

Ripon City Centre Improvement Market Square Stage 2

archaeological assessment

by:
Archaeological Services
University of Durham

on behalf of:
Mouchel North Yorkshire

ASUD 835
July 2001

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Mouchel North Yorkshire, Northallerton, North Yorkshire DL7 8FN

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1. Summary

- 1.1 Archaeological excavations in the north part of the Market Place at Ripon have been completed. The work was commissioned by Mouchel North Yorkshire and conducted by Archaeological Services University of Durham in accordance with a specification provided by the Heritage Unit, County Hall, Northallerton, and a Project Design by Archaeological Services University of Durham.
- 1.2 The excavations indicated the presence of archaeological remains over the majority of the area investigated. The earliest deposits included a north-south boundary ditch along the eastern edge of the Market Place, predating the earliest cobbled surface to the area. Two cobbled surfaces, together with make-up layers, were present dating from the medieval/early post-medieval period. The northern area of the Market Place appears to have undergone a period of disuse, when wetland vegetation took hold and periodic domestic rubbish deposition took place. No remains of substantial buildings were identified during the excavations
- 1.3 An exceptional quality and quantity of archaeological deposits were encountered over the northern part of the site. These deposits were unexpected, not having been identified during the evaluation. Preservation of artefacts and ecofacts was excellent because of the anaerobic conditions present. Significant archaeological data was collected relating to ceramic, faunal and microfossil remains. The presence of cobbled surfaces meant that the majority of material was from stratigraphically secure contexts. The data has the potential to elucidate the majority of the research questions posed within the Project Design.
- 1.4 This report comprises the post-excavation assessment report, and includes a data structure report and assessment reports for each category of artefacts and ecofacts encountered. A scheme of works for full analysis leading to publication is recommended.
- 1.5 Deposits continued below the level of disturbance of the development, and remain unexcavated. A watching brief is to be conducted during service trenching and tree pit excavation around the Market Place. A watching brief over the south-east section of the Market Place, in order to elucidate the early boundary feature in this area, is also recommended.

2. Project background

Location (Figure 1)

- 2.1 The excavation was located in the Market Place in the centre of Ripon. The excavation area was the entire Market Place to the north of the obelisk, and was bound by streets on the north, west and east sides. The site is centered on NGR SE 3121 7128.

Specification

- 2.2 The excavation was conducted in accordance with a specification drawn up by the Heritage Unit, North Yorkshire County Council and a Project Design provided by Archaeological Services University of Durham.

Dates

- 2.3 The excavation was conducted between 26th March and 27th April 2001. This report was prepared for 31st July 2001.

Personnel

- 2.4 Excavation: Peter Carne
David Graham
Jane Gosling
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Academic advisor:	Dr Pamela Graves
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Clay pipe assessment:	Paul Stokes
Conservation assessment:	Jennifer Jones (English Heritage)
Faunal assessment:	Louisa Gidney
Glass assessment:	Dr Hugh Wilmot
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IT services:	David Graham
Pottery assessment:	Dr Christopher Cumberpatch
Report preparation:	Daniel Still, Peter Carne
Slag assessment:	Dr Jacqui Cotton
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Acknowledgements

- 2.5 Archaeological Services is grateful for the assistance of Mouchel North Yorkshire, PBS Construction, the County Archaeologist for North Yorkshire, the Ripon Local Studies Research Centre, and the market traders and people of Ripon in facilitating this work.

Archive and report location

- 2.6 The project code is RMP01, for Ripon Market Place 2001. The archive will be transferred to the Harrogate Museums Service. The accession number for the archive is HARGM:10583. All of the finds, the photographic record and the full paper record

(including the stratigraphic matrix) for RMP01 is included in the archive. A copy of this report will be submitted to the North Yorkshire Sites and Monuments Record.

Project Design

- 2.7 The primary objective of the excavation and watching brief was to excavate and record archaeological remains which would otherwise be destroyed by the development. Several research objectives were stated within the Project Design, which are discussed in relation to this assessment in Section 8.

Methods statement

- 2.8 Excavation followed standard Archaeological Services' procedure, details of which are contained within the Project Design. Because of restrictions imposed by the contractors on site, the site was excavated in a series of discrete units. Over much of the northern part of the site, archaeological deposits continued beyond the depth of excavation: only limited examination of these deposits took place as they were not to be removed as part of the development. Undisturbed deposits were covered with Terram.

3. Data structure report

Phase 1: Two north-south boundary features ran along the eastern edge of the Market Place. Some stakeholes and pits were cut into the natural (Figure 2).

- 3.1 The earliest features in the Market Place were exposed along the eastern edge of the site, cut into the natural sand (261=31). These included boundary features, stakeholes, postholes and pits. Some thin soil lenses were present immediately over the natural sand in parts of the Market Place, including a tan brown silty loam (149) and a dark red sand to the north of the site (136).
- 3.2 A substantial linear boundary ditch (F229), 0.6m deep and 1.5m wide, was aligned north-south along the eastern edge of the Market Place. The ditch continued beyond the southern and northern limits of excavation. The ditch was filled by a yellow sand (231). A possible pit filled by a grey-brown silt (239) was exposed in the side of the ditch; this was not excavated. The ditch had been recut (F233), to include a slot inserted along the bottom of the ditch. This was filled by a light brown silt containing some sand (230). The upper fill of the ditch consisted of a yellow/brown sand with some occasional stones (232).
- 3.3 Parallel with the ditch was a linear fence slot (F37), 0.09m deep and 0.45m wide, filled by an orange-tan silty sand (38). Into the base of the feature five stakeholes had been cut (F39; F41; F43; F45; F49) between 0.05-0.15m deep. These were filled by an orange-tan clay silt (40; 42; 44; 46; 50). The feature tapered to a butt end toward the north and had been truncated to the south by a later pit. A modern service also disturbed the feature.
- 3.4 Close to the western side of F37 a rectangular posthole had been cut into the natural sand, with vertical sides (F47). This was filled by an orange-tan clay silt (48). Also within close proximity to F37 two pits had cut the natural (F33; F35). These were both steep-sided with flat bottoms. F33 was circular in shape and filled by a mid reddish brown silty/gritty sand (34). F35 was sub-rectangular in shape and filled by a mid brown silty sand (36).

Phase 2: *The largest boundary feature was replaced by a smaller gully. Several stakeholes and postholes were cut into the natural, some aligned with the gully (Figure 3).*

- 3.5 Covering the ditch feature F229 a thin layer of yellow/red/brown silt sand (234) had formed. Several stakeholes and a gully were cut into this layer.
- 3.6 The linear gully (F187) was on a similar alignment to the earlier ditch F229, into which it was cut. At the southern end of the gully it turned to the east, but a modern tree hole had removed it at this end. The feature was 0.5m deep and 0.5m wide, and was filled with a light brown sandy silt (188=235).
- 3.7 Close to the gully feature 26 stakeholes were excavated (F217; F215; F193; F191; F189; F219; F197; F195; F221; F223; F225; F250; F248; F246; F199; F203; F205; F207; F240; F242; F244; F252; F227; F209; F211; F213). They measured between 0.04-0.09m in diameter and 0.05-0.15m in depth. They were filled by a mid brown sandy silt (218; 216; 194; 192; 190; 220; 198; 196; 222; 224; 226; 251; 249; 247; 200; 204; 206; 208; 241; 243; 245; 253; 228; 210; 212; 214). Many of the stakeholes were arranged in line along either side of the gully.
- 3.8 A further area of stakeholes and postholes was identified cut into the natural sand to the west of the gully. Ten stakeholes (F176; F152; F154; F156; F158; F160; F162; F178; F180; F182) were excavated, measuring between 0.07-0.18m diameter and 0.12-0.17m deep. These were filled by an orange brown clay silt (177; 153; 155; 157; 159; 161; 163; 179; 181; 183). There were seven postholes (F164; F166; F168; F170; F172; F174; F184) measuring between 0.16-0.3m in diameter and c.0.18m in depth. These were filled by an orange brown clay silt (165; 167; 169; 171; 173; 175; 185). The stakeholes and postholes did not form a discernible pattern.

Phase 3: *A large pit was excavated in the northern part of the Market Place, close to two postholes and a post pad (Figure 4).*

- 3.9 In the northern part of the site two postholes (F133; F129-0.2-3m in depth) were cut into the soil 136 (Phase 1). F133 was filled by a dark grey-green clayey sand (134). F129 was filled by an orange-yellow silty sand (130). There was a further cut (F139) for a white limestone post pad (F108; 0.25m wide by 0.25m long), which sealed a deposit of light grey-brown silty clay (109).
- 3.10 A huge, deep pit (F122) was cut into the soil 136, also cutting through posthole F133. A sondage indicated that the pit was 1.5m deep. The primary fill of the pit was a mixed light-dark green silty clay (132). Overlying this was a very wet dark yellow/black compact fibrous organic fill (123). The pit had been twice recut with smaller pits: recut F137 was filled by a dark grey-brown silty sand (126), recut F138 was filled by a black-dark grey organic peaty clay (104).

Phase 4: *A cobbled surface, forming the medieval Market Place, was constructed (Figure 5 & 6).*

- 3.11 Initially a bedding layer for the cobbles was deposited of red/orange sand (275, 32, 107). Above this much of the site was covered by a layer of compact cobbles (F22; F100; 263); these formed the earliest formal surface of the Market Place. Only patches of cobbles survived in parts of the Market Place; in some areas these had

been entirely removed by later activity. The cobbled surface was not perfectly level, but instead followed the undulations of the natural topography. The cobbles formed a compact layer with the rounded/sub-rounded cobbles measuring between 0.03-0.10m in diameter. There was some resurfacing of the cobbles during this phase (F151; F238). The northern central area of the cobbles was not completely exposed as the deposits were too deep.

Phase 5: Layers of silt formed above the cobbled surface (Figure 7).

