

5.11 Period 9, 19th century

Below the modern overburden mixed levelling and dump deposits (contexts 2018, 2022–30, Group 33) were revealed in Areas 2 and 3. As they lay at the formation level of the construction for the new development they were recorded but not excavated. Similar levelling deposits were found in Area 4. These comprised two silty sand deposits (4023 and 4013), probably widespread levelling deposits, which were revealed beneath the machine stripping of Area 4 but were not targeted for excavation.

The demolished remains of structural features associated with the properties fronting the Market Place constructed above this levelling (Group 33) were recorded as a composite plan. They could be correlated with the buildings, outbuildings and boundary walls shown on the 2nd edition OS map (1891) within the plots of 10 Market Place and 8/9 Market Place. When a service trench was excavated a small cellar was observed below 8/9 Market Place. It was constructed with cobble walls and a brick-vaulted ceiling.



***Plate 9** Part of Area 2 showing 19th-century building foundations, facing west*

5.12 Period 10, modern

Modern deposits included some landscaping of the site to reduce the natural slope down from west to east. The modern overburden (2000, Group 35) was removed by a 360-degree machine clearance in Areas 2 and 3. The material removed was entirely modern or 19th-century overburden. It included a tarmac surface, hardcore and a

cobble surface below. The mixed deposits below the surface included drains and the backfill of service trenches. Material c.0.40m deep was removed from the rear of 10 Market Place and c.0.30m from the rear of 8/9 Market Place. At the western end of the site, an average of c.0.40m depth of material was removed, but a much greater depth of material was removed from the north-eastern part of the site. Here, within Area 4, mixed deposits 4000 and 4001 were removed by machine. 4000 was a layer of modern overburden, levelling and landscaping deposits. It was equivalent to context 2000 elsewhere on the site. Within Area 4 a further c.0.50m of material (4001) was removed by machine to clear the modern overburden. The natural topography of the site slopes down gently from the west to the east. As a result, the machine stripping in Area 4 cut through some archaeological deposits and medieval features were slightly truncated; this did not impede analysis of these features.

Part of Area 1 was excavated by hand to establish the character of the deposits. Within this area modern deposits, including service trenches, were above natural sand at a depth of c.39m AOD. Excavation here yielded no information of archaeological importance.

Table 1 Summary of Periods and Groups

Period	Date	Group	Summary	Location
1	11th or 12th century	2	rubbish pit	to the rear of 8/9 Market Place
2	mid 12th–13th century	Area 4, Group 2	boundary ditch	to the rear of 15 Market Place
		3	2 post-pits	to the rear of 8/9 Market Place
		4	2 post-holes	to the rear of 8/9 Market Place
		6	6 post-holes, property boundary	to the rear of 8/9 Market Place
3	later 13th or early 14th century	8	pit and two post-holes, backland	the rear of 10 Market Place
4	later 14th century	5, 7	rubbish pits, backlands	on the northern boundary of and to the rear of 8/9 Market Place
Phase 1	later 14th century	9	levelling	the rear of 8/9 and 10 Market Place
Phase 2	later 14th–early 15th century	27	post-hole	to the rear of 8/9 Market Place
5		13	a post-hole and beam slot	associated with a building on the 10 Market Place plot
		10	levelling and surfaces	to the rear of 8/9 Market Place
		18	post-hole	the rear of 10 Market Place
		25	stake-hole	the rear of 10 Market Place
		19	large pit, soakaway	exterior to property in the plot 10 Market Place
		20	cess pits	to the rear of 10 Market Place
		21	cobble latrine pit	to the rear of 10 Market Place
		22	pit/post-hole	to the rear of 10 Market Place
		11	post-holes, boundary fence	
		12	post-holes	to the south of the boundary fence
5		Area 4, Group 3	pit	to the rear of 15 Market Place
		Area 4, Group 4	rubbish pit	to the rear of 15 Market Place
6	later 15th century	24	levelling	to the rear of 10 Market Place
Phase 1		23	structural features, deep post-hole and post-pit	to the rear of 10 Market Place
		14	pits, backlands	to the rear of 8/9 Market Place
		15	pit	on the boundary between the two plots
		16	rubbish pit	on the boundary between the two plots
		28	dump	to the rear of 10 Market Place
6	later 15th century	29	beam-slot	to the rear of 10 Market Place
Phase 2		17	stylobate	to the rear of 10 Market Place
7	17th century	26, 30	intercut pits	the rear of 10 Market Place
8	18th century	31	boundary fence	at the northern edge of 10 Market Place
		32	levelling	widespread
9	19th century	33	levelling	widespread
		34	building foundations	
10	modern	35	modern overburden	
		Area 4, Group 8	modern overburden	

6. THE POTTERY by Ailsa Mainman

An assemblage of 1,128 sherds was recovered from this site. The earliest material (from Group 2) is likely to be of 11th-century date and takes the form of cooking pots in gritty fabrics. It is clear from research done on other assemblages from Ripon that these gritty wares continue little changed, except in details of form, through the 12th, 13th and into the 14th century. Some of the early forms seen in Group 2 may be residual and it seems that the sequence recovered from the site begins somewhere between the 11th and mid 12th century.

In Ripon there is a proliferation of pottery fabrics, many of them essentially gritty in character, from the mid 12th century through the 13th century. Many different types, as well as other regional wares, are represented in the sequence. In the later 14th century a fine sandy reduced fabric with a green lead or copper glaze emerges and dominates from the later 14th century through the 15th century. Many of the contexts in the groups below are dated on the basis of these fine reduced wares; forms represented in this fabric at other Ripon sites include large jugs and cisterns. Consistent with developments in pottery production elsewhere in the region, these wares and other contemporary wares deteriorate in quality in the later 15th and 16th century. At the same time a new range of forms is introduced, including divided dishes and lobed bowls, which start to become more common in the 15th century. The sequence continues, somewhat patchily, through the post-medieval period into the 19th century.

6.1 Period 1 (11th or 12th century)

Group 2

Context 2099 in Group 2 produced 23 sherds of pottery. The majority of these were small reduced gritty sherds, mainly from cooking pots with slightly lid-seated rims. Many showed sooting marks. These fabrics are current in Ripon from the 11th century onwards but remain unchanged, except in terms of their form, throughout the 12th, 13th and into the 14th century. This assemblage includes 11th-century rim forms but the presence of a white-firing sherd with a green glaze suggests either that these early forms are residual or that the single sherd is intrusive.

6.2 Period 2 (mid 12th–13th century)

Area 4 Group 2

Context 4005 contained two gritty reduced wares which are likely to be 12th or 13th century.

Group 3

Two contexts (2092 and 2107) produced a total of 79 sherds. Again these comprised a range of gritty cooking pot sherds, including both lid-seated and clubbed rim forms, mostly reduced though some with pale oxidised surfaces. In addition, there was a range of splashed wares and four sherds of York glazed ware. Jugs, including six sherds from a baluster-type form with a slight footing, and the neck of a jug in a

reddish sandy fabric with an amber glaze, are probably local products. The same might be true of a sherd with lead glaze and an applied combed strip. Similar forms and fabrics were recovered from a group of vessels excavated at the Wakeman's House and elsewhere in Ripon.

The presence of York glazed ware and the highly decorated character of the jug types suggests that these contexts belong to the 13th century, although the pottery assemblage includes a number of residual sherds.

