion and soil from the burial. No signs of active iron corrosion. Four show mineralised structures, one displays a substantial metal core.
SF00004	1000	;IRON;	Assessment: seven complete nails, and one mineralisation product. Two nails show flat, but slightly domed heads, one of which shows a substantial metal core and a twisted shank. There is one 'L' shaped nail. Mineralised structures. Covered in a mixed orange/brown corrosion and soil from the burial. Signs of active iron corrosion (bright orange). Store at less than 15%RH.
SF00005	1000	;IRON;	Assessment: Possible horse shoe nail. One piece, substantial metal core at head although the shank is mineralised. Covered in mixed

SF00010	1000	;IRON;	orange/brown corrosion and soil from the burial. Assessment: Flattened strip, curved to form a 'C' shape, rectangular in cross-section, two perforations evident, one complete round hole within main body and remains of second perforation at one broken end. Severely mineralised in structure. Covered in mixed orange/brown corrosion and soil from the burial.
SF00014	1000	;IRON;	Assessment: Unidentified fragment. X-ray plate displays a cast structure. Covered in mixed orange/brown corrosion and soil from the burial. If in line with research requirements, further investigation may aid identification.
SF00019	1000	;IRON;	Assessment: Possible hinge or strap fitting. The x-ray image shows that there is a flat headed rivet within a rivet hole at one end. Rectangular in cross-section. Bent in structure. Covered in mixed uneven orange/brown corrosion and soil from the burial. Signs of active iron corrosion (bright orange). Store at less than 15%RH.
SF00020	1000	;IRON;	Assessment: Flat headed nail, rectangular in cross-section, the shank tip is curled over. Severely mineralised in structure. One piece. Covered in mixed orange/brown corrosion and soil from the burial.
SF00021	1000	;IRON;	Assessment: Fitting fragment, possible staple, curved strip. Rectangular in cross-section, slightly tapered towards the tips of the arms. Mineralised surface layers. Covered in mixed orange/brown corrosion and soil from the burial.
SF00022	1000	;IRON;	Assessment: 17 nail and nail shank finds. Flat heads and rectangular cross-sections are represented. They all appear to be complete. Mineralised structures. Covered in mixed orange/brown corrosion and soil from the burial that contains white inclusions. The corrosion crusts are cracked and uneven.
SF00023	1000	;IRON;	Assessment: Sheet fragment. Mineralised structure that is cracked. One piece, broken and uneven edges. Covered in mixed orange/brown corrosion and soil from the burial.
SF00024	1000	;IRON;	Assessment: Possible fitting fragment, Curved 'U' shaped bar which appears square in cross-section. Covered in mixed orange/brown corrosion and soil from the burial. The surface is disrupted by iron corrosion blisters.
SF00025	1000	;IRON;	Assessment: Bar fragment, appears to be square in cross-section and tapers slightly at one end. Covered in mixed orange/brown corrosion and soil from the burial.
SF00026	1000	;IRON;	Assessment: Fitting fragment, thin rod which is curved at one end to form a round terminal. Complete and in one piece. The outer surface layers show blistering. Possibly round in cross-section. Covered in dark brown corrosion and soil from the burial. Signs of localised active iron corrosion (bright orange). Store at less than 15%RH.
SF00027	1000	;IRON;	Assessment: spike or large nail. Substantial metal core although the surface layers are mineralised. Bent in structure, complete and in one piece. Flat head and square in cross-section. Covered in a thin mixed orange/brown corrosion and soil from the burial. Signs of active iron corrosion (bright orange). Store at less than 15%RH.
SF00028	1000	;IRON;	Assessment: Possible knife fragment in two pieces. Rectangular cross-section to the tang. The blade has broken to form two pieces which fit together. The tip of the blade is missing. Covered in a bulky, uneven mixed orange/brown corrosion and soil from the burial. There is evidence of MPO (wood) throughout the tang. Severely mineralised in structure. Recommend further investigation of cross-section and MPO remains together with reattachment of blade fragments.
SF00031	1024	;IRON;	Assessment: x1 nail fragment plus x1bar/plate fragment that appears to be rectangular in cross-section. Mineralised core, the surface layers are disrupted by iron corrosion blisters and are mineralised. The nail is bent in structure. Covered in a thin mixed orange/brown corrosion and soil from the burial.

SF00032	1022	;IRON;	Assessment: Wedge shaped bar fragment. Substantial metal core although the surface layers are mineralised. Appears to be complete and in one piece. Rectangular in cross-section and slightly tapered. Covered in a thin mixed orange/brown corrosion and soil from the burial with white coloured inclusion. NR recommended investigation of both ends.
SF00033	1022	;IRON;	Assessment: Possible horseshoe nail with domed head that is flattened. Substantial metal core although the shank tip is mineralised and bent. Appears to be complete and in one piece. Covered in a thin mixed orange/brown corrosion and soil from the burial with white coloured inclusion
SF00034	1022	;IRON;	Assessment: Unidentified fragment. Substantial metal core. Covered in a thin mixed orange/brown corrosion and soil from the burial with white coloured inclusion. Heavy in weight. If in line with research requirements further cleaning may help identification.
SF00035	1022	;IRON;	Assessment: nail shank fragment. Mineralised and cracked structure. Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00036	1022	;IRON;	Assessment: Possible head fragment from a nail. Mineralised structure. Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00038	1000	;IRON;	Assessment: Key. Three pronged bit and round bow. Mineralised in structure, the surface is disrupted by iron corrosion. The x-ray plate appears to show plating throughout areas of the shank, bit and bow. Appears to be complete and in one piece. Covered in an uneven mixed orange/brown corrosion and soil from the burial with white coloured inclusions. Recent active corrosion is evident. Store <15%RH. NR recommended investigative cleaning to confirm evidence of surface plating.
SF00039	1000	;IRON;	Assessment: Horseshoe fragment. One half and three complete nail holes are visible from the x-ray Mineralised structure, the surface is also disrupted by iron corrosion. Covered in a thin mixed orange/brown corrosion and soil from the burial with white coloured inclusions.
SF00040	1000	;IRON;	Assessment: Horseshoe branch fragment. Substantial metal core although the surface layers are mineralised and disrupted by iron corrosion blisters. Appears to have the remains of one nail hole and the calkin. Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00041	1000	;IRON;	Assessment: Unidentified fragment, possibly from a structural fitting such as a bolt head fragment. Substantial metal core although the surface layers are mineralised, disrupted by iron corrosion blisters and are cracked. Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00042	1000	;IRON;	Assessment: complete nail, rectangular cross-section, curled/bent shank which is severely mineralised at the tip. Horseshoe branch fragment. Covered in a thin, uneven mixed orange/brown corrosion and soil from the burial. Signs of recent active corrosion. store dry <15%RH.
SF00044	1020	;IRON;	Assessment: five nail fragments, two possible horseshoe nails, one shank frag and two complete flat headed nails. Mineralised cores, the surface layers are also disrupted by iron corrosion blisters. Covered in a thin mixed orange/brown corrosion and soil from the burial, which contains white inclusions.
SF00045	1020	;IRON;	Assessment: Possible nail shank. A thin mixed orange/brown corrosion and soil from the burial covers a compact dark oxidation layer. Substantial metal core at the tip. Rectangular cross-section.
SF00047	1007	;IRON;	Assessment: Nail, square cross-section. Mineralised structure, surface layers are severely disrupted by iron corrosion blisters. Covered in a thin, warty mixed orange/brown corrosion and soil from the burial.
SF00048	1005	;IRON;	Assessment: Nail shanks x2. Substantial metal core although the surface layers are mineralised and disrupted by iron corrosion blisters.

			Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00049	2100	;BONE;IRON;	Assessment: possible knife handle fragment. Two bone plates that were originally riveted to an iron tang. The handle has separated into two pieces and is broken at the blade end. The iron elements are severely mineralised, the bone elements are compact in structure, display cracks around the end rivet points and is stained orange/brown by iron corrosion products. The complete end sections display green coloured stains. If in line with research requirements I recommend a cross-section of the tang and the reattachment of the separate bone plate handle element.
SF00051	2010	;IRON;	Assessment: x1 fragment of wire/rod which is square in cross-section and splayed at one end plus x1 smaller section of wire/rod which on the x-ray displays a round perforation. Both fragments appear to be plated and may be associated. Substantial metal core although the surface layers are mineralised, disrupted by iron corrosion and have received loss. The structure of the largest fragment is bent. Covered in a thin mixed orange/brown corrosion and soil from the burial. I recommend that evidence of surface plating on both frags is investigated and if traces found XRF analysis of plating undertaken.
SF00052	2010	;IRON;	Assessment: x7 nails. Substantial metal core although the surface layers are mineralised and disrupted by iron corrosion blisters. Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00054	1026	;IRON;	Assessment: x2 nail fragments, complete. The large piece displays a substantial metal core although the surface layers are mineralised and disrupted by iron corrosion blisters. Covered in a thin mixed orange/brown corrosion and soil from the burial.
SF00055	1022	;IRON;	Assessment: Unidentified plate/strip fragment, appears to be cut at a slope on one edge. Mineralised and fractured structure, the surface layers are disrupted by iron corrosion blisters. Covered in a thin mixed orange/brown corrosion and soil from the burial, which contains stone inclusions.
SF00056	1022	;IRON;	Assessment: Possible nail shank fragment. Mineralised structure, bent and covered in soil and corrosion products.
SF00058	1022	;IRON;	Assessment: Nail with rectangular cross-section. Substantial metal core although the surface layers are mineralised and disrupted by iron corrosion blisters. Covered in a thin mixed orange/brown corrosion and soil from the burial. Localised spots of bright orange corrosion are indicate recent activity. store dry <15%RH
SF00059	1020	;IRON;	Assessment: Horseshoe branch fragment. From the x-ray three elongated nail holes are visible, one contains a nail. Mineralised structure, surface layers are disrupted by iron corrosion. Covered in a thin, uneven, mixed orange/brown corrosion and soil from the burial which contains white coloured inclusions.
SF00060	1020	;IRON;	Assessment: Unidentified fragment, surface is covered in orange/brown corrosion and soil. If in line with research requirements further investigation may help identification.
SF00061	1007	;IRON;	Assessment: Plate fragment, in one piece however fractured throughout all the edges. The outer surface layers show blistering. Covered in dark brown and orange corrosion and uneven deposits of soil from the burial which contain cream coloured inclusions.
SF00062	1007	;IRON;	Assessment: identified by N Rogers as a possible latch key. Complete and in one piece. The find displays a substantial metal core. The outer surface layers are slightly distorted due to corrosion. Covered in dark brown corrosion and soil from the burial. Localised areas of the corrosion crust are missing, and there are possible traces of MPO remains (Wood?) evident at the 'E' shaped section. Further investigation is recommended by NR to confirm identification and to investigate traces of MPO.

SF00063	1007	;IRON;	Assessment: x20 nail fragments. There is one possible horseshoe nail with n the assemblage the rest are structural. All display mineralised surface layers, and are generally rectangular in cross section. The outer surface layers show blistering. Covered in dark brown and orange corrosion and soil from the burial.
SF00064	1007	;IRON;	Assessment: From the x-ray image the find appears to be a large headless nail. Mineralised in structure, stringer inclusions are evident on the x-ray. The shank is curled and distorted. The surface is completely obscured by dark brown corrosion and soil from the burial, which contains stringer inclusions.
SF00066	1007	;IRON;	Assessment: Plate fragment, rectangular in form. Complete and in one piece. From the x-ray four round perforations individually placed at each corner are clearly visible. The find is possibly curled at one edge. Surface layers show blistering. Covered in dark brown and orange coloured corrosion and soil from the burial, which contains cream coloured inclusions.
SF00067	1007	;IRON;	Assessment: 'L' shaped nail. Complete and in one piece. Covered in dark brown corrosion and soil from the burial.
SF00070	1039	;IRON;	Assessment: Nails x 10. 5 display flat heads, 1 displays a domed head and four are without heads. The outer surface layers show blistering. Covered in dark brown corrosion and soil from the burial.
SF00071	1039	;IRON;	Assessment: Possible nail, wedge shaped in structure and rectangular in cross-section. Broken at tapered end. The outer surface layers show blistering. Covered in dark brown corrosion and soil from the burial. Signs of localised active iron corrosion (bright orange). Store at less than 15%RH.
SF00072	1039	;IRON;	Assessment: Unidentified possibly rectangular in cross-section, possibly a headless nail. Severely mineralised in structure. Covered in dark brown corrosion and soil from the burial.
SF00076	1052	;IRON;	Assessment: An assemblage of 13 nails. 10 of which appear to have flat heads the others are headless or shank fragments. Mineralised in structure, blistered surface layers. Covered in dark brown corrosion and soil from the burial.
SF00077	1052	;IRON;	Assessment: Unidentified fragment, from the x-ray it appears to be 'Y' shaped in form. Mineralised in structure. Complete and in one piece. Possibly rectangular in cross-section. Covered in dark brown and orange coloured corrosion and soil from the burial. If in line with research requirement further investigation may aid id.
SF00078	1052	;IRON;	Assessment: Flat headed nail. The tip of the shank is bent at a right angle. Mineralised structure. Complete and in one piece. The outer surface layers show blistering. Possibly rectangular in cross-section. Covered in dark brown and orange corrosion and soil from the burial which contains white coloured inclusions. Signs of localised active iron corrosion (bright orange). Store at less than 15%RH.
SF00079	1052	;IRON;	Assessment: 'L' shaped nail. Rectangular in cross-section. Complete and in one piece. The outer surface layers show blistering. Covered in dark brown corrosion and soil from the burial.
SF00080	1052	;IRON;	Assessment: Unidentified frag, appears to be triangular in cross-section. Covered in dark brown and orange coloured corrosion and soil from the burial. If in line with research requirements further investigation may confirm id.
SF00081	1052	;IRON;	Assessment: 'L' shaped nail, severely mineralised in structure. The outer surface layers show blistering. Possibly round in cross-section. Covered in dark brown corrosion and soil from the burial.
SF00082	1052	;IRON;	Assessment: Nail. Rectangular in cross-section. The outer surface layers show blistering and flaking. Covered in dark brown and orange coloured corrosion and soil from the burial.
SF00083	1052	;IRON;	Assessment: Nail, rectangular in cross-section, possible traces of MPO remains (wood) positioned in a vertical orientation to the shank.