- 3.12 Over parts of the northern and eastern Market Place, layers of black silt were identified over the cobbles. Directly over the cobbles was a very stony layer of mottled dark grey silty loam (293). This was below a black/dark grey organic peaty layer (276=264=262=278), containing amounts of sub-rounded and sub-angular stones. This layer also contained large amounts of well preserved animal bone, wood, leather, pottery and tile. Overlying this were further layers including a dark grey silty clay loam (257) and a grey sandy gritty silt, with charcoal flecks (277). A black silt layer (102) overlay the cobbles at the north-east, which were dipping away to the east in this area.
- 3.13 A linear feature (perhaps a drainage feature) on a north-south alignment was cut into Context 276 (F289). The full width and length of this feature could not be established as it continued below the baulk. The southern end of the feature had been truncated by a later cut. The feature was filled an orange silty sand (290). Within this context, toward the southern end of the feature was a linear alignment of large rounded stones, measuring up to 0.3m in diameter. Directly opposite these, a similar alignment was seen in section on the eastern side of the feature (F292), also within the feature fill (290). The feature was also filled by a yellow sand (291), that abutted 290.
- 3.14 In the central area of the site the cobbles (F100) had been cut by a feature filled by a black clay loam (186=281), which was recorded in section (Section 43). This feature was not fully excavated.
- 3.15 A green-grey silty sandy layer with gravel inclusions (294) was uncovered within the western part of the site, below the later levelling. A small sondage was dug into this layer but its total extent is unknown.

Phase 6: A second cobbled surface was constructed (Figures 8 & 9).

- 3.16 A second layer of cobbles (256=269=F4=F94=F125) overlay most of the Market Place, forming a flatter surface than the earlier cobbles. This surface was laid above a make-up layer (21=103=186) of mixed soil and stone, containing quantities of badly-preserved animal bone, pottery and tile. Some elements of the cobbles formed a better surface than others: Context 256 did not form a firm surface, containing stones within a black/grey silty sand. Context 269 was identified in three sondages to the south-west of the site but was not excavated: the cobbles were not as consistently small and formed a less compact surface than the earlier cobbled surface seen elsewhere. Though the extent of cobbled surface was not exposed in this part of the site it can be assumed that this cobbling extended across the south-western part of the site below the later levelling layers.
- 3.17 A white sandstone base had been constructed on the western half of the site (F150) measuring approximately 2.5m square; the cobbles abutted this feature.

Phase 7: Several pits and a linear feature were cut through the cobbles (Figure 10).

- 3.18 Within the eastern part of the site several pits were cut into the later cobble layer (F17; F19; F110, F105, F201). Pit F17 was filled by a green sand (18). The pit F19 had a rounded base and was filled by a grey brown sand and cobbles (20): this feature extended into the section. The pits F110; F105 both continued beneath the baulk and were not excavated. These were both filled by a red sand (106; 111). The pit F201 was filled by a dark red/brown sandy clay (202); a post slot had also been cut into the feature to its northern end. A north-south linear gully c.1.65m long and 0.52m wide also cut the later cobbles to a depth of 0.18m (F97). This was filled by a mid grey/brown sandy silt with cobble/stone inclusions (98). Also cut from this phase were two small pits (F24, 25; F26, 27) (unexcavated).
- 3.19 A layer of dark grey/black silt (143=128) overlay the later cobbles in the eastern part of the site. This had been cut by a square pit, which measured 2m wide by 2m long and 0.4m deep (F112). The primary fill of the pit was an orange/yellow silty sand with gravel inclusions (140). This was overlain by a clean orange sand (113). This had been cut on the western extremity of the feature (F141), and filled with a mid-dark grey clayey silt with stone and mortar inclusions (142). The later disturbance was noted in section but not fully investigated. Above 113 a further fill consisted of large cobbles (144=135); these were up to 0.28 in diameter and had been laid on end forming a tightly packed surface. The cobbles dipped into the centre in a concave shape. The large cobbles were covered by an off-white mortar (114). The cobbles and mortar did not cover all of 113 but left a band of the sand exposed around the edges. The feature formed a firm foundation of unknown function. The layer 128 had also been cut by a pit (F120), filled by a red silty sand (121). This feature was not excavated.
- 3.20 On the eastern part of the site a yellow sand layer (300) was uncovered below F94, continuing to the east below the baulk. The layer was unexcavated.
- 3.21 The silt layer 128=143 was covered by a dark grey/brown clayey silt (124), with stone and mortar inclusions. A posthole was cut into this layer, surviving as a void (F115), 0.6m deep.
- 3.22 A black/dark grey sandy silt layer (127) was also uncovered from this phase but was not excavated.

Phase 8: Levelling layers were deposited over the Market Place (Figures 11 & 12).

- 3.23 Above the later cobbles a layer of grey/brown silty loam was deposited (265=99=3), containing quantities of animal bone, tile, pottery and slag. A square pit with vertical sides (F15) had been cut into Context 3. This was filled by an orange/dirty brown sand (16).
- 3.24 Above these layers, substantial deposits of natural sands and gravels were deposited as levelling layers. These layers included yellow/green mixed gravelly sand (285), orange sand (286), dark olive green silty sand with charcoal flecks (282=284), yellow/green silt (283), red orange sand (270), yellow/brown sandy gravel (258), black/green sand (23), and yellow sand (101). A layer of dark green clay silt (148) was also deposited at this time directly overlying the natural. Stakeholes had been cut into the layer 286; these did not form any regular pattern and were not excavated.

- 3.25 Also cut from this phase within the eastern part of the site was a large feature measuring 10m by 8m (F116). This was filled by a loose, mixed orange/yellow sandy gravel (117). The fill 117 had been cut by a pit (F118), filled by an orange/red sand (119). A second large feature (F273) had been cut into 258 on the western part of the site, also filled with loose gravels and sands (274). These features were not excavated as they continued below the maximum depth of excavation

Phase 9: Post-medieval features including pits, stakeholes, and postholes were cut into the make-up layers, along with a Victorian vault for water storage. The Market Place was resurfaced with cobbles (Figure 13, 14 & 15).

- 3.26 The final levelling layers included a red sand (93=295), covering most of the site. Overlying this was a dark yellow sand (30). A curvilinear depression (F91) within the red sand makeup layer 93 was filled by a green sand with very occasional charcoal flecks (92).
- 3.27 A series of post-medieval features were cut into the makeup (93): on the eastern part of the site these included stakeholes, postholes and pits. The stakeholes (F51; F53; F57; F59; F61; F71; F87) and postholes (F77; F55; F63; F83; F73; F67) were filled by mid-light grey sandy silts (52; 54; 58; 60; 62; 72; 88; 78; 56; 64; 84; 74; 68). The stakeholes and postholes did not form any discernible pattern. The pits (F65; F85; F75; F79; F81) were filled by mid-light sandy silts (66; 86; 76; 80; 82).
- 3.28 The pits F13, F9 and F7 also cut into this make-up layer. F13 was filled by a dark brown silty sand (14). The base of F9 had been cut by a vertical sided post slot (F11), filled by a mid brown silty sand (12). The pit F9 was filled by a mid brown silty sand (10). The pit F7 was filled by a dark brown silty sand (8). Two other pits were identified: F296, filled by a red sand (297), and F287, filled by medium-sized gravel (288).
- 3.29 The pit F69 also cut into Context 93 and was filled by a dark grey/brown sandy silt (70). This had been cut by a posthole (F89), which was filled by a light greenish grey silty sand (90).
- 3.30 The pit F6 was also cut during this phase, filled by a dirty brown sand with orange sand lenses (5). The top of the pit had been capped by a layer of large cobbles.
- 3.31 A large pit had been cut into the make-up layer in the central part of the site (F266) in order to construct an arched brick vault used for water storage (F279); this measured 4m in length by 2m wide. This had been covered by large, flat white limestone slabs (F268), which formed a firm level surface. The pit was backfilled with an orange silty sand around the edges of the vault, with mixed soil and rubble above the vault (267). A water pipe (F280) connected the reservoir to a modern control valve to the west of the feature. The reservoir was also connected to a manhole within the centre of the site. The manhole was built within the cut F145, a green sand constituting the lower fill of the feature (147). Overlying this was a rubble fill within a black sandy loam matrix (146).
- 3.32 The Market Place was covered in the 19th century by a layer of cobbles (F2). Some small patches of this surface were identified but the vast majority of this layer of cobbles were removed during initial machining as the later concrete surface was laid

directly over the Victorian cobbles. Some of the features identified in this phase may have been cut through the cobble layer.

Phase 10: *The Market Place was resurfaced in concrete. Several modern services were constructed (Figures 13, 14 & 15).*

- 3.33 The Market Place had been covered in modern times by a layer of concrete (1). This covered the entire area of excavation. Iron rings had been set into the concrete for the tethering of animals; a sample of these rings were kept during removal of the concrete. A number of modern services were noted (F28/29; F296/297; F298/299), including electric cabling around the edge of the Market Place connected to street lamps. The trial trenches (F260) excavated by the York Archaeological Trust were identified, backfilled with yellow dolomite (261). Several tree pits (F95; F272) were also recorded around the edge of the Market Place, filled by dark brown/black sandy silt loam (96; 271).

4. The artefactual remains

The pottery

4.1 Introduction

- 4.1.1 Three boxes of pottery were examined with a view to providing an assessment of the material, an indication of the range of types present and the potential of the assemblage to contribute to a more general understanding of the archaeology of Ripon.

Medieval pottery

- 4.1.2 The bulk of the medieval pottery appeared to be of Reduced Sandy ware type, resembling the Local Ripon Reduced Sandy wares defined by the author amongst the assemblage from 8-9 Market Place, Ripon (Cumberpatch 1999) and perhaps similar to the Reduced Glazed ware described by Mainman (1997). Such fine textured reduced sandy wares are a common feature of assemblages in North Yorkshire and the north-east of England. In terms of tradition, they are related to the Humberwares of East Yorkshire, although it is clear that a considerable number of potteries were engaged in producing such vessels and that local variations in fabric and form are present within the broader regional style. Ripon, like other medieval towns, was probably being supplied with pottery from a number of local potteries, the majority of which have yet to be located. Mainman has dated the Reduced Glazed wares to the later 12th to early 13th century. The impression from the assessment is that the assemblage is somewhat later in date than this, perhaps later 13th to later 14th / 15th century. A priority at the analysis stage will be to assess this in the light of other work in the area and with reference to the associated material within the assemblage.
- 4.1.3 Other recognised wares include Humberware type drinking jugs, dated by Jennings and Barclay to the 14th and 15th centuries (1994) which seem to be present in unusual abundance. A small number of sherds represent light bodied wares and whitewares, although these do not seem to be present in significant numbers and this may have implications for the dating of the assemblage as a whole.
- 4.1.4 The assemblage appears to be remarkably homogenous in terms of the range of fabrics and forms with drinking jugs, large jugs and handled vessels predominating.

One area to be investigated during the full analysis of the assemblage will be the range of vessel types represented and the possible activities which they indicate.