Group 4

Two contexts (2109, 2088) produced a total of 68 sherds. Stratigraphically this group is later than Group 3 and the range of wares is much the same. There are twelve sherds from a reduced gritty ware cooking pot and sherds from a small cooking pot with traces of glaze. Sherds from a jug in a distinctive gritty fabric came from context 2109. This jug has rouletted decoration covered with a dark thick treacly glaze. A pipkin handle from 2088 represents a new form. The assemblage as a whole probably dates to the later 13th century although again there is a range of gritty wares which might be residual, from pitchers, jugs and cooking pots.

Group 6

Four contexts (2180, 2182, 2167 and 2162) produced only nine small sherds. These include a range of gritty wares of the types discussed above as well as a fine sandy sherd.

6.3 Period 3 (late 13th or early 14th century)

Group 8

Group 8 is stratigraphically above Group 1. Two contexts (2071 and 2056) contained 32 sherds which include gritty wares with reduced cores, but also a red fabric and a pale fabric with a fine reduced core seen elsewhere in Ripon and dated to the late 13th or early 14th century. This would be consistent with the presence of rod handles and zig-zag rouletting on the surfaces.

6.4 Period 4, Phase 1 (later 14th century)

Group 5

Twenty-one sherds were recovered from two contexts (2093 and 2178). While there are many gritty sherds, mostly with pale surfaces and reduced cores, there are an increasing number of finer sandy wares with lead glazing. These too have been seen elsewhere in Ripon, where they seem to occur in the 14th and 15th centuries. Examples in this context include a broad strap handle possibly from a large jug or cistern. This would suggest a date in the later 14th century.

Group 7

Context 2154 produced a single gritty ware sherd.

6.5 Period 4, Phase 2 (later 14th century)

Group 9

Group 9 is stratigraphically above all the earlier groups and represents an episode of levelling. Three contexts (2049, 2142 and 2097) contained a total of 138 sherds. Many of these were residual gritty ware cooking pot sherds but there were also a number of jug sherds with green copper and lead glazes in a variety of fabrics, generally with rod handles. Comb, stab and rouletted decoration occurs on some of the jug sherds. A horizontal handle, probably from a urinal, and the rim from an open form represent new vessel types. A single sherd from an imported Siegburg bottle was recovered from context 2049.

Although once again there are a considerable number of residual sherds, the range of forms and wares indicate a date in the later 14th century. This would be broadly consistent with the dating of the appearance of Siegburg which, while in production earlier, did not regularly reach centres such as York until the 14th century.

6.6 Period 5 (later 14th–early 15th century)

Group 27

A single context, 2118, produced six fragments of the cooking pot found in Group 13 (context 2087, see below).

Group 13

Two contexts (2089, 2087) belong to this group. One of these (2089) produced only a scrappy gritty ware sherd. Context 2087 contained 136 sherds of pottery including substantial parts of a jug in a soft gritty oxidised fabric and amber glaze, covered with multiple rows of combed decoration on the neck. An identical vessel was recovered from the Wakeman's House. In addition, there are other decorated sherds, bases and rod handles from jugs. Part of a cooking pot with a flaky green glaze occurred in this context; pieces from the same pot were also recovered from context 2118 (Group 27). It is difficult to assign a date to this group because of the large number of residual types but its place in the stratigraphic sequence suggests the late 14th or early 15th century.

Group 10

Two contexts (2117 and 2111) produced a total of sixteen sherds of pottery. There were a number of residual sherds in gritty and splashed fabrics but the date of the assemblage is given by sherds of fine reduced wares, including jugs, which are likely to be late 14th- or early 15th-century in date.

Group 18

Group 18 overlies Group 9 and a single context (2038) produced four unglazed gritty sherds.

Group 25

A single context (2037) contained two sherds of the fine reduced wares which are of later 14th-century date.

Group 19

Group 19 also overlies Group 9 and the three contexts (2050, 2047 and 2043) contained a total of eighteen small sherds. All were from a jug in a soft fired gritty oxidised fabric with multiple rows of rouletting, as seen on the jug neck recovered from context 2087 in Group 13. This would suggest a date in the later 14th century for the group.

Group 20

Group 20 also overlies Group 9 and the three contexts (2042, 2068 and 2070) produced 88 sherds, a mixture of residual gritty sherds and several, including decorated sherds and rod handles, from four to six Brandsby-type vessels. In addition, there was a sherd similar to the vessel in Group 19 and a sherd which copies Rouen-type decoration. A similar date, in the later 14th century, is indicated.

Group 21

Three contexts (2083, 2078 and 2066) produced a total of seventeen sherds. These included a fragment of a large strap handle from a large jug or cistern in a fabric identical to a large vessel recovered from the Wakeman's House. In addition, there were several sherds of Brandsby-type and related wares, as well as residual gritty wares. A date in the later 14th or early 15th century is indicated.

Group 22

Context 2052 contained a small Brandsby-type sherd and a gritty ware sherd.

Group 11

Four contexts (2123, 2141, 2132 and 2134) produced a total of only sixteen small sherds including a number of residual types, together with a single sherd of later fine reduced ware.

Group 12

Three contexts (2158, 2146 and 2175) contained twelve sherds including residual types and fine reduced wares.

Area 4, Group 3

Four contexts (4002, 4009, 4007 and 4024) produced a range of gritty wares and jug fabrics including decorated jug sherds and rod handles. By comparison with the assemblages in Trench 2 these are likely to be of later 14th- or early 15th-century date.

6.7 Period 6, Phase 1 (later 15th century)

Group 24

A single context (2032) contained twenty small sherds, mainly residual gritty wares and jug fabrics.

Group 23

Three contexts (2060, 2100 and 2051) produced 47 small sherds, many residual gritty wares and jug fabrics. A fragment of a divided dish confirms a date in the 15th century for the group.

Group 14

Three contexts (2164, 2176 and 2110) contained 48 sherds. In addition to the usual gritty ware fabrics and jug fabrics, some of which are probably residual, there are further sherds of fine reduced wares in the form of large jugs and cisterns. New forms include fragments of a lobed bowl in a fine white fabric and a Skipton-on-Swale type drinking jug; new fabrics include a Cistercian sherd. These new appearances support a date near the end of the 15th century.

Group 15

A single context (2151) contained 25 sherds of cooking pots and jugs with rod handles in the now-familiar gritty wares and jug fabrics. There is the base from a Skipton-on-Swale type jug and a foot from a tripod pitcher.

Group 16

Context 2149 produced only six sherds, including gritty ware and the base from a large baluster-type jug.

6.8 Period 6, Phase 2 (later 15th century)

Group 28

A single context (2085) contained part of a lobed bowl similar to that recovered from context 2176 in Group 14 (see above); the sherds do not join but might be part of the same vessel. The base of a Skipton-on-Swale type drinking jug and a cooking pot form with a flaking lead glaze were also found.

6.9 Period 7 (17th century)

Group 29

A single context (2146) produced ten sherds, including a Cistercian ware sherd, all of which are residual; the context is dated by a 17th-century slipware sherd.

Group 17

No pot.

6.10 Period 8 (18th century)

Group 26

Three contexts (2007, 2031 and 2035) contained seventeen sherds, almost all of which must be residual by this time. A single black ware sherd indicates a date in the 17th or, more likely, 18th century.

Group 31

No pot.

Group 30

A single context (2006) produced 25 sherds including part of a 17th-century brown glazed mug, 18th-century black wares and English stonewares, together with fragments of several post-medieval reduced open forms, all indicative of an 18th-

century date.

Group 32

Three contexts (2004, 2005 and 2003) contained a total of 44 sherds. These included residual sherds, but the group is dated to the later 18th century by late stonewares, black wares, brown wares and other late post-medieval types.

6.11 Period 9 (19th century)

Group 33

A single context (2018) produced 93 sherds including a range of 19th-century wares comprising tin-glazed earthenwares, stonewares, brown and black wares, and residual types.