SF00084	1052	;IRON;	Possibly rectangular in cross-section. Covered in dark brown corrosion and soil from the burial. Assessment: Nail, rectangular in cross-section and curled at the tip of the shank. Complete and in one piece. Covered in dark brown and orange coloured corrosion and soil from the burial.
SF00086	1024	;IRON;	Assessment: x12 nail elements, one possible horseshoe nail the rest are flat headed or nail shank elements. Mineralised structures. The outer surface layers show blistering. Covered in dark brown corrosion and soil from the burial.
SF00087	1024	;IRON;	Assessment: Nail fragment. Rectangular in cross-section. Covered in dark brown corrosion and soil from the burial.
SF00088	1047	;IRON;	Assessment: Nail with flat head and rectangular cross-section to the shank. Complete and in one piece. The outer surface layers show blistering. Covered in dark brown and orange coloured corrosion and soil from the burial.
SF00089	2042	;IRON;	Assessment: Flat headed nail, shank is tapered and rectangular in cross-section. Complete and in one piece. Covered in dark brown corrosion and soil from the burial.
SF00090	2034	;IRON;	Assessment: Three nails. From the x-ray one displays a triangular shaped head the others are flat headed. Complete and in one piece. The outer surface layers show blistering. Possibly round in cross-section. Covered in dark brown corrosion and soil from the burial.
SF00093	1036	;IRON;	Assessment: 5 nails, shanks are tapered. Rectangular and square cross-sections are represented. Generally complete and in one piece. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial. Soil contains white calcareous inclusions.
SF00094	1036	;IRON;	Assessment: nail, shank is tapered and rectangular in cross-section. Complete and in one piece. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial. Soil contains white calcareous inclusions.
SF00095	1000	;IRON;	Assessment: Key, possibly hollow stemmed which is round in cross-section. Bow is kidney shaped. Mineralised structure. Complete and in one piece. Covered in a range of corrosion products that are coloured dark brown to orange. The surface is obscured by soil from the burial which contains white calcareous inclusions and root debris. Investigate for evidence of surface plating.
SF00097	1000	;IRON;	Assessment: spike, shank is tapered and possibly round in cross-section. Complete and in one piece. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial. Soil contains white calcareous inclusions. If in line with research requirements investigate both ends.
SF00098	1000	;IRON;	Assessment: Possible horseshoe nail, shank is tapered and rectangular in cross-section. Complete and in one piece. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial.
SF00099	1000	;IRON;	Assessment: Possible horseshoe nail, shank is tapered and rectangular in cross-section. Complete and in one piece. Surfaces obscured by a thin layer of dark brown corrosion and soil from the burial.
SF00100	1000	;IRON;	Assessment: Horseshoe nail, shank is tapered and rectangular in cross-section. Complete and in one piece. Surfaces obscured by a thin layer of dark brown corrosion and soil from the burial.
SF00101	1000	;IRON;	Assessment: Possible horseshoe nail, shank is tapered, bent and rectangular in cross-section. Complete and in one piece. Surfaces obscured by a thin layer of dark brown corrosion and soil from the burial.
SF00102	1000	;IRON;	Assessment: Horseshoe fragment, straight sides and remains of one rectangular shaped nail hole is evident. Covered in a range of corrosion products that are coloured dark brown to orange. The surface is

SF00103	1000	;IRON;	obscured by soil from the burial which contains white calcareous inclusions. Severely mineralised in structure. Assessment: Three sheet fragments, the two small elements fit together. Mineralised structure. Covered in a range of corrosion products that are coloured dark brown to orange. The surface is obscured by soil from the burial, which contains white calcareous inclusions.
SF00105	3001	;IRON;	Assessment: 12 flat headed nails, rectangular and square shanks are represented. Generally complete and in one piece. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial. The corrosion crust of at least one nail contains MPO (wood) remains throughout the shank.
SF00106	3000	;IRON;	Assessment: Rod? possibly round in section, slightly tapered Surfaces obscured by granular dark brown/orange corrosion and soil from the burial. Soil contains charcoal inclusions.
SF00115	3001	;IRON;	Assessment: Pair of snaffle bits. Severely mineralised in structure. Both complete and in one piece although the structures are bent and broken in parts. Covered in a range of cracked corrosion products that are coloured dark brown to orange. Original surface severely disrupted. The surface is obscured by soil from the burial which contains white calcareous inclusions and root debris.
SF00116	3001	;IRON;	Assessment: 15 Flat headed nails plus one mineralisation product, shanks are tapered and both rectangular and square sections are represented. generally complete and in one piece. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial.
SF00119	3001	;IRON;	Assessment: x1 possible nail and x1 possible spike. Complete and in one piece. Both are square in section. Surfaces obscured by corrosion blisters and a thin layer of dark brown/orange corrosion and soil from the burial.
SF00120	3001	;IRON;	Assessment: Unidentified object fragment. Tapered rectangular sectioned plate fragment that is bent at an angle at both ends. Mineralised structure. Appears to be complete and in one piece. Covered in a range of fragmentary corrosion products that are coloured dark brown to orange. The surface is also obscured by soil from the burial which contains orange coloured MPO remains (possibly burial debris). If in line with research requirements investigate to aid identification.
SF00121	3001	;IRON;	Assessment: Unidentified object fragment, wedge shaped in form. Severely mineralised structure. Complete and in one piece. Covered in a range of corrosion products that are coloured dark brown to orange. The surface is obscured by soil from the burial.
SF00122	3001	;IRON;	Assessment: Thin rod fragments x2 that fit together. Round in cross-section. Surfaces obscured by thin layer of dark brown/orange corrosion and soil from the burial. Soil contains white calcareous inclusions.
SF00126	3114	;IRON;	Assessment: possible rod/bar fragment. , tapered and bent in structure, the widest end is rectangular in section, the tip is square. Both ends broken. Surfaces obscured by corrosion blisters and a thin layer of dark brown corrosion with localised bright red corrosion and soil from the burial.
SF00127	3078	;IRON;	Assessment: Unidentified object fragment, possibly a structural fitting. Tapered rectangular sectioned plate fragment that is either bent at one end or forms a head like a nail. Severely mineralised structure. Appears to be in one piece however the head shows loss. Covered in a range of fragmentary corrosion products that are coloured dark brown to orange.
SF00137	3000	;IRON;	Assessment: Nails x3, two with flat heads, all show rectangular cross-sections and tapered shanks. Mineralised structures. Appear to be complete and in one piece. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial.

SF00143	3117	;IRON;	Assessment: Nail with flat head, rectangular cross-section to tapered shank. Mineralised structure. Appears to be complete and in one piece. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial.
SF00144	1024	;IRON;	Assessment: Possible nail head. Cracked and mineralised structure. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial.
SF00145	3103	;IRON;	Assessment: Unidentified fragment, the x-ray image displays a mineralised, slag like structure. Covered in bulky corrosion products that are coloured dark brown and orange. Slag like inclusions are evident within the corrosion crust. The surface is also obscured by soil from the burial.
SF00147	1007	;IRON;	Assessment: Unidentified object fragment. Mineralised surface layers but substantial core. Covered in bulky corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial which contains small stones.
SF00148	1007	;IRON;	Assessment: Nails, with flat head, rectangular cross-section and tapered shank with broken tip. Mineralised structures. A mineralisation product is attached to the shank. Appears to be complete and in one piece. Covered in thin fragmentary corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial.
SF00149	3105	;IRON;	Assessment: flattened rod/strip. Surface covered in a bulky crust of mixed iron corrosion: orange/brown in colour. Soil throughout surface layers.
SF00158	1000	;IRON;	Assessment: Nails x3, two with flat heads, square and rectangular cross-sections and tapered shanks. Mineralised structures. Appear to be complete and in one piece. Covered in bulky corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial. The finds require repackaging with a jiffy foam support.
SF00159	1000	;IRON;	Assessment: Nails x3, two with flat heads, all show rectangular cross-sections and tapered shanks. Smallest nail is bent at shank. Mineralised structures. Appear to be complete and in one piece. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial which contains white inclusions.
SF00160	1000	;IRON;	Assessment: Nails x2, plus one possible mineralisation product that could possibly be a nail head. Mineralised structures. Covered in bulky corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial. Require repackaging with a jiffy foam support.
SF00161	1000	;IRON;	Assessment: Nails x3, with flat heads, all show rectangular cross-sections and tapered shanks. Mineralised structures. Appear to be complete and in one piece. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial. Requires repackaging with a jiffy foam support.
SF00162	1000	;IRON;	Assessment: Nails x3, all show rectangular cross-sections and tapered shanks. Mineralised structures. Appear to be complete and in one piece. Covered in bulky fragmentary corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial. Requires repackaging with jiffy foam support.
SF00163	1000	;IRON;	Assessment: Square buckle. Mineralised structures. Surface disrupted by corrosion blisters. Appears to be complete and in one piece. Covered in uneven, fragmentary corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial which contains white calcareous inclusions and root debris. If in line with research requirements investigate section. Also requires repackaging with jiffy foam support.
SF00164	1000	;IRON;	Assessment: Nails x3 with flat heads, rectangular and square cross-