Post-medieval pottery

- 4.1.5 Post-medieval wares appear to be rather scarce, and it is possible that there is a hiatus in pottery deposition between the later medieval period and the mid to late 18th century. The later pottery assemblage appears to include Pearlwares and whitewares of later 18th to early 19th century date as well as banded and Mocha wares. Smaller quantities of utilitarian wares occur alongside them.

Further work

- 4.1.6 The assemblage from Ripon Market Place offers the opportunity to enhance our understanding of later medieval pottery from the Ripon area, in addition to contributing to an understanding of the nature of the excavated site. Priorities for further work will include:
- The identification and definition of discrete fabric groups within the Reduced Sandy ware class
 - The dating of the Reduced Sandy wares, with reference to the material associated with them and the conclusions reached on the basis of other work in Ripon
 - The identification and definition of other classes of medieval pottery present in the assemblage
 - Interpretation of the significance of the range of vessel forms present and consideration of the significance of the presence of unusual numbers of Humberware type drinking jugs
 - The identification and description of the range and types of post-medieval and modern wares
 - Discussion of issues pertaining to the formation of the site and the archaeological strata identified during excavation.
 - The relative and absolute dating of the ten phases defined during the excavation.
- The report will conform to the standards set out by the M.P.R.G. (Slowikowski, Nenck and Pearce 2001).

The textile fragment

- 4.2 One small textile fragment was identified, from Context 263, consisting of thin weaving threads in a cross pattern. It is a small piece (< 5cm square), irregularly shaped, with no original edges. The survival of textile fragments in medieval deposits is relatively rare. Identification of thread type is possible. Although the size of the assemblage is likely to limit its information potential, the presence of objects from the excavations relating to the textile trade (below, 4.9.7), will enhance its contribution to our understanding of industry in Ripon.

The clay tobacco pipes

- 4.3 19 fragments of clay pipe were recovered during the excavations, from contexts in Phases 7, 8 and 9. Only one partial clay pipe bowl could be identified to type (Context 82). It conforms to the Tyneside Type 6 (Edwards 1988, 9) dating between c.1650-1680. Another fragment consisted of part of a bowl base and stem. This was unstratified, and is similar to either Type 3a, 3b or 7, all of which date to c.1650 to 1675/80. All the other pieces of stem were plain with no marking, and were therefore

undateable. No further work on this assemblage is recommended. The data is contained within Appendix 2 (Table 1).

The glass

- 4.4 All the glass dated from the 18th century onwards, the majority from glass vessels, with 3 sherds of modern window glass. Most of the 18th-19th century sherds were fragments from wine bottles. Due to the small size of the assemblage no further work is recommended. A full catalogue is contained within Appendix 2 (Table 2).

The leather

- 4.5 14 bags of leather fragments were collected, mostly from the organic deposits encountered in Phase 5, with some fragments from Phase 7 and from the large pit in Phase 3. These fragments are almost all offcuts, waste products from shoe manufacture. Diagnostic fragments include an unstratified right shoe sole fragment, a fragment of lace or thong (Context 278), and a small fragment with a punched stitching hole (Context 264). Most of the fragments were probably oxhide. The sole is the only fragment requiring drawing, and only limited analysis of this small assemblage is required. The assemblage is useful in indicating a type of industrial activity within the town in various periods. The leather data is contained within Appendix 2 (Table 3).

Wood identification

- 4.6 Seven wood samples (all unworked) from five contexts were extracted by hand and retained. Thin sections were made of the radial, tangential and transverse axes of the each sample. The sections were analysed at high magnification for diagnostic anatomical features. These were compared with modern and published (e.g. Brazier & Franklin 1961, Schweingruber 1978) reference material held in the Environmental Laboratory at Archaeological Services, University of Durham. The results of the identification are detailed in Appendix 2 (Table 4). Six of the wood samples were identified as oak, while the remaining sample from Context 14 was willow. Identification of wood type is not recommended for any of the wooden artefacts, as this would involve damaging them by thin sectioning.

The slag

- 4.7 All of the slag from the excavation has been described as undiagnostic. With the exception of Context 3, slag remains were present in only small quantities. The weight of slag found in Context 3 was equivalent to the quantity produced in the production of a 1.7kg bloom of iron (English Heritage 2001). This size indicates that it may not reflect the main deposit of a nearby metal working industry. Contexts 34, 104, 124, 256, 267, 276 and 293 contained slag with a vitrified surface, while the majority of slag comprised sediment-encrusted, moderate to small sized amorphous blocks, many with gravel components or imprints of gravel or cobbles. The characteristics of the finds suggest that these low quantities of slag may have been used for construction purposes (i.e. incorporated within the cobbled surfaces) and do not indicate a metal working waste dump. There is no recommendation for further work on the slag assemblage. The data is contained within Appendix 2 (Table 5).

Clay building material

- 4.8 *Means of collecting the data*

- 4.8.1 For the purpose of this assessment, all the finds were rapidly quantified by sherd

count, material type and context.

Quantity of material

- 4.8.2 An assemblage of 523 fragments of clay building material was recovered from the excavations. The assemblage was dominated by the presence of medieval flat roof tile (some 513 fragments, 98%). There were also 4 fragments of modern roof tile, 3 brick fragments and 2 fragments of a floor tile.

Provenance of material

- 4.8.3 Most of the material derived from the earlier phases of the site (phases 1 to 7), comprising some 424 fragments (81%), with only 13% from later phases (8 and 9) and 4% unstratified.

Range and variety of material

- 4.8.4 The assemblage is an homogeneous collection dominated by flat roof tile. Although several fabrics seem to be represented, the assemblage lacks samples of glazing or other tile forms; peg holes are also scarce. A fragmented finial knob is present.

Condition of the material

- 4.8.5 The tile assemblage is formed by medium-small fragments, which do not allow reconstruction of total measurements (unless joining fragments are found during a more detailed examination). The scarce brick fragments consist of small sherds.

Research questions

- 4.8.6 The assemblage provides some insight into building techniques of the medieval period in Ripon. The potential of the collection, nevertheless, is rather limited by the nature of the archaeological contexts. Finds are not related directly to individual dwellings or neighbouring houses, but from deposits representing intentional dumping of debris or rubbish, and only represent a partial record of the quantity and range of material used in the town. Nevertheless, the recording of fabrics and typology may facilitate inter-site comparisons in the future and so add to evidence for local trends, trade patterns, and dating, and contribute to Research Questions 2 and 4.

Potential value of data-collection to local, regional and national research priorities

- 4.8.7 This collection is of local significance.

Further works

- 4.8.8 The tile should be divided into fabrics and quantified by weight and number, noting forms and special features (peg holes etc.). The result will be a short text with accompanying tables, along with fabric descriptions and regional parallels. Thin sectioning is not recommended.

The small finds

4.9 *Means of collecting the data*

- 4.9.1 For the purpose of this assessment, all the finds were briefly examined individually, quantified and their contexts noted.

Quantity of material

- 4.9.2 A small assemblage of 69 small finds was recovered from the excavations. The

biggest group were metal objects (57 artefacts, 83%) although 7 stone objects (10%), 3 wood (4%), and 1 bone (1%) were also recovered.

Provenance of material

- 4.9.3 A significant proportion of this assemblage (36 objects, 52%) was recovered from earlier contexts (phases 1 to 7). Later phases (phases 8 to 10) provided some 15 objects (22%), including some modern finds together with residual material probably derived from earlier medieval contexts. Some 17 metal finds (25%) were also found when metal-detecting the spoil-heap and are therefore unstratified; this group includes some modern finds but also a handful of medieval finds.

Range and variety of material

- 4.9.4 A variety of materials is represented, including some wood artefacts which have survived in waterlogged conditions. The metal objects (copper alloys, lead, iron) dominate the assemblage and are mainly fixtures and fittings. The assemblage also contains some personal objects and items related to trade and business, together with household and firearm activities. Items include a lead weight, possible buckle, a coin, several nails and a wooden net needle.

Condition of the material

- 4.9.5 Several of the objects are too heavily corroded for identification without X-rays or cleaning.

Existence of primary sources or relevant documentation which may enhance the study of site data

- 4.9.6 No correlation can be made between these artefacts and tenement histories and/or ownership. Any further study, however, should seek to situate the finds within the historical development of the urban area, and this will be aided through the phasing of the site provided.

Research questions

- 4.9.7 The data has the potential to contribute in particular to Research Question 4 (trades and industry within the town). The data will provide a better picture of medieval material culture for an urban area, which can then be compared against local rural archaeological assemblages to draw out any rural/urban contrasts. The data may also point to specific trades being conducted (at least two artefacts are linked with the textile manufacturing and trade, for example), and may be linked to historical evidence. There are several objects in this assemblage which are intrinsically of interest, rare and worthy of study from the point of view of extending the range of recorded archaeological examples. Specifically, they include a chain made of coiled wire, a bone handle (spatula or spoon), a lead-brass alloy ewer leg and knob, and a wooden netting needle.

Potential value of data-collection to local, regional and national research priorities

- 4.9.8 The collection is of local/regional significance. The finds recovered from this site constitute a collection of medieval objects which, albeit few in number, provide the opportunity to widen our understanding of life in a small market town. Although they cannot be linked to an individual household, the range of household and personal items represented will add detail to everyday activities in medieval Ripon and complement the information derived from the ceramic data. This is important given

the continuing emphasis of archaeological work in Yorkshire's larger urban areas and seen from the perspective of recent national initiatives to improve understanding of small market town development (e.g. through Extensive Urban Surveys and the Monuments Protection Programme).

Further works

- 4.9.9 Full analysis of the assemblage, to include identification, dates, parallels, a descriptive catalogue entry and illustration is recommended.

Conservation assessment

4.10 *Quantification*

- 4.10.1 28 copper alloy objects, 34 iron objects and 9 lead objects were submitted for X-radiography and assessment. 14 bags of wet leather, 2 bags of wet wood and a bag of wet textile were received for cleaning prior to possible conservation.

Metalwork

- 4.10.2 The iron and copper alloy objects were sorted into groups of similar density and X-rayed together. Five X-ray plates were used.

Iron

- 4.10.3 The material is stable, and moderately to highly corroded, with little form or surface detail visible. X-radiography showed that many of the pieces are nails, or fragments of nails. Possibly notable objects include XR 4485 20 X 2 and XR 4486 128.

Copper Alloy

- 4.10.4 The material is stable and moderately corroded, with some surface detail visible. Many of the pieces are fragmentary, and the lack of detail on some of the X-Rays would suggest that some are highly leaded. Possible notable objects include XR 4482 u/s E side ext. 23-coin and XR 4483 126-chain.