Group 34

No pot.

6.12 Period 10 (Modern)

Group 35

Context 2000 produced 56 sherds of pottery which cover the range from the 14th to the 19th/20th century.

6.13 Discussion

The assemblage appears to represent domestic rubbish rather than any specialised activity on the site. The large residual component and the clear evidence for the redeposition of material provided by cross-joins makes precise dating difficult. Broadly speaking, much of the sequence seems to belong to the 14th century although there is evidence of both earlier and later activity on the site. The dating has been ascribed through cross-reference to published (Mainman 1997) and unpublished assemblages, especially that from the Wakeman's House, High Skellgate, Ripon, where there is a good sequence of reconstructable vessels. Other small assemblages from elsewhere in the city, notably from the former Cathedral School, Low St Agnesgate, have also contributed to understanding the sequence. Research is about to start on assemblages dug in the early 1980s at Bedern Bank and Low St Agnesgate, which will provide further evidence.

Examination of these small groups has enabled progress to be made in understanding the currency of different forms and fabrics in the city and this assemblage from the Arcade makes a useful contribution to this process.

7. THE SMALL FINDS by Nicola Rogers

7.1 Discussion

The assemblage of small finds from the excavations at The Arcade was overwhelmingly domestic in character. Its study has revealed a little about the daily lives of the medieval inhabitants, but virtually nothing about their occupations. Associated with the earliest occupants of the site, an antler offcut (sf26) must derive from antler working, a predominantly Anglian or Anglo-Scandinavian craft activity. This offcut was recovered from a later 15th-century context (2151, Group 15) and thus must be residual. The hone (sf5) which appears to be made of phyllite may also date from this earliest period. Phyllite hones have been found previously on both Anglo-Scandinavian and medieval sites in York (Mainman and Rogers 2000, 2484–98; Ottaway, and Rogers 2002, 2793–7), and it has been suggested that these fine stone types, which probably originate from the Scottish Highlands, Shetland Islands or possibly Norway, may have been used to sharpen small blades or craftsmen's tools (Ellis and Moore 1990, 869). This hone was recovered from a context dated mid 12th–13th century (2092, Group 3).

Some iron objects reveal evidence of the fittings used on the buildings. Sf59 is a hook, probably used to hang a butchered carcass, or a chain for a pot or cauldron over a fire. It was recovered in a floor level (2111, Group 10). A hasp to fasten a gate or door (sf70), from Context 2118, and a hinge pivot (sf61) from context 2049 on which a door would hang, were also found. Sfs15 and 116, both from Context 2118, comprise similar iron strips, which are possible hinge straps, perhaps from a wooden chest. Remains of the wood to which they were attached can still be seen and has been identified as elm. These strips were recovered from the same context as the hasp (sf70). An iron key decorated with tin plating (sf68) Context 2149 would have been used on a mounted lock, probably on a door; this type of key is common from the 12th century onwards (Ottaway and Rogers 2002, 2869).

Metal dress accessories were recovered from several pits. Sf9 is a two-piece strap-end, similar to examples found in York in 14th- to 15th-century deposits (e.g. Ottaway and Rogers 2002, 14362) but this one was presumably residual in an 18th-century context, 2007. Sf10, from context 2056 (Group 8), is now incomplete but may be another strap-end. Sf74, an iron buckle probably from a shoe, recovered from a late 14th- to 15th-century context (4002), is of a form common from the 13th century onwards (Ottaway and Rogers 2002, 2887), while sf25, from another late 14th- to 15th-century context (2066, Group 21), may be an iron buckle pin.

Finally, a horseshoe fragment (sf55) and nails (sfs56, 65) all derive from horseshoes of 13th- or 14th-century type. Sfs55 and 56 are both from late 13th- to 14th-century contexts (2093 and 2066 respectively); sf65 is from a mid 12th- or 13th-century context (2107, Group 3).

7.2 Listing of artefacts by material

Iron

Fifty-eight artefacts were made of iron. Of these, the vast majority are nails. Among the exceptions are sfs15 and 116 (both Context 2118) which are large strips with wood remains attached, possibly originally hinge straps from doors or large items of wooden furniture such as chests. Some investigative conservation may aid more certain identification. The possible hinge pivot (sf61) may also be from a door. Sf25 may be a buckle pin, and sf74 may comprise fragments of a circular buckle. The key sf68 has a bow typical of the 14th–15th century. A horseshoe fragment sf55 and horseshoe nail sf56 both appear to date from the late 13th–14th century. Other objects include a ring (sf30, context 2047), a large fitting (sf54, context 2164), a hook (sf59) and a hasp (sf70), none of which can be dated.

Copper alloy

Only six copper alloy objects were recovered. None were readily identifiable or datable, but sf9 appeared to be a possible belt fitting. Sf10 is a strip with a decorative cut-out, perhaps part of a mount, while sf11 (context 2068) appears tubular. The remaining objects (sfs12–14) represent sheet offcuts or fragments.

Lead alloy

Sf6 (context 2004) was the only lead alloy find and was unidentifiable.

Fired clay

All eight fired clay finds are fragments of post-medieval tobacco pipes.

Glass

Large amounts of post-medieval vessel and window glass were recovered (sfs1–3, 75–109). Sfs75–98 all derived from Context 2018 and largely comprised bottle fragments, including a complete 19th- or 20th-century bottle stamped with the York Glass Co. motif (sf97). There were also fragments of huge bottles (sfs98–9), both possibly 19th-century druggist storage bottles. *Note: In the Assessment Report post-medieval glass from context 2018 was wrongly attributed to context 2118.*

Stone

The only stone object (sf5, Context 2092) is a hone which is undateable.

Bone

Apart from offcuts of bone (sf7, Context 2017; sf8, Context 2000), an unidentified turned and socketed object was also found (sf4, Context 2004).

Antler

Sf26 from context 2151 is a notched offcut; antler working is generally thought to have taken place mainly in the Anglian/Anglo-Saxon to Anglo-Scandinavian periods.

Slag

Sfs43, 51–2, 64 and 118–22 were found in the following contexts: 2087, 2092, 2099, 2138, 2142, 2176, 4002 and 4007.

8. CONSERVATION by Julie Jones

8.1 Introduction

Artefacts were selected for further investigation on the basis of the assessment report (Vere-Stevens 2000). The aim of this work was to reveal information contained within each object and its corrosion products in order to enable researchers to identify the object, its function and date, and aspects of technology and manufacture. In addition, the assemblage of objects was considered as a whole in order to identify any bias introduced through preservation and post-excavation treatment.

8.2 Quantification and procedures

Seven artefacts were selected for further investigation, five of them by the artefact researcher. The assessment report noted that sf69 might be related to sf74, and sf11 was selected for investigation of traces of mineral-preserved organics. Each object was examined under a binocular microscope and observations on construction, condition and proposed treatment were noted. Treatment generally consisted of partial corrosion removal using an air abrasive. Details of the equipment and abrasive used vary and were recorded individually, along with technological details and parallels. Where necessary, chemical stabilisation was carried out and/or delicate areas consolidated with acrylic resins. Fragile objects were packed securely in rigid boxes with archival packing materials.