SF00165	1000	;IRON;	sections represented. Mineralised structures. Appears to be complete and in one piece. Covered in bulky corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial. Requires repackaging with jiffy foam support.
SF00166	1000	;IRON;	Assessment: Nails x3, one with flat head, all show rectangular cross-sections and tapered shanks. Mineralised structures. Appear to be complete and in one piece. Covered bulky corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial. Requires repackaging with jiffy foam.
SF00167	1000	;IRON;	Assessment: Possible nail. Mineralised structure. Appears to be complete and in one piece. Covered in bulky corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial which contains white inclusions.
SF00168	1000	;IRON;	Assessment: Nails x3, one is a possible horseshoe nail, two show rectangular cross-sections and tapered shanks the other is square sectioned and broken at the tip. Mineralised structures. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial. There are MPO (wood) remains throughout one shank. Requires jiffy foam support within bag.
SF00169	1000	;IRON;	Assessment: Large nail fragments x2, with flat heads, one is square in section the other is rectangular. Mineralised structures. Incomplete. Covered in thin fragmentary corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial. Requires jiffy foam support.
SF00171	1000	;IRON;	Assessment: Roughly rectangular shaped plate frag which is perforated at one edge. Mineralised structure. Covered in thin fragmentary corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial, which contains white products. Requires repackaging with jiffy foam support.
SF00180	3126	;IRON;	Assessment: Nails square cross-section. Mineralised structure, bent shank. Covered in a thin corrosion product that is coloured dark brown. The surface is also obscured by soil from the burial.
SF00181	3126	;IRON;	Assessment: Identified by the finds researcher as a buckle plate fragment. Mineralised in structure. Covered in uneven, bulky corrosion products that are coloured dark brown and orange. The surface is also obscured by soil from the burial. There are MPO remains (wood) within the corrosion products. If in line with research requirements investigate section. Requires jiffy foam support within bag.
SF00183	3126	;IRON;	Assessment: Possible horseshoe nail. Mineralised surface layers. Covered in bulky corrosion products that are coloured dark brown. The surface is also obscured by soil from the burial. Requires jiffy foam support within bag.
			Assessment: Unidentified fragment, appears to be a flattened bar which is curled over at one end. Mineralised in structure. Appears to be complete and in one piece. Covered in a bulky corrosion products that is coloured dark brown. The surface is also obscured by soil from the burial. Requires repackaging with a jiffy foam support.

11.5.2 COPPER ALLOY

SF00001	1000	;COPPER ALLOY;	Assessment: strap end, one piece, covered in silt/soil deposits above a mixed green and brown copper corrosion layer. No sign of active corrosion. If in line with research requirements clean to reveal constructional details.
SF00008	1000	;COPPER ALLOY;	Assessment: identified as a sweet mould by the finds researcher. Bent, deformed and fractured. One piece, covered in silt/soil deposits above a mixed brown/green copper corrosion layer. The interior surface

SF00011	1000	;COPPER ALLOY;	displays localised compact bright green/blue copper corrosion products. Store dry <35%RH. Assessment: identified as sweet mould fragments x2 by the finds researcher. Both pieces fit together. Covered in silt/soil deposits above a mixed green/brown corrosion layer. Localised bright green/blue compact corrosion evident throughout interior surfaces. Store dry <35%RH.
SF00015	1000	;COPPER ALLOY;	Assessment: one piece, identified as a modern draw handle by the finds researcher. Surface displays a shiny dark green/brown oxidised layer. No sign of active corrosion.
SF00018	1000	;COPPER ALLOY;	Assessment: perforated folded sheet, wide end broken off, edges bent over. The surface is covered in silt/soil deposits above a varied copper corrosion layer ranging in colour from light and dark green to black. No sign of active corrosion. Plant remains included within corrosion crust.
SF00046	1020	;COPPER ALLOY;	Assessment: dress pin with decorated diamond shaped faceted head. One piece, shank tip is broken and lost. Covered in silt/soil deposits above a mixed green copper corrosion layer. Signs of active corrosion. Small area of shank shows a pale green powdery corrosion product above a red cuprite deposit. Recommend surface cleaning and chemical stabilisation. Store dry (<35%RH).
SF00069	1039	;COPPER ALLOY;	Assessment: sheet fragment, folded, bent and deformed. X-ray image shows five possible punch marks (one is perforated). One piece, covered in silt/soil deposits above a mixed green copper corrosion layer. Small localised deposits of pale powdery copper corrosion. Signs of activity. Store dry (<35%RH).
SF00172	1000	;COPPER ALLOY;	Assessment: ring, rectangular in section, surface covered in mixed green copper corrosion products: dark green in colour with a number of disrupted areas that appear pale green. Possibly unstable. Store dry (<35%RH). Requires repackaging with a jiffy foam insert.
SF00177	3044	;COPPER ALLOY;	Assessment: Originally identified as iron. This find appears to be a copper alloy possible binding strip which has re-deposited silvery metal throughout the surface. Localised green coloured corrosion products are also evident. The surface is also obscured by soil from the burial.

11.5.3 SILVER

SF00118	3101	;SILVER;	Cut halfpenny coin, one piece, 0.67g, thinly covered in adherent soil deposits over a dark grey/black oxidised surface. Worn crowning areas reveal a shiny silver surface, small localised deposits of green copper corrosion are evident throughout the surface together with lilac/grey deposits (possible silver chloride). X-ray shows a fracture extending from the outer edge into the main body. Proposed work: due to uncertain type and issue CB recommends that the portrait surface be cleaned to reveal form. CB identified as pre c1180.
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11.5.4 LEAD

SF00065	1007	;LEAD ALLOY;	One piece, not x-rayed, possible spillage lump. Covered in thin soil deposits over mixed corrosion products which are coloured brown, grey, red and cream. Refer to archaeometallurgist.
SF00068	1039	;LEAD ALLOY;	Three fragments, one possible spillage lump, one flattened sheet and one semi-oval piece which displays three convex lines on one side. Covered in thin soil deposits over mixed corrosion products which are coloured brown and grey. Refer to archaeometallurgist.

SF00096	1000	;LEAD ALLOY;	Bent and foled strip fragments x2. Soil deposits over brown/grey corrosion. Localised white (carbonate) spots evident.
SF00136	3000	;LEAD ALLOY;	Sheet fragments x2. The largest frag shows a brittle and fractured structure. Soil over a brown/grey thin corrosion layer.
SF00138	3000	;LEAD ALLOY;	One piece, not x-rayed, possible spillage lump. Covered in thin soil deposits over mixed corrosion products which are coloured brown and grey. Refer to archaeometallurgist.
SF00139	3001	;LEAD ALLOY;	Folded bar/sheet fragment. Surface covered in soil over mixed corrosion layer composed of brown, grey and cream coloured products. Bent in structure.
SF00146	3081	;LEAD ALLOY;	One piece, not x-rayed, bent, bubbled bar or spillage fragment. Soil over mixed corrosion layer: coloured grey, brown and cream. Refer to archaeometallurgist.
SF00150	3105	;LEAD ALLOY;	One piece, not x-rayed, possible spillage lump. Covered in thin soil deposits over mixed corrosion products which are coloured brown, grey, red and cream. Refer to archaeometallurgist.
SF00170	1000	;LEAD ALLOY;	Folded sheet, one piece, soil over compact dark grey oxidised layer. Repackage with a jiffy foam insert.
SF00173	3101	;LEAD ALLOY;	Folded sheet fragment. Tool marks throughout surface. Covered in soil over grey/brown corrosion products. Repackage with jiffy foam support.
SF00184	3126	;LEAD ALLOY;	14 pieces, not x-rayed, possible spillage lumps. Covered in thin soil deposits over mixed corrosion products which are coloured brown, grey and cream. Refer to archaeometallurgist. Repackage with a jiffy foam insert.