Lead

- 4.10.5 This is stable and moderately corroded.

Bone

- 4.10.6 The one bone object (2: 265) is stable and in good condition.

Leather

- 4.10.7 Thirteen bags of wet leather, still in soil, were examined and washed. Most bags contain several small pieces. Much of the leather is damaged and fragmentary, and many of the pieces are brittle and fragile. The pieces are mainly shoe offcuts. The pieces were washed of soil and repacked wet in polythene bags.

Wood

- 4.10.8 Two bags of wood, still in soil, were examined and washed. One (A4 276) is a small block of wood, the other (264) a wooden net needle. Both are stable and in good condition.

Textile

- 4.10.9 One piece of textile, received still in soil (Context 263), was washed and examined. It is a small piece (< 5cm square), irregularly shaped, with no original edges. The threads used for the weaving are quite fine.

Recommendations

- 4.10.10 In consultation with the Project Director, the following recommendations have been formulated:
- To freeze dry all the leather, the netting needle (264) and textile fragment (263), and repack the material
 - To conserve 4 pieces of copper alloy (cxt 23; F1 22; 126; 98)
 - To investigate 2 pieces of iron (cxt 128, 20) and investigate and part-airabrade 1 piece of iron (cxt 20)
 - To write a report on the above.

5. The archaeobotanical remains

Summary

- 5.1 Fifteen contexts were sampled for environmental assessment. Evaluation was conducted to determine the quality of plant macrofossil preservation within the contexts, and macrofossils were identified to ascertain the potential environmental and socio-economic data that each context could produce.
- 5.2 The fifteen contexts produced variable volumes and diverse compositions of flot. Scanning of the flots and residues determined the presence of material from domestic sources, including burnt fuel waste and charred cereal grain, and industrial sources, including hammerscale and slag. Nine of the contexts contained either insignificant quantities of waterlogged and charred plant macrofossils or predominantly degraded charred cereal grain. The paucity of botanical remains in these contexts restricts the extent to which the material can produce environmental and socio-economic data and, therefore, full analysis is not recommended for these contexts.
- 5.3 The flot compositions and presence of significant quantities of waterlogged seeds in Contexts 104, 123, 128, 276 and 278 resulted from waterlogged conditions in the contexts over time. The evaluation results indicate the potential of these contexts to produce data regarding the former environmental conditions and the impact of human activity at the site, therefore, full analysis is recommended. The presence of taxa relating to wet environments in several samples from the north of the site has interesting implications for our understanding of the layout and use of the Market Place in the medieval and post-medieval periods.
- 5.4 Waterlogged seeds and well-preserved charred cereal grain and chaff were present in the flot of Context 293. The botanical remains in the flot indicate the potential of the context to provide data regarding diet, agricultural practices and the socio-economic status of the site and hence, full analysis is recommended.

Methods statement

- 5.5 Samples from fifteen contexts were manually floated and sieved through a 500µ mesh. The residues were retained and described. The flots were dried slowly, then scanned at x40 magnification for waterlogged and charred botanical remains. Plant

macrofossils were identified by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services, University of Durham. The abundance of each waterlogged species was noted and total counts of charred species were logged.

Results

- 5.6 The flot sizes produced by the processing of material from Ripon Market Place varied between 5ml and 1000ml. 6 of the flots contained organic remains and large numbers of waterlogged seeds, while 7 contexts' flots contained charred remains including charred cereal grain and chaff. A diverse array of finds were present in the context residues, including industrial waste, iron, slag, bone, mortar and pot. The full set of results is detailed in Appendix 2 (Table 6).

Discussion

- 5.7 The small volume of flot produced by the processing of material from Context 34, a pit fill, contained mainly charcoal and cinder/clinker which reflect burnt fuel waste, whilst the residue and flot also contained mammal bone fragments and industrial waste. No charred or waterlogged botanical remains were preserved in the context. Context 38 also produced a relatively small volume of flot, comprising mainly fuel waste and occasional bone fragments, with neither charred nor waterlogged plant macrofossils present. Mortar and mammal bones were found in the flot of Context 66, a pit fill, alongside burnt fuel waste, while small quantities of bone fragments and industrial waste were present in the residue. Only a single waterlogged seed was present in the flot. The low numbers or absence of waterlogged and charred botanical remains in Context 34, 38 and 66 indicate that domestic waste was not dumped directly into the contexts and that none experienced waterlogged conditions over time.
- 5.8 Context 70, a pit fill, and Context 98, the fill of a linear gully, produced moderate volumes of flot comprising charcoal, cinder/clinker, coal and mammal bone fragments, the latter also containing occasional hammerscale spheres. A single charred oat grain was present in the flot of Context 98 while Context 70 contained no charred botanical remains. The absence of charred cereal grain indicates that waste from domestic or agricultural sources was not dumped directly into either context.
- 5.9 The substantial volume of flot from Context 104 comprised organic material indicative of waterlogged conditions, while a large quantity of waterlogged seeds, from weed, grassland, ruderal, shrub and wetland species, were also preserved in the flot. Remains from human activity, including iron, mortar, pot, charcoal and bone fragments were found in the flot and residue from Context 104, indicating that the context was infilled with material of mixed provenance.
- 5.10 Wood and vegetative remains formed the majority of the vast flot produced by the processing of material from Context 123, indicating that the context has been waterlogged over time. Waterlogged seeds including species found in wetland, grassland and cultivated habitats, were preserved in the flot. No charred plant macrofossils were preserved in the flot, however, waterlogged barley chaff was present.
- 5.11 Evidence for waste from human activity was found in the residue from Context 128, including slag, tile, mortar and pot; however, the flot comprised organic matter,

insect remains and wood, with only occasional coal fragments. Identification of waterlogged seeds in the flot determined the presence of species from wetland, ruderal, grassland and shrub/tree species.

- 5.12 The moderate flot from Context 186 contained charcoal, clinker/cinder and coal, while the residue contained small quantities of industrial waste material. A single charred breadwheat grain and single waterlogged seed were present in the flot. These small quantities of charred material suggest that domestic waste was not dumped directly into the context.
- 5.13 A small volume of flot was produced by the processing of Context 188 that contained charcoal, sand and a few small mammal bone fragments. Bone was also present in the residue alongside iron remains. A degraded charred cereal grain, indicative of poor preservation conditions, and a charred plantain seed were preserved in the context.
- 5.14 The small flot from Context 230 was composed of charcoal with some mammal bone fragments also present. Five charred cereal grains, including two oat grains and three *cerealia indeterminate* were preserved in the context. Such a low quantity of grain, the majority of which being too degraded for identification, indicates that waste was not dumped directly into the context or that preservation conditions either before or following burial were not suitable for charred plant macrofossils.
- 5.15 Components indicative of waterlogged conditions, comprising bryophytes and insect fragments, were present alongside burnt fuel waste in the flot of Context 276. A single charred seed was present in the flot and a large quantity of waterlogged seeds. Industrial waste material, pot and tile are present in the residue of Context 276. The flot and residue components, therefore, reflect a mixed provenance of material.
- 5.16 Wood is the main component in the flot of Context 278, which also contains vegetative material, fuel waste and mammal bone fragments. A significant number of waterlogged seeds, including a large proportion from species found on damp ground were preserved in the flot.
- 5.17 Organic material, charcoal, coal, mammal bone fragments and wood comprised the diverse flot from Context 293. A moderate number of waterlogged seeds were preserved in the flot, as were low quantities of charred wheat and barley cereal grain and chaff. The presence of the charred material in the flot may be the result of waste input from domestic or agricultural sources.
- 5.18 Burnt fuel waste dominated the flot of Context 294 which also contained a moderate quantity of charred cereal grain, the majority of which was too degraded for identification. The poor state of charred plant macrofossil preservation may result from the movement and erosion of remains prior to deposition or degradation following burial. The poor preservation of the grain restricts the extent to which the presence of charred macrofossils can be interpreted.

Conclusions

- 5.19 The processing of material from fifteen contexts produced variable volumes of flot, while assessment of the flots and residues has determined the presence of material from domestic and industrial sources. Nine of the contexts, including contexts 34, 38, 66, 70, 98, 186, 188, 230 and 293 contained no botanical remains, low quantities of

macrofossils or degraded charred cereal grain. The small quantities or poor state of preservation of plant macrofossils in these contexts restricts the extent to which the material can produce palaeoenvironmental or socio-economic data and, therefore, full analysis or further evaluation of the contexts is not recommended.

- 5.20 The flot compositions of contexts 104, 123, 128, 276 and 278 indicated that the contexts had been subjected to waterlogged conditions over time and consequently, large numbers of waterlogged seeds had been preserved. The preservation of waterlogged remains indicates the potential of the contexts to produce data regarding the former environmental conditions and the impact of human activity at the site. Full analysis is recommended for these 5 contexts, including the scanning of the entire flots, a quantitative analysis of the species represented in the samples and a comparison of results with other urban sites in northern England.
- 5.21 Waterlogged remains were present in the flot of Context 293, alongside charred cereal grain and chaff. The well-preserved charred cereals in the flot indicate the potential of the context to provide data regarding diet, agricultural practices and the socio-economic status of the site. Full analysis is recommended for Context 293, including the processing of the remaining material in the sample, the scanning of the flot for both charred and waterlogged macrofossils and the analysis of the data in relation to the spatial and temporal context of the site.
- 5.22 The presence of taxa relating to wet environments in several samples (104, 123, 128 278) from several phases (3, 4 and 7) from the site has interesting implications for our understanding of the layout and use of the Market Place in the medieval and post-medieval periods.

6. The faunal remains

Animal bone assessment

- 6.1 The excavations recovered animal bones from ten phases of activity spanning medieval to modern deposits. Preservation of the bones was generally fair, with bones from the anaerobic deposits in superb condition. Post excavation drying out is, however, beginning to result in the surfaces of some of the bones lifting and flaking off. The data is contained within Appendix 2 (Tables 7-9).

Phase 1

- 6.2 Only three contexts produced identifiable fragments, with sheep represented in all three but cattle, pig and domestic bones present only in single contexts. The most interesting find is a male goat horn core from Context 230, which has clearly been chopped from the skull and indicates small scale craft waste from horn working.

Phase 2

- 6.3 The majority of the animal bones from this phase are not identifiable. The exception is Context 188 which contained bones of cattle and sheep and a roe deer antler. Such antler could be procured for craft work or as 'hartshorn', with a culinary usage for making jelly from the shavings.