8.3 Results

Table 2 Finds Conservation Data

SF NO.	CONTEXT NUMBER	MATERIAL/ KEYWORD	NEW INFORMATION	ACTION
9	2007	Cu alloy Strap-end	Engraved decoration, construction, see section 10.3.2	Further research
11	2068	Cu alloy Tubes	Fe wires inside, both fragments join to form lace-tag-like object.	—
15	2118	Fe Hinge strap	Not hinge strap, no perforation Wood is elm	—
68	2149	Fe key	Plating confirmed, decoration revealed	XRF
69	4002	Fe nails	Did not join sf74	—
74	4002	Fe buckle	Plating confirmed	XRF
116	2118	Fe Hinge strap	Not hinge strap Wood is elm	—

8.3.1 Condition

The copper alloy objects showed active corrosion, very warty, disrupting the surface. The iron was very heavily corroded and bulky, with virtually no metal core, sometimes hollow (sf15, sf74). Wood remains were mineralised on sfs15 and 116, which S.J. Allen identified as elm.

8.3.2 New information revealed

sf9 has lightly engraved decoration on one face (an X of zig-zag lines made with a rocked graver) and a black surface on both interior faces. The rivet at the terminal is in situ, so this strap-end probably never had a forked spacer. Whatever was riveted between these plates must have been very thin and no trace remains.

sf11 The two fragments were probably part of the same object, snapped in two in antiquity. They form a tapering object rather like a large lace tag, but probably with four iron wires in its central core. There was no sign of mineral-preserved organics.

sfs15 and 116 are tanged objects from the same context and are similar in appearance, size, form and alignment; they have the same species of wood running in the same direction. They are clearly related, but there is no visible join between them. The function of these objects is not certain. Because the tangs were turned over, and the edge is clear at the shoulder, we can determine that the plank was c.7cm wide.

sf68 The X-ray shows a heavily corroded but complete key for a mounted lock, with a D-shaped bow, a straight plated stem with three or four transverse central grooves, and a solid tip projecting beyond the bent bit. The bit is shaped by cuts in its side and base. A white metal (possibly tin or lead) plating was exposed in the decorative grooves on the stem, the inner face near the bit and within the cut on the side of the bit.

8.3.3 Industrial activity

Iron: Slag, charcoal and flake hammer scale were noted in the matrix on buckle **sf74** (Context 4002) indicating possible smithing nearby. The nine slag small finds reinforce this possibility.

8.4 Preservation

When trying to assess the evidence for craft, industry and everyday life from the artefacts, one must consider whether biases have been introduced through differential preservation or selection for post-excavation treatment.

A total of 122 small finds was assessed; the number of objects in each material category is listed below:

Iron	54
Slag	9
Copper alloy	7
Lead alloy	1
Stone	1
Fired clay/tobacco pipe	7
Glass	39
Bone	3
Antler	1

There were 175 bulk finds, 73 pot, 66 animal bone, 25 tile, four mortar, three shell and

one each of daub, slate/shale/coal and faecal concretion. Thirty-four samples were taken for general biological analysis. Vulnerable organic materials (such as wood, leather and textiles) were not present in the assemblage. Except for bone, whose mineral component aids survival, and some glass including wet-packed material which was given first-aid treatment, only robust non-metallic finds survive (fired clay, stone, slag). Of the metals, the copper and iron are relatively poorly preserved, but the lead was in fairly good condition.

8.5 Post-excavation treatment

There were 122 small finds recorded from this site, c.6% of which were taken to the analysis phase. All the objects selected for further investigation were made of either iron (9% of the total number of iron objects) or copper alloy (28% of the total number of copper alloy items); no other materials were examined. Much of the untreated iron is described as nails. Of the non-metals, all the fired clay finds were tobacco pipes. Some of the glass was given first-aid treatment at the assessment stage, and all is now packed for the long-term. Bearing in mind the limitations of the material and the resources available, the small finds have been well researched and will be stored well for future study.

9. THE METAL WORKING RESIDUE by Catherine Mortimer

Ten items were examined, totalling 4.8kg. Of these, the majority of the material related to iron working, probably iron smithing. The largest group of material was sf121, from context 4007, Area 4, the later 14th- to early 15th-century backfill of a pit. This material weighed 3.9kg and was in the form of large lumps of smithing slag (SSL), including some which had the characteristics of smithing hearth bottoms (SHB). Smithing hearth bottoms are identifiable by their classic plano-convex shape (flattish at the top and curved at the bottom). They result from high-temperature reactions between iron and silica (from the clay furnace lining or flux), forming an iron-silicate-rich material which drips down to the base of the hearth where it solidifies and can be removed. 350g of smithing slag from another context in the same trench (sf120, context 4022, Period 5) appeared to be of similar type and date. The presence of smithing slag indicates that there was a smithy somewhere in the vicinity, producing waste materials which were periodically dumped in any nearby pit.

Much smaller quantities of slag were found in Area 2, often in contexts noted to have ash or charcoal in them. Some of the slag was more silica-rich (less iron-rich) and more 'runny' in appearance (sf122, context 2176, Period 6). This was probably vitrified furnace lining. These findings confirm the general conclusion that there was a smithy operating locally. Sf119, from context 2142 (Period 4), was a piece of copper alloy waste (180g), of an irregular form. This could suggest that copper alloys were being worked somewhere locally, although it might indicate a single episode of copper alloy working or even the accidental melting of a copper alloy object. There are no other diagnostic finds, such as moulds and crucibles, which confirm copper alloy working.

The metal working finds show that iron smithing was carried out locally and that copper alloy working may also have taken place.

Table 3 Metal working debris

Period	Sf	context	Area	identification	weight (g)	Notes
5	43	2087	2	Fe slag	36	
2	51	2092	2	Fe slag	126	with mortar and pebbles
5	52	2138	2	Fe slag	28	
2	64	2109	2	Fe slag	26	
5	67	2110	2	Stone	38	with Fe traces
1	118	2099	2	Fe slag	52	with fc and ?Fe object
4	119	2142	2	CA waste	180	single piece, irregular form
6	122	2176	2	Fe slag	130	vfl type
5	120	4022	4	Fe slag	350	probably SSL
5	121	4007	4	SSL, SHB	3870	large pieces
Total					4836	

Key

CA copper alloy
fc fired clay
Fe iron

SHB smithing hearth bottoms
SSL smithing slag lumps
vfl vitrified furnace lining

10. THE BIOLOGICAL REMAINS: TECHNICAL REPORT

By Deborah Jaques and Allan Hall

10.1 Summary

Excavations at the rear of 8/9 and 10 Market Place, Ripon, North Yorkshire, were undertaken before the redevelopment of the site. Archaeological features and deposits dating from the 11th century through to the early modern period were encountered.

Abundant wheat grains in the sample from context 2085 were accompanied by quantities of charred and 'silicified' chaff, and formed an extremely unusual deposit. The mechanism whereby the cereal chaff became 'silicified' is not known with certainty; perhaps this ash is most likely to represent material burnt in a bonfire.

The vertebrate remains examined in this report were mainly recovered from pit and post-hole fills of 12th- to 14th-century date. Over 300 fragments were identified, including the remains of the major domestic mammals, birds and fish. Much of the assemblage represented domestic household refuse, although some butchery waste was present. Significant numbers of cat remains were dispersed throughout the deposits and some, for example the concentrations of cat metapodials, may represent waste associated with the processing of animal skins, although no direct evidence from skinning marks was observed.

10.2 Introduction

A number of sediment samples were taken during the archaeological investigations, which also produced four boxes (each approximately 20 litres) of animal bone. Most of the bone was recovered from rubbish, cess and latrine pits, and post-hole fills excavated within an area identified as the backyards of two burgage plots. Following an assessment of the biological remains (Jaques et al. 2000), it was recommended that a basic archive, including biometrical data, be produced of all well-dated vertebrate material. Additionally, it was felt that the plant material from one sample (Sample 22, Context 2085) warranted further examination. Unfortunately, because of restrictions in project funding, no further work on the vertebrate remains from the samples could be undertaken.