11.5.5 SLAG

SF00007	1000	;SLAG;	2 fragments of slag, contains amorphous glassy areas. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00037	1036	;SLAG;	1 large, heavy fragment of slag, contains white, orange and grey minerals. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00057	1022	;SLAG;	Assessment: from the x-ray the small round find is a possible slag fragment. Refer to archaeometallurgist.
SF00074	3001	;SLAG;	4 fragments of slag (one is packed separately) contain amorphous glassy areas. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00085	1024	;IRON;SLAG;	x2 frags identified as iron slag by the finds specialist, no magnetic response. Both lumps covered with soil and orange coloured minerals. Recommend X-radiography to confirm slag identification, if slag refer to archaeometallurgist.
SF00104	1030	;SLAG;	1 fragment of slag, contains amorphous glassy areas. Covered in soil. No magnetic response. Refer to archaeometallurgist.
SF00108	3001	;SLAG;	2 fragments of slag, contains amorphous glassy areas. Covered in soil. No magnetic response. Refer to archaeometallurgist.
SF00113	3057	;SLAG;	fragment of slag, contains amorphous glassy areas. Composed of grey, black, orange, red and green coloured minerals. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00114	1040	;SLAG;	1 fragment of slag, contains amorphous glassy areas. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00124	3058	;SLAG;	3 fragments of slag. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00125	3066	;SLAG;	One large fragment, identified as slag by the finds researcher. Magnetic

SF00128	3022	;SLAG;	response. Very heavy in weight, covered in soil and orange, brown and red coloured corrosion products. Repacked within desiccated storage with iron material. Recommend x-radiography to confirm if slag or an object. If slag refer to archaeometallurgist.
SF00129	3000	;SLAG;	frag of slag, amorphous glassy areas. Covered in soil deposits. No magnetic response. Refer to archaeometallurgist.
SF00134	3086	;SLAG;	fragment of slag, contains amorphous glassy areas. Covered in soil with plant debris inclusions. No magnetic response. Refer to archaeometallurgist.
SF00135	3044	;SLAG;	fragment of slag, contains amorphous glassy areas. Covered in soil. No magnetic response. Refer to archaeometallurgist.
SF00141	3054	;SLAG;	fragment of slag, heavy in weight. Contains grey and black coloured minerals. Covered in soil. No magnetic response. Refer to archaeometallurgist.
SF00142	3058	;SLAG;	4 fragments of slag, contains amorphous glassy areas. Covered in soil deposits. No magnetic response. Refer to archaeometallurgist.
SF00151	3117	;SLAG;	6 fragments of slag. Covered in soil deposits No magnetic response. Refer to archaeometallurgist.
SF00152	3058	;SLAG;	Fragment of slag, contains amorphous glassy areas. Covered in soil. No magnetic response. Refer to archaeometallurgist.
SF00154	1053	;SLAG;	Fragment of slag, contains amorphous glassy areas. Covered in soil deposits. No magnetic response. Refer to archaeometallurgist.
SF00157	1000	;SLAG;	Fragment of slag, contains red/orange mineralisation products in areas. Covered in soil. No magnetic response. Refer to archaeometallurgist.
SF00174	3111	;SLAG;	Identified as slag by the finds researcher. Very light in weight, a shiny black substrate is evident beneath soil deposits. Refer to archaeometallurgist to confirm id. Repack with a jiffy foam support.
SF00179	3129	;SLAG;	Large fragment of slag, contains red and brown mineralisation products beneath soil from the burial. No magnetic response. Refer to archaeometallurgist.
SF00182	3131	;SLAG;	5 fragments of slag. No magnetic response. Refer to archaeometallurgist.
			2 fragments of slag. No magnetic response. Refer to archaeometallurgist.

11.5.6 STONE

SF00075	3000	;STONE;	Identified as a scraper by the finds researcher. Broken at one edge the other edge is slightly curved and faceted. Compact structure, dark grey in colour, fine fractures extend from the edge into the main body. It is recommended that a stone specialist id the material.
SF00132	3000	;STONE;	Pink sandstone fragment, rectangular shape. Compact structure and surface. One face shows a worn curved edge neighbouring a flat shiny area which rather vitreous in structure. It is recommended that a stone specialist id the material.
SF00185	3086	;STONE;	Three lava quern fragments. Two appear to have one smooth face, all the edges are broken. Compact dark grey colour, orange coloured minerals within bubbled interstices. Stable. Refer to stone specialist.
SF00186	3129	;STONE;	Possible lava quern fragment. One smooth, compact face, all the edges are broken. Compact dark grey/brown colour, light brown within bubbled interstices. Stable. Refer to stone specialist.

SF00123	3024	;FLINT;	Flint, sharp edges throughout, chips also evident to the edge. Pale cream colour with localised mottled brown staining. Brown soil
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SF00131	3000	;FLINT;	throughout surface. Stable. Flint fragment with small area of original crust on one edge. All the edges are sharp and faceted. Light brown colour with internal dark brown/black mottling. Stable.
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11.5.7 GLASS

SF00006	1000	;GLASS;	Vessel glass frags x24. Arrived within the lab dry and covered in soil. Clear central cores of varying colours: green, blue and brown, iridescent, flaking, hydrogen glass surface layers. Fragile
SF00016	1000	;GLASS;	Originally identified as a fragment of pot/glass crucible. Appears to be a lump of vitreous material mixed with pink/red coloured silt deposit. Silt deposit is crumbly. Refer to glass specialist or archaeometallurgist.
SF00029	1030	;GLASS;	3 window glass fragments. Opaque, discoloured central cores (brown? in colour), fragile iridescent hydrated silica surface layers that are likely to flake if air dried. It is recommended that the material is washed with reverse osmosis water, put through a solvent water replacement treatment and consolidated before air-drying and repackaging.
SF00030	1030	;GLASS;	x3 Vessel glass frags. Arrived within the lab dry and covered in soil. Clear central cores, iridescent, flaking, hydrogen glass surface layers.
SF00050	2100	;GLASS;	Bottle frag, part of the neck, arrived within the lab dry and covered in soil. Clear central cores and surface. Light green colour. Stable.
SF00053	2010	;GLASS;	x9 Vessel and window glass frags. Arrived within the lab dry and covered in soil. Colours range from green, brown and clear. Clear central cores, iridescent, flaking, hydrogen glass surface layers.
SF00073	3001	;GLASS;	13 bags of vessel glass fragments that appear to be associated. Two base elements are present, therefore possible that more than one vessel represented. Received wet and covered in soil. Clear central cores (green in colour), fragile iridescent hydrated silica surface layers that are likely to flake if air dried. It is recommended that the material is washed with reverse osmosis water, water replacement with a solvent and consolidated before air-drying and repackaging.
SF00091	2034	;GLASS;	Vessel glass frags. Arrived within the lab dry and covered in soil. Clear green coloured central core, iridescent, hydrogen glass surface layers. Stable.
SF00092	2034	;GLASS;	Window glass frag. Arrived within the lab dry and covered in soil. Clear central cores, iridescent, flaking, hydrogen glass surface layers. Fragile.
SF00107	3000	;GLASS;	3 vessel glass fragments. Received wet and covered in soil. Clear central cores (green, brown and clear in colour), fragile iridescent hydrated silica surface layers that are likely to flake if air dried. It is recommended that the material is washed with reverse osmosis water, put through a water replacement treatment and consolidated before air-drying and repackaging.
SF00109	3001	;GLASS;	11 window glass fragments. Received wet and covered in soil. Clear central cores (green/yellow in colour), fragile iridescent hydrated silica surface layers that are likely to flake if air dried. It is recommended that the material is washed with reverse osmosis water, put through a solvent water replacement treatment and consolidated before air-drying and repackaging.
SF00111	2049	;GLASS;	x1 Vessel glass frag x1 window glass frag. Arrived within the lab dry and covered in soil. Clear central cores, iridescent, flaking, hydrogen glass surface layers. Window glass frag is fragile.
SF00140	2000	;GLASS;	Vessel glass frag. Arrived within the lab dry and covered in soil.