Phase 3

- 6.4 Only three contexts produced faunal remains but the quantity and preservational quality are noticeably enhanced compared to the two preceding phases. Remains of cattle and sheep predominate but pig and goose are also represented.

Phase 4

- 6.5 A small group with cattle bones most abundant but sheep and cat also represented.

Phase 5

- 6.6 The rich organic deposits with anaerobic preservation derive from this phase. Preservation of the bones is excellent and the majority of the animal bones recovered from this site are from this phase. Cattle and sheep bones are most numerous. A detailed catalogue will reveal which species is the more abundant. The excellent condition of the bones means that there are large enough samples for analyses of body part, ageing and metrical data. Pig bones are well represented. A diverse range of other species are also represented comprising horse, deer antler, dog, cat, domestic fowl, goose and duck. Besides dog bones, dog gnawing marks are also frequent and, with the robust butchery marks, suggest much of this deposit originated as household refuse. Other finds of note include a cattle centroquartal with pathological changes suggestive of spavin, a condition frequently associated with housed dairy cattle, and a sheep skull with bony scurs rather than full horn core development.

Phase 6

- 6.7 The bones from this phase appear to have been subjected to alternate wetting and drying which has caused some surface flaking. The bones are otherwise in reasonably good condition. Cattle and sheep bones are again most numerous but require cataloguing to establish their relative importance. Pig bones are also present but may be proportionally less numerous than in Phase 5. The diverse range of other species represented comprises horse, roe deer, possibly fallow deer antler, cat, domestic fowl and goose. Gnawing marks attest the presence of dog. This should provide a useful group for comparison with Phase 5 to ascertain whether or not there are any significant changes in the composition of the faunal refuse deposited.

Phase 7

- 6.8 Several of the contexts from this phase produced only unidentifiable fragments. Four contexts produced principally cattle and sheep bones with some potential for ageing and metrical data. The other species represented are pig, horse, cat and domestic fowl. Dog is indicated by gnawing marks.

Phase 8

- 6.9 While cattle and sheep bones are once more the most common finds, there is a suggestion that sheep bones may outnumber those of cattle. Pig bones show a marked increase in abundance compared to the preceding phases 6 and 7. Only Phase 5 would appear to have a comparable number of contexts containing pig bones. This fluctuation in the abundance of pig remains is of interest for victualling strategies in the town and deserves further investigation. Other species present are horse, cat, goose, fish and antler, and possibly red deer.

Phase 9

- 6.10 This phase produced fewer bones but some interesting trends are nonetheless apparent at this stage. Sheep bones are more common than those of cattle, and pig is totally absent, in striking contrast to the preceding Phase 8. Other species present are horse and fallow deer. The latter is not antler, indicating consumption of venison rather than the use of hartshorn.

Unstratified

- 6.11 The most noteworthy find is a fallow deer metatarsal in superb condition with the dark brown patination indicative of an origin in the waterlogged deposits of Phase 5.

Shellfish

- 6.12 Marine mollusc shells were recovered by hand excavation from Phases 3 and 5-10. The majority of the finds are oyster shells, which are most abundant in the large deposits from Phases 5, 6 and 8. Mussel shells are present, but very rare, in Phases 5, 6 and 8. Even the oyster shells represent a tiny amount of meat compared to the abundant mammal bones. The soil samples have slightly enhanced the representation of mussel shells with a fragment from Phase 1 and further fragments from Phase 6.

Soil samples

- 6.13 The majority of the mammal bones recovered from the >10mm sorts are unidentifiable. Of interest are further finds of cat bones from the Phase 5 contexts 278 and 293 and one fish vertebra from Phase 7, Context 294. The hand recovered fish bones were from Phase 8 deposits.

General points

- 6.14 The greater proportion of the faunal debris deposited in all phases appears to derive from domestic household refuse. However there are also some suggestions of craft working debris. Foremost of these are the sheep, and one goat, horn cores, which appear more numerous than those of cattle. These may be craft working detritus as there appears to be a fairly high proportion of adult male sheep horn cores. Further work should elucidate the sex ratios of the sheep horn cores, whether these vary by phase and whether they are concentrated in any one phase.
- 6.15 Among the cattle bones there appears to be a high proportion of metapodials, mostly with fused epiphysial ends and with the shafts broken to extract the marrow. These could possibly represent refuse from the manufacture of neat's foot oil. There is potentially a very good sample of Distal Breadth measurements for analysis of the sex ratio of the cull population. Also of note are the presence of infant calf bones together with adult mandibles exhibiting extreme tooth wear. Such a pattern immediately suggests a dairy based pattern of cattle exploitation with surplus calves consumed as veal and cows milked into old age.
- 6.16 The pig bones appear to include an unusually high proportion of limb bones with fused epiphysial ends. This suggests processing of adult pigs for either bacon or boneless products, such as pies and sausages. Such adult pig meat has been rarely consumed as fresh pork.

Recommendations

- 6.17 The assemblage from Phase 5, particularly, is of high calibre in terms of the potential information to be gained with regard to proportions of the domestic species present, age structure of the slaughter population and stature. This group warrants a full, detailed record of what is present and all concomitant data analyses. Ideally this approach should also be taken with the remaining phases. However, as a bare minimum to establish chronological trends in livestock exploitation and waste deposition, there should be a count made of all identifiable fragments from the remaining phases using the same identification criteria as used for Phase 5. Furthermore all ageing and metrical data should be recorded in a manner compatible with Phase 5. This excavation should, therefore, provide a baseline for faunal studies from sites in Ripon, which currently appears to be lacking. This opportunity should not be wasted as there are still major *lacunae* in our understanding of the provisioning of market towns such as Ripon.
- 6.18 It would be helpful to know what documentary sources are available to complement the archaeological data from the later phases. In particular the location of horners', chandlers' and purveyors of neats foot oil premises in relation to this excavation is of great interest.

7. Absolute dating

Archaeomagnetic/thermoluminescence dating

- 7.1 No material was identified suitable for this purpose.

Radio-carbon/AMS dating

- 7.2 Three contexts have been selected for dating, to assist with constructing a chronological framework to answer the research questions outlined within the Project Design. All of these contain material suitable for dating purposes.
- **Context 230:** fill of slot within Phase 1 boundary ditch (one of the earliest features on site): contains charred twigs suitable for dating
 - **Context 123:** Fill of large pit F122: contains waterlogged material suitable for bulk dating
 - **Context 276:** silt layer above medieval cobbles: contains charred twigs suitable for dating.

8. The archaeological resource

The sequence

- 8.1 The contextual record created during the excavations forms a series of discrete phases which are stratigraphically sound. This forms an excellent basis for interpreting the development of the Market Place and Ripon, in conjunction with the finds assemblages. The quality and quantity of archaeological data was unexpectedly high largely because of the presence of deep organic deposits, which were encountered over the northern part of the excavation. These were not anticipated because none of the test pits had been located in these areas.
- 8.2 The excavations identified archaeological deposits predating the Market Place over the eastern part of the site, including a north-south boundary feature running parallel

with the modern road. Similar deposits may have been present over much of the remainder of the Market Place, but the excavations did not proceed deep enough to identify them. Four major phases of resurfacing of the area took place. The post-excavation analysis programme will be able to date these phases through the ceramic assemblages and selective AMS dates. The first two surfaces are of probable medieval and early post-medieval date, followed by 19th and 20th century surfaces. Whilst no evidence for substantial structures were identified, the presence of large amounts of material in between the different phases will enable an analysis of the economy and life in Ripon in these different periods.

- 8.3 The organic silty deposits over the northern part of the Market Place are of particular interest, not only because of the substantial amounts of data they contain, but because the macrofossil data indicates that this area may have been 'wetland' through parts of the medieval period, indicating a period of disuse, and having implications for the 'planned' expansion of the town in this period.

Research review

- 8.4 Several research objectives were put forward and discussed within the original Project Design, and these are reviewed in turn below.

What is the nature and date of the origin of the Market Place?

- 8.5 *Is the MacKay/Whyman hypothesis correct? At what date is the Market Place established?*

The identification of deposits predating the layout of the Market Place, which include pottery and material suitable for AMS dating, will enable this question to be addressed. Mackay (1982) suggests a later 13th century reorganisation, and Whyman discusses an earlier 13th century option when the ecclesiastical boundaries appear to have been redrawn. The pottery assessment provisionally indicates the later of the two dates for the establishment of the modern Market Place. Whyman indicates the lack of significant pottery assemblages of later 13th-14th century date from Ripon as problematic in interpreting the town's development (1997, 162): the assemblage from these excavations is likely to make a significant contribution in this respect

- 8.6 *What was in the Market Place area before it was established?*

The initial results from the excavation indicate that the area may have contained temporary wooden structures, and that some boundary features were present, most notably along the eastern edge of the Market Place. This is particularly intriguing given that the extent of its continuation to the south and north is unknown, and because it runs parallel with the modern street forming the eastern boundary to the Market Place. There was no indication of a street heading across the area joining Kirkgate with Northgate (Whyman 1997, 161).

How did the form of the Market Place develop through from the medieval into the post-medieval period, and how does this reflect the development of Ripon within the region?

- 8.7 *Do different types of structures develop in the Market Place through time?*

There is limited evidence for temporary structures in the Market Place, but no indication of permanent buildings infilling the area through time.

- 8.8 *When is the Market Place resurfaced or truncated, and do its boundaries remain stable ?*
There is substantial evidence for different phases of truncation and resurfacing through time, and sealed stratigraphic units result: these will enable a closely datable phasing of the development of the Market Place to take place. It may be possible to relate some of these to the documentary evidence discussed by Mackay (1982). The boundaries of the Market Place appear unchanged through time, but the presence of waterlogged deposits over the northern part of the area suggests that the entire area was not in continuous use.
- 8.9 *What other types of deposit are present within the Market Place area ?*
There are substantial layers of silt, containing domestic refuse, over the northern part of the area, along with pits and evidence for various industrial activity, which contain significant bodies of archaeological information within a sound chronological framework.
- 8.10 *Is there evidence for different occupations in different parts of the Market Place ?*
The post-excavation analysis is unlikely to be able to identify any spatial differentiation in trades or occupations within the Market Place area.
- 8.11 *How do the deposits reflect the emergence of Ripon as a Resort Town in the post-medieval period ?*
The majority of the evidence is from the early phases, but there is significant ecofactual and faunal assemblages from these periods, and pottery from the 18th and 19th centuries, which will contribute to our understanding of the development of Ripon on a comparative basis with other towns in the region.
- What is the social and economic basis of the development of the Market Place, Ripon and its hinterland as reflected in the ecofactual and faunal assemblages ?*
- 8.12 Small towns like Ripon present significant opportunities for this type of analysis (Huntley & Stallibrass 1995, 192). The study of the high-quality ecofactual (both carbonised and waterlogged) and faunal assemblages from several of the identified phases has the potential to make a significant contribution to reconstructing the social and economic hinterland of the area through time:
- 8.13 *What trades and industries are represented (e.g. is there specialist debris such as horners', tanners' or slaughterers' waste) ?*
The assessment has already indicated the presence of debris from butchers, horners and chandlers, along with domestic refuse.
- 8.14 *What are the ratios of different types of animals and plants exploited, and how does this reflect the economy of the region ?*
The animal bone assessment has indicated that there are significant changes in animal ratios in the deposits through time, and full analysis of these is likely to enhance our understanding of the economy of the region through time and its relationship with the small market town. Similarly, analysis of the macrofossil evidence present in a variety of samples selected from different phase will contribute in this respect.