10.3 Methods

10.3.1 Sediment sample

The sediment sample was inspected in the laboratory during the assessment and its lithology was recorded, using a standard *pro forma*, prior to processing, following the procedures of Kenward et al. (1980; 1986) for recovery of plant macrofossils. The washover and residue were examined for plant remains. Material recovered during the assessment was examined in more detail as part of these analyses.

10.3.2 Vertebrate remains

The animal bones examined in this report represent material recovered by hand-collection from 35 of the 66 bone-producing deposits, most of which were 12th- to 15th-century in date. Material from those deposits which were described by the excavator as being of modern, mixed or uncertain date was excluded.

For the vertebrate remains, both from hand-collection and from the samples, data were recorded electronically 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, semi-quantitative information was recorded for each context concerning fragment size, dog gnawing, burning, butchery and fresh breaks.

Where applicable, fragments were identified to species or species group, using the reference collection of Palaeoecology Research Services. Detailed recording of the assemblage followed the protocol outlined by Dobney et al. (1999). Selected elements were recorded using the diagnostic zones method described by Dobney and Reilly (1988). Other fragments (classified as 'unidentified') were, where possible, grouped into categories: large mammal (assumed to be horse, cow or large cervid), medium-sized mammal 1 (assumed to be sheep, pig or small cervid), medium-sized mammal 2 (assumed to be dog, cat, hare or equivalent-sized mammal), unidentified bird and totally unidentified. In addition to fragment counts, total weights of bone were recorded for all identifiable and unidentifiable categories.

Caprovid tooth wear stages were recorded using those outlined by Payne (1973; 1987), and those for cattle and pigs followed the scheme of Grant (1982). Cattle, pig and caprovid mandibles were assigned to the general age categories outlined by O'Connor (1989) and caprovid mandibles and isolated teeth were also assigned to the age categories detailed by Payne (1973; 1987). Mandibles with incomplete tooth rows were assigned to age groups on the basis of comparison with the more complete aged mandibles from the assemblage. The same was true for loose deciduous fourth premolars (dp4) and third molars (M3).

Mammal bones were described as 'juvenile' if the epiphyses were unfused and the associated shaft fragment appeared spongy and porous. They were recorded as 'neonatal' if they were also of small size. Epiphysial fusion data are presented using the categories of O'Connor (1989).

Measurements follow von den Driesch (1976) unless otherwise specified. Additional measurements, not detailed by von den Driesch, follow those described by Dobney et al. (1996). Withers heights were estimated using calculations devised by Foch (1966), Matolski (1970) and Kiesewalter (in von den Driesch and Boessneck 1974).

10.4 Results

Sediment sample

A full list of the plant remains and other components recorded from this sample can be found in Table 4.

Context 2085 (dump, dated late 15th century)

Sample 22/T (2kg sieved to 300 microns with washover)

Moist, black (but rubbing dark brown), soft (working thixotropic and somewhat plastic), very humic, ?charcoal-rich silt. Fragments of large mammal bone, charred twigs, ?mortar/lime, ?ash and ?burnt soil were present in the sample.

The small residue of about 25cm³ consisted of sand, gravel, an iron object (or perhaps an iron-rich concretion) and a little burnt and unburnt bone. The small washover of about 250cm³ was very distinctive, however, in being dominated by charcoal (to 20mm) with quite well-preserved charred grains of bread wheat (*Triticum 'aestivo-compactum'*) and much fine 'silicified' ash. Amongst these were rachis and rachilla fragments of free-threshing wheat and many awns, as well as traces of chaff from barley (*Hordeum*) and rye (*Secale cereale* L.). There were virtually no charred weed seeds (except the moderate numbers of small *Vicia*) and only a very few uncharred seeds, one of which, greater celandine (*Chelidonium majus* L.), is a species typically found at the foot of a wall.

10.5 Hand-collected vertebrate remains

10.5.1 Introduction

In all, 939 fragments were recorded, of which (excluding the part pig and cat skeletons) 325 fragments were identified to species. Table 5 lists the contexts from which bone was recorded, whilst Table 6 shows the range of species identified. As can be seen from Table 6, the vertebrate assemblage was grouped into a number of different chronological periods according to pottery spot dates and stratigraphic information supplied by the excavator. Most of the bones were recovered from deposits of later 14th – later 15th century date with 11th, mid 12th-13th and early 14th century deposits producing much of the remainder. Assemblages from each individual group were not particularly large and, as a result of this and the overlap between the broader chronological periods represented, it was not possible to observe trends through time; for the most part the assemblage is discussed as a whole. The following account provides some general comments regarding the composition of the vertebrate remains, but the small size and the variability of the preservation of the assemblage must be borne in mind.

10.5.2 Preservation

Most fragments were recorded as being of good or fair preservation, although some variability was noted within the assemblages from some contexts. A small component

that was rather battered in appearance was apparent within the material from many of the deposits, whilst several fragments exhibited rounded edges or were much eroded. Colour, on the other hand, was the least variable property, and bones within individual contexts tended to be quite homogeneous. Differences in preservation did not appear to be directly related to either chronological period or context type.

In general, the assemblage was moderately fragmented although material from several deposits showed extensive fresh breakage, as opposed to damage caused in antiquity. Little dog gnawing of the bones was evident.

Butchery marks were observed on the bones of all the main domestic mammals, including horse. Evidence of butchery took the form of split cattle shaft fragments, and longitudinally chopped cattle and caprovid vertebrae. The latter demonstrates the practice of splitting carcasses and is a feature quite commonly found in medieval assemblages. Single horn cores (representing sheep, goat and cattle), with chops to the base of the core or on associated cranium fragments, were also noted from contexts 2068, 2088, 2093, 2142 and 2176. The horn cores had all been deliberately removed from the skull, with the intention, one presumes, of using the horn.

A series of fine knife marks was recorded on both the anterior and posterior shaft of a horse metatarsal. This may provide evidence of skinning. One horse ulna did appear to have been chopped, possibly suggesting carcass dismemberment for the utilisation of the meat.

Several of the cod vertebrae identified from context 2110 showed evidence of butchery. The edges of the centrum of some of the vertebrae had been cut away, along with varying amounts of neural spine.

10.5.3 Species representation

Table 6 shows the range of species represented for all periods. Whilst small quantities of bird and fish remains were present, the hand-collected assemblages were dominated by the major domestic species (cattle, caprovids and pigs) with, unusually, cat remains also providing a significant proportion of the assemblage.

When considering the main domesticates only, caprovid remains were more numerous than the bones of either cattle or pigs. However, over half of the unidentified fraction consisted of large mammal remains (assumed to be mainly cattle), which would clearly increase the importance of cattle within the assemblage. Pigs were less well represented, but included the skeleton of a neonatal individual from context 2149. Another part skeleton of a piglet was identified within the assemblage from context 4009, whilst several further deposits (Contexts 2070, 2164, 2176 and 4002) also contained skeletal elements representing very young individuals.

Goat horn cores (contexts 2068, 2075, 2088, 2093, 2099 and 2149) and ?goat metapodials and phalanges (contexts 2097, 2099 and 4010) were recorded within the caprovid remains. Despite careful comparison with modern reference specimens, other skeletal elements were not identified.

Cat remains were scattered throughout the deposits but were particularly abundant from context 2107. This post-pit fill produced 28 cat bones, of which 24 were metapodials (representing at least six individuals). Other medieval pit and post-pit fills also yielded cat bones. Some of these remains included, or were exclusively, metapodials (contexts 2070, 2092, 2099, 2109, 2110 and 2146), whilst others (contexts 2093 and 4009) appeared to be part skeletons, with the major limb bones and pelves present. Most of the individuals represented were adult but a few were clearly juvenile. Although no knife marks were observed on any of the cat bones, it seems likely that some of these groups (e.g. the metapodials from context 2107) represent the waste from the preparation of furs or skins.