SF00178	1000	;GLASS;	Fractured central cores, semi transparent dark green colour, iridescent, flaking, hydrogen glass surface layers. Possible Vessel glass frag, of late date. Arrived within the lab dry and covered in soil. Clear central core. Stable.
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11.5.8 FIRED CLAY

ASSESSMENT			
SF00009	1000	;FIRED CLAY;	three tobacco stems, one with moulding, brown/orange surface staining and soil from burial. Stable
SF00110	2049	;FIRED CLAY;	Four tobacco pipe stems, surfaces are stained, soil within interstices. Stable.
SF00117	3000	;FIRED CLAY;	Ornament, crucifix scene, broken at upper torso of Christ. Two kneeling figures at each side. White coloured glaze and ceramic body, underside shows soil within interstices. Stable.
SF00130	3000	;FIRED CLAY;	Two tobacco stems, brown/orange surface staining, smaller frag is coloured orange. Soil from burial within interstices. Stable
SF00133	3001	;FIRED CLAY;	three tobacco stems, brown surface staining and soil from burial. Stable
SF00153	3058	;FIRED CLAY;	Identified as a crucible fragment by the finds researcher. Clay substrate coloured orange, red and brown with grey/black vitreous slag like material to one surface. Refer to archaeometallurgist.
SF00156	2030	;FIRED CLAY;	one tobacco stem, brown surface staining and soil from burial. Stable. Requires jiffy foam support within bag.
SF00175	2034	;FIRED CLAY;	one tobacco stems, brown surface staining and soil from burial. Stable. Requires jiffy foam support within bag.
SF00176	3000	;FIRED CLAY;	one tobacco stem with impressed decoration, brown surface staining to broken edges, soil from burial. Stable. Requires jiffy foam support within bag.
SF00187	1000	;FIRED CLAY;	Two tobacco stems brown surface staining and soil from burial. Stable. Requires jiffy foam support within bag.

11.5.9 BONE

SF00012	1000	;BONE;	Worked bone fragment, incomplete, one end is worked the other is split and broken. One face is smooth, compact tissue structure. Stable.
SF00043	1040	;BONE;	Worked bone frag, one end broken the other shows a tooled surface (possible saw marks), Compact tissue structure, clean, fine split evident extending from tooled edge, stable.
SF00112	2010	;BONE;	Worked bone fragment. One end broken the other shows saw marks. Surface layers are stained brown, soil is evident within interstices. Received dry. Stable.

11.5.10 OTHER

SF00013	1000	Modern Metal?	Assessment: Disk, possibly modern metal, very light in weight surface displays a varied silver brown oxidised layer. The x-ray shows bubbled structure.
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11.6. Statement of Potential

11.6.1. After any necessary stabilisation has been carried out, the finds will be stable for the long term. Investigative conservation can proceed as required to meet the research objectives in the analysis phase.

11.6.2. The slag should be referred to a specialist to assess the nature and distribution of these raw materials and by-products in order to determine which, if any, industrial processes occurred on-site or nearby. After it has been catalogued a number may require repackaging within a desiccated storage box.

11.6.3 There is a large selection of nails of different forms indicating domestic activity.

11.6.4 Amorphous lumps of lead may indicate metalworking activity on the site.

11.7 Recommendations

Recommendations for further work are highlighted in bold in the tables. These are summarised below:

11.7.1 Further investigative conservation

I have recommended further investigative cleaning of 13 iron and 2 copper alloy finds. One copper alloy find requires stabilisation. The investigative work on the metals would involve selective, partial removal of corrosion crusts for the purposes of research. Total removal of the corrosion crusts should be undertaken if illustration/photography is required for publication. Selected finds may merit photographic or video recording. A percentage of the slag needs to be x-rayed, and the whole collection catalogued. The wet packed glass requires remedial conservation treatment if it is to survive long term storage.

11.7.2 Analysis and specialist support

In line with the research requirements, suggestions for further analysis and specialist support have been made. This will have to be arranged after conservation has been completed.

11.7.2.1 MPO's (mineral preserved organic materials): If found they should be viewed by a specialist for identification.

11.7.2.2 XRF (X-ray fluorescence analysis): Where evidence of plating on the x-ray plates and after cleaning is confirmed, it should be analysed by XRF.

11.7.2.3 The stone material should be seen by a specialist

11.7.2.4 The bone material should be seen by a specialist

11.7.2.5 The slag material should be seen by a specialist

11.7.3 Storage

11.7.3.1 Packaging: The finds (apart from the wet packed glass) have been packaged appropriately for long-term storage. All materials used are archive stable and acid-free. Plastic bags have been pierced to allow airflow within microclimates, reducing the risk of condensation and mould growth. 'Jiffy', (polythene) foam inserts have been added to some of the bags (except for those mentioned above) to provide additional support and protect against mechanical damage during transit. Any replacement of packaging materials should be carried out in consultation with a conservator.

11.7.3.2 Storage environment: Metals are packaged in a polythene 'Stewart' box with silica gel to provide a dry microclimate of less than 15% Relative Humidity which will halt any further corrosion, (Knight, 1990). The box of metalwork contained 2x100g silica gel bags. We added an extra bag of gel and an indicator strip. It is necessary to monitor the indicator strips; **if any part of the strip turns pink the gel will need to be regenerated.**

12. ENVIRONMENTAL ASSESSMENT REPORT

12.1 Summary

A series of sediment samples, four boxes of hand-collected bone and a very small quantity of hand-collected shell, from a number of ditch, pit, and post-hole fills, of medieval and post-medieval date, revealed by excavations at New School, Priest Lane, Ripon, North Yorkshire, were submitted for an evaluation of their bioarchaeological potential.

The few biological remains, other than bone, recovered from the samples were of no interpretative value beyond that given in the text.

The few hand-collected shell remains were of no interpretative value other than that the presence of shellfish indicates importation of these foodstuffs to the site.

Preservation of the vertebrate remains was generally quite good, although some of the post-medieval material was less well preserved. A range of species was identified, with the main domesticates (cattle, caprovids and pigs) forming the bulk of the assemblage. Skeletal element representation for these species suggested that a mixture of butchery and household refuse was present. The post-medieval rubbish pits contained a larger component of domestic refuse, which included the remains of goose, duck, chicken and hare.

No further investigation of the biological remains (other than bone) from the sediment samples, or of the hand-collected shell assemblage, is warranted. However, any remaining sediment should be sieved for the recovery of small bones and this material considered in conjunction with any additional study of the hand-collected vertebrate assemblage—but this would only be of value if a more secure dating framework for the deposits could be achieved.

12.2 Introduction

An archaeological evaluation excavation was carried out by York Archaeological Trust at the site of New School, Priest Lane, Ripon, North Yorkshire.