- 8.15 *To what extent are imported taxa present, and how does this reflect trading patterns?*
The assessment has not identified any imported taxa, but these may be identified when full analysis takes place.
- 8.16 *Does the data vary spatially across the Market Place or chronologically?*
Chronological variation in the data is present. Spatially, the presence of quantities of wetland plants in contexts from the northern part of the Market Place, may indicate that this area was not in use as a Market Place during parts of the Medieval period, Wetland vegetation was allowed to grow in this area, which was also used for the deposition of domestic rubbish. The homogenous nature of the deposits over the remainder of the area does not indicate any further spatial differentiation.
- 8.17 *What is the relationship of the Market Town to the hinterland- for example, are crops processed within Ripon or on rural sites?*
The assessment determined the preservation of chaff as well as seeds, which may indicate the on-site processing of crops, and both charred and waterlogged material is present, so a significant contribution to our understanding of this relationship will result from the full analysis of the material.
- 8.18 *At what point in time is 6-row barley replaced by 2-row barley?*
It is unclear as to whether sufficient data will be available to address this question.
- 8.19 *What evidence is there for changing forms of cattle and sheep, in the post-medieval period, and for changing ratios of types present?*
The excellent state of preservation of the faunal assemblage through several phases will provide a clear indication of changes in cattle and sheep type through time.
- 8.20 *What evidence is there for the exploitation of different types of grain in the post-medieval period, and how does this correlate with the documentary evidence?*
The presence of botanical material from different periods will enable us to address this, and it may prove possible to correlate this with documentary evidence, depending on the accuracy of the dates supplied to each phase. Data from waterlogged material will elucidate the environmental context of agricultural practices and the impact of land use changes.
- 8.21 *Is there an increase in the variety of food species exploited and in the uniformity of meat supplies across the region, in the post-medieval period?*
Following full analysis of both the botanical and faunal data, changes in food species will be identified, and this information will form a basis by which the regional issue can be approached, once a suitable comparative assemblage becomes available.
- 8.22 *Is this uniformity reflected in other artefactual patterns and does it imply a uniform regional economy?*
The small artefactual assemblage (excluding the pottery and building materials) is unlikely to address this question directly, but the ceramic assemblage is sufficiently large to contribute towards this issue: large comparative assemblages will be required to answer the regional question.

What trades and industrial activities were conducted in the Market Place and how did these develop through time, as reflected in the artefactual assemblages ?

- 8.23 *What ceramic typologies are present, and how does this reflect on trade and the regional economy ?*

The presence of significant ceramic assemblages within sealed stratigraphic units in the excavations will contribute towards the development of ceramic typologies within Ripon and the wider region. Several specific objectives of the full analysis are given in pottery report (above, Section 4.1.6).

- 8.24 *Were artefacts produced in the Market Place or simply traded ?*

Several artefacts have been identified which can be related to specific trades, professions (such as the textile industry), along with other materials such as leather offcuts and hammerscale which indicate local industrial activity. An abundance of artefacts associated with trade is not apparent. In contrast to the findings of the evaluation report, no debris indicating a pottery kiln has been identified.

- 8.25 *What types of artefacts were present within medieval and post-medieval Ripon, and how do these reflect the changing fortunes of the town through time ?*

The artefact assemblage is too small to enable an analysis of changing fortunes of the town through time, although it will contribute to our understanding of different activities that took place in the medieval and post-medieval period. Some specific research issues are addressed above (Section 4.9.7).

- 8.26 *What types of building materials were in use in the Market Place through the medieval and post-medieval periods ?*

A significant assemblage of building materials (mostly tile) is present within the deposits. These cannot be related to individual buildings; but their study will however indicate the type of buildings present around the Market Place within the medieval period, and to a certain extent in the post-medieval period (above, Section 4.8.6).

9. Further works

Post-excavation analysis programme

- 9.1 The post-excavation analysis programme is based on recommendations given within each of the assessment reports (above) and is charged at the rate given within the Project Design.

Task	Fee	Sub-total
Pottery full analysis @ 22 per hour	40 @ 22	£880.00
Textile analysis @ 22 per hour	5 @ 22	£110.00
Leather objects analysis @ 22 per hour	8 @ 22	£176.00
Clay building materials	12 @ 25	£300.00
Small finds full analysis @ 22 per hour	12 @ 25	£300.00
Conservation @ 180	3 @ 180.00	£540.00
Archaeobotanical remains @ 22 per hour	48 @ 22	£1,056.00
Faunal remains full analysis @ 25 per hour	144 @ 25	£3,600.00
Radio-carbon dating @ 350 per sample	3 @ 350.00	£1,050.00
Illustration @ 100 per day	6 @ 100	£600.00

Report writing @ 120 per day	10 @ 120	£1,200.00
A5 publicity leaflet preparation	0.00	£350.00
Report production @ 150	0.00	£150.00
Publication @ 33 per page	20 @ 35	£660.00
Total		£10,972.00

Watching Brief

- 9.2 A watching brief is due to take place, covering the excavation of tree pits within the Market Place, and drainage around the perimeter. It is recommended that this is extended to include the re-paving of the south-east section of the Market Place, in order to ascertain the nature of the early boundary ditch identified in the excavations, known to enter this area from the north.

10. Sources

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Appendix 1: Content of the archive

Paper Archive:

File 1-2: Context record
File 3: Photographic record: registers

1 box plan rolls: 16 plan sheets: site plans and sections
1 plan sheet: finished site matrix

Artefactual archive:

A catalogue of material is included in the assessment report

- **Box 1-3:** Ceramics
 - **Boxes 4-15:** Animal bone
 - **Boxes 16-19:** Tile/building materials
 - **Boxes 20-21:** Slag
 - **Box 22:** All metal objects
 - **Box 23:** Leather and wood
 - **Box 24:** All other finds
 - **Box 25:** Environmental sample flotations (15)
 - **Box 26:** Environmental sample residues
-
- 6 bulk environmental samples – part processed

Digital archive:

CD 1: Survey information (ASCII text files)
Plans and sections: standard drawing exchange format (.DXF)
Assessment report (MS Word 2000)

Appendix 2: Data tables

Table 1: The clay tobacco pipe data

Context	Phase	Description
U/S	n/a	4 fragments of pipe stem, one with bowl fragment attached - Tyneside Type 3a, 3b, 7 - 1650-1675/80.
16	8	1 fragment of pipe stem
18	7	1 fragment of pipe stem
66	9	1 fragment of pipe stem
70	9	2 fragments of pipe stem
82	9	3 fragments of pipe stem: 1 bowl fragment - Tyneside Type 6 1650-1680
86	9	1 fragment of pipe stem: 1 bowl fragment
99	8	1 fragment of pipe stem
146	9	1 fragment of pipe stem
147	9	1 fragment of pipe stem

Table 2: The glass data

Context	Phase	Description	Century
U/S	-	3 fragments of clear flat window, with a black painted surface	20 th
U/S	-	1 fragment of base & lower side, from a green wine bottle	Late 18 th -early 19 th
3	8	1 fragment of body, from a brown cylindrical bottle – probably a beer bottle	20 th
70		1 fragment of base or lower side, from a green wine bottle	18 th -19 th
146	9	1 fragment of base 1 fragment of side, both from an olive green wine bottle	Late 18 th -late 19 th
267	9	1 fragment of base from a rectangular section green wine bottle 1 fragment of base from a green wine bottle, with a Sand-pontil mark 1 fragment of neck & string course from a poorly-made blue/green cylindrical bottle 1 fragment of thick base from a mould-pressed cylindrical jar	mid-late 18 th 19 th Late 19 th – early 20 th Late 19 th – early 20 th

Table 3: The leather data

Context	Phase	Bag	Description
U/S (A2)	-	1 of 1	Right sole T3, W80, L133
104	3	1 of 1	Offcut T3, L60, W70
104	3	2 of 2	Offcut T2, L90, W100
104	3	2 of 2	Offcut T2, L30, W20
104	3	2 of 2	Offcut T2, L70, W50
123	3	1 of 2	Offcut T3, L32, W12
123	3	1 of 2	Offcut T2, L34, W22
128	7	1 of 1	Offcut T2, L30, W80
262	5	1 of 1	Offcut T3, L40, W30
264	5	1 of 2	Offcut T3, L120, W40
264	5	2 of 2	Offcut T2, L60, W40
264	5	2 of 2	Offcut T2, L80, W80
264	5	2 of 2	Offcut T2, L20, W10
264	5	2 of 2	Offcut T2, L50, W50 with punched hole
264	5	2 of 2	Offcut T2, L60, W50
264	5	2 of 2	Offcut T2, L50, W30
276	5	1 of 3	Offcut T2, L60, W40
276	5	2 of 3	Offcut T3, L70, W70
276	5	2 of 3	Offcut T2, L30, W20
276	5	3 of 3	Offcut T1, L10, W10
276	5	3 of 3	Offcut T2, L130, W30
276	5	3 of 3	Offcut T2, L70, W30
278	5	1 of 1	1 frag. leather thong D7, 23L
293	5	1 of 2	Offcut T3, L80, W50
293	5	2 of 2	Offcut T2, L70, W40