Birds were present in only very small quantities and were represented by fowl and goose, with a possible black grouse (cf. *Lyrurus tetrix* (L.)) humerus noted from context 2107 and a duck beak identified from context 2178.

Antler fragments representing red deer (*Cervus elaphus* L.), fallow deer (*Dama dama*) and roe deer (*Capreolus capreolus* (L.)) were recovered from contexts 2087, 2107 and 2142. The absence of post-cranial elements suggests that these fragments may be related to craft activities rather than indicating food waste.

The deposits also produced small numbers of fish bones, most of which were Gadidae, those identified to species being cod (*Gadus morhus* L.). A group of eleven vertebrae, representing one large cod of between 1.0 and 1.5m in length, were recovered from context 2110.

10.5.4 Skeletal element representation

Detailed interpretation of the skeletal element representation was hindered by the small size of the assemblage. However, skeletal elements present for cattle, caprovids and pigs did suggest that all parts of the animals were represented. Overall, similar numbers of meat-bearing (e.g. humerus, radius, pelvis and femur) and non-meat-bearing elements (e.g. mandibles, metapodials and phalanges) were recorded, with the numerous shaft, vertebra and rib fragments within the unidentified fraction representing the rest of the carcasses.

Three of the four goose remains identified were carpometacarpus fragments. This element forms part of the wing and would generally be removed prior to cooking. In contrast, the chicken bones are those which represent the parts of the bird that would have produced the most meat, e.g. sternum and tibiotarsus. However, all the bird remains are indicative of household refuse (both kitchen and table). Fish were exclusively represented by vertebrae, most of which were precaudal.

A detailed examination of the remains from ten deposits, which produced 40 or more fragments, did not indicate any obvious patterns of disposal. On the contrary, whatever the initial function of the various pits, they proved to be very useful for the disposal of general rubbish, be it waste from primary butchery or kitchen/consumption refuse.

10.5.5 Age-at-death

Age-at-death data derived from dental eruption and attrition, and epiphysial fusion, were rather scant for the major domesticates even when the data from all represented periods was amalgamated. Dental data for cattle was limited to a single mandible (context 2176) with a partial tooth row and one isolated first or second mandibular molar. Both were heavily worn and the animals represented are likely to have been mature. Caprovid mandibles mostly represented adult individuals, typically between two and four years of age based on Payne's categories (1973, 1987). An isolated third molar (context 2111) also fell within this age group. An exception to this was a mandible recovered from context 2149. The data provided by this tooth row suggested the presence of a lamb less than six months old. This individual was recovered from the same deposit from which the complete skeleton of a neonatal pig was identified. A second pig mandible from a neonatal individual was recorded from context 2100, while the remaining two pig mandibles represented one sub-adult and one adult.

Epiphysial fusion data for cattle from all periods supported the very limited dental data, in that most of the animals represented were adult when they were killed. Data from the caprovid remains showed no evidence for the slaughter of very young animals of under twelve months, and correlated with the mandibles, in that most animals were killed before the age of four. Most pig skeletal elements were unfused, with the exception of some of the early fusing bones, e.g. distal humerus and proximal radius. Few pigs, therefore, reached maturity, and most were probably slaughtered between the ages of one and two, once they had reached prime meat weight.

10.5.6 Biometrical data

There were insufficient measurements for detailed analysis and discussion. However, it was possible to calculate estimates of the withers heights from the greatest length measurements of four complete sheep bones, all of 13th- to 14th-century date. These produced height values of 542.7mm, 606.9mm, 613.0mm and 611.6mm. The first three values were calculated from radii, and the fourth from a metatarsal. When compared with those from other sites of similar date (Hall et al. 2002; Bond and O'Connor 1999), the values show that most of these individuals fall towards the upper end of the size range for animals of this period.

Measurements from two horse bones (a radius and a femur) provided withers height estimations (Kiesewalter in von den Driesch and Boessneck 1974) which indicated animals standing at 13.3 and 14.1 hands (one 'hand' = 4 inches).

10.6 Discussion

10.6.1 Plant remains from the sediment sample

The abundant wheat grains in the sample from Context 2085 were accompanied by quantities of charred and 'silicified' chaff, and formed a very unusual deposit. The mechanism whereby the cereal chaff became 'silicified' is not certainly known, though it has been discussed by Robinson and Straker (1991); perhaps this ash is most

likely to represent material burnt in a bonfire. Other examples are from various Roman sites: Welton Wold, near Kingston-upon-Hull, East Riding of Yorkshire, and Thenford, near Banbury, Northamptonshire, described by Robinson and Straker (ibid.), and Elloughton (also near Hull; Hall et al. 2002). For the medieval period, Robinson and Straker describe material from Grove Priory in Bedfordshire and allude to further material from Wharram Percy in the East Riding of Yorkshire. There are also records of silicified grass chaff from a site in Gargrave, North Yorkshire (Hall 1983), and of various silicified plant remains from Abbots Worthy, Hampshire (Carruthers 1992), in a Saxon context and at Dean Moor, South Devon, by Levy and Taylor (1958). Such remains, especially the more delicate chaff components like awns and glume fragments, are probably often overlooked except when present, as at this site in Ripon, in a rather high concentration.

10.6.2 Vertebrate remains

The small assemblage of vertebrate remains from the excavations at 8/9 and 10 Market Place, Ripon, is not unlike the many assemblages recovered from medieval urban sites in York (Bond and O'Connor 1999) and Beverley (Scott 1991; 1992). The range of species identified from the medieval deposits at Ripon was quite limited and the diet of the inhabitants in this area was clearly based on the consumption of domestic mammals. Limited age-at-death data suggested that cattle were killed once their 'working life' was over, i.e. after their milk and offspring productivity waned or they were no longer of use as traction beasts. Most sheep seemed to have been killed between two and four years, and would therefore have contributed several fleeces before being slaughtered for meat. They appeared to have represented fairly small unimproved individuals as typically found throughout the region at this period (O'Connor 1995). Pig bones recovered representing neonatal or juvenile individuals were common, with part skeletons recovered from two of the deposits. These remains probably represent individuals that died as a result of 'natural causes' within a short time of birth and are evidence of the rearing of pigs within the town. This was a common enough practice in the medieval period and resulted in many laws being issued which pertained to the prevention of straying and destruction by pigs (Rixson 2000).

Bird remains were rather scarce but suggest that goose, chicken and duck were occasional additions to the diet. Although fish remains were also identified, their importance cannot be ascertained because hand-collection inevitably results in the under-representation of fish and bird. It is clear, however, from the assessment (Jaques et al. 2000) that species other than cod (*Gadus morhua* L.) and gadids were eaten. The remains of herring (*Clupea harengus* L.), eel (*Anguilla anguilla* (L.)), smelt (*Osmerus eperlanus* (L.)) and thornback ray (*Raja clavata* L.) were identified from the samples; these are species typically found in great numbers from other medieval urban sites, in Hull for example (Carrott et al. 2001). Herring, in particular, is generally classed as a staple of the medieval diet (Locker 2001).

Variability of preservation and angularity was observed within material from many deposits, possibly implying the presence of some redeposited or residual bone in

varying amounts. However, the remains did suggest that a number of sources were responsible for the accumulations of debris. Much of the waste was clearly domestic in origin, with many meat-bearing elements identified. Bird and fish remains are also indicative of household refuse, and the bones recovered here are typically those disposed of during food preparation and consumption. Although the presence of butchery waste was recorded, there were no large concentrations of bone which would have suggested butchering was being undertaken on a commercial scale.