A series of sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992), four boxes (each of approximately 20 litres) of hand-collected bone and a very small quantity of hand-collected shell, were recovered from the deposits. The deposits were mostly of medieval or post-medieval date.

All of the material was submitted to the EAU for an evaluation of its bioarchaeological potential.

12.3 Methods

12.3.1 Sediment samples

The sediment samples were inspected in the laboratory. Five of the samples were selected for evaluation and their lithologies were recorded, using a standard *pro forma*, prior to processing, following the procedures of Kenward *et al.* (1980; 1986), for recovery of plant and invertebrate macrofossils. The washovers and residues were examined for plant remains. The washovers were also examined for invertebrate remains, and the residues were examined for other biological and artefactual remains.

Table 1 shows a list of the processed samples and notes on their treatment.

12.3.2 Hand-collected shell

Brief notes were made on the preservational condition of the shell and the remains identified to species where possible.

12.3.3 Hand-collected vertebrate remains

For the hand-collected vertebrate remains that were recorded, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, for the larger assemblages, notes were made concerning fragment size, dog gnawing, burning, butchery and fresh breaks.

Where possible, fragments were identified to species or species group, using the reference collection at the Environmental Archaeology Unit, University of York. Fragments not identifiable to species were described as the 'unidentified' fraction.

12.4 Results

12.4.1 Sediment samples

The results are presented in context number order. Archaeological information, provided by the excavator, is presented in square brackets.

Context 1030 [Backfill of rubbish pit containing 18th century pottery]
Sample 2/T (3 kg sieved to 300 microns with washover)

Just moist, dark grey-brown, sandy ash. Fine charcoal was common and stones (6 to 60 mm), mortar, pot, an iron object and decayed modern roots were present in the sample.

This subsample yielded an extremely large residue and washover (combined volume about 1700 cm³), the former consisting mainly of sand and gravel (to 35 mm), the latter mainly of cinders (to 35 mm). There was a little mammal bone (12 fragments to 80 mm, mostly unidentified but including a fallow deer *Dama dama* (L.) distal tibia) with fish (percid) scales, a little shell (including three well preserved cockle, *Cerastoderma edule* L., valves) and some coal.

Small numbers of land snails were also present including one *Vertigo pygmaea* (Draparnaud), two adult and one ?juvenile *Pupilla muscorum* (Linnaeus), nine *Vallonia ?excentrica* Sterki, and two *Cecilioides acicula* (Müller). The last of these is a burrowing species (probably intrusive to the deposit), the remainder being indicative of a dry grassland environment.

Context 3017 [Post-medieval backfill of rubbish pit]
Sample 8/BS (11 kg sieved to 300 microns with washover)

Just moist, mid brown, crumbly (working plastic and somewhat sticky when wet), sandy clay silt. Stones (20 to 60 mm), ?fish bone and oyster (*Ostrea edulis* L.) shell were present in the sample.

This subsample yielded a small washover of about 175 cm³ of charcoal (to 15mm), including oak (*Quercus*), with tiny traces of modern roots and bone; the moderate-sized to large residue was about 1800 cm³ and comprised clean quartz sand and gravel (to 50 mm) with traces of marine shell (3 small fragments of oyster shell and 2 of ?periwinkle (*Littorina littorea* (Linnaeus)) and more bone (including burnt fragments).

Most of the 79 vertebrate remains from this sample were small and unidentifiable fragments. Those bones which could be identified included a number of juvenile pig remains and fragments of chicken (*Gallus f. domestic*), geese (*Anser* sp.) and duck (*Anas* sp.). A single small mammal shaft fragment was also noted.

Context 3066 [Post-medieval backfill of rubbish pit]
Sample 18/BS (28 kg sieved to 300 microns with washover)

Just moist, mid to dark brown, crumbly (working plastic and somewhat sticky when wet), silty clay sand. Mammal bone, oyster shell, traces of modern roots and small stones (2 to 6 mm) were present and larger stones (20 to 60 mm) were common in the sample.

There was a very small washover of a few cm³ of modern roots and a little charcoal, coal, cinder and charred hazel (*Corylus avellana* L.) nut (all up to 5 mm in maximum dimension) and tiny (<2 mm) bones. The very large residue of about 7500 cm³ consisted of clean quartz sand and gravel (to 75 mm) with a trace of oyster shell (one left and three right valves, all moderately well-preserved).

One hundred and thirty-five bone fragments were recovered from this sample, most of which were small and unidentified. Identified fragments included the remains of cattle, caprovids and pigs. All the pig bones represented juvenile and sub-adult individuals. Chicken phalanges, sternum and pelvis fragments were identified, along with a single jay (*Garrulus glandarius* (L.)) scapula. This sample also gave seven eel (*Anguilla anguilla* (L.)) vertebrae.

Context 3075 [Post-medieval pit fill]
Sample 19/BS (10 kg sieved to 300 microns with washover)

Just moist, mid to dark grey-brown, crumbly (working just plastic), sandy clay silt. Fragments of large mammal bone and stones (20 to 60 mm) were present in the sample.

The tiny washover comprised a few cm³ of charcoal, modern roots and a single charred barley (*Hordeum* sp.) grain, with some tiny bones. The moderate-sized to large residue of about 1400 cm³ was of clean quartz sand and gravel (to 30 mm) with a modest amount of bone (to 60 mm). A dog coprolite was also recorded from this deposit

Of the thirty bone fragments recovered from the residue, eight were identifiable. Pig was the only species identified and all the remains represented juvenile or sub-adult individuals. The unidentified fraction consisted of large and medium-sized mammal fragments.

Context 3105 [Fill of 12/13th century boundary ditch]
Sample 27/T (3 kg sieved to 300 microns with washover)

Just moist, mid brown, crumbly (working plastic and somewhat sticky when wet), silty sandy clay. Stones (20 to 60 mm), charcoal, snails and woody roots were present in the sample.

The very small washover consisted of a few cm³ of sand, modern roots and some charcoal (to 15 mm); the very large residue of about 800 cm³ comprised clean quartz sand and gravel (to 40 mm). Five fragments of unidentified land snail were also noted (possible all from one individual).

12.4.2 Hand-collected shell

A very small quantity of hand-collected shell, amounting to no more than a few remains from each of nine contexts, was recovered. Most of the remains were of oyster with a few cockle valves (Contexts 1030 and 3000) an edible crab (*Cancer pagurus* L.) claw fragment (Context 1030), a ?dog whelk (*Nucella* sp. from Context 2010), and a single land snail (*Helix aspersa* Müller), from Context 3018).

Preservation of the shell was rather variable but mostly poor and some of the remains showed evidence of fresh breakage or recent fragmentation. None of the oyster valves showed definitive evidence of having been opened by humans.

Table 3 gives a summary of the hand-collected shell by context.

12.4.3 Hand-collected vertebrate remains

Vertebrate material was recovered from all three excavated areas and amounted to four boxes (each box approximately 20 litres), representing 60 contexts. The contents of one box represented the entire assemblage from Context 3018 and was identified as an incomplete cow skeleton. Bone was mainly recovered from post-medieval pit fills, whilst deposits of 11th to 13th century date produced a smaller assemblage. A number of ditch fills also produced a moderate-sized assemblage, but these deposits could not be securely dated to the 12th century. In total, bones (856 fragments) from 42 contexts were recorded, whilst the remaining material (mostly from deposits of modern date) were quickly scanned. Table 2 shows the numbers of fragments recorded and the species present by date group.