Table 4: Wood identification data

Context	Description	Identification
104	uniseriate rays, simple perforation plates, heterogeneous rays	<i>Salix spp</i> Willow
262	uni- and multiseriate rays, simple perforation plates, homogenous rays, solitary pores, bordered pits	<i>Quercus spp</i> Oak
264	uni- and multiseriate rays, simple perforation plates, homogenous rays, solitary pores, bordered pits	<i>Quercus spp</i> Oak
276 (1)	uni- and multiseriate rays, simple perforation plates, homogenous rays, solitary pores, bordered pits	<i>Quercus spp</i> Oak
276 (2)	uni- and multiseriate rays, simple perforation plates, homogenous rays, solitary pores, bordered pits	<i>Quercus spp</i> Oak
276 (3)	uni- and multiseriate rays, simple perforation plates, homogenous rays, solitary pores, bordered pits	<i>Quercus spp</i> Oak
293	uni- and multiseriate rays, simple perforation plates, homogenous rays, solitary pores, bordered pits	<i>Quercus spp</i> Oak

Table 5: The slag data

Context	Phase	Description	Identification	Weight (g)
F4	6	amorphous, non-magnetic, large gravel inclusions	un-diagnostic slag	635.7
F94		amorphous, non-magnetic, large gravel inclusions	un-diagnostic slag	520.3
F100	4	amorphous, non-magnetic	un-diagnostic slag	71.4
3	8	amorphous, non-magnetic	un-diagnostic slag	6092.2
21	6	amorphous, non-magnetic	un-diagnostic slag	42.9
34	1	vitified, shiny, amorphous, non-magnetic	un-diagnostic slag	63.4
38	1	amorphous, non-magnetic	un-diagnostic slag	14.6
66	9	amorphous, non-magnetic	un-diagnostic slag	8.4
86	9	amorphous, non-magnetic	un-diagnostic slag	26.8
93	8	amorphous, non-magnetic	un-diagnostic slag	1026.8
94	6	amorphous, non-magnetic, large gravel inclusions	un-diagnostic slag	2603.4
98	7	amorphous, non-magnetic	un-diagnostic slag	186.6
99	8	amorphous, non-magnetic	un-diagnostic slag	1127.8
103	6	amorphous, non-magnetic	un-diagnostic slag	72.4
104	3	amorphous, non-magnetic, some thin, flat, black, vitified	un-diagnostic slag	347.2
124	7	black, shiny, vitified, amorphous, non-magnetic	un-diagnostic slag	29
126	3	amorphous, non-magnetic	un-diagnostic slag	173.7
128	7	amorphous, non-magnetic	un-diagnostic slag	649.8
146	9	amorphous, non-magnetic	un-diagnostic slag	77.8
186	6	amorphous, non-magnetic	un-diagnostic slag	5.2
188	2	amorphous, non-magnetic	un-diagnostic slag	171
238	4	amorphous, non-magnetic, large gravel inclusions	un-diagnostic slag	53.5
256	6	vitified, some gravel inclusions, amorphous, non-magnetic	un-diagnostic slag	979.9
257	5	amorphous, non-magnetic, gravel inclusions	un-diagnostic slag	399.0
262	5	amorphous, non-magnetic	un-diagnostic slag	40.5
265	8	amorphous, non-magnetic	un-diagnostic slag	672
267	9	vitified, gravel inclusions, amorphous, non-magnetic	un-diagnostic slag	445.8
276	5	black, shiny, vitified, amorphous, non-magnetic	un-diagnostic slag	397.9
278	5	amorphous, non-magnetic	un-diagnostic slag	7.8
293	5	black, shiny, vitified, amorphous, non-magnetic	un-diagnostic slag	62.3
294	7	amorphous, non-magnetic	un-diagnostic slag	490.1

Table 6 (1): The archaeobotanical data

Context (Sample)	34 (2)	38 (12)	66 (9)	70 (10)	98 (22)	104 (7)
Volume processed (ml)	5,000	3,000	5,000	5,000	5,000	5,000
Volume of flot (ml)	10	25	35	80	75	500
Volume of flot assessed (ml)	10	25	35	80	75	150
Residue contents						
Industrial waste	✓	✓	✓			✓
Iron						✓
Iron nails					✓	
Mammal bone	✓	✓	✓	✓	✓	✓
Mammal bone (burnt)	✓					
Mortar				✓		✓
Pot		✓				✓
Shell				✓		✓
Slag					✓	
Flot matrix (relative abundance)						
Amorphous organic						3
Bryophyte fragments						1
Charcoal	2	2	2	2	2	4
Cinder/Clinker	2		2	2	2	
Coal		2	2	2	2	
Coarse sand	2	1	2	2		1
Hammerscale					1	
Insect fragments						1
Mammal bones	2	2	2	3	2	1
Mortar			2			
Wood						3
Charred Remains (total counts)						
(c) <i>Avena spp</i> (oat)					1	
Waterlogged remains (relative abundance)						
(a) <i>Centaurea cyanus</i> (cornflower)						1
(a) <i>Chenopodium /Atriplex</i> (orache)						1
(a) <i>Chrysanthemum segetum</i> (corn marigold)						2
(a) <i>Polygonum lapathifolium</i> (pale persicaria)						1
(a) <i>Stellaria media</i> (chickweed)						1
(g) <i>Potentilla erecta</i> (tormentil)						1
(g) <i>Rumex acetosa</i> (sorrel)			1			1
(r) <i>Lapsana communis</i> (nipplewort)						1
(r) <i>Rumex acetosella</i> (sheep's sorrel)						1
(r) <i>Silene dioica</i> (campion)						1
(r) <i>Urtica dioica</i> (stinging nettle)						1
(t) <i>Corylus spp</i> (hazel)						1
(t) <i>Prunella vulgaris</i> (self heal)						1
(t) <i>Sambucus nigra</i> (elder)						1
(w) <i>Carex spp</i> (sedge)						2
(w) <i>Eleocharis palustre</i> (spike rush)						1
(w) <i>Potentilla palustris</i> (marsh cinquefoil)						1
(x) <i>Ranunculus repens</i> (creeping buttercup)						2

[a-arable weed, c-cereal, g-grassland, r-ruderal, t-shrub/tree, w-wetland, x-wide niche]
Relative abundance is based on a scale from 1 (lowest) to 5 (highest).

Table 6 (2): The archaeobotanical data (continued)

Context (Sample)	123 (18)	128 (20)	186 (19)	188 (3)	230 (4)
Volume processed (ml)	5,000	5,000	5,000	5,000	5,000
Volume of flot (ml)	1000	500	60	5	10
Volume of flot assessed (ml)	150	150	60	5	10
Residue contents					
Industrial waste			✓		
Iron			✓	✓	
Mammal bone	✓	✓	✓	✓	✓
Mortar	✓	✓	✓		
Pot		✓			
Shell			✓		
Slag		✓			
Tile		✓			
Flot matrix (relative abundance)					
Amorphous organic	3	3			
Bryophyte fragments	1	1			
Charcoal	2		2	3	4
Cinder/Clinker			2		
Coal		1	2		
Coarse sand	1		2	2	1
Fly puparia	1				
Fish bones			1		
Insect fragments		1			
Mammal bones			3	2	2
Wood	3	3			1
Charred Remains (total counts)					
(c) <i>Triticum aestivum</i> (breadwheat)			1		
(c) <i>Avena spp</i> (oat)					2
(c) <i>Cerealia indeterminate</i>				1	3
(r) <i>Plantago major</i> (plantain)				1	
Waterlogged remains (relative abundance)					
(a) <i>Chenopodium /Atriplex</i> (orache)	1	2			
(a) <i>Chrysanthemum segetum</i> (corn marigold)		1			
(a) <i>Galeopsis tetrahit</i> (common hemp nettle)	1				
(a) <i>Polygonum aviculare</i> (knotgrass)		1			
(a) <i>Stellaria media</i> (chickweed)	1				
(c) <i>Hordeum spp</i> chaff (barley)	1				
(g) <i>Mentha arvensis</i> (mint)	1				
(g) <i>Potentilla erecta</i> (tormentil)		1			
(g) <i>Rumex acetosa</i> (sorrel)	1	1			
(r) <i>Lapsana communis</i> (nipplewort)	1	1			
(r) <i>Polygonum persicaria</i> (redshank)	1	1			
(r) <i>Urtica dioica</i> (stinging nettle)		1			
(t) <i>Rubus fruticosus</i> (bramble)		1			
(t) <i>Sambucus nigra</i> (elder)	1		1		1
(w) <i>Carex spp</i> (sedge)	1	2			
(w) <i>Potentilla palustris</i> (marsh cinquefoil)	1				
(x) <i>Galium spp</i> (goosegrass)	1				
(x) <i>Ranunculus repens</i> (creeping buttercup)		2			

[a-arable weed, c-cereal, g-grassland, r-ruderal, t-shrub/tree, w-wetland, x-wide niche]
Relative abundance is based on a scale from 1 (lowest) to 5 (highest).

Table 6 (3): The archaeobotanical data (continued)

Context (Sample)	276 (59)	278 (63)	293 (61)	294 (62)
Volume processed (ml)	5,000	5,000	5,000	5,000
Volume of flot (ml)	600	600	300	190
Volume of flot assessed (ml)	150	150	150	190
Residue contents				
Industrial waste	✓	✓	✓	✓
Iron	✓			
Leather			✓	
Mammal bone	✓	✓	✓	✓
Mortar	✓			
Pot	✓		✓	✓
Shell			✓	
Tile	✓	✓		
Flot matrix (relative abundance)				
Amorphous organic	2	2	2	
Bryophyte fragments	1			
Charcoal	2	2	2	3
Cinder/Clinker	2	1		3
Coal	2	2	3	3
Coarse sand			2	1
Fish bones				1
Hammerscale				1
Insect fragments and fly puparia	1			
Mammal bones		1	1	2
Wood		4	2	
Charred Remains (total counts)				
(c) <i>Hordeum spp</i> grain (barley)			2	1
(c) <i>Hordeum spp</i> rachis (barley)			2	
(c) <i>Triticum spp</i> grain (wheat)			2	2
(c) <i>Triticum spp</i> glume base (wheat)			4	
(c) <i>Avena spp</i> (oat)				1
(c) Cerealia indeterminate				19
(r) <i>Plantago major</i> (plantain)	1			
(t) <i>Corylus spp</i> nut fragment (hazel)				1
Waterlogged remains (relative abundance)				
(a) <i>Chenopodium /Atriplex</i> (orache)	1	2	2	
(a) <i>Chrysanthemum segetum</i> (corn marigold)	1	1		
(a) <i>Galeopsis tetrahit</i> (common hemp nettle)		1		
(a) <i>Polygonum lapathifolium</i> (pale persicaria)	1		1	
(a) <i>Stellaria media</i> (chickweed)	1	1		
(g) <i>Potentilla erecta</i> (tormentil)	1	1	1	
(g) <i>Rumex acetosa</i> (sorrel)	1	1	1	
(r) <i>Aethusa cynapium</i> (fool's parsley)	1			
(r) <i>Brassica spp</i>	1	1	1	
(r) <i>Lapsana communis</i> (nipplewort)	1			
(r) <i>Polygonum persicaria</i> (redshank)	1	1		
(r) <i>Raphanus raphanistrum</i> pod (wild radish)	1			
(r) <i>Urtica dioica</i> (stinging nettle)	1	1	1	
(t) <i>Corylus spp</i> nut fragment (hazel)	1	1	1	
(t) <i>Sambucus nigra</i> (elder)	1	1		1
(w) <i>Carex spp</i> (sedge)	1	2		
(w) <i>Eleocharis palustre</i> (spike rush)	2	1	1	
(x) <i>Ranunculus repens</i> (creeping buttercup)	1	2	1	