Small components of the assemblage may represent craft activities, but only on a small 'cottage industry' scale. Significant numbers of cat remains were dispersed throughout the deposits and some, e.g. the concentrations of cat metapodials, may represent waste associated with the processing of animal skins, although no direct evidence from skinning marks was observed. One method of skinning cats was to remove the paws and then to pull the skin up over the body (Smith 1998). The skin was then cut free from the carcass across the skull where there was little flesh — hence the commonly observed knife marks on the frontal, nasal and orbital areas of the skull of cats from medieval deposits (Serjeantson 2000; Luff and Moreno Garcia 1995; O'Connor 1989; Johnstone et al. 1997). Unfortunately, only a single, unmarked fragment of skull was identified from the site at Ripon. The metapodials, however, may have been left attached to the pelt and subsequently removed and discarded during processing.

Documentary evidence confirms the use of cat fur in the medieval period for trimmings and linings or as a cheap alternative to more expensive furs such as ermine (Veale 1966). Records exist for the export of cat skins to Flanders by London fellmongers in the late 14th century (Veale 1966), whilst there is also evidence for their export from Youghal in Ireland at the same period (McCormick 1988). If cats were being skinned for their fur in Ripon, then it was being undertaken on a far smaller scale.

The presence of goat horn cores and phalanges, with no indication of other parts of the skeleton, perhaps provides some evidence for horn working or the utilisation of goat skins. This is a little tentative and it may be that the rest of the carcasses were disposed of elsewhere. Other craft activities, such as antler working, are hinted at, but again, the evidence is scant.

Table 4 Plant remains and other components

Context 2085, sample 22. Taxonomic order and nomenclature follow Tutin et al. (1964–80). 'Amount' was scored on a four-point scale from 1 (one or a few remains) to 4 (abundant remains, a major component of the sample). Plant material was preserved by anoxic 'waterlogging' unless otherwise indicated.

Taxon, vernacular name and parts recorded	Amount	Notes
<i>Ranunculus</i> cf. <i>sardous</i> Crantz (?hairy buttercup)		
charred achene(s)	1	
<i>Chelidonium majus</i> L. (greater celandine) seed(s)	1	
Leguminosae (pea family) charred pod(s) and/or pod fragment(s)	1	max. dimension 5mm
<i>Vicia</i> sp(p). (vetches, etc.) charred seed(s)	2	
<i>Stachys</i> sp(p). (woundworts) nutlet(s)	1	
<i>Matricaria perforata</i> Mérat (scentless mayweed) charred achene(s)	1	
Gramineae/Cerealia (grasses/cereals) charred culm node(s)	1	
charred culm fragment(s)	1	
Cerealia indet. (cereals) charred awn(s)/awn fragment(s)	1	
silicified awn(s)/awn fragment(s)	2	
silicified chaff fragment(s)	3	
<i>Triticum</i> 'aestivo-compactum' (bread/club wheat)		
charred caryopsis/es	2	
<i>Triticum</i> sp(p). (wheats)		
charred free-threshing rachis fragment(s)	1	
charred glume(s)	1	
silicified rachis fragment(s)	1	
<i>Secale cereale</i> L. (rye) silicified lemma margins	1	
cf. <i>S. cereale</i> charred caryopsis/es	1	
<i>Hordeum</i> sp(p). (barley) charred rachis fragment(s)	1	
Other components		
'ash beads'	1	
ash concretions	2	max. dimension 5mm
bone fragments	1	max. dimension 25mm
burnt bone fragments	1	max. dimension 20mm
burnt fish bone	1	max. dimension 4mm
charcoal	2	max. dimension 20mm
cinders	1	max. dimension 30mm
coal	1	max. dimension 5mm
eggshell fragments	1	max. dimension 2mm
fish bone	1	max. dimension 5mm
gravel	1	max. dimension 30mm
iron-rich concretions	1	
sand	1	
twig fragments	1	max. dimension 15mm

Table 5 List of contexts from which vertebrate remains were recorded

Key:

Date = revised pottery spot date or stratigraphic date;

Total = total number of fragments recorded.

Context	Context type	Date	Total
2032	levelling	later 15th century	25
2044	soakaway fill – base	later 14th–early 15th century	4
2049	levelling	later 14th century	29
2050	soakaway fill –?cess	later 14th–early 15th century	5
2051	pit fill	later 15th century	2
2052	pit fill	later 14th–early 15th century	8
2056	pit fill	later 13th–early 14th century	45
2066	latrine pit fill	later 14th–early 15th century	15
2068	cess pit fill	later 14th–early 15th century	6
2070	cess pit fill	later 14th–early 15th century	49
2075	cess pit fill	later 14th–early 15th century	9
2078	latrine pit fill	later 14th–early 15th century	8
2087	post-hole fill	later 14th–early 15th century	9
2088	post-hole fill	mid 12th –13th century	28
2092	post pit fill + packing	mid 12th –13th century	52
2093	pit fill (?rubbish)	later 14th century	85
2097	levelling – removed by machine	later 14th century	7
2099	pit fill (?rubbish)	11th century	43
2100	post-hole fill	later 15th century	42
2107	post pit fill + packing	mid 12th –13th century	104
2109	post-hole fill	mid 12th –13th century	35
2110	pit fill (?rubbish)	later 15th century	51
2111	floor – external surface	later 14th–early 15th century	21
2123	post-hole fill	later 14th–early 15th century	2
2138	layer	later 14th–early 15th century	19
2142	levelling – removed by machine	later 14th century	38
2149	pit fill (?rubbish)	later 15th century	40
2151	pit fill	later 15th century	10
2162	post-hole fill	later 14th century	6
2164	mortar dump	later 15th century	17
2176	pit fill	later 15th century	58
2178	pit fill	later 14th century	17
4002	backfill	later 14th –early 15th century	27
4009	clay fill/lining	later 14th –early 15th century	6
4010	ditch fill	mid 12th–13th century	16

Table 6 Hand-collected vertebrate remains listed by species type and date

Species		11thC	mid 12th– 13thC	later 13th–early 14thC	later 14thC	later 14th–early 15thC	later 15thC	Total
<i>Canis f. domestic</i>	dog	–	–	–	–	1	–	1
<i>Felis f. domestic</i>	cat	3	31	2	16	18	4	74
cf. <i>Felis f. domestic</i>	?cat	–	1	–	–	–	–	1
<i>Equus f. domestic</i>	horse	1	2	–	1	4	5	13
<i>Sus f. domestic</i>	pig	4	8	–	6	10	17	45
Cervid	deer	–	1	–	2	–	–	3
<i>Cervus elaphus</i> L.	red deer	–	–	–	–	1	–	1
<i>Capreolus capreolus</i> (L.)	roe deer	–	–	–	1	–	–	1
<i>Dama dama</i>	fallow deer	–	1	–	–	–	–	1
cf. <i>Capreolus capreolus</i> (L.)	?roe deer	–	–	–	–	1	–	1
<i>Bos f. domestic</i>	cattle	1	14	4	9	15	26	69
Caprovid	sheep/goat	1	17	–	10	7	12	47
<i>Capra f. domestic</i>	goat	2	1	–	1	2	–	6
cf. <i>Capra f. domestic</i>	?goat	–	1	–	1	–	1	3
<i>Ovis f. domestic</i>	sheep	2	3	1	8	3	19	36
<i>Anser</i> sp.	goose	–	1	1	–	1	1	4
<i>Anas</i> sp.	duck	–	–	–	1	–	–	1
cf. <i>Lyrurus tetrix</i> (L.)	?black grouse	–	1	–	–	–	–	1
<i>Gallus f. domestic</i>	chicken	–	3	–	–	1	1	5
<i>Gadus morhua</i> L.	cod	–	–	–	–	1	12	13
<i>Sub-total</i>		14	84	8	56	65	98	325
Unidentified bird		3	–	2	3	4	1	13
Unidentified fish		–	–	–	–	–	3	3
Large mammal		9	92	23	57	58	70	311
Medium mammal 1		14	40	12	44	48	59	217
Medium mammal 2		–	–	–	3	–	1	4
Unidentified		2	19	–	19	13	14	67
<i>Sub-total</i>		28	151	37	126	123	148	613
Total		42	236	45	182	188	246	939