Vertebrate material recovered from these deposits was largely well-preserved, with only a few contexts (Contexts 3018, 3047, 3058, 3129 and 3131) containing bones that had rounded edges or were battered in appearance. Context 3131 produced bones with a rather mixed appearance, whilst a part cow skeleton recovered from Context 3018 showed much variability of preservation, with examples of both good and poorly preserved fragments. Extensive fragmentation was also noted on these remains, although most of this damage was recent and had occurred during excavation or subsequent post-excavation processes. Fresh breakage was also apparent on the bones from Contexts 1020, 1040 and 1053, however the bones from these deposits were extremely well-preserved. A single human bone was identified from Context 3001. Variable preservation and the presence of human remains suggests that some of the deposits contain redeposited material. Evidence of butchery was noted throughout but was minimal in extent, as was dog gnawing.

Typically, the major domestic species (cattle, caprovid and pig) were well represented in the assemblage regardless of period. The range of skeletal elements for these species suggested a mixture of primary butchery and domestic refuse. However, there is a clear increase in the number of meat-bearing elements in the post-medieval period. This, and the presence of the remains of other species such as chicken, geese, duck and hare (*Lepus* sp.), suggests the later material includes a larger component of household/kitchen waste.

Dog remains were recovered from several of the ditch fills of probable 12th century date. A part skeleton was identified from Context 1020, whilst other individuals were represented by teeth and limb bones from Contexts 1040 and 1053. Another dog skeleton was noted in the scanned modern material recovered from Context 1024. Other minor domesticates were represented by a few remains of horse and cat.

Wild mammals were represented by the remains of hare (Context 1030) and roe deer (*Capreolus capreolus* (L.)). The scanned material (of modern date) from Context 1028 also included a roe deer metatarsal.

In total, 66 measurable fragments and seven mandibles with teeth *in situ*, of use for providing biometrical and age-at-death data, were recorded. The 256 bone fragments recovered from the residues of four sediment samples, included a further four measurable bones.

12.5 Discussion and statement of potential

The few biological remains, other than bone, recovered from the samples were of no interpretative value beyond that given in the text.

The hand-collected shell remains were of no interpretative value other than that the presence of shellfish indicates importation of these foodstuffs to the site.

Deposits from Priest Lane yielded a moderate-sized assemblage of bone, most of the material being recovered from those of medieval and post-medieval date. Generally, preservation of the vertebrate remains was good, although some of the post-medieval assemblages contained fragments that were rather eroded and battered in appearance. This, in conjunction with the human remains recovered from Context 3001, suggests the presence of some redeposited material. Although some of the deposits were tightly dated, most were of rather uncertain date and it was from these deposits that the bulk of the assemblage was recovered. Further work on the current assemblage would only be of value if a more secure dating framework could be achieved. However, these remains do show the potential of the deposits in this area for preserving bone and this should be borne in mind if further excavation is undertaken.

12.6 Recommendations

No further investigation of the biological remains (other than bone) from the sediment samples, or of the hand-collected shell assemblage, is warranted. However, any remaining sediment should be sieved for the recovery of small bones and this material considered in conjunction with any additional study of the hand-collected vertebrate assemblage.

Although the bone assemblage is fairly small, it is recommended that a basic archive, including biometrical data, should be produced of all well-dated material. This would allow for the data to be used in conjunction with material from other excavations in Ripon, and enlarge the data sets to provide a wider understanding of the activities being undertaken in the city.

12.7 Retention and disposal

All of the current material should be retained for the present.

12.8 Archive

All material is currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

Table 1. List of examined sediment samples from excavations at New School, Priest lane, Ripon, with notes on their treatment.

Context	Sample	Notes
1030	2	3 kg sieved to 300 microns with washover
3017	8	11 kg sieved to 300 microns with washover
3066	18	28 kg sieved to 300 microns with washover
3075	19	10 kg sieved to 300 microns with washover
3105	27	3 kg sieved to 300 microns with washover

Table 2. Hand-collected vertebrate remains from deposits from Priest Lane, Ripon Key: ?med = ?medieval; post-med = Post-medieval.

Species		11/12 th C	?12 th C	12/13 th C	?med	post-med	Total
<i>Lepus</i> sp.	hare	-	-	-	-	2	2
<i>Canis</i> f. domestic	dog	-	37	-	3	-	40
<i>Felis</i> f. domestic	cat	2	-	-	-	-	2
<i>Equus</i> f. domestic	horse	1	2	3	-	-	6
<i>Sus</i> f. domestic	pig	4	10	5	5	15	39
<i>Capreolus capreolus</i> (L.)	roe deer	-	1	-	-	-	1
<i>Bos</i> f. domestic	cattle	2	16	5	16	25	64
Caprovid	sheep/goat	6	16	2	7	22	53
<i>Anser</i> sp.	goose	2	1	-	-	6	9
<i>Anas</i> sp.	duck	-	-	-	-	1	1
cf. <i>Vanellus vanellus</i> (L.)	?lapwing	-	-	-	-	1	1
<i>Gallus</i> f. domestic	chicken	-	-	-	3	2	5
<i>Homo sapiens</i>	human	-	-	-	-	1	1
Unidentified bird	bird	-	-	-	1	-	1
Unidentified	unidentified	48	264	50	76	193	631
Total		65	347	65	111	268	856

Table 2. Hand-collected shell remains from deposits from Priest Lane, Ripon.

Context	Oyster valves right	Oyster valves left	Cockle valves	Other marine taxa	Non-marine taxa	Preservation
1000	1	2	-	-	-	fair but no valves measurable and fresh breakage on 2 valves
1030	-	-	3	1 fragment of edible crab claw	-	cockle valves well- preserved
2010	-	-	-	1 ?dog whelk	-	poor
2100	1	-	-	-	-	well-preserved and measurable
3000	-	-	1	-	-	well-preserved
3011	1	1	-	-	-	poor (many small flakes)
3018	-	-	-	-	1 <i>Helix aspersa</i>	fair
3044	1	-	-	-	-	fair but not measurable
3066	1	1	-	-	-	poor (very soft) and not measurable

13. BIBLIOGRAPHY

Dobney, K., Hall, A. R., Kenward, H. K. and Milles, A. (1992). A working classification of sample types for environmental archaeology. *Circaea, the Journal of the Association for Environmental Archaeology* 9 (for 1991), 24-6.

English Heritage (1991) Management of Archaeological Projects

Finlayson, R., (2000) The Arcade, Ripon, Assessment Report on an Archaeological Excavation, *York Archaeological Trust, 2000 Field Report Number 48*

Geological Survey (1979) *Geological Survey of Great Britain 1:625000*

Hall, R.A and Whyman, M., (1996) Settlement and Monasticism at Ripon from the 7th - 11th centuries, *Medieval Archaeology* Vol. 40, 62-150

Johnson, M., (1998) Playing Field adjacent to Ailcy Hill, Priest Lane, Ripon, North Yorkshire, Report on an Archaeological Evaluation, *York Archaeological Trust, Field 1998 Field Report 11*

Johnson, M. (2000) New School site, Priest Lane, Ripon, North Yorkshire, Report on an Archaeological Watching Brief, *York Archaeological Trust, 2000 Field Report Number 41*

Kenward, H. K., Hall, A. R. and Jones, A. K. G. (1980). A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. *Science and Archaeology* 22, 3-15.

Kenward, H. K., Engleman, C., Robertson, A., & Large, F. (1986). Rapid scanning of urban archaeological deposits for insect remains. *Circaea* 3, 163-172.

Knight, B.(1990) A Review of the Corrosion of Iron From Terrestrial Sites and the Problem of Post-Excavation Corrosion, *The Conservator*, No. 14, 37-43.

Ordnance Survey (1979) *Geological Survey of Great Britain 1:625000*

Taylor, H.M. and Taylor, J., (1980) *Anglo Saxon Architecture*

Whyman, M., (1997) Excavations in Deanery Gardens and Low St Agnesgate, Ripon, *Yorkshire Archaeological Journal*, Vol. 69, 119-64

Wilson, D.M., (1976) *The Archaeology of Anglo-Saxon England*

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