Table 7 (1): Animal bone data

F = Fused bone present

U = Unfused bone present

J = Lower jaw present

Z = Bones with zones present

T = Teeth present

M = Measurable bone present

LAR = Large Ungulate

SAR = Small ungulate

Preservation: E = Excellent G = Good, A = Average, P = Poor, M = Mixed

Context	Phase	Cattle & LAR	Sheep/ Goat & Sar	Pig	Other Species	Pres	Comments
10	9				indet	A	
103	6	ZFMUT	ZFMT		deer	G	antler, fallow?
104	3	ZFTU	ZFTJ	ZT	goose	G	
106	7	ZJ	T			G	
121	7	Z				A	
124	7	ZT	ZT		cat d.fowl	G	
126	3	ZF	ZFM			G	sheep hc chopped
128	7	ZFTMU	ZFMUTJ		horse	G	
134	3	Z				G	
136	1				indet	A	
140	7				indet	A	
146	9		Z			A	
148	8	Z				A	
149	1	ZF	Z			P	
16	8				indet	A	
165	2				indet	A	
18	7				indet	A	
186	6	Z	ZF			A	
188	2	ZF	Z		roe deer	A	antler
196	2				indet	A	
20	7				indet	A	
202	7				indet	A	
21	6	ZFMTU	ZFT	ZFU	horse	G	
22	4	Z				A	
230	1		ZUJ	ZF	GOAT fowl	G	male HC chopped
234	2				indet	A	
235	2				indet	A	
238	4	ZF	ZF			A	
239	1		Z			G	
256	6	ZFTU	ZUFT	TZF	cat goose	G	dog gnaw
256	6			d. fowl	roe deer	G	
257	5	ZFMT	ZFTU	ZU	horse deer	G	dog gnaw. antler
262	5	ZJTUFM	ZFMT	ZUJ	horse fowl	G	chop marks
262	5				goose	G	dog gnaw
263	4	ZFMT			cat	G	

Table 7 (2): Animal bone data

Context	Phase	Cattle & LAR	Sheep/ Goat & Sar	Pig	Other Species	Pres	Comments
264	5	ZUMTJF	ZUFJM	TZ	horse dog	G	dog gnaw
264	5			cat	fowl deer	G	antler calf jaws
265	8	ZFTU	ZFM	ZFU	goose fish	G	
267	9		ZFM			G	
270	8		Z	ZU	fish	G	
274	8		ZFM			G	
276	5			d. fowl duck		G	superb deposit
276	5	ZFMJT	ZJUT	ZFT U	horse	G	lots of butchery marks
277	5	ZFT	ZFJ		dog	G	
278	5				dog d.fowl	G	
278	5	ZFU	ZFMUT	ZFT U	horse cat	G	path cow cq
29	10				indet	A	
293	5	ZFTMU	JZFMUT	ZF		G	scurred sheep frontal
294	7	ZFMTU	ZFTM	Z		G	dog gnaw
3	8	ZFMUT	ZTFM	ZF	horse cat	A	
3	8				red deer	A	antler
5	9	Z	T			A	
66	9		ZF			A	
68	9				indet	A	
70	9	ZF	Z			A	
78	9				indet	A	
8	9				horse	G	
8	9	ZF	ZF		fallow	G	
82	9	ZFT	Z			G	
86	9		T			A	
93	8	ZFMT	ZT	ZF		G	
94	6	ZF				A	
98	7				indet	A	
99	8				cat	A	
99	8	ZFUTM	ZFTMU	ZF	horse dog	A	
F100	4				indet	A	
F209	2				indet	A	
F4	6	ZFT	TZF		horse	A	
U/S		ZFT	ZFMUT	Z	fallow	M	fallow mt

Table 8: Marine shell data

Context	Phase	Species	Comments
10	9	oyster	frag
16	8	oyster	frag
18	7	oyster	tiny frag
29	10	oyster	frag
93	8	oyster	approx 22
99	8	oyster	approx 10
103	6	oyster	2
104	3	oyster	1
128	7	oyster	2
146	9	oyster	1
256	6	oyster	approx 22
256	6	mussel	2
257	5	oyster	approx 8
262	5	oyster	approx 13
264	5	oyster	approx 10
264	5	mussel	1
265	8	oyster	5
265	8	mussel	1
276	5	oyster	approx 10
278	5	oyster	4
278	5	mussel	1
293	5	oyster	6
U/S		oyster	1
Soil Samples >10mm sort Shells			
34	1	mussel	frag
70	9	oyster	frag
104	6	mussel	frag
186	6	mussel	frag
293	5	oyster	2 & 2 frags

Table 9: Mammal bone data from soil samples

Soil Samples >10mm sort Mammal			
34	1	indet	frags
38	1	indet	frags
66	9	pig	lower premolar
70	9	s/g	3 id
98	7	indet	frags
104	3	s/g	maxilla
123	3	s/g	tib
128	7	indet	frags
186	6	indet	frags
188	2	indet	frag
230	1	indet	frags
276	5	indet	frags
278	5	cat	3 id
293	5	cat	1 id
294	7	fish	vert

Table 10 (1): Finds type by context

Context	Phase	Context Description	Pot	Bone	Mortar	Fe	Slag	Shell	Tile	Glass	Cu	Clay Pipe	Wood	Other
01	10	Concrete				✓								
F4	6	Cobbles	✓	✓			✓							
F100	4	Cobbles		✓					✓					
F209	2	Stakehole		✓										
3	8	Layer	✓	✓		✓	✓		✓	✓	✓			
Area 4 (u/s)			✓											
5	9	Pit Fill	✓	✓										
8	9	Pit Fill		✓					✓					
10	9	Pit Fill	✓	✓				✓	✓					
14	9	Pit Fill	✓											
16	8	Pit Fill	✓	✓				✓				✓		
18	7	Pit Fill	✓	✓				✓				✓		
20	7	Pit Fill	✓	✓		✓								
21	6	Layer	✓	✓		✓			✓		✓		✓	stone roof tile
22	4	Cobbles		✓					✓					
23	8	Layer									✓			
27	7	Pit Fill		✓										
29	10	Service Fill		✓				✓						
34	1	Pit Fill		✓			✓	✓						
38	1	Posthole Fill	✓	✓		✓								
56	9	Posthole Fill												flint slate
66	9	Pit Fill	✓	✓		✓						✓		flint slate
68	9	Posthole Fill		✓										
70	9	Posthole Fill	✓	✓	✓	✓		✓		✓		✓		
76	9	Pit Fill	✓	✓										

Table 10 (2): Finds type by context

Context	Phase	Context Description	Pot	Bone	Mortar	Fe	Slag	Shell	Tile	Glass	Cu	Clay Pipe	Pb	Brick/ tile	Leather	Wood	Other
78	9	Posthole Fill		✓													
82	9	Pit Fill	✓	✓								✓					
86	9	Pit Fill	✓	✓			✓	✓				✓					
93	8	Layer	✓	✓			✓	✓	✓								
94	6	Cobbles		✓			✓										
98	7	Gully Fill		✓		✓ nails	✓										metal object (undiff.)
99	8	Layer	✓	✓			✓	✓	✓		✓	✓	✓				
103	6	Layer	✓	✓			✓	✓	✓								whetstone
104	3	Pit Fill	✓	✓	✓	✓	✓	✓	✓						✓	✓	
106	7	Pit Fill		✓						✓							
114	7	Pit Fill	✓						✓								
117	8	Large Pit Fill	✓														
121	7	Pit Fill		✓													
123	3	Pit Fill		✓	✓										✓		
124	7	Layer	✓	✓			✓										
126	3	Pit Fill	✓	✓		✓	✓		✓		✓		✓				
128	7	Layer	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓		
130	3	Posthole Fill	✓														
132	3	Pit Fill	✓														
134	3	Posthole Fill		✓													
136	1	Layer		✓													
140	7	Posthole Fill		✓													
146	9	Pit Fill	✓	✓			✓	✓	✓	✓		✓					
147	9	Pit Fill	✓									✓					
148	8	Layer		✓													
149	1	Layer		✓													

Table 10 (3): Finds type by context

Context	Phase	Context Description	Pot	Bone	Mortar	Fe	Slag	Shell	Tile	Glass	Cu	Pb	Brick/ tile	Fired clay	Leather	Wood
165	2	Posthole Fill		✓												
186	6	Layer		✓	✓	✓	✓	✓	✓							
188	2	Gully Fill		✓			✓							✓		
196	2	Stakehole Fill		✓												
202	7	Pit Fill	✓	✓		✓			✓		✓					
230	1	Ditch recut Fill	✓	✓												
234	2	Layer		✓												
235	2	Gully Fill		✓												
238	4	Cobbles	✓	✓												
239	1	Pit Fill		✓												
256	6	Cobbles	✓	✓				✓	✓					✓		
257	5	Layer	✓	✓				✓								✓
262	5	Layer	✓	✓				✓	✓						✓	✓
263	4	Cobbles		✓					✓							
264	5	Layer	✓	✓				✓	✓		✓	✓			✓	✓
265	8	Layer	✓	✓				✓	✓				✓			
267	9	Pit Fill	✓	✓						✓						
270	8	Layer		✓												
274	8	Large Pit Fill		✓												
276	5	Layer	✓	✓	✓	✓	✓	✓	✓						✓	✓
277	5	Layer	✓	✓												
278	5	Layer	✓	✓			✓	✓	✓						✓	
293	5	Layer	✓	✓			✓	✓	✓						✓	✓
294	7	Layer	✓	✓		✓	✓									
300	7	Layer									✓					
U/S			✓	✓		✓	✓		✓	✓	✓					