11. CONCLUSIONS

The investigations have revealed important archaeological evidence for the development of the Market Place and the area to the east of it from the 11th century to the present day. The ditch found at the eastern end of the site could be part of the feature known as the 'Archbishop's Ditch', indicating that the land to the east of it lay within the ecclesiastical precinct and marked the rear of the burgrave plots fronting the Market Place. While the boundary between the two building plots, 8/9 and 10 Market Place, was continually respected, there were alterations to the structures on the plots, including extensions and possible rebuilding. Other features were typical of what might be expected at the rear of burgrave plots in the medieval period: a series of cess pits, a cobble-lined latrine pit, rubbish pits, and some larger pits which could have been dug initially to extract the natural sand and gravel. The artefactual and environmental evidence suggest the area was domestic in character and there was no suggestion of craft workshops associated with these burgages. However, evidence of industrial activities, possibly including metal working and lime burning, was found in pits in Area 4 at the easternmost extent of the plots, close to the boundary ditch. Although there was evidence from unrelated contexts covering a wide date range, of the disposal of cat carcasses after skinning, this should not be taken to suggest intensive activity of this character on the site. It may indicate the occasional processing of pelts.

The absence of medieval features and deposits in the area closest to the Market Street frontage indicated that the site had possibly been levelled in this area when the extant 18th- to 19th-century properties were constructed, resulting in truncation of some of the medieval deposits which may have been present here. Further back from the street frontage, in the area between the building plots for 8/9 Market Place and 10 Market Place, this truncation had not occurred. Within parts of Area 2 there was significant truncation from modern service trenches but it was still possible to remove the intrusive material and record a good stratified sequence of occupation dating from the 11th century to the 18th century. Large areas of the machine-stripped parts of the site revealed the post-medieval buildings, outbuildings and boundary walls which are all shown on the 2nd edition Ordnance Survey map (1891).

The assessment of the evidence from this excavation (Finlayson 2000a) suggested that the sequence on the site might provide good evidence to allow some progress in the key research objectives which relate to the development of the town and Market Place of Ripon. This has been confirmed by the closer study of the evidence. Further analysis of the pottery assemblage has allowed a more closely dated sequence to be established. New archaeological evidence of medieval properties and land use to the east of the Market Place provided by this excavation, coupled with new evidence from the area to the rear of the Wakeman's House and from the Market Place itself, allows the documentary evidence for the development of the town, the layout and possible re-arrangement of the Market Place, and the definition of the ecclesiastical precinct to be reassessed. A date between the mid 12th century and the 13th century is likely for the establishment of the layout of properties fronting the Market Place.

11.1 Anglian and Anglo-Scandinavian (5th–11th century)

The evidence of this excavation suggested that the burgrave plots fronting the Market Place had yet to be established in this period. The truncated remains of a rubbish pit in the area to the rear of 8/9 Market Place may have dated to the 11th or 12th century (Period 1). This, together with a large quantity of residual pottery in later contexts dating from the 11th century, indicates activity on the site was likely to date from the 11th century onwards; the site may well have been occupied from this period, too. This interpretation is backed up by features of the same period found in an area to the rear of the Wakeman's House in the south-west of the Market Place, which indicate activity and occupation nearby.

11.2 Medieval (11th–16th century)

At some time between the mid 12th and the 13th century (Period 2) plots of land delineated by fence boundaries between properties were established fronting onto the Market Place. Throughout the medieval period and into the post-medieval period the area of 8/9 Market Place comprised a single burgrave plot. Documentary evidence supports this, suggesting that the plot was not divided until 1635 (see p.13). The delineation between the two plots appears to remain fairly consistent throughout the period.

A boundary ditch recorded in Area 4 to the rear of 15 Market Place probably delineated the rear of the plots fronting Market Place and land within the curtilage of the Archbishop's Palace to the east. The ditch followed the same line as the path on the boundary of the burgrave plot marked on the 2nd edition Ordnance Survey map. This is a good indication that the feature defined the rear of the medieval burgrave plots from the 12th century; the boundary continued to be respected until the bus station was built here in the 20th century.

Evidence of buildings fronting the Market Place was found in the form of large post-pits containing post-holes within plot 8/9. This building was demolished some time later in the 13th century or early 14th century. Although no contemporary building features were found on plot 10, this may have been because the area excavated lay beyond the contemporary building range on this plot. The earliest indication of building to the rear of 10 Market Place dated from the late 13th or early 14th century (Period 3) and comprised a small-scale structure and rubbish pit in the backland.

Late 14th-century (Period 4) pit digging in the backlands on the northern boundary of and to the rear of 8/9 Market Place was followed by a widespread levelling deposit which indicated preparation for new constructions. The widespread deposit also provided evidence that within the footprints of the 18th-century buildings deposits had been truncated to this depth but survived outside the building footprint.

In the late 14th century and early 15th century (Period 5) there was evidence of a boundary fence between the plots of 8/9 and 10 Market Place. A beam slot and post-hole provided evidence of a building close to the northern boundary of 8/9 Market Place, and a sequence of soakaways and latrine pits to the rear of 10 Market Place suggested intensive use of the building here.

In Area 4 sufficient craft working evidence was found to suggest workshops in the vicinity. The ferrous slag recovered from a pit in this area suggests metal working and a large pit with a re-used millstone as a hearth at its base indicates industrial activity. It was re-used as a lined feature, possibly to store water for use in a quenching pit, which would provide further evidence of metal working. The pit was probably too large to have been a quenching pit itself unless extremely large objects were being manufactured.

In the later 15th century (Period 6) there was evidence of levelling and rebuilding in the area to the rear of 10 Market Place. A deep post-hole and post-pit indicated a new or altered structure here. A dump above the structural feature is of environmental archaeological interest since it contained quantities of charred and 'silicified' chaff, perhaps representing material burnt in a bonfire. In this period there was continued evidence of pit-digging in the area to the rear of 8/9 Market Place and on the boundary between the properties.

11.3 Post-medieval (16th–18th century)

The features dating to this period indicate that the area continued in use, with buildings occupying the two burgage plots and rubbish pits dug in the backlands. Structural features in the form of a beam slot and a stylobate were dated to the 17th century (Period 7). In the 18th century (Period 8) intercutting pits suggest intensive use was made of the backland area of 10 Market Place. A fence line relating to the northern boundary of 10 Market Place was also recorded in this period. In the 18th and 19th centuries the plots became significantly more built up, with extensions and outbuildings stretching far back from the Market Place street frontage.

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13. ACKNOWLEDGEMENTS

Excavation Team	Rhona Finlayson, Mike Andrews, Toby Kendall, Ben Reeves, Monika Maleszka
Pottery report	Ailsa Mainman
Small finds report	Nicky Rogers
Metal working residue report	Catherine Mortimer
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